

PROGRAM

BOSTON

March 28 – April 1 • Boston Convention & Exhibition Center

2015

ANNUAL MEETING OF:

American Association of Anatomists (AAA)

The American Physiological Society (APS)

**American Society for Biochemistry and
Molecular Biology (ASBMB)**

**American Society for Investigative
Pathology (ASIP)**

American Society for Nutrition (ASN)

**American Society for Pharmacology
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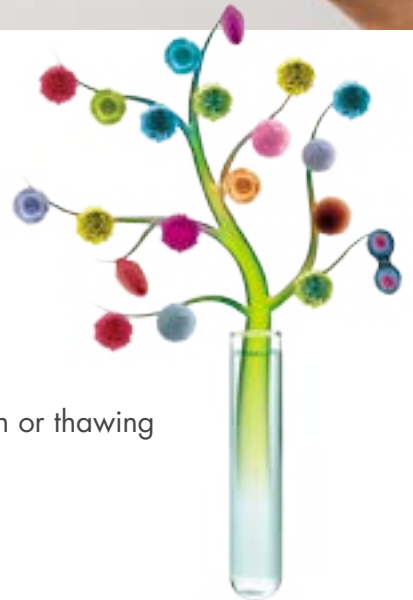
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- Seminar Title** Variables in FBS Impact Cell Performance, Reproducibility and Relevant Experimental Results
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- Room** Room A (Hall A) – Show Floor



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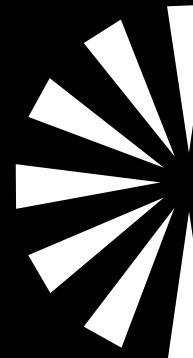
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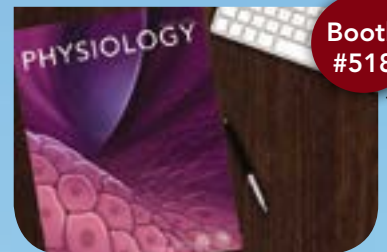
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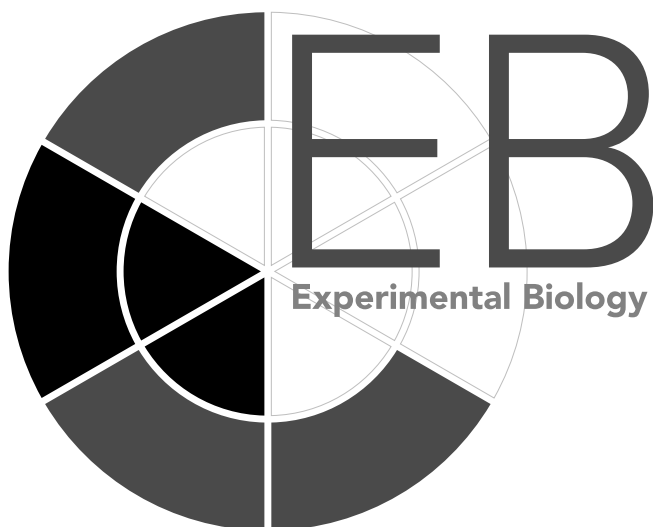
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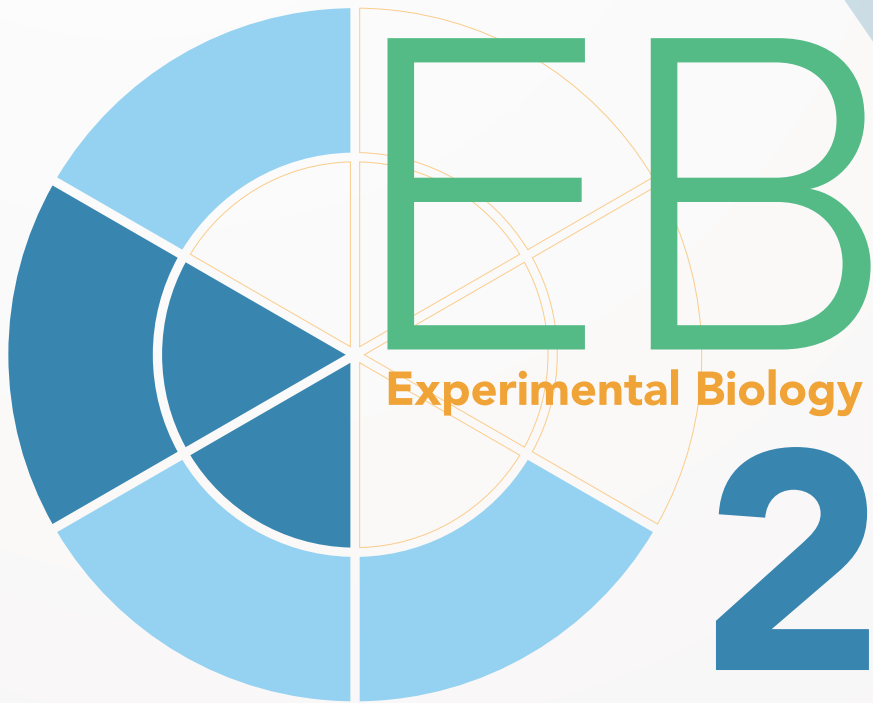
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SOCIETY TICKETED EVENTS

The following special Society activities have been planned and may require a **fee in addition** to the Experimental Biology 2015 registration fee.

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AAA Closing Awards Ceremony & Reception

Tuesday, March 31

The American Association of Anatomists cordially requests the pleasure of your company at the Closing Awards Ceremony on Tuesday, March 31, 2015. The Awards Ceremony — from 7:00 PM to 10:30 PM at the Westin — will feature a cocktail reception, dinner, & presentation of AAA Awards. Tickets are \$70 in advance and \$85 on-site. Limited amount of tickets will be available on-site.

APS SOCIAL EVENTS

The American Physiological Society will be holding several social events in conjunction with the EB meeting. APS registrants are encouraged to participate in these social events. EB attendees expressing interest in physiology are also invited to attend.

APS Opening Reception – Saturday

March 28, 7:00 PM – 9:00 PM

APS Closing Party on Wednesday

April 1, 7:00 PM – 10:00 PM

The APS Opening Reception is on Saturday, March 28, 7:00 PM – 9:00 PM in room 205 at the Boston Convention & Exhibition Center. It is free for APS members and those who expressed interest in physiology on their registration form.

However, there is a charge for the following event: APS Closing Party on Wednesday, April 1, 7:00 PM to 10:00 PM. Please sign up for this event when registering for the meeting by checking the boxes on the registration form. The charge for this event is \$25.00 on site.

ASN SOCIAL EVENT

Join ASN in celebrating the accomplishments and achievements of our past and present Fellows, 50-Year Members, and former Society Presidents over lunch Monday, March 30. This luncheon will include a presentation honoring the newly inducted class of 2015 ASN Fellows. All members are invited to attend; guests are permitted. All newly inducted Fellows will receive complimentary registration. Tickets can be purchased from www.nutrition.org. For additional information, email meetings@nutrition.org.

ASBMB SOCIAL EVENTS

ASBMB Graduate/Postdoctoral Professional Development Program

Saturday, March 28, 8:30 AM – 4:30 PM

ASBMB Graduate/Postdoctoral Professional Development Program – Saturday, March 28, 8:30 AM – 4:30 PM — features a career forum, workshops and networking luncheon: \$25 ASBMB members; \$35 all other EB registrants. Recipients of the ASBMB 2015 Graduate Minority and Graduate/Postdoctoral Travel Awards receive event registration as part of the award and do not have to register separately for this event.

Sign up while registering for the EB2015 meeting. Event registration will close when fully subscribed. There will be no on-site event registration. Visit www.asbmb.org/meeting2015 for details and program information.

ASIP SOCIAL EVENTS

F-Troop: Roadmap to Fellowship Grant Applications

Boston Convention Center & Exhibition Center, Room 154

Saturday, March 28, 2015 at 8:30 AM

XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist

Westin Boston Waterfront, Marina Ballroom I

Saturday, March 28, 2015 at 11:45 AM

\$10 for ASIP members

\$20 for Non-members

**XVth Annual ASIP/AAA Career Development & Mentoring Program and Lunch
Fundamentals of Success: How to Give an Award Winning Presentation**

Westin Boston Waterfront, Marina Ballroom I
Sunday, March 29, 2015 at 11:45 AM

15th Annual Career Development Mentoring Program and Lunch: Fundamentals of Success: How to Give an Award Winning Presentation, Sunday, March 29, 2015 at 11:45 AM is located at the Westin Boston Waterfront, Marina Ballroom I. ASIP Trainee Members and AAA Student Members will receive a complimentary ticket. Tickets are \$20 for all others.

Lunch & Learn: The Ethics of Personalized Medicine: Quandaries among the Possibilities

Westin Boston Waterfront, Marina Ballroom IV
Tuesday, March 31, 2015 at 11:45 AM

\$10 ASIP Members
\$20 Non-member

Scientific Interest Group networking sessions and poster discussions

Renaissance Boston Waterfront, Pacific Grand Ballroom

Tuesday, March 31, 2015 at 5:30 PM

FREE FOR ALL ATTENDEES

BADGE PICK UP

Badges were not mailed in advance. Badges and programs may be picked up on-site at the Registration counters located in the Boston Convention & Exhibition Center, North Lobby. Lost or forgotten badges can be replaced at the Help Desk located in the North Lobby at the cost of \$5.

Note: The program was not mailed and can be picked up at the Publications counter located in the Boston Convention & Exhibition Center, North Lobby.

NOTE: Badges must be worn at all times in the Boston Convention & Exhibition Center. You will not be allowed access to the Exhibit Hall or scientific sessions without a badge. Children under the age of 16 are not required to wear a badge but must be accompanied by a registered attendee.

CAMP EB, Room 52B



Welcomes children ages 6 months – 17 years. Children participate in age-appropriate activities including arts and crafts projects, active games and much more in a safe, nurturing environment. Meals are not included in the camp fees. Parents can send or bring lunch to the center.

NOTE: For the safety and security of your child(ren), EB/ACCENT has the right to refuse care to any child based on space availability and appropriateness. EB/ACCENT also has the right to refuse care to any child unable to adapt to group situations as well as any child whose presence or behavior may disrupt the program or endanger the health or safety of other children. ACCENT staff do not administer medication and any child who is ill will not be admitted to the center.

COAT CHECK/LUGGAGE STORAGE

Boston Convention & Exhibition Center, East Registration Lobby (Friday – Wednesday)

Facilities for luggage storage and coat check will be available Friday through Wednesday. The coat check can store your bag(s) and coat(s) for the day for \$3 per item. Please do not bring luggage to the meeting rooms.

CONFERENCE PHOTO CONSENT

When you registered for Experimental Biology 2015, you affirmed that you agreed to allow the official Experimental Biology photographers to record your participation and reproduce your likeness in publications, online, etc.

DRINKING POLICY

A number of social activities have been planned where alcoholic beverages will be offered. The Experimental Biology participating Societies, the Boston Convention & Exhibition Center, Renaissance Boston Waterfront, and the Westin Boston Waterfront, encourage responsible drinking for those drinking alcohol. Alcohol will not be served to anyone under the age of 21. Please be prepared to show photo identification. Alcoholic beverages are allowed only in specific areas and must not be taken out of those immediate areas.

E-POSTERS AND POSTER PICK UP

**Boston Convention & Exhibition Center,
North Lobby**

Please visit the CTT Digital Publishing desk in North Lobby to upload your PDF poster file. If you ordered your poster for on-site delivery by CTT Digital Publishing, your poster can be picked up in North Lobby. Following the meeting, all registered attendees will be able to access the posters online through the e-poster link on www.experimentalbiology.org.

EXHIBITOR WORKSHOPS

Exhibitor workshops provide exhibiting companies with the opportunity to talk about new product lines and services in an educational format, much like a session, and offers audience interaction and informal discussion beyond the exhibit hall. Product workshop descriptions, times and locations are listed on pages 532 – 534.

EXHIBITS

**Boston Convention & Exhibition Center,
Exhibit Halls A – B**

Exhibits will be open from 9:00 AM – 4:00 PM, Sunday – Tuesday. See pages 465 – 531 for the complete list of exhibiting companies and products. Your visit to the exhibits may be customized by building an itinerary online at www.experimentalbiology.org. *Admission to the Exhibits is by official badge only.* Children under the age of 16 accompanied by a registered adult are permitted access to the Exhibit Hall without a badge during show hours. Children are not permitted in the exhibit hall during set up or dismantling hours.

FAMILY ROOM/SCIENTISTS' LOUNGE

Boston Convention & Exhibition Center, Room 51

The family room and scientists' lounge will be open during registration hours. The lounge will have tables, chairs and a private area. The lounge is intended to provide a quiet environment where babies may be nursed, and where children can be taken for a break.

FOOD AND BEVERAGE

Concessions will be open in Wicked Good Market, Saturday – Wednesday. The food service offers continental breakfast, hot foods, sandwiches, salads, light snacks and beverages. A number of concessions will also be open on Saturday – Wednesday offering a variety of “grab and go” foods.

HOUSING INQUIRIES

**Boston Convention & Exhibition Center,
North Lobby**

A Boston housing bureau representative will be located in the registration area Friday – Sunday to manage hotel questions and concerns. After Sunday, please refer your questions to the Meeting Management Office located in North Lobby.

INTERNET ACCESS

Cyber Café

Boston Convention & Exhibition Center, Exhibit Halls A – B & North Lobby

Internet kiosks will be provided for checking email.

Wireless Access

Boston Convention & Exhibition Center

Complimentary wireless access provided throughout the Boston Convention & Exhibition Center.

MESSAGE CENTER/LITERATURE TABLES

**Boston Convention & Exhibition Center,
North Lobby**

The message center and literature tables will be located in the **North Lobby**. Registrants can check for messages and post fliers advertising social events or upcoming meetings. **Exhibitors are not permitted to display materials on the literature tables.**

POSTER PRESENTATIONS

Boston Convention & Exhibition Center, Exhibit Halls A – B

Poster viewing and display hours are Sunday and Monday, 7:30 AM – 5:00 PM, Tuesday, 7:30 AM – 4:00 PM, and Wednesday (Hall B only) 7:30 AM – 4:00 PM. Presentation times for each author are listed at the beginning of the session in the daily program. Late-Breaking Abstract Poster Sessions and display hours are Wednesday, 7:30 AM – 4:00 PM. Presentation times for each author are listed in the addendum.

Note: Poster board numbers are located in the alpha/numerical listing next to your abstract number.

Poster Presentation Policy

Presenters must hang their posters no later than 8:30 AM on their day of presentation.

Presenters are expected to be at their poster boards during the assigned session presentation time, as designated by each society.

Posters must remain on display all day from 8:30 AM – 5:00 PM (except on Tuesday and Wednesday.)

Posters that do not remain on display all day during their assigned day may, at the discretion of the programming society, be ineligible for awards.

Recording (photographing, audiotaping or videotaping) any presentation/session is **PROHIBITED**, except by an EB-authorized agent or by first authors who want to photograph their poster presentation.

Please do not leave belongings, poster containers, or any materials under the poster boards or in the poster area. EB is not responsible for articles left in the poster area.

PRESS ROOM

**Boston Convention & Exhibition Center,
Room 204B**

The EB Press Room will be open to members of the working press and freelance reporters with credentials. Upon registration, press members will receive all meeting materials as well as a press kit. The EB Press Room will be open Saturday, 10:00 AM – 4:00 PM, Sunday through Wednesday, 7:30 AM–5:00 PM. The EB Press Room will include press information from all six sponsoring societies. To reach the Press Room on site, please call 617-954-3969.

PUBLICATIONS

**Boston Convention & Exhibition Center,
North Lobby**

Program

The program was not mailed in advance. It can be picked up on-site at the Publications counter located in the Boston Convention & Exhibition Center, North Lobby.

Late-Breaking Abstracts and Program Addendum

Registrants will receive a copy of the *Program Addendum* at the meeting. All late-breaking abstracts are available online at www.abstracts2view.com/eb and as part of the online version of *The FASEB Journal* at www.fasebj.org. Additional copies of the Program may be purchased at the Publications Counter in North Lobby.

RECORDING

Photographing, audio taping, videotaping any presentation (oral or poster) or exhibit display is prohibited, except by an Experimental Biology authorized agent for official purposes, or by first authors who want to photograph their own poster presentation. You will be asked to leave the session room or exhibit hall if this policy is violated.

RESTAURANT RESERVATIONS AND CITY INFORMATION

**Boston Convention & Exhibition Center,
North Lobby**

Participants may obtain information about local restaurants and things to do in Boston at the Visitors and Convention Bureau's Information counter located in the North Lobby

SPEAKER INFORMATION AND SPEAKER PRACTICE ROOMS

**Boston Convention & Exhibition Center,
Room 204A and Room 259A**

Speakers are not required to bring a laptop! All session rooms will be equipped with a data projector and computer. Bring your presentation on a Windows-readable USB flash drive or CD. We recommend that you bring a back-up presentation format. Please visit our website under general information for instructions on preparing your presentation www.experimentalbiology.org/content/OralPresentationInstructions.aspx.

Speakers should visit the Speaker Practice Room to review and check the compatibility of their presentation at least 4 hours prior to their session. Speakers must arrive in the session room one half hour prior to the scheduled start of the session to allow the technician time to load the presentation onto the computer. Additional audio visual equipment must be requested in advance of the meeting via email at eb@faseb.org or by contacting the Society that programmed your abstract or invited you to give a talk.

The Speaker Practice Rooms will be open during the following times:

Room 204A, Phone: 617-954-3483

Saturday – Wednesday, 6:00 AM – 6:00 PM

Room 259A, Phone: 617-954-3971

Saturday–Wednesday, 7:00 AM – 6:00 PM



SPECIAL NEEDS

Registrants with special needs are advised to contact the EB Meeting Management Office at eb@faseb.org prior to the meeting. For onsite inquiries, please contact the Meeting Management Office in North Lobby of the Boston Convention & Exhibition Center. For specific information on the Boston Convention & Exhibition Center's accessibility, contact the Guest Services Department at **617-954-3521**. The Boston Visitor & Convention Bureau staff the Concierge Desk in the North Lobby of the Boston Convention & Exhibition Center and is able to provide accessibility information for the local area attractions. For information on Boston area attractions, contact Visit Boston, the official Convention and Visitors Bureau at 617-536-4100 or www.bostonusa.com.

TRANSPORTATION

Boston International Airport is conveniently located just ten minutes from downtown Boston. It is serviced by 22 major and commuter airlines and receives more than 16 million passengers a year.

Hotel Shuttle Service

Complimentary shuttle bus service is available between the Boston Convention & Exhibition Center (BCEC) and the contracted EB hotel community. Please reference below for specific pickup locations/routes. A transportation agent will be available at each designated hotel, during the morning hours. The shuttle bus drivers will not make additional stops. The shuttle bus drop-off and pick-up location at the BCEC is located on West Side Drive, Meeting Level 1, SW Lobby (next to Wicked Good Dining).

If you need special assistance, such as a wheelchair lift, please contact the Transportation Services desk at: 617-939-5782. Buses run on average every 10 – 15 minutes.

To view the complete shuttle bus route schedule, go to experimentalbiology.org and click the Attendees link.

Airport Shuttle Service

Boston International Airport (BOS)

Go Boston Shuttle offers service to/from BOS at \$14 plus \$10 for each additional person in the party. Please use the "CONVENTION" promo code when making your advance reservation. Make your reservation online at www.gobostonshuttle.com, or call 888-437-4379.

Taxi Service

The taxi rate from the Boston Airport to the Boston Convention & Exhibition Center area is approximately \$25 to \$40.

Trolley

The "T" services the Boston metropolitan area with convenient locations marked with a sign and the "T" image. The Boston Convention & Exhibition Center is on the Silver Line at the World Trade Center stop. To obtain schedules and other public transportation information, contact MBTA Customer Support Services at 617-222-3200.

YOUNG EXPERIMENTAL SCIENTISTS (Y.E.S.) MIXER

Westin Boston Waterfront, Galleria

The Y.E.S. Mixer is open to all EB registrants and is scheduled Monday, March 30, 9:00 PM – 11:30 PM. You must wear your badge to gain admittance. Dance, relax, network while enjoying complimentary snacks and soft drinks. The EB sponsoring societies encourage responsible drinking for those drinking alcohol. Alcohol will not be served to anyone under the age of 21. Be prepared to present identification.

Experimental Biology exhibitors offer the best tools and resources available in research today!

Join the exhibitors at 10:00 AM for coffee and 2:00 PM for snacks and learn the latest and greatest from more than 400 companies.

EB-SPONSORED SPECIAL PROGRAMS

TEACHING POSTER SESSIONS

SUNDAY – MONDAY, BOSTON CONVENTION & EXHIBITION CENTER, HALLS A & B

Special poster sessions have been scheduled related to teaching and the use of computers in research and teaching. The posters will be displayed Sunday-Monday from 7:30 AM – 5:00 PM. The poster sessions will cover two areas: 1) Teaching, Learning and Testing in the Biological and Biomedical Sciences; 2) Computers in Research and Teaching. For further information, see the daily listing pages 171 and 253.

NIH GRANTS SEMINAR WORKSHOP SERIES

BOSTON CONVENTION & EXHIBITION CENTER, CAREER CENTER AREA, HALL B

The FASEB Office of MARC and Professional Development Programs in association with the Experimental Biology 2015 (EB2015) Management Committee will sponsor career development seminars and a NIH Grant Seminar Workshop in the EB2015/FASEB Career Center located in Hall B of the Boston Convention & Exhibition Center. There is no fee or pre-registration associated with the workshops and seminars; however, **EB2015 meeting registration is required to participate in all seminars/sessions.** Handouts and resource materials will be provided onsite. Advance seating reservations are **not** required.

Critiquing of CV/resumes and the career coaching/counseling sessions are by appointment and the times are 9:00 AM–5:00 PM on March 29–30, 9:00 AM–4:00 PM on March 31, and 9:00 AM–3:00 PM on April 1. You may sign-up onsite in the EB2015/FASEB Career Center located in Hall B through Tuesday, April 1, at 3:00 PM.

NIH CAREER DEVELOPMENT (K) AWARDS

9:00 AM–10:30 AM, MONDAY/TUESDAY, CAREER CENTER, HALL B

This presentation will focus on the NIH's Career Development Awards (K) including the most recent K99/00 Pathways to Independence Award (for postdoctoral scientists) and other K awards targeted to individuals with research doctoral degrees (PhD and equivalent) and clinical doctoral degrees (MD and equivalent). Among the K awards discussed will be the K01 Mentored Research Scientist Development Award, the K02 Independent Scientist Award, the K22 Career Transition Award, the K08 Mentored Clinical Scientist Development Award, the K23 Mentored Patient Oriented Career Development Award, the K24 Mid-Career patient Oriented Career Award, and K25 Mentored Quantitative Scientist Career Development Award. The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for beginning investigators.

NIH FELLOWSHIP (F) AWARDS

3:30 PM–5:00 PM, MONDAY & 2:15 PM–4:00 PM TUESDAY, CAREER CENTER, HALL B

This presentation will focus on the NIH's Ruth L. Kirschstein National Research Service Awards (NRSA). The NRSA research training fellowship (F) awards are targeted to individuals with or seeking research doctoral degrees (PhD and equivalent) and clinical doctoral degrees (MD and equivalent). Among the F awards discussed will be the F30, NRSA Individual Predoctoral MD/PhD or Other Dual-Doctoral Degree Fellowship Award, the F31 NRSA Individual Predoctoral Fellowship, the F31 NRSA Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research Award, the F32 NRSA Individual Postdoctoral Fellowship Award, and the NRSA Individual Senior Fellowship Award. The interactive discussion will give attendees an opportunity to ask questions of and obtain insight from an NIH representative on these and other awards available for pre- or postdoctoral fellows and senior investigators.

CAREER DEVELOPMENT SEMINARS & WORKSHOPS

The following Seminars and Workshops will be held in the EB2015/FASEB Career Center. There is no fee or pre-registration associated with the workshops and seminars; just walk in and sit down! Critiquing of Resumes is by appointment and starts at 9:00 AM on Sunday and continues until 3:00 PM on Wednesday. Sign up on-site in the EB2015/FASEB Career Center.

Sunday, March 29, 2015

9:00 AM – **The Strategic Postdoc: How to Find & Leverage Your Postdoc Experience;** presented by Andrew Green. Many PhDs just kind of fall in to a postdoc, rather than thinking about it from a strategic perspective. Your postdoc is never an end in itself; rather it's a means to another end whether that goal is a faculty position at a research university, a small college, national lab, or perhaps an industry job. Learn how to find postdoc opportunities that will best prepare you for that next step, and how to use your postdoc experience to facilitate the transition to your next position.

9:00 AM – **Get Up With Something On Your Mind;** presented by Howard Adams. Planning for academic/career/personal success is a process- a mode of striving to excel at any and all endeavors one undertakes. It is an ongoing process of planning, reviewing, refining, adjusting and/or changing goals, strategies and tactics to realize planned outcomes – achievement, success, recognition, rewards, power, etc. This seminar is designed to encourage individual responsibility for: 1) taking charge of one's own success; 2) focusing on being proactive; 3) being open and responsive to change; 4) applying strategies to assess one's skills, interests, and values on an ongoing basis; and 5) building support systems through effective utilization of mentoring and networking. Key topics: The Success Mind-set, Defining Purpose, Performance Curve, The Personal Audit, Academic/Career/Planning for Academic/Career/Life Success.

9:30 AM – **How to Choose Your Ideal Career;** presented by Bill Lindstaedt. Do you want to find a career path that you'll enjoy and find rewarding? Of course! But HOW do you find such a path, especially since there are so many different directions scientists can go with their careers?

There are more than FIFTY career options available to biomedical sciences PhDs. If you'd like to see a list of these career options, while learning about how to select the best option for you, then don't miss this thought-provoking and interactive workshop! Here you will learn about a logical, step-by-step process for exploring your career options and deciding which will provide the best fit for your own set of skills, values and interests.

9:30 AM – **Your Behavior CV;** presented by Judy Blumenthal. There are basic behaviors (yes, in writing as well!) that we need to display to increase the likelihood of getting that interview. What are these behaviors, and how do we display them along with the specific requirements requested in the job application and CV?

Dr. Blumenthal will teach you how to "speak" behavior *in writing* during the application process and in developing your CV, which will increase the likelihood of you getting that interview.

10:30 AM – **Global Interview Skills: A Practice Workshop for International Candidates;** presented by Debra Behrens. This interview practice workshop is customized for international job candidates. The key topics are: The four central questions in virtually every employment interview, understanding cultural and communication dynamics, the STAR method, and how to use "small talk" for big results.

10:30 AM – **Transforming Your CV/Cover Letter for Industry Position;** presented by Naledi Saul. In this session, using a successful industry resume/CV as a case study, you will learn the difference between a CV and resume, what should and should not be included in a document tailored for industry jobs, and the best strategies to tailor your document to highlight your skills and experiences. You will also understand when and why to write a cover letter, including content and appropriate format. Bring a copy of your CV/resume or cover letter to work on during the session if you have one (but it is not required to attend the session). There will also be ample time for Q & A.

11:00 AM – **But I have no Skills! Exploding Myths and Exploring Career Options for PhDs;** presented by John Lombardo. Are the skills you developed in graduate training really useful outside of the academic lab? Many PhD candidates and postdocs exploring careers beyond the academy assume – incorrectly – that employers will not find them or their skills attractive. In this session you will have the opportunity to identify skills that you currently possess, and also to find career fields that might be a good fit for these skills.

11:00 AM – **Understanding Search Committees & Finding Job Announcements;** presented by Andrew Green. Are Postdocs Always Essential? What do search committees look for? How do I find academic jobs offered in my field, or within a specific geographical area? Answers to these and other questions presented by Andrew Green, a veteran of the academic job search and numerous search committees.

1:00 PM – **Job Search in Academia & Industry: Timelines and Effective Strategies;** presented by Debra Behrens. Are you on the market for both academic and industry jobs, but aren't sure where to start? Learn strategies for successfully navigating the two-track job search. Topics: Organizing your search, timelines/logistics, researching employer organizations, presenting your qualifications and evaluating job offers.

1:00 PM – **Job Hunting in Biotech Part 1: Finding & Applying for Scientist Positions;** presented by Bill Lindstaedt. In this seminar, you will learn how to prepare resumes and cover letters so you will be ready to search for research jobs in the biotech/pharma industry. Then, you will learn how to find and connect with scientists working at companies. Finally, you will learn how to execute job search strategies necessary for success on the biotech/pharma job market. After this seminar you will understand how to conduct the four job hunting techniques that comprise a comprehensive job search in the biotech industry.

(This is part 1 of a 3-part series. Each seminar can be taken separately but together they provide comprehensive information about the industry job search process.)

1:30 PM – **Creating Effective CV's, Cover Letters, Research & Teaching Statements;** presented by Andrew Green. Most of the cuts in the applicant pool are made solely on the basis of your written application materials. Do yours represent you in the strongest possible fashion? How should a cover letter and CV for Stanford differ from one addressed to faculty at San Jose State? And what exactly is a Statement of Teaching Philosophy. Advice will be provided on creating these documents and more for the academic job search.

2:00 PM – **Job Hunting in Biotech Part 2: Interviewing for Scientist Positions;** presented by Bill Lindstaedt. This seminar is designed to help you improve your interview skills so that you will be better prepared to land a scientist position in industry. At the end of the seminar, you will be able to:

- Respond effectively to the most common questions asked during industry interviews,
- Answer behavior-based questions in an organized manner,
- Begin an end the interview experience with poise and professionalism.

(This is part 2 of a 3-part series. Each seminar can be taken separately but together they provide comprehensive information about the industry job search process.)

2:30 PM – **Networking: A Required Life Skill;** presented by Howard Adams. To succeed in today’s competitive world of work, who you know can be as critical as what you know. Successfully networking, to develop contacts, is a required skill. Networking involves 1) making contacts, 2) establishing cordial relationships, and 3) ultimately bonding to mutually support each other and share information. This seminar explores skills and techniques germane to successful networking. During the session, Dr. Howard Adams will cover the following key topics: 1) Dimensions of Networking; 2) Networking to enhance one’s career/professional development; 3) Networking concerns: How? When? Where? Why? 4) Tips for Successful Networking; 5) Do’s and Don’ts of Networking.

2:30 PM – **Talking About Yourself: How to Interview Well;** presented by Naledi Saul. In this session, we will help you learn how to interview successfully, by looking at the interview process from employer’s perspective. We will discuss the overall hiring process and the all-day interview format, as well as the steps to prepare for an interview, effectively use the different types of interview questions to both present your skills and experience, and assess the employer’s needs, and criteria to ultimately determine if the position is a good fit for you.

3:30 PM – **Job Hunting in Biotech Part 3: Compensation Negotiation for Scientist Positions;** presented by Bill Lindstaedt. So you’ve landed a job offer for an industry scientist position! Now, how do you know if the compensation package is competitive, and how do you ask for more? In this seminar you will learn how to:

- Separate out the typical components of an industry job offer letter, so you know what to ask for
- Determine if an offer is competitive and when to ask for more
- Ask for additional compensation in a way that represents your interests while maintaining positive relationships.

(This is part 3 of a 3-part series. Each seminar can be taken separately but together they provide comprehensive information about the industry job search process.)

3:30 PM – **Nailing the Job Talk & Interview Prep;** presented by Andrew Green. Going Live: Conference Interviews, On-Campus Interviews, The All-Important Job Talk, and Negotiating the Offer.

4:00 PM – **Job Talk/Chalk Talk: Making the Grade;** presented by Debra Behrens; Participants will learn to plan, structure and deliver an effective job talk. This seminar will key elements of the job talk and finally, how to capture the interest of a diverse (faculty, administrators, students) audience.

4:00 PM – **Attitudes & Behaviors: How are you Perceived?;** presented by Judy Blumenthal. Every person carries within them thoughts, feelings, and emotions that influence the way we are perceived by others, and the way we behave. This interaction (perceptions of others and our behavior) is so very complex, and happens so quickly, that perceptions are not necessarily at a conscious level and therefore opinions about you can be formed before you even have a chance to make any corrections to your attitude or behavior. This is a serious consequence during the job search, and a consequence we want to do without.

Dr. Blumenthal will teach you how to present yourself in your resume, on the interview, and subsequent follow ups, including the job offer. She will teach you what goes on behind the scenes regarding attitudes and behaviors so that you have more leverage on your side. The end result is a positive consequence increasing the likelihood of job interviews and a job offer.

Monday, March 30, 2015

9:00 AM – **Beyond the Elevator Speech: Understanding the Power of Networking**; presented by Melanie Sinche. While some academic researchers consider networking a superficial endeavor, reserved perhaps for business or commercial transactions, the truth of the matter is that PhDs from all scientific disciplines, in all occupations, and in a variety of work settings, engage in networking every day. Networking is essentially the act of building relationships, as scientists do when initiating collaborations, sharing research findings, or making introductions at local meetings or national conferences. To assist researchers in building networking skills, this seminar will address effective networking strategies, define informational interviewing, and provide guided instruction on how to conduct informational interviews successfully.

9:00 AM – **I Said What?!?!?!;** presented by Judy Blumenthal. Much attention, time and money are spent on polishing our interview behaviors. But when it comes to the real thing, we frequently find ourselves saying afterwards, “I can’t believe I said that or did this.”

Dr. Blumenthal will teach you how to identify “triggers”, antecedents to behaviors that cause us to say things or behave in ways we wish we didn’t. She will teach you how to identify triggers before they happen and increase your chance of demonstrating the right behaviors for winning the interview.

9:00 AM – **Job Hunting in Biotech Part 1: Finding and Applying for Scientist Positions**; presented by Bill Lindstaedt. *See description under Sunday’s listing.*

10:30 AM – **Goal Setting, Prioritizing, Time & Stress Management**; presented by Howard Adams. Most students have dreams and aspirations regarding academic, career and life ambitions. However, too often many fall short of realizing their dreams for lack of established goals and prioritized action steps. So they are left with questions such as these: 1) what am I going to do with the rest of my life? 2) What are my academic/career goals and objectives? and 3) How do I use my time wisely to get from where I am now to where I want to be in the future?

This seminar is designed to answer these questions in the context of goal setting, prioritizing, time, and stress management. Key topics: Decoding the Goals Setting Process, Prioritizing to Determine what is Important, Translating Goals into Time Based Action Steps, Time Management and Avoiding Procrastination, Handling Stress and Anxiety.

10:30 AM – **Developing Your Core Message/“Elevator Pitch”**; presented by John Lombardo. Your core message statement is a brief spoken statement (30-second mini-abstract) about you that lets people know who you are as a professional, what you do well, and what you expect to contribute. It is a well-prepared answer to the question, “Tell me a little bit about yourself.” A positive core message statement will enhance your professional presence and stature, boost self confidence, and reduce anxiety. It helps you establish your identity as a professional scientist, and it helps open doors for connection, collaboration, and employment. This seminar will provide guidance in a safe place to develop and practice your statement.

10:30 AM – **Identifying Your Options using ScienceCareers.org, Linked In & More**; presented by Andrew Green. This presentation is designed to provide you with strategies and resources for beginning to think about what kinds of professional options outside of academia might be a good match for your skills and interests, and how to gain access to additional information about those career possibilities that will help clarify which options warrant further interest and investigation.

11:00 AM – **Negotiation Strategies for Scientists**; presented by Debra Behrens. This session introduces effective methods of negotiating with potential employers. Topics: The basic elements of successful negotiation, contexts of gender and culture, avoiding common pitfalls, leveraging your strengths, handling multiple offers, and closing the deal.

1:00 PM – **Striving for EXCELLENCE**; presented by Howard Adams. Planning for career/life success is a process – a mode of striving to excel at any and all endeavors one undertakes. It is an ongoing process of planning, reviewing, refining, adjusting and/or changing goals, strategies and tactics to realize planned outcomes – achievement, success, recognition, power, etc.

Prerequisite for Academic/Career/Life Success is designed to guide participants through a process of examining academic/career/personal life goal planning framed around personal achievement visioning. Participants will explore the language, philosophy, and critical strategies applicable to *excelling* in one's academic plans, career plans, professional plans, personal plans, and life plans. Key topics: Establishing a Mind-set for Excellence, Excellence in Action, Managing relationships, Meeting the Excellence Challenge, taking Charge of One's Own Destiny.

1:00 PM – **Networking: Is It Only Who You Know?;** presented by Judy Blumenthal. Networking is a crucial dimension of a job offer; from developing a resume to interviewing to the job offer. Where do I begin? What do I take for granted? How do I communicate the right behaviors for the job? And to whom? How much of the employer's business do I really have to know? To be at the right place at the right time, sometimes it takes just one person. But who is this person?

In this seminar, you will learn how to move in the right direction and identify and approach the right people to help you obtain a job offer. You will learn essential behaviors that promote your case and that can be used quite favorably.

1:00 PM – **Ten Ways to Get Lucky in the Job Search;** presented by Phil Clifford & John Lombardo. Although it is important to have a plan for your career progression, it is just as important to take advantage of unexpected events along the way. This seminar will suggest specific ways to foster chance occurrences that may influence your job search. We will examine ten practical suggestions to prepare you to make happenstance work positively for you.

1:00 PM – **Building Your Skills, Networking & Informational Interviews;** presented by Andrew Green. You've begun to identify some potential new career paths, but how do you build on these sparks of interest, learn more about the day-to-day content of a given field, and find individuals working in that career who can answer your questions and help you

build a network in your emergent profession. This presentation will discuss how to utilize LinkedIn, professional associations, and other networking opportunities to increase your knowledge base and create opportunities for informational interviews.

2:15 PM – **Translating Your Credentials on Paper (CV=>Resume) and in Person;** presented by Andrew Green. Now that you've completed the exploration phase, and honed in on your new professional areas of interest, how do you present yourself on paper and in-person as a compelling, credible candidate. This presentation focuses on how to transform your academic CV into an effective resume, as well as, how to write a strong cover letter and prepare for future interviews.

2:30 PM – **Job Hunting in Biotech Part 2: Interviewing for Scientist Positions;** presented by Bill Lindstaedt. *See description under Sunday's listing.*

2:30 PM – **Job Talk/Chalk Talk: Making the Grade;** presented by Debra Behrens. *See description under Sunday's listing.*

3:00 PM – **Handshakes, Eye Contact, Small Talk: How to Successfully Network at a Conference;** presented by Naledi Saul. In this interactive session, we'll learn how to initiate, organize and maintain your network to promote your academic and professional success. You will practice starting conversations about your professional interests and goals, and we will discuss professional etiquette and strategies to network. You will also sketch your own networking plan for a conference.

4:00 PM – **Attitudes & Behaviors: How are you Perceived?;** presented by Judy Blumenthal. *See description under Sunday's listing.*

4:00 PM – **Job Hunting in Biotech Part 3: Compensation Negotiation for Scientist Position;** presented by Bill Lindstaedt. *See description under Sunday's listing.*

Tuesday, March 31, 2015

9:00 AM – **Talking About Yourself: How to Interview Well**; presented by Naledi Saul. *See description under Sunday's listing.*

9:30 AM – **Developing Your Core Message/“Elevator Pitch”**; presented by John Lombardo. *See description under Monday's listing.*

9:30 AM – **Negotiation Strategies for Scientists**; presented by Debra Behrens. *See description under Monday's listing.*

11:00 AM – **Making the Case for Graduate School**; presented by Howard Adams. Advanced degree level training has emerged as a key requirement for garnering positions of leadership in academia, government, and industry and for careering in today's workplace. Beyond this, an advanced degree signal scholarship, maturity, and the capacity to do rigorous work; all attributes that can provide an edge in the workplace. This seminar explores graduate education in the context of: 1) a career enhancement strategy; 2) graduate study opportunities/options; 3) how-to negotiate the graduate school admission and financial aid process, and 4) placing graduate studies in one's overall academic/career/life plans. Key topics: Making the Case for Graduate School, The Application/Admissions Process, funding for Graduate Work, and Putting the Pieces Together for a Smart Application.

11:00 AM – **Successful Behaviors for Winning an Interview**; presented by Judy Blumenthal. Eye contacts, arriving on time- these are given behaviors for any interview of any type and everyone knows them. The successful behaviors for winning an interview are those that categorize you as a high risk or low risk for the next recruitment step.

In this seminar, you will learn what behaviors are important to exhibit on an interview, and how employers evaluate these behaviors to determine whether or not you are a low risk and move you on to the next recruitment step, or a high risk and don't.

1:00 PM – **Creating Effective CV's, Cover Letters, Research and Teaching Statements**; presented by Andrew Green. *See description on Sunday's listing*

1:00 PM – **Job Search in Academia & Industry: Timelines and Effective Strategies**; presented by Debra Behrens. *See description on Sunday's listing*

1:00 PM – **Job Hunting in Biotech Part 1: Finding & Applying for Scientist Positions**; presented by Bill Lindstaedt. *See description on Sunday's listing*

1:30 PM – **Making the Connection: The Relationship between the Resume, the Interview and the Job**; presented by Judy Blumenthal. The bottom line for any employer is, how will this individual behave on the job? This question is used in writing the job description and throughout the recruitment process. It is therefore imperative that applicants exhibit the right behaviors from the beginning: in writing (on their resume) to the interview (whether by phone, audio visual, or in person), to the final job offer.

In this seminar, you will learn what the essential behaviors are that must be communicated from the very beginning of your job search (the resume) to accepting the job.

2:30 PM – **Navigating the Protocol, Milestones & Graduate Degree Requirements**; presented by Howard Adams. Success in graduate school starts with goal setting and the formation of an action plan to achieve desired results — obtaining the degree sought. The graduate study plan should delineate 1) what is to be accomplished in terms of expectations, degree requirements, and program milestones; 2) action steps that establish priorities for tasks to be completed; 3) process for implementing action steps; and 4) timeframe for meeting program requirements and milestones. Session participants will be guided through exercises and provided with templates for developing a graduate program plan. Session topics: Planning in the context of the Graduate School Process, Establishing Realistic Program Goals, Objectives, and Milestones, the Planning Process-Writing and Implementing a Graduate Degree Plan, and Charting Milestones to Monitor Progress and Refine Actions Steps.

2:30 PM – **Handshakes, Eye Contact, Small Talk: How to Successfully Network at a Conference;** presented by Naledi Saul. *See description under Monday's listing.*

3:00 PM – **But I Have No Skills!;** presented by John Lombardo. *See description under Sunday's listing.*

Wednesday, April 1, 2015

9:00 AM – **Developing & Writing the Doctoral Dissertation Proposal;** presented by Howard Adams. This seminar is focused on examining techniques and strategies for developing and writing a doctoral dissertation proposal. It is structured to walk participants through a step-by-step process for understanding the multi-dimensional competencies and skills required to do doctoral research. The session is designed to be interactive as participants are guided through an examination of specific components of a dissertation proposal. These include: 1) the problem statement; 2) making the case for a specific research area; 3) literature review; 4) research design and methodology; 5) framing expected outcomes and their significance; and 6) writing and defending the dissertation proposal. Session topics: Examining the Terminology and Philosophy of the Dissertation Proposal, Components of a Dissertation Proposal, and Putting the Pieces together for the Proposal Defense.

9:00 AM – **Networking: Is It Only Who You Know?;** presented by Judy Blumenthal. *See description on Monday's listing.*

9:00 AM – **Job Hunting in Biotech Part 2: Interviewing for Scientist Position;** presented by Bill Lindstaedt. *See description on Sunday's listing.*

9:00 AM – **Transforming Your CV;** presented by Naledi Saul. *See description on Sunday's listing.*

10:30 AM – **Job Talk/Chalk Talk: Making the Grade;** presented by Debra Behrens. *See description under Sunday's listing.*

10:30 AM – **Ten Ways to Get Lucky in the Job Search;** presented by John Lombardo & Phil Clifford. *See description on Monday's listing.*

11:00 AM – **Attitudes & Behaviors: How are you Perceived?;** presented by Judy Blumenthal. *See description on Sunday's listing.*

11:00 AM – **Translating Your Credentials on Paper (CV=>Resume) and in Person;** presented by Andrew Green. *See description on Monday's listing.*

1:00 PM – **Job Hunting in Biotech Part 3: Compensation Negotiation for Scientist Positions;** presented by Bill Lindstaedt. *See description on Sunday's listing.*

1:00 PM – **Nailing the Job Talk & Interview Prep;** presented by Andrew Green. *See description under Sunday's listing.*

1:00 PM – **Your Behavior CV;** presented by Judy Blumenthal. *See description under Sunday's listing.*

1:00 PM – **Global Interview Skills: A Practice Workshop for International Candidates;** presented by Debra Behrens. *See description in Sunday's listing.*

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SOCIETY HIGHLIGHTS

ANATOMY (AAA)

ANATOMY LOUNGE

SAT. – TUE. 7:30 AM – 6:30 PM – BOSTON CONVENTION
& EXHIBITION CENTER,
ROOM 103

HOW TO MENTOR: BASIC SCIENCE, CLINICAL SCIENCE, AND EDUCATIONAL SCHOLARSHIP SKILLS FOR GRADUATE STUDENTS AND POSTDOCS

SAT. 8:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104C

Chairs: L. May and J. Wisco

LEANING IN WITHOUT FALLING OVER: SUPPORTING THE SUCCESS OF WOMEN IN SCIENCE

SAT. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104C

Chairs: L. Smith and V. O'Loughlin

KEYNOTE PRESENTATION – EVO-DEVO AND AN EXPANDING EVOLUTIONARY SYNTHESIS

SAT. 4:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104AB

Speaker: S. Carroll

AAA WELCOME RECEPTION

SAT. 6:00 PM – WESTIN, GRAND BALLROOM C&D

1ST TIME ATTENDEE WELCOME BREAKFAST

SUN. 7:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 101

CARDIOVASCULAR BIOLOGY MINI MEETING

Chairs: M. Simons and A. Eichmann

CARDIOVASCULAR BIOLOGY MINI MEETING PLENARY

SUN. 8:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104AB

Speakers: A. Eichmann and K. Walsh

ANATOMY EDUCATION ROUNDTABLE — DEVELOPING EFFECTIVE COGNITIVE STRATEGIES FOR FUTURE LONG-TERM RECALL OF MEDICAL KNOWLEDGE

SUN. 10:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 52A

Chair: J. Walker

CARDIOVASCULAR BIOLOGY MINI MEETING SYMPOSIA – VASCULAR ORGANIZATION AND PATTERNING

SUN. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104AB

LANGMAN GRADUATE STUDENT PLATFORM AWARD SESSION

SUN. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 105

AAA MEMBERS MEETING (formerly called the Business Meeting)

SUN. 12:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104C

CARDIOVASCULAR BIOLOGY MINI MEETING SYMPOSIA – ENDOTHELIAL-TO- MESENCHYMAL TRANSITION

SUN. 2:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104AB

DEVELOPMENTAL BIOLOGY HYBRID SYMPOSIUM

SUN. 5:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 102AB

*H.W. Mossman Award Lecture in Developmental
Biology featuring 2015 Young Investigator Award
Recipient, D. Hockemeyer*

CARDIOVASCULAR BIOLOGY MINI MEETING PLATFORM

SUN. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

Chair: K. Bentley

CELL BIOLOGY HYBRID SYMPOSIUM

SUN. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104C

R.R. Bensley Award Lecture in Cell Biology featuring 2015 Young Investigator Award Recipient, B. Akiyoshi

POSTDOCTORAL PLATFORM AWARD SESSION

SUN. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 105

NEUROBIOLOGY MINI MEETING

Chairs: P. Trainor and B. Allman

NEUROBIOLOGY MINI MEETING PLENARY – THE ANATOMY OF MEMORY AND NEURODEGENERATIVE DISEASE: PRIONS, A NOBEL IDEA

MON. 8:30 AM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

Speakers: E. Kandel and S. Prusiner

NEUROBIOLOGY MINI MEETING SYMPOSIA – GENETIC FACTORS IN ABNORMAL BRAIN DEVELOPMENT

MON. 10:30 AM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

NEUROBIOLOGY MINI MEETING SYMPOSIA – SPINAL CORD INJURY AND REPAIR STRATEGIES

MON. 2:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

AAA EDUCATIONAL RESEARCH PLATFORM AWARD SESSION

MON. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 102AB

NEUROBIOLOGY HYBRID SYMPOSIUM

MON. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

C.J. Herrick Award Lecture in Neuroanatomy featuring 2015 Young Investigator Award Recipient, F. Zhang

MORPHOLOGICAL SCIENCES HYBRID SYMPOSIUM

MON. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 105

Morphological Sciences Award Lecture featuring 2015 Young Investigator Award Recipient, R. Daneman

AAA POSTER RECEPTION

MON. 6:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, NORTHWEST LOBBY A

PLENARY – HENRY GRAY/LIPPINCOTT WILLIAMS AND WILKINS SCIENTIFIC ACHIEVEMENT AWARD LECTURE

TUE. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

Speaker: D. Burr

Title: How Anatomical “Artifacts” are Leading to Novel Treatments for Osteoporosis

PLENARY – HENRY GRAY/ELSEVIER DISTINGUISHED EDUCATOR AWARD LECTURE

TUE. 5:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

Speaker: Arthur Dalley

Title: Through a Camera Lucida, Darkly: The State and Future of Anatomical Education

**PLENARY – AAA/WILEY A.J. LADMAN
EXEMPLARY SERVICE AWARD LECTURE**

TUE. 6:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 104AB

Speaker: K. Jones

Title: Service and Mentoring: The Joy in Academics

AAA CLOSING AWARDS RECEPTION

TUE. 7:00 PM – WESTIN, HARBOR BALLROOM FOYER

Tickets required.

AAA CLOSING AWARDS CEREMONY

TUE. 8:00 PM – WESTIN, HARBOR BALLROOM

Tickets required.

**BIOCHEMISTRY AND
MOLECULAR BIOLOGY
(ASBMB)**

**ASBMB GRADUATE AND POSTDOCTORAL
TRAVEL AWARD PROFESSIONAL
NETWORKING EVENT**

FRI. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 255

*Invitation only: All ASBMB Graduate/Postdoctoral
and Graduate Minority Travel Award recipients
must attend.*

**ASBMB PROFESSIONAL DEVELOPMENT
PROGRAM FOR GRADUATE AND
POSTDOCTORAL TRAINEES**

SAT. 8:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 253A

*Advance registration required. All ASBMB
Graduate/Postdoctoral and Graduate Minority
Travel Award recipients receive complimentary
registration for this event and must attend.*

**HOW TO INCORPORATE SCIENCE
OUTREACH INTO YOUR PORTFOLIO –
BEST PRACTICES AND BROADER IMPACTS**

SAT. 9:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 252B

**ASBMB UNDERGRADUATE STUDENT
ANNUAL MEETING ORIENTATION**

SAT. 11:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 254 A/B

**ASBMB UNDERGRADUATE STUDENT
RESEARCH POSTER COMPETITION**

SAT. 1:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, EAST REGISTRATION, EXHIBIT
HALL LEVEL

Advance registration required to compete.

**ASBMB CAREERS SPEED DATING
FOR UNDERGRADUATES**

SAT. 4:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 257 A/B

ASBMB BUSINESS MEETING

SAT. 6:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

**ASBMB OPENING LECTURE: HERBERT
TABOR RESEARCH AWARD LECTURE**

SAT. 6:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: J. Steitz, HHMI, Yale Univ.

Title: Noncoding RNAs: Small, Large and Viral

ASBMB OPENING RECEPTION

SAT. 7:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM FOYER,
THIRD LEVEL

Immediately follows ASBMB Opening Lecture.

**ASBMB SCIENCE OUTREACH AND
STUDENT CHAPTER ACTIVITY POSTERS**

SAT. 7:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM FOYER,
THIRD LEVEL

On display during the ASBMB Opening Reception.

ASBMB PLENARY LECTURE

SUN. 8:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: B. L. Bassler, *Princeton Univ.*

Title: Manipulating Quorum Sensing to Control
Bacterial Pathogenicity

**EARL AND TRESSA STADTMAN
DISTINGUISHED SCIENTIST
AWARD LECTURE**

SUN. 8:45 AM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: J. Dixon, *UCSD*

Title: Novel Kinases Which Phosphorylate Proteins
and Proteoglycans in the Secretory Pathway

**ASBMB AWARD FOR EXEMPLARY
CONTRIBUTIONS TO
EDUCATION LECTURE**

SUN. 12:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 253 B/C

Speaker: J.E. Bell, *Univ. of Richmond*

Title: Don't Teach Biochemistry, Teach Students!

**WHO SHOULD BE FUNDING
BIOMEDICAL RESEARCH?**

SUN. 12:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 253 A

**MILDRED COHN AWARD IN BIOLOGICAL
CHEMISTRY LECTURE**

SUN. 2:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: J. P. Klinman, *Univ. of California, Berkeley*

Title: Moving through Barriers: Unlocking the
Mysteries of How Enzymes Really Work

**RUTH KIRSCHSTEIN DIVERSITY IN
SCIENCE AWARD LECTURE**

SUN. 3:05 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: J. Trejo, *UCSD*

Title: Exploring GPCR Biased Signaling from Inside
and Outside the Cell

**ASBMB YOUNG INVESTIGATOR AWARD IN
LIPID RESEARCH LECTURE**

SUN. 3:55 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 257 A/B

*Presented within the symposium, "Glycobiology in
Infection and Community."*

Speaker: E. O. Saphire, *The Scripps Research Inst.*

Title: The Molecular Toolkit of Viral
Hemorrhagic Fevers

**WELCOME RECEPTION, SPONSORED
BY THE ASBMB MINORITY
AFFAIRS COMMITTEE**

SUN. 7:30 PM – WESTIN BOSTON WATERFRONT, HARBOR
BALLROOM II

**PLENARY LECTURE AND ASBMB - MERCK
AWARD LECTURE**

MON. 8:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: Z. J. Chen, *Univ. of Texas Southwestern
Med. Ctr. at Dallas/HHMI*

Title: Enemy Within – Immune and Autoimmune
Responses to the Cytosolic DNA and RNA

**BERT AND NATALIE VALLEE AWARD IN
BIOMEDICAL SCIENCE**

MON. 8:45 AM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM WEST

Speaker: D. Eisenberg, *UCLA*

Title: The Amyloid State of Proteins

ASBMB ALICE AND C.C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM

MON. 9:45 AM – BOSTON CONVENTION & EXHIBITION CENTER, 253A

Speaker: A.F. Cowman, *The Walter and Eliza Hall Inst. of Med. Res.*

Title: Moving in and Renovating: Invasion and Remodeling of the Human Erythrocyte by the Malaria Parasite

IMPROV FOR STEM PROFESSIONALS: CREATING ENGAGING CONVERSATIONS

MON. 12:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, 253B

BIOINFORMATICS AND MODELING TOOLS FOR DISCOVERING FUNCTIONS OF UNKNOWN ENZYMES

MON. 12:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 251

DISEASE-ON-A-CHIP: NEW FRONTIERS IN BIOMEDICAL RESEARCH

MON. 12:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 255

ASBMB ACCREDITATION WORKSHOP

MON. 12:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 256

WILLIAM C. ROSE AWARD LECTURE

MON. 2:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, BALLROOM WEST

Speaker: K. Matthews, *Rice Univ.*

Title: A Tale of Two Proteins

AVANTI AWARD IN LIPIDS

MON. 3:05 PM – BOSTON CONVENTION & EXHIBITION CENTER, BALLROOM WEST

Speaker: K. Reue, *David Geffen Sch. of Med., UCLA*

Title: The Lipin Protein Family, Cellular Lipid Storage and Disease

CELEBRATE WITH THE JBC

MON. 6:15 PM – BOSTON CONVENTION & EXHIBITION CENTER, LEVEL 2 EAST FOYER

IMPROVSCIENCE PRESENTS LIVE: THE LIVING IMPROV EXPERIMENT

MON. 6:30 PM – NED DEVINE'S, 1 FANEUIL HALL MARKETPLACE, BOSTON, MA 02109

PLENARY LECTURE AND ASBMB FRITZ LIPMANN LECTURESHIP

TUES. 8:00 AM – BOSTON CONVENTION & EXHIBITION CENTER, 253 A/B/C

Speaker: R. Klevit, *Univ. of Washington*

Title: Structural, Functional and Mechanistic Diversity in Protein Ubiquitination

DELANO AWARD FOR COMPUTATIONAL BIOSCIENCES

TUES. 8:45 AM – BOSTON CONVENTION & EXHIBITION CENTER, 253 A/B/C

Speaker: V. Pande, *Stanford Univ.*

Title: Understanding Protein Folding Yields Important Insights into Protein Conformational Change: New Insights into Kinases and GPCRs

CHEMICAL AND OPTOGENETIC MANIPULATION OF LIPID SIGNALING WORKSHOP

TUES. 12:30 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 251

ASBMB PLENARY LECTURE

TUES. 2:45 PM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 253 A/B/C

Speaker: C. D. Allis, *The Rockefeller Univ.*

Title: Varying the Terrain of Epigenetic Landscapes: Implications for Human Cancer

ASBMB WOMEN SCIENTISTS' PANEL AND NETWORKING EVENT

TUES. 6:30 PM – WESTIN BOSTON WATERFRONT,
MARINA BALLROOM III

ASBMB PLENARY LECTURE

WED. 8:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 253 A/B/C

Speaker: I. A. Wilson, *The Scripps Res. Inst.*

Title: Structural Basis of Broad Neutralization of
Viral Pathogens

WALTER A. SHAW YOUNG INVESTIGATOR AWARD IN LIPID RESEARCH

WEDS. 1:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 252 A/B

*Presented within the symposium, "Lipid Magic:
How Do They Do It?."*

Speaker: B. Brügger, *Heidelberg Univ.*

Title: From Lipidomics to Cellular Functions:
Lipids as Modulators of Protein Activity

NUTRITION (ASN)

Please visit <http://scientificsessions.nutrition.org>
for more details on each session, special functions,
continuing education as well as minis and poster
sessions. Also check out the on-site program guide,
available in the ASN Office.

ASN OFFICE AND MEMBER SERVICES CENTER

RENAISSANCE BOSTON WATERFRONT HOTEL, GEORGES

HOURS: SATURDAY THROUGH TUESDAY
9:30 AM – 1:00 PM; 3:00 PM – 6:00 PM

ASN MEMBER AND ATTENDEE LOUNGE

BOSTON CONVENTION & EXHIBITION CENTER, ROOM 155

HOURS: SATURDAY THROUGH TUESDAY
7:30 AM – 5:30 PM

ASN BOOTH AND BOOKSTORE

BOSTON CONVENTION & EXHIBITION CENTER, BOOTH 1053

HOURS: SUNDAY THROUGH TUESDAY
9:00 AM – 4:00 PM

ASN POSTER VIEWING

BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

HOURS: SUNDAY THROUGH TUESDAY
8:30 AM – 5:00 PM

*(Authors MUST be present by their board during
their designated time between 12:45 PM – 2:45 PM)*

WEDNESDAY 8:30 AM – 4:00 PM

*(Authors MUST be present by their board during
their designated time between 10:00 AM – 11:00 AM)*

COUNCIL MEETINGS AND HIGHLIGHTS

(Listed in chronological order)

Nutritional Sciences Council Business Meeting and Breakfast

SAT. 7:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 150

Medical Nutrition Council Business Meeting

MON. 1:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 154

Global Nutrition Council Business Meeting and the Kellogg Prize for International Nutrition Research Lecture

MON. 6:30 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, PACIFIC GRAND
BALLROOM ABCD

*The Kellogg Prize for International Nutrition
Research is supported by an unrestricted
educational grant from the Kellogg Company*

Lecturer: G.H. Pelto, *Cornell Univ.*

Global Nutrition Council Reception

MON. 8:00 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, ATLANTIC BALLROOM 1

**RESEARCH INTEREST SECTIONS (RIS)
MEETINGS AND HIGHLIGHTS:**

(Listed in chronological order)

**Carotenoid and Retinoid Interactive Group
(CARIG) Annual Symposium**

FRI. 1:00 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, ATLANTIC BALLROOM 2/3

CARIG Poster Competition and Reception

FRI. 6:30 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, PACIFIC GRAND BALLROOM B/C

RIS Chairs Luncheon (By Invitation Only)

SAT. 12:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 150

**Experimental Animal Nutrition RIS
Business Meeting**

SAT. 2:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 156A

**Energy and Macronutrient Metabolism RIS
Hot Topics Seminar**

SAT. 3:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 152

**Nutrition Translation RIS Business Meeting
and Networking Luncheon**

SUN. 12:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 150

**Vitamins and Minerals RIS Forum and
Business Meeting**

SUN. 12:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 156A

**Diet and Cancer RIS Business Meeting &
Funding Update from NIH and AICR**

SUN. 1:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 156C

*Supported by an educational grant from the
American Institute for Cancer Research*

**Nutrient-Gene Interactions RIS
Business Meeting**

SUN. 1:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 153B

**Nutritional Epidemiology RIS Business Meeting
and Mentoring Event**

SUN. 4:00 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, ATLANTIC BALLROOM 1

Nutritional Immunology RIS Business Meeting

SUN. 4:00 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, SPECTACLE

**Aging and Chronic Disease RIS
Business Meeting**

MON. 7:00 AM – RENAISSANCE BOSTON WATERFRONT
HOTEL, CASPIAN

Lactation RIS/ISRHML Business Meeting

MON. 12:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 150

**Dietary Bioactive Components RIS Business
Meeting and Hot Topic: The Role of Dietary
Bioactive Components in Bone Health
and Development**

MON. 12:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 152

**Community and Public Health Nutrition RIS
Business Meeting and Hot Topic Session**

MON. 12:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 153C

**Nutrition Education and Behavioral Science
RIS Business Meeting and Special Event
“Digging Deeper: An Overview of Qualitative
Data Collection and Analysis”**

MON. 3:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 150

**Obesity RIS Business Meeting and Hot Topic
Discussion: “The Future of Obesity Treatment”**

TUES. 11:30 AM – RENAISSANCE BOSTON
WATERFRONT HOTEL, PACIFIC
GRAND BALLROOM FG

Pediatric Nutrition RIS Interest Meeting

TUES. 1:45 PM – BOSTON CONVENTION & EXHIBITION CENTER, 158

NEW! For those interested in the formation of a new RIS focused on pediatric nutrition.

SPECIAL SESSIONS AND HIGHLIGHTS:

(Listed in chronological order)

Industry Forum

FRI. 5:30 PM – RENAISSANCE BOSTON WATERFRONT HOTEL, ATLANTIC BALLROOM 1

Organized by the Sustaining Partners Roundtable

Volunteer Leadership Forum

SAT. 11:00 AM – BOSTON CONVENTION & EXHIBITION CENTER, 152

First-Time Attendee and New Member Orientation

Organized by the Membership Committee

SAT. 2:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, 150

Society Annual Business Meeting

SAT. Attend to listen to officers' addresses and participate in interactive breakouts. See on-site program for time and location.

Emerging Leaders in Nutrition Science Poster Competition

SAT. 5:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, BALLROOM EAST

NEW! Supported by an unrestricted educational grant from PepsiCo

GNC Poster Competition supported by an unrestricted educational grant from the Kellogg Company

University Mixer and Membership Reception

SAT. 8:00 PM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM DEFGH

Graduate Student Breakfast

SUN. 6:45 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, ATLANTIC BALLROOM 1

Organized by the Student Interest Group

Supported by an unrestricted educational grant from the National Dairy Council

Presidential Symposium: Nutrition and Developmental Origins of Health and Disease

SUN. 10:30 AM – BOSTON CONVENTION & EXHIBITION CENTER, BALLROOM EAST

Chaired by Simin Nikbin Meydani, DVM, PhD

Supported by an unrestricted educational grant from Mead Johnson Pediatric Nutrition Institute

Meet the Editors

SUN. 12:45 PM – BOSTON CONVENTION & EXHIBITION CENTER, 152

Awards Ceremony

SUN. 6:00 PM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Department Heads Breakfast

MON. 7:00 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM AB

Supported by an unrestricted educational grant from the Kellogg Company

Student Interest Group (SIG) Meet the Fellows

MON. 10:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, ATLANTIC BALLROOM 2

Supported by an unrestricted educational grant from PepsiCo

Fellows, 50-Year Members, and Past Presidents Luncheon (By ticket only.)

MON. 11:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, ATLANTIC BALLROOM 1

Organized by the Fellows Committee

Supported by Nestlé

Gilbert A. Leveille Award Lecture

MON. 1:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM EAST

Lecturer: T.P. Labuza, Univ. of Minnesota

**Minority and Diversity Affairs Forum:
“Career Enhancement for Students,
Postdocs, Young Professionals, and
Early-Stage Nutrition Scientists”**

MON. 4:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 156C

*Organized by the Minority and Diversity Affairs
Committee and the Student Interest Group (SIG)*

**ASN Listening Session: Open Access
Journal Development**

MON. 5:15 PM - BOSTON CONVENTION & EXHIBITION
CENTER, 150

ASN Journal Reception (By invitation only.)

MON. 7:00 PM – 9:00 PM

Speed Mentoring for Students

MON. 7:30 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, PACIFIC GRAND
BALLROOM H

*Organized by the Student Interest Group (SIG) and
the Young Professional Interest Group (YPIG)*

*Supported by an unrestricted educational grant
from PepsiCo*

**Postdoc and Young Professional
Networking Event**

MON. 9:30 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, PACIFIC GRAND
BALLROOM FG

*Organized by the Young Professional Interest
Group (YPIG)*

**MDAC MARC Travel Awardees Poster Session
and Networking Breakfast**

TUES. 7:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 150

*Organized by the Minority and Diversity
Affairs Committee (MDAC)*

*Supported by an unrestricted educational grant
from DSM Nutritional Products*

W.O. Atwater Memorial Lecture

TUES. 12:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, BALLROOM EAST

***ARS W.O. Atwater Memorial Lecture Reception
to follow event at 1:45 PM***

*Supported by an unrestricted educational grant
from USDA ARS, Beltsville*

Lecturer: J.L. Slavin, Univ. of Minnesota

**Sustaining Partners Roundtable
(By invitation only.)**

TUES. 1:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, 152

SPONSORED SATELLITE PROGRAMS

*Sponsored Satellite Programs are sponsored and
organized by third-party groups (e.g. industry,
trade organizations) in conjunction with the
ASN Scientific Sessions and Annual Meeting at
Experimental Biology*

(Listed in chronological order)

**Whole-Milk Dairy Foods in Nutrition and
Health: An Evaluation of the Current State of
the Science**

*Organized and sponsored by the National
Dairy Council*

FRI. 9:30 AM – RENAISSANCE BOSTON WATERFRONT
HOTEL, PACIFIC GRAND
BALLROOM ABCD

Science and Policy: Adopting a Fruitful Vegetable Encounter for Our Children

Organized by the Alliance for Potato Research and Education

FRI. 1:00 PM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Neural-Physiologic Mechanisms Regulating Sodium Appetite

Organized and sponsored by the Grocery Manufacturers Association

FRI. 1:00 PM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM EFG

Sweeteners and Health: Current Understandings, Recent Research Findings and Directions for Future Research

Organized and sponsored by the Rippe Lifestyle Institute

SAT. 6:30 AM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, ROOM 153 AB

Body Water Regulation: Vasopressin as New Predictor of Disease Risk?

Organized and sponsored by Danone Nutricia Research

SAT. 6:30 AM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, 156 BC

Current Perspective on Protein Quality and Practical Implications for Policy

Organized and sponsored by DuPont Nutrition and Health

SAT. 12:45 PM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, ROOM 153 AB

Yogurt in Nutrition: The Role of Yogurt in Weight Management

Organized and sponsored by the Danone Institute International and ASN

SAT. 12:45 PM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, 156 BC

Oats: More than Just a Whole Grain

Organized and sponsored by PepsiCo Global R&D Nutrition

SUN. 6:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM E

Running on Empty: Is There a Metabolic or Cognitive Benefit to the Morning Meal?

Organized and sponsored by the Kellogg Company

SUN. 6:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

A Healthy Approach to Dietary Fat Consumption: Understanding the Science and Taking Action to Clear Up Consumer Confusion

Organized and sponsored by the Hass Avocado Board

MON. 6:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM D

Breakfast Bioactives

Organized and sponsored by PepsiCo

MON. 6:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM E

Pairing Nuts and Dried Fruit for Cardiometabolic Health

Organized and sponsored by the Sun-Maid Growers of California and American Pistachio Growers

TUES. 6:30 AM – BOSTON CONVENTION & EXHIBITION CENTER, ROOM 52A

Smart Snacking: When Science Meets Nutrition

Organized and sponsored by PepsiCo

TUES. 6:30 AM – RENAISSANCE BOSTON WATERFRONT HOTEL, ATLANTIC BALLROOM 123

National Food and Nutrition Policy: Balancing the Role of Research, Nutrition Science and Public Health

Organized and sponsored by the Corn Refiners Association

WED. 6:30 AM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, 151 AB

Phenotypic Flexibility

Organized and sponsored by Nutritech, a European Commission-funded Project

WED. 9:00 AM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, ROOM 151AB

INTERNATIONAL FORUMS

Highlighting emerging areas of research in other countries, International Forums provide an opportunity for global nutrition societies to review the current status of nutrition research and education in their country, and to discuss region-specific topics with other nutrition scientists

(Listed in chronological order)

Korea: Organized by Korean Nutrition Society

SUN. 3:00 PM – BOSTON CONVENTION & EXHIBITION CENTER, 151AB

Brazil: Organized by International Colleges for the Advancement of Nutrology (ICAN)

MON. 10:30 AM – BOSTON CONVENTION & EXHIBITION CENTER, 151AB

China: Organized by Chinese Interest Group, American Society for Nutrition, Chinese Nutrition Society and North American Chinese Society for Nutrition

TUES. 8:00 AM – BOSTON CONVENTION & EXHIBITION CENTER, 151AB

Taiwan: Organized by Nutrition Society of Taiwan

TUES. 12:45 PM – BOSTON CONVENTION & EXHIBITION CENTER, 151AB

GUEST SOCIETY HIGHLIGHTS

(Listed in chronological order)

Creating the Future of Evidence-based Nutrition Recommendations, Using Lipid Research Case Studies

Guest Society: ILSI

SAT. 8:00 AM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, BALLROOM EAST

PhenHRIG 2015 Symposium: Understanding Polyphenolic Bioactives: Highlights of Recent Progress

Guest Society: PhenHRIG

SAT. 1:00 PM – BOSTON CONVENTION CENTER & EXHIBITION CENTER, 154

Korean Scientists' Night

Guest Society: Korean Nutrition Society

SUN. 6:00 PM – NO NAME RESTAURANT, 15 FISH PIER STREET W, SOUTH BOSTON, MA

CAREER DEVELOPMENT SESSIONS

- Being “Social:” How Scientists Can Find their Way in a 24-Hour Digital World, organized by the Public Information Committee
- Clinical Emerging Leader Award Competition, organized by the Medical Nutrition Council
- Emerging Leaders in Nutrition Science Poster Competition
- Establishing Yourself as an Expert, organized by the Young Professional Interest Group
- Global Nutrition Council Student Poster Award Competition, organized by the Global Nutrition Council and supported by Kellogg
- Graduate Student Research Award Competition, organized by Nutritional Sciences Council
- Minority and Diversity Affairs Committee Forum: Career Enhancements for Students, Postdocs, Young Professionals and Early-Stage Nutrition Scientists
- Research Reporting in the 21st Century: How it is Different and Why You Should Care

PATHOLOGY (ASIP)

- Postdoctoral Research Award Competition, organized by the Young Professional Interest Group and endowed by DuPont Nutrition and Health
- Speed Mentoring for Students, organized by the Student Interest Group and the Young Professional Interest Group (YPIG) and supported by PepsiCo, Inc.
- Students Meet the Fellows, organized by the Student Interest Group and supported by PepsiCo, Inc.
- Young Minority Investigator Competition, organized by the Minority and Diversity Affairs Committee and supported by DSM Nutritional Products

EDUCATION-RELATED SESSIONS

- The eNutrition Academy: Supporting a New Generation of Nutritional Scientists Around the World
- Establishing Yourself as an Expert, organized by the Young Professional Interest Group
- First-Time Attendee and New Member Orientation, organized by the Membership Committee
- The Long Road Leading to the Dietary Reference Intakes, organized by the History of Nutrition Committee
- Meet the ASN Editors
- Research Reporting in the 21st Century: How it is Different and Why You Should Care

SCIENCE POLICY SESSIONS

- Food and Nutrition Board Update: New Directions in Food, Nutrition, and Population Health Symposium
- The Long Road Leading to the Dietary Reference Intakes Symposium, organized by the History of Nutrition Committee
- Nutrition Research and Surveillance to Improve the Health of the US Population Minisymposium, organized by the Public Policy Committee
- Nutrition Science for Public Policy, Practice and the Consumer Minisymposium, organized by the Nutrition Translation Research Interest Section

PATHOBIOLOGY FOR BASIC SCIENTISTS: LOOKING INTO THE CRYSTAL BALL: INFLAMMASOMES AND DISEASE

(Sponsored by the ASIP Education Committee)

SAT. 8:30 AM – 11:30 AM – BOSTON CONVENTION
& EXHIBITION CENTER,
160A/B

*Chaired: P.A. D'Amore, Schepens Eye Res. Inst./
Harvard Med. Sch. and R.N. Mitchell,
Brigham and Women's Hosp.*

F-TROOP: ROADMAP TO FELLOWSHIP GRANT APPLICATIONS

*(Sponsored by the ASIP Committee for Career
Development and Diversity)*

*(Supported by an unrestricted educational grant
from the FASEB Maximizing Access to Research
Careers (MARC) Office)*

SAT. 8:30AM – 11:30 AM – BOSTON CONVENTION &
EXHIBITION CENTER, ROOM
154

*Chaired: L. McManus, Univ. of Texas Hlth. Sci.
Ctr. and C. Yates, Univ. of Pittsburgh Sch.
of Nursing*

BREAST CANCER WORKSHOP: GENETIC AND PHENOTYPIC DIVERSITY

*(Sponsored by the ASIP Breast Cancer Scientific
Interest Group)*

*(Supported by an unrestricted educational grant
from earlier.org <<http://earlier.org>> –
Friends for an Earlier Breast Cancer Test)*

SAT. 8:30 AM – 11:30 AM – BOSTON CONVENTION &
EXHIBITION CENTER, 160C

*Chaired: W.B. Coleman, Univ. of North Carolina at
Chapel Hill*

XVTH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: DEVELOPING AND TRAINING THE PHYSICIAN SCIENTIST

(Sponsored by the ASIP Education Committee)

(Co-Sponsored by the Association of Pathology Chairs)

Special registration required to attend this event.

SAT. 11:45 AM – 1:45 PM – WESTIN BOSTON
WATERFRONT HOTEL,
MARINA I

*Chaired: M.A. LaFlamme, University of Washington
and J.S. Reichner, Rhode Island Hosp.*

HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY

(Sponsored by the ASIP Committee for Career Development and Diversity)

SAT. 1:30 PM – 4:00 PM – BOSTON CONVENTION &
EXHIBITION CENTER, 162B

*Chaired: T.A.Reaves, Med. Univ. of South Carolina
and S. Headland, Barts and London Sch. of
Med. and Dent., Queen Mary Univ.*

ASIP YOUNG SCIENTIST LEADERSHIP AWARD LECTURE: IQGAP1 IS A CRITICAL REGULATOR OF TRANSENDOTHELIAL MIGRATION

(Presented during: ASIP Highlights: Graduate Student Research in Pathology – 1:30 PM – 4:00 PM)

SAT. 3:35 PM – 3:50 PM, 162B

Award Recipient: D.P. Sullivan, Northwestern Univ.

ASIP COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE: CANCER PROGRESSION: THE FAILURE TO RESOLVE?

(Supported by an unrestricted educational grant from Elsevier)

SAT. 2:00 PM – 3:00 PM – BOSTON CONVENTION &
EXHIBITION CENTER, 160A/B

Award Recipient: D.Panigrahy, Harvard Med. Sch.

HCS/STOWELL SYMPOSIUM: UNLOCKING NEW TOOLS FOR EXPERIMENTAL PATHOLOGY: ADVANCES IN DETECTION SYSTEMS, FROM SUPER RESOLUTION MICROSCOPY TO WHOLE ANIMAL IMAGING

(Sponsored by The Histochemical Society and the ASIP Immunohistochemistry and Microscopy Scientific Interest Group)

(Supported by an unrestricted educational grant from the Robert E. Stowell Endowment Fund)

SAT. 2:00 PM – 5:00 PM – BOSTON CONVENTION &
EXHIBITION CENTER, 160C

*Chaired: S.M. Hewitt, NCI, NIH and
James W. Mandell, Univ. of Virginia*

ASIP TRAINEE WELCOME RECEPTION

(Sponsored by the ASIP Committee for Career Development and Diversity)

SAT. 4:00 PM – 5:00 PM – BOSTON CONVENTION
& EXHIBITION CENTER,
NORTHWEST LOBBY A

ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE: HIGH THROUGHPUT SEQUENCING FOR DISCOVERING NEW BIOLOGY

SAT. 5:00 PM – 6:00 PM – BOSTON CONVENTION &
EXHIBITION CENTER, 160A/B

*Award Recipient: A. Dutta, Univ. of Virginia Hlth.
Sci. Ctr.*

HCS SYMPOSIUM: ADVANCED IMAGING TECHNIQUES AND SYSTEMS: SUPER RESOLUTION MICROSCOPY

(Sponsored by The Histochemical Society and the ASIP Immunohistochemistry and Microscopy Scientific Interest Group)

SUN. 8:30 AM – 10:30 AM – BOSTON CONVENTION &
EXHIBITION CENTER, 160C

*Chaired: P. Goodwin, Applied Precision LLC and
D. Rosene, Boston Univ. Sch. of Med.*

**THE JOURNAL OF HISTOCHEMISTRY AND
CYTOCHEMISTRY LECTURE**

*(Sponsored by The Histochemical Society and
the ASIP Immunohistochemistry and Microscopy
Scientific Interest Group)*

SUN. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 160C

*Speaker: G. Danuser, Univ. of Texas Southwestern
Med. Ctr.*

Title: Computer Vision of Cell Dynamics

**BLOOD VESSEL CLUB™: MACROPHAGES
IN THE VESSEL WALL**

*(Sponsored by the Vascular and Mucosal
Pathobiology Scientific Interest Group)*

SUN. 8:30 AM – 11:30 AM – BOSTON CONVENTION
& EXHIBITION CENTER,
160A/B

*Chaired: J.W. Homeister, Univ. of North Carolina and
J.R. Stone, Massachusetts Gen. Hosp.*

**LIVER PATHOBIOLOGY WORKSHOP:
CELLULAR AND MOLECULAR
MECHANISMS OF LIVER INJURY:
IMPLICATIONS IN DISEASE PATHOGENESIS**

*(Sponsored by the ASIP Liver Pathobiology Scientific
Interest Group)*

SUN. 8:30 AM – 11:30 AM – BOSTON CONVENTION &
EXHIBITION CENTER, 162A

*Chaired: K. Nejak-Bown, Univ. of Pittsburgh and
B.L. Copple, Michigan State Univ.*

**AMERICAN SOCIETY FOR MATRIX
BIOLOGY LECTURE**

*(Sponsored by ASIP and the American Society for
Matrix Biology)*

SUN. 8:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, 161

Speaker: S.S. Apte, Cleveland Clin. Lerner Res. Inst.

*Title: ADAMTS Proteases, Novel Regulators of
the Cellular Microenvironment Implicated in
Diverse Pathologies*

**XVTH ANNUAL ASIP/AAA CAREER
DEVELOPMENT AND MENTORING
PROGRAM AND LUNCH: FUNDAMENTALS
OF SUCCESS: HOW TO GIVE AN AWARD
WINNING PRESENTATION**

*(Sponsored by the ASIP Committee for Career
Development and Diversity and the American
Association of Anatomists)*

*(Supported by an unrestricted educational grant
from the FASEB Maximizing Access to Research
Careers (MARC) Office)*

Special registration required to attend this event.

SUN. 11:45 AM – 1:45 PM – WESTIN BOSTON
WATERFRONT HOTEL,
MARINA I

*Chaired: J. Reuben, Univ. of South Carolina Greenville
and E.A. Medina, Univ. of Texas Hlth.
Sci. Ctr.*

**ROUS-WHIPPLE AWARD LECTURE:
LEUKOCYTE-EPITHELIAL INTERACTIONS:
A DOUBLE-EDGED SWORD**

SUN. 5:00 PM – 6:00 PM – BOSTON CONVENTION &
EXHIBITION CENTER, 160A/B

Award Recipient: C.A. Parkos, Univ. of Michigan

**HCS MEMBERS AWARDS PRESENTATION,
BUSINESS MEETING AND RECEPTION**

*(Sponsored by The Histochemical Society and
the ASIP Immunohistochemistry and Microscopy
Scientific Interest Group)*

SUN. 6:30 PM – RENAISSANCE BOSTON WATERFRONT
HOTEL, ATLANTIC 2/3

**ACVP SYMPOSIUM: INTESTINAL
MICROBIOME: LESSONS FROM
COMPARATIVE MEDICINE**

(Sponsored by ASIP Veterinary Pathology Scientific Interest Group and the American College of Veterinary Pathologists)

MON. 8:30 AM – 11:30 AM – BOSTON CONVENTION &
EXHIBITION CENTER, 160C

*Chaired: M.M. Schutten, Genentech, and
R. Sullivan, Univ. of Wisconsin – Madison*

**ASIP PRESIDENTIAL
SYMPOSIUM: ADVANCES IN
INVESTIGATIVE NEUROPATHOLOGY**

MON. 2:00 PM – 5:00 PM – BOSTON CONVENTION
& EXHIBITION CENTER,
160A/B

*Chaired: K.A. Roth, University of Alabama
at Birmingham*

**ASIP BUSINESS MEETING AND
AWARDS PRESENTATION**

MON. 5:00 PM – 6:00 PM – BOSTON CONVENTION
& EXHIBITION CENTER,
160A/B

*Chaired: K.A. Roth, Univ. of Alabama
at Birmingham*

AWARDS RECEPTION

MON. 6:00 PM – 8:00 PM – BOSTON CONVENTION
& EXHIBITION CENTER,
SOUTHEAST LOBBY C

**CELL INJURY WORKSHOP: SCARS AND
SOUVENIRS: INFLAMMATION AND
FIBROSIS IN THE HEART, LUNG, AND SKIN**

(Sponsored by the ASIP Cell Injury Scientific Interest Group)

MON. 8:30 AM – 11:30 AM – BOSTON CONVENTION &
EXHIBITION CENTER, 162B

*Chaired: C.C. Yates, Univ. of Pittsburgh and
M.S. Willis, Univ. of North Carolina*

**HIGH SCHOOL TEACHER SESSION:
SCIENTIFIC SLEUTHING OF HUMAN
DISEASE FOR HIGH SCHOOL TEACHERS**

(Sponsored by the ASIP Education Committee)

*(Supported by an unrestricted educational grant from
the Intersociety Council for Pathology Information)*

Special registration required to attend this event.

TUES. 9:30 AM – 2:30 PM – WESTIN BOSTON
WATERFRONT HOTEL,
MARINA I

*Chaired: K. Nejak-Bowen, Univ. of Pittsburgh and
M.B. Furie, Stony Brook Univ.*

**LUNCH AND LEARN: THE ETHICS OF
PERSONALIZED MEDICINE: QUANDARIES
AMONG THE POSSIBILITIES**

(Sponsored by the ASIP Education Committee)

Special registration required to attend this event.

TUES. 11:45 AM – 1:45 PM – WESTIN BOSTON
WATERFRONT HOTEL,
MARINA IV

*Chaired: W.M. Mars, Univ. of Pittsburgh Med. Sch.,
D.A. Milner, Jr., Brigham and Women's Hosp.
and R.N. Mitchell, Brigham and
Women's Hosp.*

**ASIP SCIENTIFIC INTEREST GROUP
NETWORKING EVENTS AND
POSTER SESSIONS**

This session is open to all. All ASIP Scientific Interest Group Poster Sessions will be held at the same time in the same location. Select posters from each Scientific Interest Group will be on display for informal discussions.

Special registration required to attend this event.

TUES. 5:30 PM – 7:30 PM – RENAISSANCE BOSTON
WATERFRONT HOTEL,
PACIFIC GRAND
BALLROOM ABCD

Select posters from each Scientific Interest Group will be on display for informal discussions.

- Biobanking
- Breast Cancer
- Club Hepatomania™ (Liver Pathobiology)
- Der Schadenklub (Cell Injury)
- Digital and Computational Pathology
- Environmental and Toxicologic Pathology
- Gene Expression
- Immunohistochemistry and Microscopy
- Inflammation/Immunopathology
- Molecular Diagnostic Pathology
- Neuropathology
- Regenerative Medicine
- Vascular and Mucosal Pathobiology
- Veterinary Pathobiology

**PHARMACOLOGY
AND EXPERIMENTAL
THERAPEUTICS
(ASPET)**

**2015 TEACHING INSTITUTE: TRAINING
STUDENTS FOR TEACHING CAREERS**

SAT. 12:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 108

Chairs:

K. Karpa, *Penn State Col. of Med.*
K. Hardy, *Lipscomb Univ. Col. of Pharm.*

Speakers:

W. T. McCormack, *Univ. of Florida Col. of Med.*
H. Campa III, *Michigan State Univ.*
J. Neiswinger, *NIA, NIH*
C.N. Fuhrmann, *Univ. of Massachusetts Med. Sch.*

**GRADUATE STUDENT-POSTDOCTORAL
COLLOQUIUM: HOW TO GET STARTED**

SAT. 2:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 109AB

Chairs:

A.T. Hanna-Mitchell, *Case Western Reserve Univ.*
H. Gottlieb, *Univ. of Incarnate Word,*
Feik Sch. of Pharm.

Speakers:

L. Wecker, *Univ. South Florida Morsani Col. of Med.*
H. Gottlieb, *Univ. of Incarnate Word,*
Feik Sch. of Pharm.
U.B. Chu, *Univ. of Wisconsin-Madison*
D.L. Birkle Dreer, *NCCAM, NIH*
L.P. Carter, *Jazz Pharmaceuticals*

ASPET BUSINESS MEETING

SAT. 6:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

ASPET awards to be presented:

John J. Abel Award

P.C. Dorrestein, *UCSD*

Julius Axelrod Award

J. Rossier, *Hôpital Sainte Anne*

***Pharmacia-ASPET Award for
Experimental Therapeutics***

L. Jackson Roberts, *Vanderbilt Univ. Sch. of Med.*

Robert R. Ruffolo Career Achievement Award

H. Hamm, *Vanderbilt Univ. Med. Ctr.*

David Lehr Research Award

D-S. Choi, *Mayo Clin. Col. of Med.*

Reynold Spector Award in Clinical Pharmacology

S.A. Waldman, *Thomas Jefferson Univ.*

Torald Sollmann Award in Pharmacology

J.E. Barrett, *Drexel Univ. Col. of Med.*

PhRMA FOUNDATION AWARDS

***Award in Excellence in
Pharmacology & Toxicology***

D.L. Eaton, *Univ. of Washington*

***Research Starter Grants in
Pharmacology & Toxicology***

V. Duric, *Des Moines Univ.*

J. Wang, *Univ. of Arizona*

***Postdoctoral Fellowships in
Pharmacology & Toxicology***

L.L. Anderson, *Northwestern Univ. Feinberg
Sch. of Med.*

M.J. Robson, *Vanderbilt Univ. Med. Ctr.*

***Predoctoral Fellowships in
Pharmacology & Toxicology***

R.D. Crouch, *Vanderbilt Univ. Med. Ctr.*

R. Gunaratne, *Duke Univ. Med. Ctr.*

R.N. Helsley, *Univ. of Kentucky*

J. Maylor Lade, *Johns Hopkins Univ., Sch. of Med.*

D. Merlino, *Thomas Jefferson Univ.*

R. Navarra, *Drexel Univ., Col. of Med.*

N.M. Sanathara, *Univ. of California, Irvine*

L.K. Tremmel, *Univ. of Texas at Austin,
Col. of Pharm.*

J.M. Varberg, *Indiana Univ. Sch. of Med.*

N.R. Fuentes, *Texas A&M Univ.*

ASPET OPENING AND AWARDS RECEPTION

SAT. 7:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, SW PRE-FUNCTION

**ASPET PRESIDENTIAL SYMPOSIUM:
NAVIGATING THE FUTURE OF
BIOMEDICAL RESEARCH**

SUN. 9:30 AM – 12:00 PM, BOSTON CONVENTION &
EXHIBITION CENTER, ROOM 107AB

Chair: A.E. Fleckenstein, *Univ. of Utah*

Speakers:

M.S. Teitelbaum, *Labor and Worklife Prog.,
Harvard Law Sch.*

N.L. Desmond, *NIMH, NIH*

S. Silberberg, *NINDS, NIH*

P. Skolnick, *NIDA, NIH*

M.E. Rogers, *NIGMS, NIH*

**JULIUS AXELROD AWARD IN
PHARMACOLOGY LECTURE**

SUN. 2:00 – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

Speaker: J.L. Benovic, *Thomas Jefferson Univ.*

Title: Arresting Developments in Receptor Signaling

**JULIUS AXELROD SYMPOSIUM: THE
INS AND OUTS OF G PROTEIN-COUPLED
RECEPTOR SIGNALING**

SUN. 3:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

Chair: J.L. Benovic, *Thomas Jefferson Univ.*

Speakers:

J.J. Tesmer, *Univ. of Michigan*

V. Gurevich, *Vanderbilt Univ. Med. Ctr.*

A. Marchese, *Loyola Univ. Chicago*

M. von Zastrow, *UCSF*

**STUDENT/POSTDOC BEST
ABSTRACT COMPETITION**

SUN. 6:30 PM – WESTIN BOSTON WATERFRONT,
GALLERIA

View over 100 of the best ASPET student
and postdoc posters as they are judged for
division awards.

STUDENT AND POSTDOC MIXER

SUN. 8:30 PM – WESTIN BOSTON WATERFRONT,
HARBOR BALLROOM III

**JOHN J. ABEL AWARD IN
PHARMACOLOGY LECTURE**

MON. 8:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

Speaker: P.C. Dorrestein, *UCSD*

Title: Creating the Facebook for Molecular Analysis

**DRUG METABOLISM EARLY CAREER
ACHIEVEMENT AWARD LECTURE**

MON. 2:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 109A

Speaker: N.N. Bumpus, *Johns Hopkins Univ. Sch.
of Med.*

Title: Drug Metabolism Considerations in HIV
Treatment and Prevention

ASPET NETWORKING WALK

TUE. 7:00 AM – MEET AT WESTIN BOSTON WATERFRONT,
ALCOTT ROOM (WEATHER PERMITTING)

**REYNOLD SPECTOR AWARD IN CLINICAL
PHARMACOLOGY LECTURE**

TUE. 8:30 AM – 9:20 AM – BOSTON CONVENTION &
EXHIBITION CENTER, ROOM
107C

Speaker: S.A. Waldman, *Thomas Jefferson Univ.*

Title: Bench-to-Bedside Translation in Clinical
Pharmacology: From Knowledge Generation
to Healthcare Delivery

**BENEDICT R. LUCCHESI
DISTINGUISHED LECTURESHIP IN
CARDIAC PHARMACOLOGY**

TUE. 4:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

Speaker: A. Terzic, *Mayo Clin.*

Title: Regenerative Therapy for the Failing Heart

NORMAN WEINER LECTURE

WED. 8:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

Speaker: W.A. Catterall, *Univ. of Washington*

Title: Structural Basis for Function and
Pharmacology of Voltage-Gated Sodium and
Calcium Channels

DIVISION ANNUAL MEETINGS AND MIXERS

All ASPET Division members are welcome.

BEHAVIORAL PHARMACOLOGY DIVISION

Annual Division Meeting

TUE. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 109A

Mixer

MON. 6:30 PM – WESTIN BOSTON WATERFRONT,
LEWIS ROOM

CARDIOVASCULAR PHARMACOLOGY

Annual Division Meeting

TUE. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107AB

Mixer

TUE. 6:30 PM – WESTIN BOSTON WATERFRONT,
COMMONWEALTH BALLROOM B

DRUG DISCOVERY AND DEVELOPMENT

Annual Division Meeting

MON. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107C

Mixer

MON. 6:30 PM – WESTIN BOSTON WATERFRONT,
CARLTON

DRUG METABOLISM DIVISION

Annual Division Meeting

MON. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 109A

Mixer

TUE. 6:30 PM – WESTIN BOSTON WATERFRONT,
COMMONWEALTH BALLROOM A

TRANSLATIONAL AND CLINICAL PHARMACOLOGY (FORMERLY ISTCP)

Annual Division Meeting

TUE. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 107C

Mixer

MON. 6:30 PM – WESTIN BOSTON
WATERFRONT, CARLTON

MOLECULAR PHARMACOLOGY DIVISION

Annual Division Meeting

MON. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 108

Mixer

MON. 6:30 PM – WESTIN BOSTON WATERFRONT,
BURROUGHS

NEUROPHARMACOLOGY DIVISION

Annual Division Meeting

MON. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 106

Mixer

MON. 6:30 PM – WESTIN BOSTON WATERFRONT,
LEWIS ROOM

PHARMACOLOGY EDUCATION DIVISION

Annual Division Meeting

MON. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 109B

Mixer

MON. 6:30 PM – WESTIN BOSTON WATERFRONT,
CARLTON

TOXICOLOGY DIVISION

Annual Division Meeting

TUE. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 108

Mixer

TUE. 6:30 PM – WESTIN BOSTON WATERFRONT,
COMMONWEALTH BALLROOM A

**ASPET thanks the following for their
generous support of our Annual Meeting:
(at time of printing)**

DiscoverX
Merck
Optivia Biotechnology
Jazz Pharmaceuticals
Drug Metabolism & Disposition
The Journal of Pharmacology and
Experimental Therapeutics
Molecular Pharmacology
Pharmacological Reviews

PHYSIOLOGY (APS)

THE APS PRESIDENT'S SYMPOSIUM SERIES: PHYSIOLOGY: ANSWERS TO BIG QUESTIONS

*Organized by: D. Pollock, Univ. of Alabama
at Birmingham*

THE FUTURE OF DIABETES RESEARCH

SUN. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

THE FUTURE OF OBESITY RESEARCH

MON. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

THE FUTURE OF HYPERTENSION RESEARCH

TUES. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

NOBEL PRIZE LECTURE

WED. 4:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

*Speaker: R.J. Lefkowitz, HHMI, Duke Univ.
Med. Ctr.*

Title: Seven Transmembrane Receptors

IT'S ALL IN YOUR HEAD – A REFRESHER COURSE ON THE BRAIN AND SYSTEMS CONTROL

SAT. 8:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

BIG DATA WORKSHOP

SAT. 1:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 206A

REPRODUCIBILITY IN RESEARCH: WHAT ARE THE PROBLEMS? HOW CAN WE FIX THEM? WHAT HAPPENS IF WE DON'T?

SAT. 1:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 209

WORKSHOP: PROTEOMICS FOR THE PHYSIOLOGIST

SAT. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 206A

PHYSIOLOGY IN PERSPECTIVE — THE WALTER B. CANNON MEMORIAL AWARD LECTURE

(Supported by Sucampo AG)

SAT. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

Speaker: M. Yanagisawa, Univ. of Tsukuba, Japan

*Title: Solving the Mystery of Sleep: From Orphan
Receptors to Forward Genetics*

CLAUDE BERNARD DISTINGUISHED LECTURESHIP OF THE APS TEACHING OF PHYSIOLOGY SECTION

SUN. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: A. Macknight, ADInstruments

Title: Adventures in Education

HUGH DAVSON DISTINGUISHED LECTURESHIP OF THE APS CELL AND MOLECULAR PHYSIOLOGY SECTION

SUN. 2:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 205C

Speaker: A.C. Aperia, Karolinska Inst.

*Title: Identification of Na,K,ATPase as a
Signal Transducer that Regulates
Mitochondrial Function*

**ERNEST H. STARLING DISTINGUISHED
LECTURESHIP OF THE APS WATER AND
ELECTROLYTE HOMEOSTASIS SECTION**

SUN. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: J. Reckelhoff, *Univ. of Mississippi
Med. Ctr.*

Title: Sex and Hypertension

**THE HENRY PICKERING BOWDITCH
MEMORIAL AWARD LECTURE**

SUN. 5:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

Speaker: B.B. LaMarca, *Univ. of Mississippi
Med. Ctr.*

Title: Role of Immune Mechanisms in the
Pathophysiology of Hypertension
in Preeclampsia

**CARL LUDWIG DISTINGUISHED
LECTURESHIP OF THE APS NEURAL
CONTROL AND AUTONOMIC
REGULATION SECTION**

MON. 8:00 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: J.H. Mitchell, *Univ. of Texas Southwestern
Med. Ctr.*

Title: Abnormal Cardiovascular Response to
Exercise in Hypertension: Contributing
Neural Factors

**SOLOMON A. BERSON
DISTINGUISHED LECTURESHIP OF
THE APS ENDOCRINOLOGY AND
METABOLISM SECTION**

MON. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: Grahame Hardie, *Univ. of Dundee Col.
of Life Sci.*

Title: AMP-Activated Protein Kinase: Promoting
Energy Homeostasis at the Cellular and the
Whole-Body Levels

**EDWARD F. ADOLPH DISTINGUISHED
LECTURESHIP OF THE APS
ENVIRONMENTAL AND EXERCISE
PHYSIOLOGY SECTION**

MON. 2:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: M.H. Laughlin, *Univ.
of Missouri-Columbia*

Title: Importance of Physical Activity-Induced
Remodeling of Striated Muscle Vasculature in
Treatment of T2D

**CARL W. GOTTSCHALK DISTINGUISHED
LECTURESHIP OF THE APS
RENAL SECTION**

MON. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 205B

Speaker: T.R. Kleyman, *Univ. of Pittsburgh*

Title: Epithelium Sodium Channels Are Also
Sodium Sensors

**JOSEPH ERLANGER DISTINGUISHED
LECTURESHIP OF THE APS CENTRAL
NERVOUS SYSTEM SECTION**

MON. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 205C

Speaker: K. Deisseroth, *HHMI, Stanford Univ.*

Title: Optical Tools for Probing Intact
Biological Systems

**A CONVERSATION WITH DENIS NOBLE
AND MICHAEL JOYNER ON THE
INTEGRATION OF EVOLUTIONARY
BIOLOGY WITH PHYSIOLOGICAL SCIENCE**

MON. 5:30 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 205B

**JULIUS H. COMROE, JR. DISTINGUISHED
LECTURESHIP OF THE APS
RESPIRATION SECTION**

TUES. 10:30 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: U. Raj, *Univ. of Illinois at Chicago*

Title: Unique Aspects of the Pathobiology of
Pulmonary Hypertension in the Developing
and Mature Lung

**HISTORY OF PHYSIOLOGY
GROUP LECTURE**

TUES. 1:00 PM – WESTIN BOSTON WATERFRONT HOTEL,
GRAND BALLROOM E

Speaker: K.L. Ryan, *U.S. Army Inst. of Surg. Res.,
Fort Sam Houston*

Title: Walter B. Cannon's WWI Experience:
Treatment of Traumatic Shock Then and Now

**ROBERT M. BERNE DISTINGUISHED
LECTURESHIP OF THE APS
CARDIOVASCULAR SECTION**

TUES. 2:00 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Speaker: P. Ping, *UCLA Sch. of Med.*

Title: Understanding Pathogenesis of Human
Heart Failure: From Molecular Pathways to
Phenotype Characterizations

**AUGUST KROGH DISTINGUISHED
LECTURESHIP OF THE APS
COMPARATIVE AND EVOLUTIONARY
PHYSIOLOGY SECTION**

TUES. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210A

Supported by the Novo Nordisk Foundation

Speaker: A.L. DeVries, *Univ. of Illinois
at Urbana-Champaign*

Title: The role of Antifreeze proteins in the Survival
of Polar Fishes

**HORACE W. DAVENPORT DISTINGUISHED
LECTURESHIP OF THE APS
GASTROINTESTINAL AND LIVER
PHYSIOLOGY SECTION**

TUES. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 205C

Speaker: P.K. Lund, *Univ. of North Carolina,
Chapel Hill*

Title: Mediators of Intestinal Adaptation in Health
and Disease: Stem Cells, Hormones, Nutrients,
and Bugs

APS BUSINESS MEETING

TUES. 5:45 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 210BC

GUEST SOCIETY HIGHLIGHTS

BEHAVIORAL PHARMACOLOGY SOCIETY (BPS)

BEHAVIORAL PHARMACOLOGY SOCIETY DINNER

FRI. 6:00 PM – WESTIN BOSTON WATERFRONT

By invitation only. Separate pre-registration required.

BEHAVIORAL PHARMACOLOGY SOCIETY MEETING

SAT. 8:00 AM – WESTIN BOSTON WATERFRONT

By invitation only. Separate pre-registration required.

GLOBAL GI CLUB

GLOBAL GI CLUB BUSINESS & SCIENTIFIC MEETING

SUN. 5:00 PM – WESTIN BOSTON WATERFRONT,
FANEUIL ROOM

THE MICROCIRCULATORY SOCIETY

MICROCIRCULATORY SOCIETY LANDIS AWARD LECTURE

SUN. 3:15 PM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 205B

Speaker: D. Fukumura, *Harvard Med. Sch.*

Title: Targeting Tumor Microvascular and
Microenvironment

SOCIETY FOR EXPERIMENTAL SCIENCE AND MEDICINE (SEBM)

TRAINING THE MIND OF AN INTERDISCIPLINARY SCIENTIST

SUN. 9:45 AM – BOSTON CONVENTION & EXHIBITION
CENTER, ROOM 255

CONTINUING MEDICAL EDUCATION (CME)

Please note that the only Society educational component of Experimental Biology 2015 that is eligible for CME credit is the ASIP 2015 Annual Meeting.

CME Accreditation Statement: This activity (“American Society for Investigative Pathology [ASIP] 2015 Annual Meeting”) has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the American Society for Clinical Pathology (ASCP) and the American Society for Investigative Pathology (ASIP). ASCP is accredited by the ACCME to provide continuing medical education for physicians.

The ASCP designates this “live” educational activity (ASIP 2015 Annual Meeting) for a maximum of 30.5 *AMA PRA Category 1 Credit(s)*TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Educational Objective/Target Audience

The objective of the ASIP 2015 Annual Meeting is to increase basic and applied pathology knowledge, and to provide a forum for the exchange of new research by scientists and investigators. The ASIP 2015 Annual Meeting is designed to meet the participants’ education needs in the physician competency area of Medical Knowledge, as defined by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and to support participants’ lifelong learning towards a goal of promoting patient safety and improving patient care and is specifically targeted to graduate and medical students, postdoctoral fellows, research scientists, clinical practitioners, and medical education professionals.

At the completion of the ASIP 2015 Annual Meeting, participants should be able to:

1. discuss the research underway and/or the current topics relevant to their areas of interest in pathology;
2. demonstrate a gained level of knowledge of the methods and techniques being used by researchers and practitioners in the field;
3. utilize information and data that lead to improvements in human health.

Disclosure of Financial Relationships and Resolution of Conflicts of Interest:

In order to ensure balance, independence, objectivity and scientific rigor in all its educational activities, and in accordance with ACCME Standards, the ASCP requires that all individuals in a position to influence and/or control the content of ASCP CME activities disclose to the ASCP and subsequently to learners whether they do or do not have any relevant financial relationships with proprietary entities producing health care goods or services that are discussed in CME activities. Faculty are asked to use generic names in any discussion of therapeutic options, to base patient care recommendations on scientific evidence and to base information regarding commercial products/services on scientific methods generally accepted by the medical community. All ASCP CME activities are evaluated by participants for the presence of any commercial bias and thus input is used to subsequent CME planning decisions. The primary purpose of this “live” CME activity is educational and the comments, opinions, and/or recommendations expressed by the faculty or authors are their own and not those of ASCP or ASIP.

The staff of this CME activity have no relevant financial relationships with commercial interest to disclose. The planning committee members have been asked to disclose any relationships that could be perceived by some as a real or apparent conflict of interest. The following members of the planning committee have disclosed relationships that they do not consider have influenced their participation; the disclosures have been reviewed and conflicts of interest have been resolved or managed:

Name	Commercial Interest	Role	Compensation
Satdarshan Paul S. Monga	Abbvie	Advisory Board	Honorarium
John Tomaszewski	Ibris	Scientific Advisory Board	Nothing
	Precision Diagnostics	Scientific Advisory Board	Travel support
Warren Tourtellotte	Roche	MCOE Advisory Board	Honorarium

The following members of the planning committee and staff have no relevant financial relationships with commercial interests to disclose:

Wen-Xing Ding	Martha Furie	Thomas Giordano	Jonathan Homeister
Andrei Ivanov	Themis Kyriakides	F. William Luscinikas	Danny Milner
Richard Mitchell	Andrew Neish	Asma Nusrat	William Puszyk
Mark E. Sobel	James Stone	Elizabeth Whitley	Monte Willis

All invited faculty of CME-designated sessions have been asked to disclose any relationships that, in the context of their presentation, could be perceived by some as a real or apparent conflict of interest. All faculty with disclosed relationships have affirmed that they do not consider these relationships will influence their presentation. The disclosures have been reviewed and conflicts of interest resolved or managed. All disclosures are included in the ASIP 2015 Annual Meeting CME Workbook and will be revealed at the beginning of each scientific presentation.

Sessions Eligible for CME

Please refer to the ASIP 2015 Annual Meeting CME Workbook for a consolidated list of sessions that are eligible for *AMA PRA Category 1 Credit(s)*TM. The ASIP 2015 Annual Meeting CME Workbook will be available online on the ASIP website (<http://www.asip.org/meetings/2015/cme.cfm>) beginning March 13, 2015 and onsite in the ASIP Office and the Experimental Biology Meeting Management Office located in the Boston Convention Center, Boston, MA. In addition, signs outside ASIP meeting rooms will designate those educational sessions that are eligible for *AMA PRA Category 1 Credit(s)*TM as “CME.” Please note that some ASIP scientific sessions are not eligible for *AMA PRA Category 1 Credit(s)*TM because faculty disclosures of financial relationships with commercial interests could not be resolved or managed. Please also be aware that visiting exhibits and posters in the exhibit hall is not an approved continuing medical education activity because of ACCME standards that are designed to prevent commercial bias.

Should you have any questions about CME eligibility of a session, please ask at the ASIP Meeting Office or contact the ASIP Education Office (cme@asip.org, 301-634-7130), located at 9650 Rockville Pike, Bethesda, MD 20814-3998.

How to Apply for CME Credit:

CME Application Forms will be available online at <http://www.asip.org/meetings/2015/cme.cfm> by March 28, 2015. Applications for CME credit must be submitted online no later than June 30, 2015. You will receive your CME certificate within two weeks of successful submission of your online application. Should you have questions about your CME application (or do not receive your certificate within the timeframe explained above), contact the ASIP Education Office (phone 301-634-7440; fax 301-634-7990; email cme@asip.org or write to ASIP Education Office, 9650 Rockville Pike, Bethesda, MD 20814).

CME Application Fees:

- ◆ ASIP members in good standing: there is no fee to apply for CME for the ASIP 2015 Annual Meeting
- ◆ Non-ASIP members: there is a \$100 application fee, payable upon submission of the online CME application.

CAREER DEVELOPMENT SESSIONS (OVERVIEW)

Please refer to the session numbers below (preceding each title) in the Oral Program pages 1–170 for further information regarding these sessions.

Across Societies – Experimental Biology

1. NIH Boot Camp: Leadership and Management Training for Postdoctoral Fellows and Advanced Graduate Students
74. Career Development Workshops
203. Career Development Workshops
339. Career Development Workshops
483. Career Development Workshops

Anatomy

8. How to Mentor: Basic Science, Clinical Science, and Educational Scholarship Skills for Graduate Students and Postdocs
9. Leaning In Without Falling Over: Supporting the Success of Women in Science
207. Best Practices for Using Social Media as it Reshapes Academia and the Classroom

Biochemistry and Molecular Biology

2. ASBMB Graduate and Postdoctoral Travel Award Professional Networking Event
15. ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees
16. How to Incorporate Science Outreach into Your Portfolio – Best Practices and Broader Impacts
17. ASBMB Undergraduate Student Annual Meeting Orientation
18. ASBMB 19th Annual Undergraduate Student Research Poster Competition
19. ASBMB Careers Speed Dating: A Workshop for Undergraduates

20. ASBMB Business Meeting
23. ASBMB Science Outreach and Student Chapters Activity Posters
96. Diverse Career Opportunities for Scientists
97. Training the Mind of an Interdisciplinary Scientist
110. Industry Careers
111. Welcome Reception Sponsored by the ASBMB Minority Affairs Committee
227. Helping Postdoctoral Fellows and Graduate Students Develop Professionally
228. Improv for STEM Professionals: Creating Engaging Conversations
230. Disease-on-a-Chip: New Frontiers in Biomedical Research
231. ASBMB Accreditation Workshop
240. Changes in Medical Education
241. Celebrate with the JBC
242. improvscience presents LiVE: The Living Improv Experiment
363. Integrating Evolution and Homeostasis with the Core Concepts of Biochemistry and Molecular Biology
364. Chemical and Optogenetic Manipulation of Lipid Signaling Workshop
373. ASBMB Women BMB Scientists Panel and Networking Event

CAREER DEVELOPMENT SESSIONS (continued)

Please refer to the session numbers below (preceding each title) in the Oral Program pages 1–170 for further information regarding these sessions.

Nutrition

- 27. Clinical Emerging Leaders Award Competition
- 29. The Postdoctoral Research Award Competition
- 33. ASN Young Minority Investigator Oral Competition
- 36. Graduate Student Research Award Competition
- 40. ASN's Emerging Leaders in Nutrition Science Poster Competition
- 247. Being “Social”: How Scientists Can Find Their Way in a 24-Hour Digital World
- 388. Establishing Yourself as an Expert

Pathology

- 44. F-TROOP: Roadmap to Fellowship Grant Applications
- 144. XVth Annual ASIP/AAA Career Development and Mentoring Program and Lunch: Fundamentals of Success: How to Give an Award Winning Presentation

Pharmacology

- 57. Speed Networking for Careers Beyond the Academic Bench
- 58. 2015 Teaching Institute: Training Students for Teaching Careers
- 59. Graduate Student-Postdoctoral Colloquium: How to Get Started
- 160. Active Learning: What's Up with that Flipping Classroom

Physiology

- 70. Communicating with the Media (Alan Alda Center for Communicating Science)
- 309. Publishing 101: How to Get Your Work Published and Avoid Ethical Minefields
- 456. Resilience is Power: Dealing with the Ups and Downs of Your Scientific Career
- 519. Mentoring for Diverse Careers: Mentor and Protégé, Perspectives
- 534. Scientists as Supervisors: Hiring, Firing, and Beyond

EDUCATION-RELATED SESSIONS (OVERVIEW)

Across Societies – Experimental Biology

- 541. Teaching, Learning and Testing in the Biological and Biomedical Sciences I
- 687. Teaching, Learning and Testing in the Biological and Biomedical Sciences II
- 688. Computers in Research and Teaching

Anatomy

- 10. “Back to Basics” Anatomy for Everyday Practice: Integrating Anatomy Education into the Clinical Years
- 76. Anatomy Education Roundtable – Developing Effective Cognitive Strategies for Future Long-Term Recall of Medical Knowledge

- 80. Educational Neuroscience: Towards the Science of Learning
- 205. Anatomy Education Platform 1
- 209. Didactic Methods in the Anatomical Sciences: How Does Technology Help or Hinder?
- 213. AAA Educational Research Platform Award Session
- 341. Let's Get Educated! How Anatomists Can Help with Accreditation Requirements
- 344. Anatomy Education Platform 2
- 348. Keep Calm and Carry On Educating

EDUCATION-RELATED SESSIONS (continued)

Biochemistry and Molecular Biology

- 16. How to Incorporate Science Outreach into Your Portfolio – Best Practices and Broader Impacts
- 97. Training the Mind of an Interdisciplinary Scientist
- 110. Industry Careers
- 227. Helping Postdoctoral Fellows and Graduate Students Develop Professionally
- 231. ASBMB Accreditation Workshop
- 240. Changes in Medical Education
- 363. Integrating Evolution and Homeostasis with the Core Concepts of Biochemistry and Molecular Biology

Nutrition

- 116. The eNutrition Academy: Supporting a New Generation of Nutritional Scientists around the World
- 256. Research Reporting in the 21st Century: How Has It Changed and What Are the Implications for Your Career?
- 388. Establishing Yourself as an Expert
- 400. History of Nutrition: The Long Road Leading to the Dietary Reference Intakes

Pathology

- 42. Pathobiology for Basic Scientists: Looking into the Crystal Ball: Inflammasomes and Disease
- 47. XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist
- 412. High School Teacher Session: Scientific Sleuthing of Human Disease for High School Teachers
- 413. Lunch and Learn: The Ethics of Personalized Medicine: Quandaries among the Possibilities

Pharmacology

- 57. Speed Networking for Careers Beyond the Academic Bench
- 58. 2015 Teaching Institute: Training Students for Teaching Careers
- 59. Graduate Student-Postdoctoral Colloquium: How to Get Started
- 160. Active Learning: What's Up with that Flipping Classroom
- 434. "Can We Talk?" Strategies for Collaborative Pharmacology Education

Physiology

- 62. It's All in Your Head — A Refresher Course on the Brain and Systems Control
- 64. Big Data Workshop
- 71. Proteomics for the Physiologist
- 169. Innovations in Classroom Teaching
- 312. Resources and Experiences in Developing Flipped Classrooms for Graduate and Medical Physiology
- 335. What's Your Major? The Rise of the Undergraduate Physiology Degree
- 518. From Basic Science to Precision Medicine: The Use of Genomic, Epigenomic and Translational Research to Develop Personalized Treatments

SCIENCE POLICY SESSIONS (OVERVIEW)

Biochemistry and Molecular Biology

- 16. How to Incorporate Science Outreach into Your Portfolio – Best Practices and Broader Impacts
- 23. ASBMB Science Outreach and Student Chapters Activity Posters
- 99. Who SHOULD be Funding Biomedical Research?
- 228. Improv for STEM Professionals: Creating Engaging Conversations
- 242. improvscience presents LIvE: The Living Improv Experiment

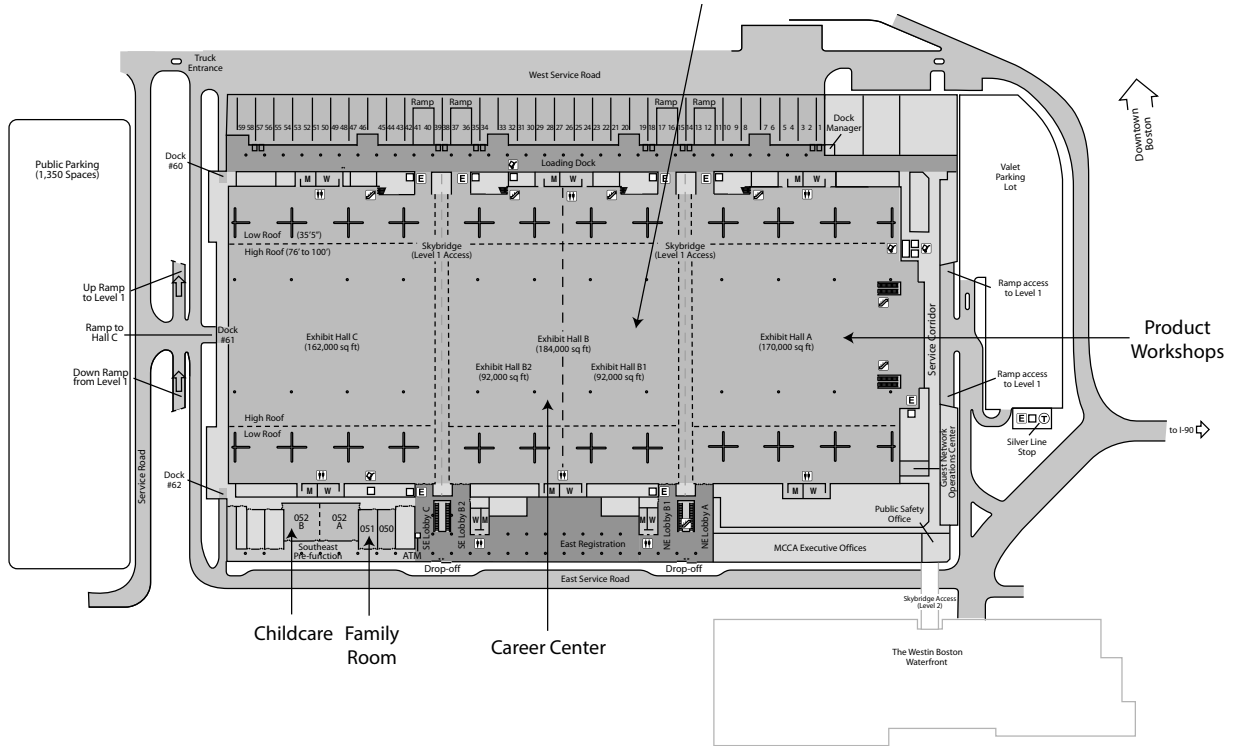
Nutrition

- 124. Nutrition Science for Public Policy, Practice and the Consumer
- 384. Public Policy: Nutrition Policies, Programs, and Public-Private Partnerships
- 387. Food and Nutrition Board Update: New Directions in Food, Nutrition, and Population Health
- 400. History of Nutrition: The Long Road Leading to the Dietary Reference Intakes

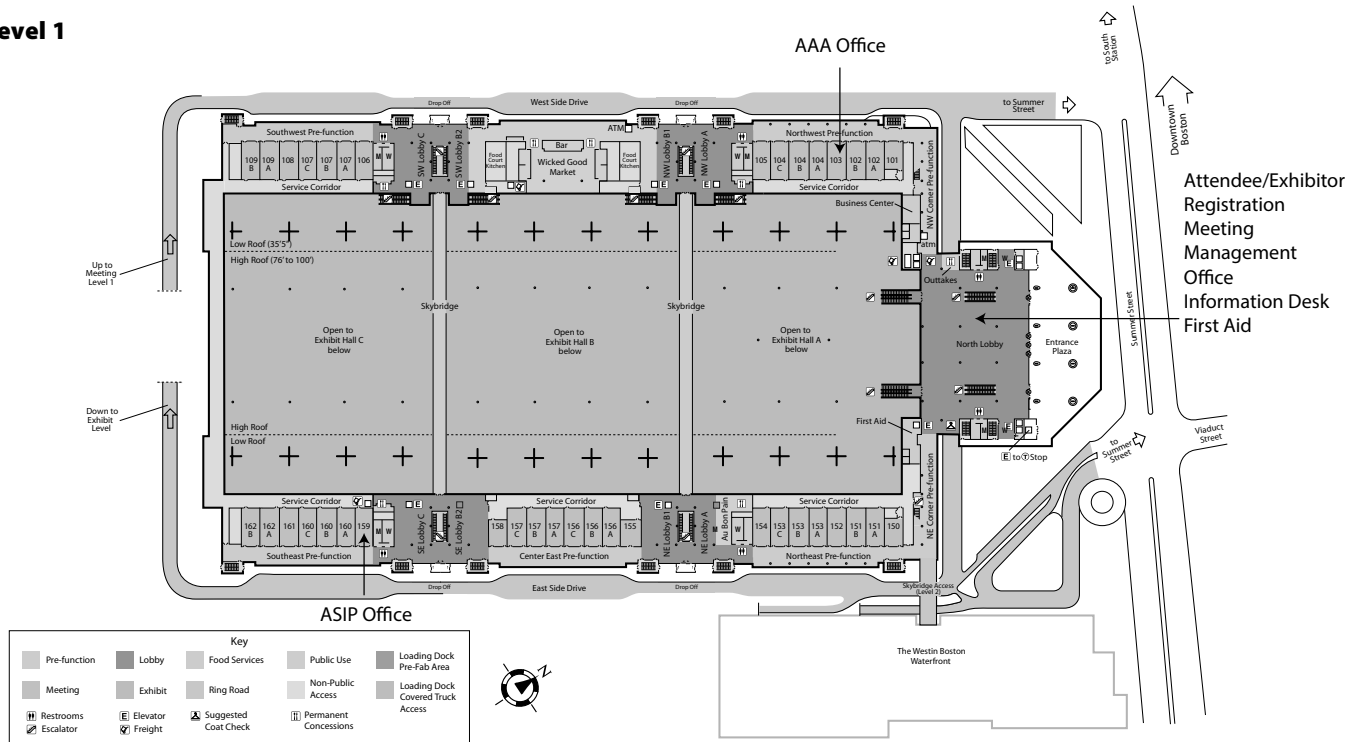
Physiology

- 65. Reproducibility in Research: What Are the Problems? How Can We Fix Them? What Happens if We Don't?

BOSTON CONVENTION & EXHIBITION CENTER



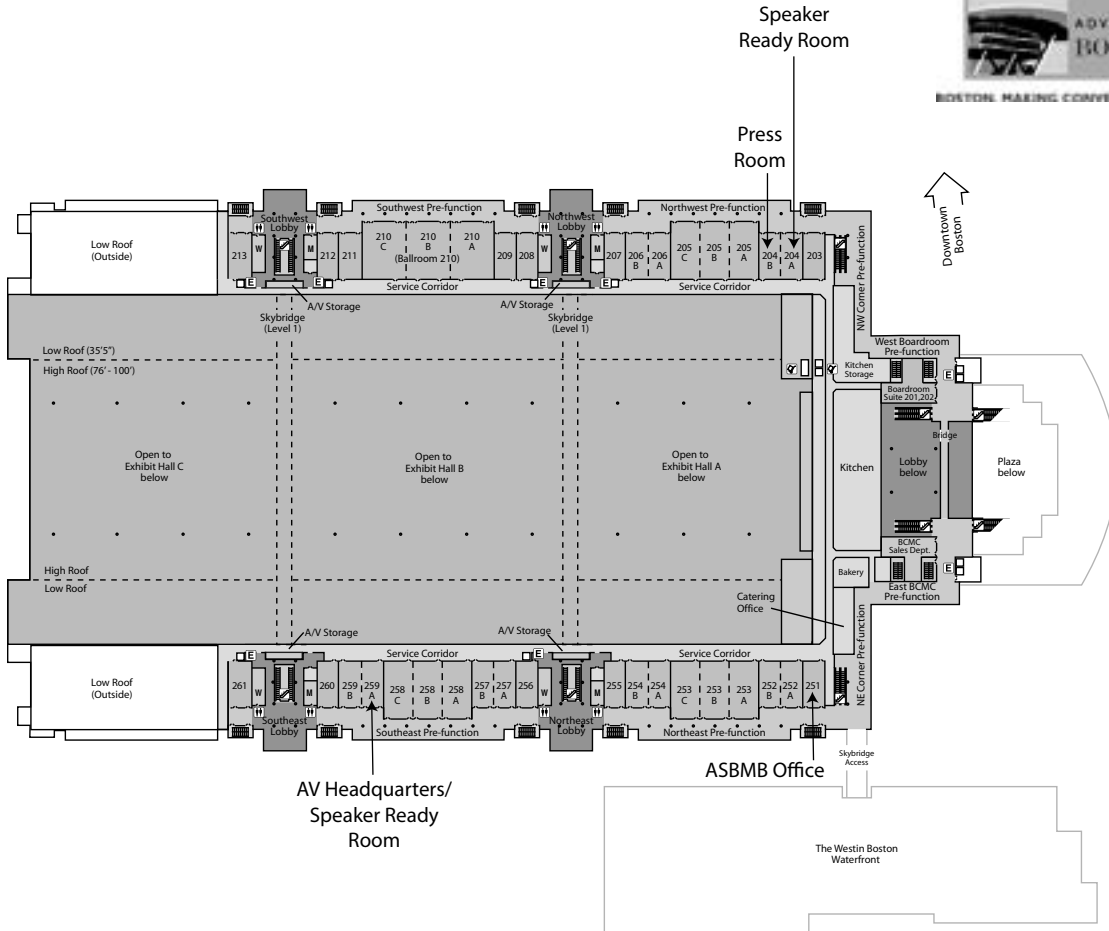
Level 1



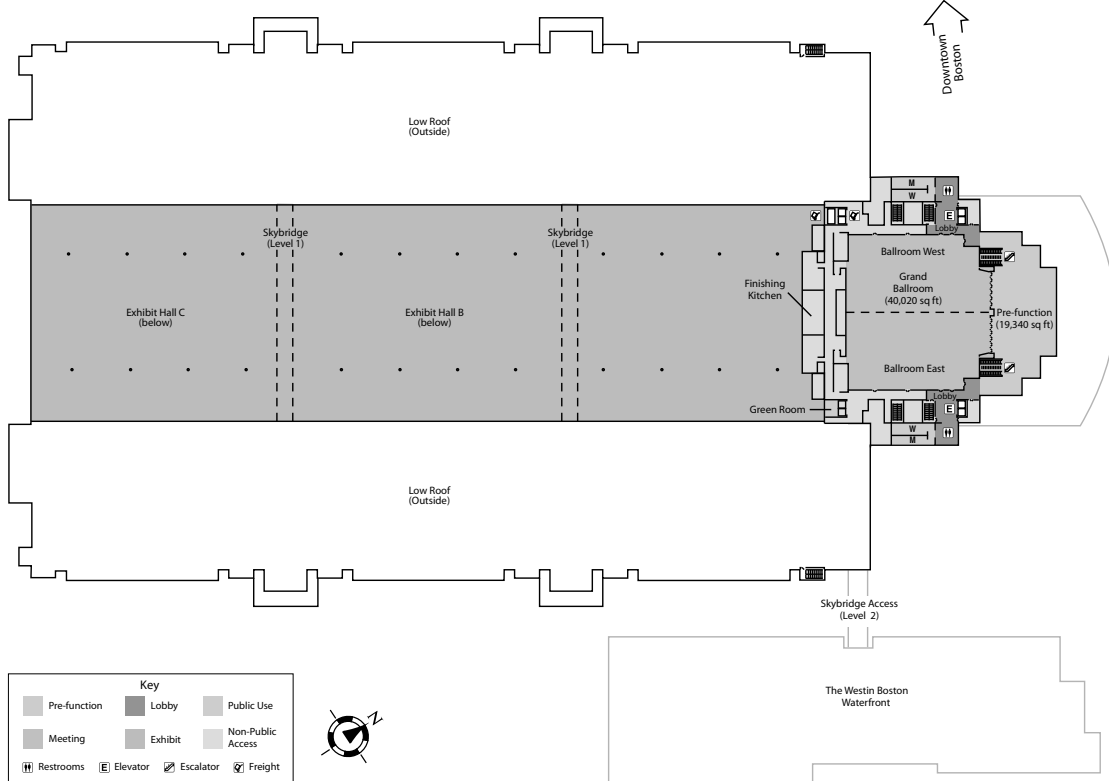
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Level 2



Ballroom Level 3

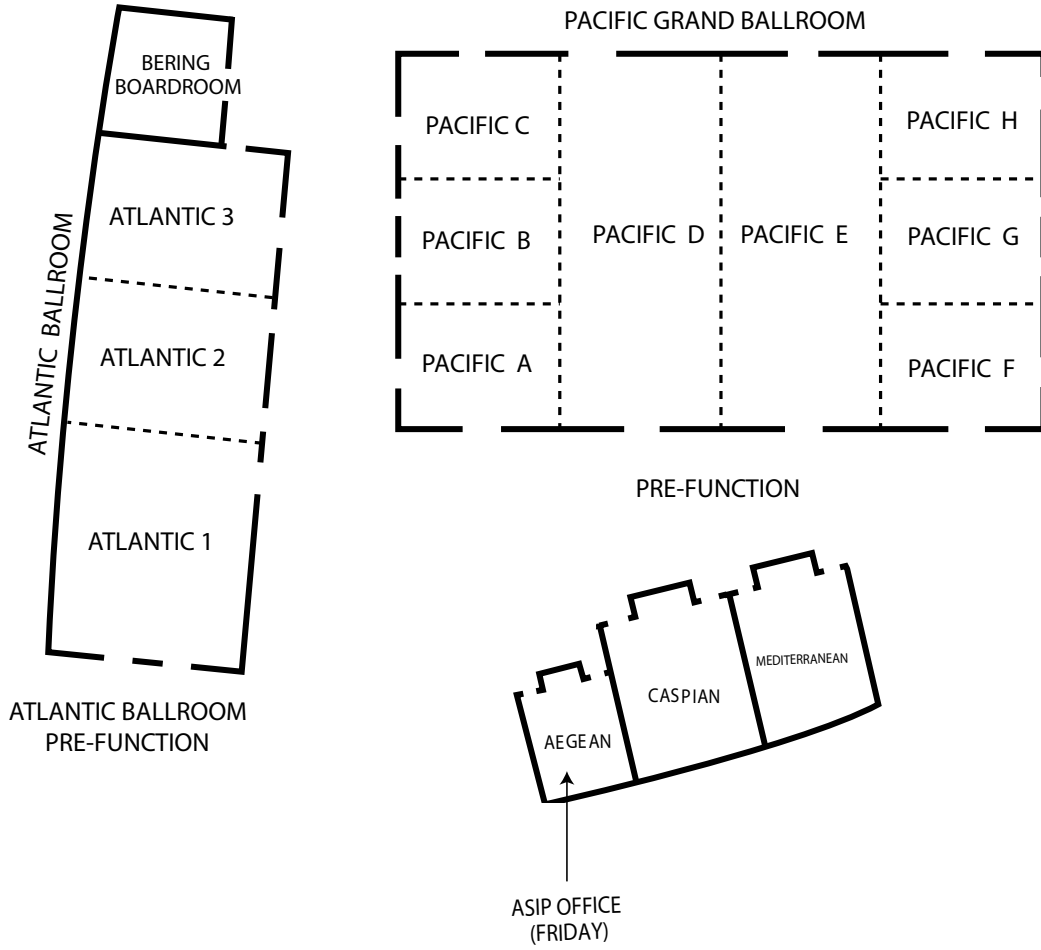


Key		
	Pre-function	
	Meeting	
	Restrooms	
	Elevator	
	Escalator	
	Freight	
	Lobby	
	Public Use	
	Non-Public Access	
	Exhibit	

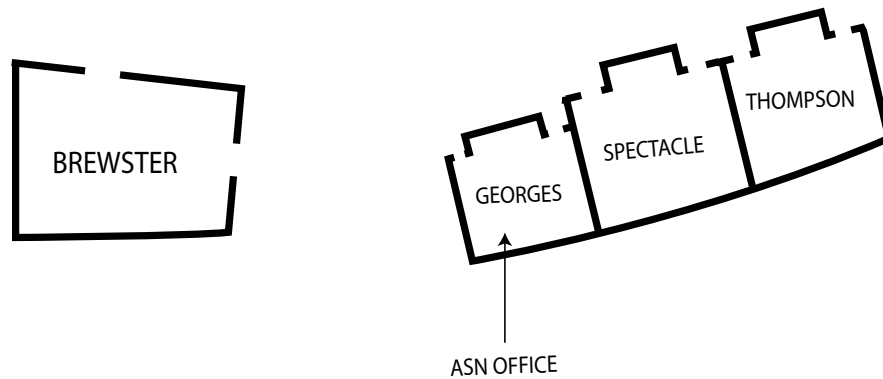


RENAISSANCE BOSTON WATERFRONT HOTEL

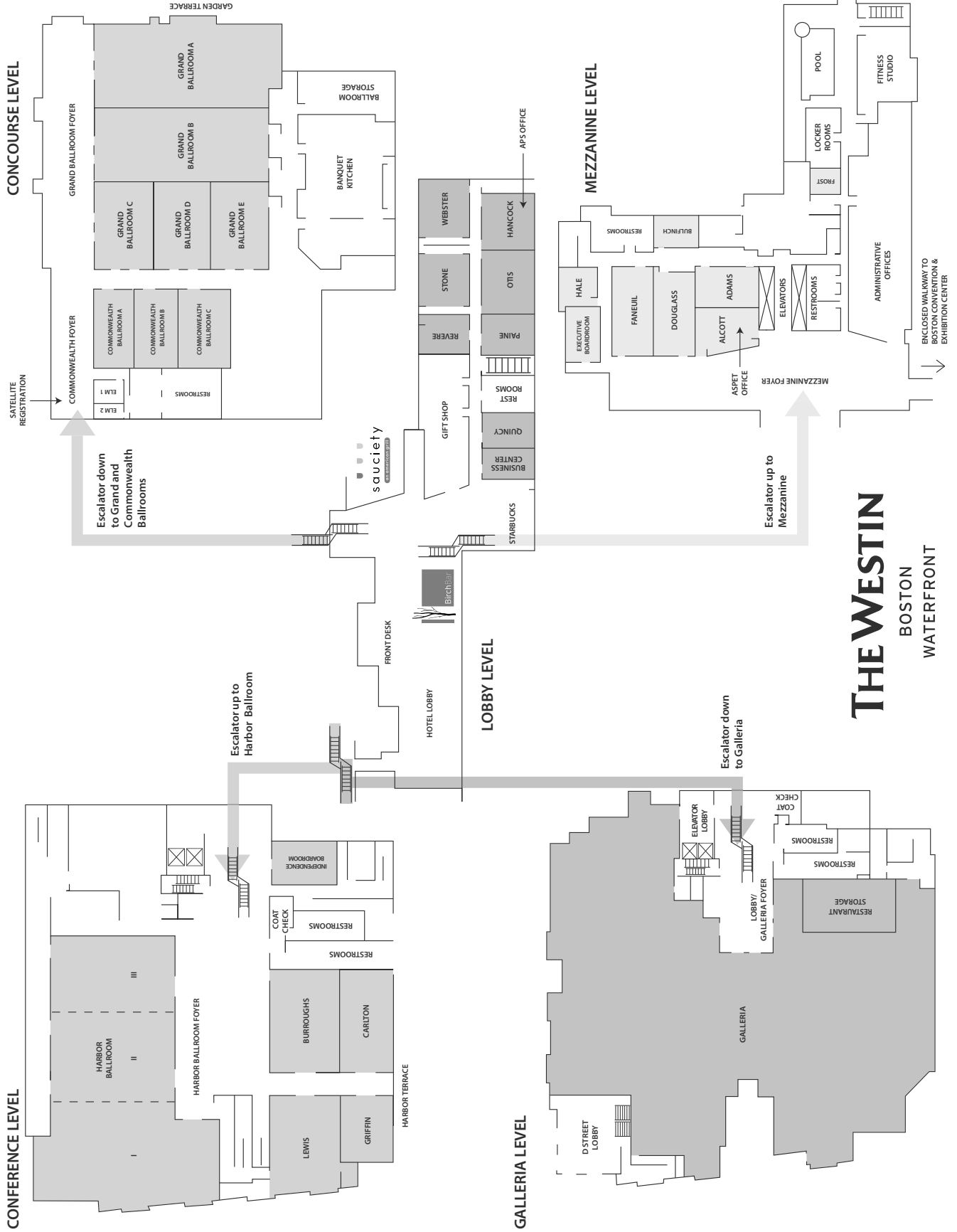
THIRD FLOOR



FOURTH FLOOR



WESTIN BOSTON WATERFRONT HOTEL



THE WESTIN
 BOSTON
 WATERFRONT

SCIENTIFIC PROGRAM

Boston Convention & Exhibition Center

Boston, MA

March 28 – April 1, 2015

PARTICIPATING SOCIETIES

American Association of Anatomists (AAA)

The American Physiological Society (APS)

American Society for Biochemistry and Molecular Biology (ASBMB)

American Society for Investigative Pathology (ASIP)

American Society for Nutrition (ASN)

American Society for Pharmacology and Experimental Therapeutics (ASPET)

GUEST SOCIETIES

AAA

Anatomical Society (AS)

International Society of Vertebrate
Morphology (ISVM)

APS

American Federation for Medical Research (AFMR)

Association of Latin American Physiological
Societies (ALACF)

Biomedical Engineering Society (BMES)

The Microcirculatory Society (MCS)

The Physiological Society (PHYSOC)

ASBMB

Biochemical Society

Division of Biological Chemistry –
American Chemical Society

Panamerican Association for Biochemistry
and Molecular Biology (PABMB)

Society for Experimental Biology and
Medicine (SEBM)

ASIP

American College of Veterinary Pathologists (ACVP)

American Society for Matrix Biology (ASMB)

Association of Pathology Chairs (APC)

The Histochemical Society (HCS)

Society for Cardiovascular Pathology (SCVP)

Societa Italiana di Patologia e Medicine
Traslazionale/Italian Society of Pathology
and Translational Medicine (SIPMeT)
Society of Toxicologic Pathology (STP)

ASN

Academy of Nutrition and Dietetics (AND)

American Society for Animal Science (ASAS)

Association of Nutrition Departments and
Programs (ANDP)

Brazilian Society for Food and Nutrition

Canadian Nutrition Society

Chinese Nutrition Society

ILSI North America (ILSI)

International Colleges for the Advancement
of Nutrology (ICAN)

Japan Society of Nutrition and Food Science

Korean Nutrition Society (KNS)

Nutrition Society of Taiwan (NST)

Plant Phenolics and Human Health Research
Interest Group (PhenHRIG)

Society for Nutrition Education and Behavior (SNEB)

The Nutrition Society UK

Southern Society for Clinical Investigation (SSCI)

ASPET

Behavioral Pharmacology Society (BPS)

Global GI Club

American Association of Anatomists at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Saturday, March 28		Sunday, March 29		Monday, March 30			
8 AM – 2 PM	2 PM – Evening	8 AM – 12 PM	2:30 PM – Evening	8 AM – 12 PM	2:30 PM – Evening		
<p>How to Mentor: Basic Science, Clinical Science, and Educational ...[PD] <i>L. May & J. Wisco</i> 8 AM – 10 AM Room 104C</p> <p>Career Networking Break [PD] 10 AM – 10:30 AM Room 105</p> <p>Learning In Without Falling Over: Supporting the Success of Women in Science [PD] <i>L. Smith & V. O'Loughlin</i> 10:30 AM – 12:30 PM Room 104C</p> <p>Career Networking Lunch [PD] 12:30 PM – 1:30 PM Room 101</p>	<p>"Back to Basics" Anatomy for Everyday Practice: ... [ED] <i>N. Lachman</i> 2 PM – 4 PM Room 102AB</p> <p>Anatomy of Aging <i>H.W. Lambert</i> 2 PM – 4 PM Room 104AB</p> <p>Vascular and Connective Tissue Imaging In Situ: Returning Bone to the Skeleton [DB] <i>M. Serrat</i> 2 PM – 4 PM Room 104C</p> <p>Creation of Tissue-Like Structures In Vitro Using Advanced Technologies [C][RE] <i>S. Pzyzborski</i> 2 PM – 4 PM Room 105</p> <p>Keynote Speaker – Sean Carroll 4:30 PM – 5:45 PM Room 104AB</p> <p>AAA Welcome Reception 6 PM – 7:30 PM Westin – Ballroom C&D</p>	<p>First Time Attendee Breakfast 7:30 AM – 8:30 AM Room 101</p> <p>Cardiovascular Biology Mini Meeting [MM1][CB] <i>M. Simons & A. Eichmann</i> All Day – 8:30 AM – 6:30 PM</p> <p>Plenary – Cardiovascular Biology [MM1][CB] <i>A. Eichmann</i> <i>K. Walsh</i> 8:30 AM – 10 AM Room 104AB</p> <p>Anatomy Education Roundtable [ED] <i>J. Walker</i> 10 AM – 12 PM Room 102AB</p> <p>Vascular Organization and Patterning [MM1][CB] 10:30 AM – 12 PM Room 104AB</p> <p>Structures and Functions of Primary Cilia [C] <i>T. Inoue</i> 10:30 AM – 12 PM Room 104C</p> <p>Graduate Student Platform Award Session 10:30 AM – 12 PM Room 105</p>	<p>Educational Neuroscience: Towards the Science...[ED] <i>A. Zurnwalt</i> 2:30 PM – 4:30 PM Room 102AB</p> <p>Endothelial-to-Mesenchymal Transition [MM1][CB] 2:30 PM – 4:30 PM Room 104AB</p> <p>Cilia in Development [C] <i>J. Almack</i> 2:30 PM – 4:30 PM Room 104C</p> <p>Major Transformations of the Amniote Nose [EV] <i>T. Owerkowicz</i> 2:30 PM – 4:30 PM Room 105</p> <p>Developmental Biology Award Hybrid [DB] 5 PM – 6:30 PM Room 102AB</p> <p>Cardiovascular Biology Platform [MM1][CB] <i>K. Bentley</i> 5 PM – 6:30 PM Room 104AB</p> <p>Cell Biology Award Hybrid [C] 5 PM – 6:30 PM Room 104C</p> <p>Postdoc Platform Award 5 PM – 6:30 PM Room 105</p>	<p>Neurobiology Mini Meeting [MM2][N] <i>P. Trainor & B. Allman</i> All Day – 8:30 AM – 6:30 PM</p> <p>Plenary - The Anatomy of Memory and Neurodegenerative Disease: Prions, a Nobel Idea [MM2][N] 8:30 AM – 10 AM Room 104AB</p> <p>Anatomy Education Platform 1 [ED] <i>H. Billings & A. Edmondson</i> 10:30 AM – 12 PM Room 102AB</p> <p>Genetic Factors in Abnormal Brain Development [MM1][CB] 10:30 AM – 12 PM Room 104AB</p> <p>Best Practices for Using Social Media... [PD] <i>J. Mussell</i> 10:30 AM – 12 PM Room 104C</p> <p>Craniofacial Tissues: Dev., Repair and Regen. <i>X. Liu & V. Varanasi</i> 10:30 AM – 12 PM Room 105</p>	<p>Didactic Methods in the Anatomical Sciences: How Does Technology...[ED] <i>M. Hortsch</i> 2:30 PM – 4:30 PM Room 102AB</p> <p>Spinal Cord Injury and Repair Strategies [MM2][N] <i>B. Allman</i> 2:30 PM – 4:30 PM Room 104AB</p> <p>Evolution, Development and Relationships between Heart and Head Muscles...[CB] <i>R. Diogo</i> 2:30 PM – 4:30 PM Room 104C</p> <p>Understanding the Zygoma... <i>Q. Wang</i> 2:30 PM – 4:30 PM Room 105</p> <p>Education Research Platform Award Sess. [ED] 5 PM – 6:30 PM Room 102AB</p> <p>Neurobiology Award Hybrid [MM2][N] 5 PM – 6:30 PM Room 104AB</p> <p>Cardiovascular Dev. & Disease [CB][DB] <i>L.B. Ruest</i> 5 PM – 6:30 PM Room 104C</p> <p>Morphology Award Hybrid 5 PM – 6:30 PM Room 105</p>		
PD - Professional Development	ED - Education & Teaching	C – Cell Biology	DB - Developmental Biology	RE - Regeneration/Tissue Engineering	N - Neurobiology	CB - Cardiovascular	EV - Evolution/Anthropology

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All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Tuesday, March 31		Networking Events	AAA Poster Sessions - Exhibit Hall A-B
<p>8 AM – 12 PM</p> <p>Let's Get Educated! How Anatomists Can Help with Accreditation ... [ED] <i>A. Poznanski</i> 8 AM – 10 AM Room 102AB</p> <p>The Evolutionary Tapestry of Vertebrate Morphology and Function [EV] <i>L. Witmer</i> 8 AM – 10 AM Room 104AB</p> <p>Anatomy and Genetics: How Phenomics Informs... [EV] <i>B. Auerbach</i> 8 AM – 10 AM Room 104C</p> <p>Anatomy Education Platform 2 [ED] <i>V. Lyons & T. Wilson</i> 10:30 AM – 12 PM Room 102AB</p> <p>Evolution and Comparative Anatomy Platform [EV] <i>T. Franz-Odenaal</i> 10:30 AM – 12 PM Room 104AB</p> <p>Stem Cells, Tissue Engineering & Regeneration Platform [RE] <i>M. Dunnwald</i> 10:30 AM – 12 PM Room 104C</p> <p>Bones, Cartilage & Teeth Platform <i>R. Marcucio</i> 10:30 AM – 12 PM Room 105</p>	<p>2:30 PM – Evening</p> <p>Keep Calm and Carry On Educating [ED] <i>C. Smith</i> 2:30 PM – 4:30 PM Room 102AB</p> <p>The Dev. and Control of Vertebrate Morphology [EV] <i>D. Adriaens</i> 2:30 PM – 4:30 PM Room 104AB</p> <p>Breaking the Barrier: The Gastrointestinal Tract... [RE] <i>A. Jurjus & I.H. Hussein</i> 2:30 PM – 4:30 PM Room 104C</p> <p>Making Connections: Comparative Bio... [EV] <i>C. Holliday</i> 2:30 PM – 4:30 PM Room 105</p> <p>Plenary - Henry Gray Scientific Achievement Award Lecture <i>D. Burr</i> 5 PM – 5:30 PM Room 104AB</p> <p>Plenary - Henry Gray Educator Award Lecture <i>A. Dalley</i> 5:30 PM – 6:00 PM Room 104AB</p> <p>Plenary - AAA/Wiley A.J. Ladman Award Lecture <i>K. Jones</i> 6 PM – 6:30 PM Room 104AB</p>	<p>Saturday, March 28</p> <p>Career Networking Break 10 AM – 10:30 AM Room 105</p> <p>Career Networking Lunch 12:30 PM – 1:30 PM Room 101</p> <p>AAA Welcome Reception 6 PM – 7:30 PM Westin – Ballroom C&D</p> <p>Sunday, March 29</p> <p>1st Time Attendee Breakfast 7:30 AM – 8:30 AM Room 101</p> <p>Career Networking Lunch 12 PM – 1 PM Room 101</p> <p>Monday, March 30</p> <p>Career Networking Lunch 12 PM – 1 PM Room 101</p> <p>Closing Awards Reception 7 PM – 8 PM Westin-Harbor Ballroom Lobby</p> <p>Closing Awards Ceremony 8 PM – 10 PM Westin-Harbor Ballroom</p>	<p>Sunday, March 29</p> <p>Display Hours: 7:30 AM – 5:00 PM Presentation Time: 12:30 PM – 2:15 PM</p> <p>Anatomy Anatomy: Animal Models Anatomy: Gastrointestinal Anatomy: Musculoskeletal Anatomy Education (day 1) Cardiovascular Biology Cell Biology</p> <p>Monday, March 30</p> <p>Display Hours: 7:30 AM – 5:00 PM Presentation Time: 12:30 PM – 2:15 PM</p> <p>Anatomy Education (day 2) Bones, Cartilage & Teeth Neurobiology</p> <p>Tuesday, March 31</p> <p>Display Hours: 7:30 AM – 4:00 PM Presentation Time: 12:30 PM – 2:15 PM</p> <p>Anatomy: Form & Variation Anatomy: Functional Anatomy & Biomechanics Biological Anthropology Evolution and Comparative Anatomy Imaging Development & Growth Regenerative Medicine, Stem Cells, Wound Healing & Bioengineering</p> <p>Late-breaking Anatomy Posters (2 viewings)</p> <p>Tuesday, March 31, NW Lobby A Display Hours: 8:00 AM – 5:00 PM Presentation Times: 10 AM – 10:30 AM and 4:30 PM – 5:00 PM</p> <p>Wednesday, April 1, Exhibit Hall B Display Hours: 7:30 AM – 4:00 PM Presentation Time: 9:30 AM – 11:00 AM</p>
<p>PD - Professional Development</p> <p>ED - Education & Teaching</p> <p>MM - Mini-Meeting</p> <p>C - Cell Biology</p>	<p>DB - Developmental Biology</p> <p>RE - Regeneration/Tissue Engineering</p>	<p>N - Neurobiology</p> <p>CB - Cardiovascular</p>	<p>EV - Evolution/Anthropology</p>

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Friday, March 27	Location	Session Type	Session Title
5:30PM - 8:00PM	BCEC, Room 255	Special Session	ASBMB Graduate and Postdoctoral Travel Award Professional Networking Event
Saturday, March 28			
	Location	Session Type	Session Title
8:30AM - 4:30PM	BCEC, Room 253A	Workshop	ASBMB Professional Development Program for Grad/Postdoc Trainees
9:00AM - 1:00PM	BCEC, Room 252B	Special Session	How to Incorporate Science Outreach into Your Portfolio - Best Practices and Broader Impacts
10:00AM - 11:00AM	BCEC, Room 258 A/B/C	Special Session	ASBMB Graduate and Postdoctoral Travel Award Poster Session
11:30AM - 12:00PM	BCEC, Room 254 A/B	Special Event	ASBMB Undergraduate Student Annual Meeting Orientation
1:00PM - 4:30PM	BCEC, East Registration	Special Event	ASBMB Undergraduate Student Research Poster Competition
4:45PM - 5:45PM	BCEC, Room 257 A/B	Workshop	Career Speed Dating for Undergraduate Students
6:00PM - 7:30PM	BCEC, Ballroom West	Special Session	ASBMB Opening Lecture: Herbert Tabor Research Award Lecture, Joan Steitz
6:00PM - 7:30PM	BCEC, Ballroom West	Business Meeting	ASBMB Business Meeting
7:30PM - 9:00PM	BCEC, Ballroom Foyer	Special Event	ASBMB Opening Reception
7:30PM - 9:00PM	BCEC, Ballroom Foyer	Poster Discussion	ASBMB Science Outreach and Student Chapter Activity Posters
Sunday, March 29			
	Location	Session Type	Session Title
8:00AM - 8:45AM	BCEC, Ballroom West	Plenary Lecture	ASBMB Plenary Lecture, Bonnie Bassler
8:45AM - 9:20AM	BCEC, Ballroom West	Award Lecture	Earl and Thressa Stadtman Distinguished Scientist Award Lecture, Jack Dixon
9:45AM - 12:00PM	BCEC, Room 252 A/B	Symposium	Multitalented Lipids
9:45AM - 12:00PM	BCEC, Room 254 A/B	Symposium	Measuring and Predicting Microbial Community Dynamics
9:45AM - 12:00PM	BCEC, Room 255	Symposium	Training the Mind of an Interdisciplinary Scientist (sponsored by SEBM)
9:45AM - 12:00PM	BCEC, Room 256	Symposium	Diverse Career Opportunities for Scientists
9:45AM - 12:00PM	BCEC, Room 257 A/B	Symposium	Interactions of Growth Factors and Integrins with the Extracellular Matrix
9:45AM - 12:00PM	BCEC, Room 258A	Symposium	New Reactions of Old Cofactors
9:45AM - 12:00PM	BCEC, Room 258B	Symposium	Structure and Function of the Transcription Machinery
9:45AM - 12:00PM	BCEC, Room 258C	Symposium	Membrane Channels I - Molecular Basis of Gating, Activation and Selectivity
12:05PM - 2:25PM	BCEC, Exhibit Hall	Poster Sessions	Consult program for specific sessions and manning times
12:15PM - 1:15PM	BCEC, Room 253 B/C	Award Lecture	ASBMB Award for Exemplary Contributions to Education Lecture, J. Ellis Bell
12:30PM - 2:00PM	BCEC, Room 253A	Public Policy	Who SHOULD be Funding Biomedical Research?
2:30PM - 3:05PM	BCEC, Ballroom West	Award Lecture	Mildred Cohn Award in Biological Chemistry Lecture, Judith Klinman
3:05PM - 3:40PM	BCEC, Ballroom West	Award Lecture	Ruth Kirschstein Diversity in Science Award Lecture, JoAnn Trejo
3:55PM - 6:10PM	BCEC, Room 252 A/B	Symposium	Vitamin and Amino Acid Metabolism of Plants
3:55PM - 6:10PM	BCEC, Room 254 A/B	Symposium	Imaging: A Picture is Worth > 1,000 Words
3:55PM - 6:10PM	BCEC, Room 255	Symposium	Diet, Obesity, Nutrition and Gut Microbiome
3:55PM - 6:10PM	BCEC, Room 256	Symposium	Industry Careers
3:55PM - 6:10PM	BCEC, Room 257 A/B	Symposium	Glycobiology in Infection and Immunity
3:55PM - 4:25PM	BCEC, Room 257 A/B	Award Lecture	ASBMB Young Investigator Award Lecture, Erica Ollmann Saphire
3:55PM - 6:10PM	BCEC, Room 258A	Symposium	Post-translational Modifications of Lysine
3:55PM - 6:10PM	BCEC, Room 258B	Symposium	Engaging Stalled Replication Forks
3:55PM - 6:10PM	BCEC, Room 258C	Symposium	Mediating Protein Interactions: Is Folding Required?
7:30PM - 9:00PM	Westin, Harbor Ballroom II	Special Event	Welcome Reception sponsored by the ASBMB Minority Affairs Committee
Monday, March 30			
	Location	Session Type	Session Title
8:00AM - 8:45AM	BCEC, Ballroom West	Award Lecture	ASBMB Plenary Lecture and ASBMB-Merck Award Lecture, Zhijian James Chen
8:45AM - 9:20AM	BCEC, Ballroom West	Award Lecture	Bert and Natalie Vallee Award in Biomedical Science Lecture, David Eisenberg
9:45AM - 12:00PM	BCEC, Room 252 A/B	Symposium	Applying Proteomics and Metabolomics to Understand Plant Function
9:45AM - 12:00PM	BCEC, Room 253A	Award Symposium	Alice and C. C. Wang Award in Molecular Parasitology Symposium
9:45AM - 12:00PM	BCEC, Room 254 A/B	Symposium	RNA: Beyond Messages and Translation (Micro and Long Noncoding RNA)
Monday, March 30			
	Location	Session Type	Session Title
9:45AM - 12:00PM	BCEC, Room 255	Symposium	Microbiome, Metabolic Syndrome, Diabetes and CVD

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9:45AM - 12:00PM	BCEC, Room 256	Symposium	Helping Postdoctoral Fellows and Graduate Students Develop Professionally
9:45AM - 12:00PM	BCEC, Room 257 A/B	Symposium	Antigen Presentation and Recognition in Cellular Immunity
9:45AM - 12:00PM	BCEC, Room 258A	Symposium	Post-translational Modifications of Arginine: Methylation, Citrullination, Phosphorylation
9:45AM - 12:00PM	BCEC, Room 258B	Symposium	Super-resolution Replication Studies
9:45AM - 12:00PM	BCEC, Room 258C	Symposium	Regulating Functional Interactions by Dysfunctional Proteins
12:05PM - 2:25PM	BCEC, Exhibit Hall	Poster Sessions	Consult program for specific sessions and manning times
12:30PM - 2:00PM	BCEC, Room 253B	Special Event	Improv for STEM Professionals: Creating Engaging Conversations
12:30PM - 2:00PM	BCEC, Room 251	Workshop	Bioinformatics and Modeling Tools for Discovering Functions of Unknown Enzymes Workshop
12:30PM - 2:00PM	BCEC, Room 255	Workshop	Disease-on-a-Chip: New Frontiers in Biomedical Research (Physicians Committee for Responsible Medicine)
12:30PM - 2:00PM	BCEC, Room 256	Workshop	ASBMB Accreditation Workshop
3:55PM - 6:10PM	BCEC, Ballroom West	Award Lecture	William C. Rose Award Lecture, Kathleen Matthews
3:55PM - 6:10PM	BCEC, Ballroom West	Award Lecture	Avanti Award in Lipids Lecture, Karen Feue
3:55PM - 6:10PM	BCEC, Room 252 A/B	Symposium	Lipids Meet Chemistry
3:55PM - 6:10PM	BCEC, Room 254 A/B	Symposium	Microbe Host Interaction
3:55PM - 6:10PM	BCEC, Room 256	Symposium	Changes in Medical Education
3:55PM - 6:10PM	BCEC, Room 257 A/B	Symposium	Effects of Enzymatic Modification of Extracellular Matrix Proteins
3:55PM - 6:10PM	BCEC, Room 258A	Symposium	Discovering New Enzymes
3:55PM - 6:10PM	BCEC, Room 258B	Symposium	Making Mature RNA
3:55PM - 6:10PM	BCEC, Room 258C	Symposium	Membrane Channels II - New Channels and Novel Functions
6:15PM - 8:00PM	BCEC, Level 2 East Foyer	Special Event	Celebrate with the JBC
6:30PM - 8:00PM	Ned Devine's, Fanuel Hall	Special Event	improvidence presents LIVE: The Living Improv Experiment
Tuesday, March 31			
Location		Session Type	Session Title
8:00AM - 8:45AM	BCEC, Room 253 A/B/C	Award Lecture	ASBMB Plenary Lecture and Fritz Lipmann Lectureship, Rachel Klevit
8:45AM - 9:20AM	BCEC, Room 253 A/B/C	Award Lecture	Delano Award for Computational Biosciences Lecture, Vijay Pande
9:45AM - 12:00PM	BCEC, Room 252 A/B	Symposium	Lipids Caught in Action
9:45AM - 12:00PM	BCEC, Room 254 A/B	Symposium	Chemistry of Commensal Biology
9:45AM - 12:00PM	BCEC, Room 256	Symposium	Integrating Evolution and Homeostasis with the Core Concepts of BMB
9:45AM - 12:00PM	BCEC, Room 257 A/B	Symposium	Regulation of Stem Cell Niches by the Extracellular Matrix
9:45AM - 12:00PM	BCEC, Room 258A	Symposium	Enzyme Modules and Complexes
9:45AM - 12:00PM	BCEC, Room 258B	Symposium	Cross-talk between RNA, Transcription and Chromatin
9:45AM - 12:00PM	BCEC, Room 258C	Symposium	Transporters I - Crystallographic Insight Into Transporter Mechanisms
12:05PM - 2:25PM	BCEC, Exhibit Hall	Poster Sessions	Consult program for specific sessions and manning times
12:30PM - 2:00PM	BCEC, Room 251	Workshop	Chemical and Optogenetic Manipulation of Lipid Signaling Workshop
2:45PM - 3:30PM	BCEC, Room 253 A/B/C	Plenary Lecture	ASBMB Plenary Lecture: C. David Allis
3:55PM - 6:10PM	BCEC, Room 252 A/B	Symposium	Plant Lipid Metabolism
3:55PM - 6:10PM	BCEC, Room 254 A/B	Symposium	Metabolism: Warburg at 90
3:55PM - 6:10PM	BCEC, Room 255	Symposium	Microbiome and Mucosal Homeostasis
3:55PM - 6:10PM	BCEC, Room 257 A/B	Symposium	Biochemistry and Systems Biology of Host-Pathogen Interactions
3:55PM - 6:10PM	BCEC, Room 258A	Symposium	Post-translational Modifications of Cysteine: Lipidation and Oxidation
3:55PM - 6:10PM	BCEC, Room 258B	Symposium	DNA Topology and Repair
3:55PM - 6:10PM	BCEC, Room 258C	Symposium	Defining Protein Disorder
6:15PM - 8:00PM	Westin, Marina Ballroom III	Special Event	Women Scientists Networking Event
Wednesday, April 1			
Location		Session Type	Session Title
8:00AM - 8:45AM	BCEC, Room 253 A/B/C	Plenary Lecture	ASBMB Plenary Lecture, Ian Wilson
9:00AM - 11:15AM	BCEC, Room 252 A/B	Symposium	Plants as Sources of Bioenergy
9:00AM - 11:15AM	BCEC, Room 254 A/B	Symposium	Biologics: Antibodies and Antidotes

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9:00AM - 11:15AM	BCEC, Room 255	Symposium	Ethnicity, Race, Microbiome Metabolic Homeostasis
9:00AM - 11:15AM	BCEC, Room 257 A/B	Symposium	Visualizing Multicomponent Structures in Infection and Immunity
9:00AM - 11:15AM	BCEC, Room 258A	Symposium	O-GlcNAcylation: How Sweet It Is
9:00AM - 11:15AM	BCEC, Room 258B	Symposium	Cooperativity and Crosstalk
9:00AM - 11:15AM	BCEC, Room 258C	Symposium	Targeting Disorder with Small Molecules
11:20PM - 12:35PM	BCEC, Exhibit Hall	Late Breaking Posters	Consult program for specific sessions and manning times
1:15PM - 3:30PM	BCEC, Room 252 A/B	Symposium	Lipid Magic: How Do They Do It?
1:15PM - 3:30PM	BCEC, Room 252 A/B	Award Lecture	Walter A. Shaw Young Investigator Award Lecture, <i>Britta Brügger</i>
1:15PM - 3:30PM	BCEC, Room 254 A/B	Symposium	Gut Microbes, Drugs and Toxins
1:15PM - 3:30PM	BCEC, Room 257 A/B	Symposium	Function of the Extracellular Matrix in Development and Disease
1:15PM - 3:30PM	BCEC, Room 258A	Symposium	Strategies for Substrate Recognition
1:15PM - 3:30PM	BCEC, Room 258B	Symposium	RNA Expression and Cell Fate
1:15PM - 3:30PM	BCEC, Room 258C	Symposium	Transporters II - Capturing Functional Motions of Transporters

American Society for Nutrition at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

		SATURDAY, March 28, 2015				SUNDAY, March 29, 2015			
Ballroom East	8:00 – 10:00 AM	10:30 AM – 12:30 PM	12:45 – 2:45 PM	3:00 – 5:00 PM	8:00 – 10:00 AM	10:30 AM – 12:30 PM	12:45 – 2:45 PM	3:00 – 5:00 PM	
	Creating the Future of Evidence-based Nutrition Recommendations Using Lipid Research Case Studies (ILSI) <i>K.H. Rubin and J.T. Dwyer</i>	Maternal/Fetal Interactions: Looking at Various Animal Models <i>G.M. Hill and T.A. Davis</i>		5:00 – 7:00 PM Emerging Leaders in Nutrition Science Poster Competition	Translational and Transformational Concepts in Amino Acid Sensing <i>S. Hutson and T.G. Anthony</i>	Presidential Symposium: Nutrition and Developmental Origins of Health and Disease <i>S.N. Meydani</i>		Human Variability & Physiological Extremes: Blessing or Curse? <i>S.H. Adams and D.B. Allison</i>	
157 ABC				Nutritional Approaches for Osteosarcopenic Obesity: Interrelationships between Bone, Muscle and Fat <i>B.H. Arjmandi and C. Castaneda-Sceppa</i>	Determinants of Disease Risk in the Postprandial Period <i>B.O. Schneeman and T.M. Rains</i>		Do We Need Preconception Nutrition Interventions to Improve Birth Outcomes Beyond the Prevention of Neural Tube Defects? <i>U. Ramakrishnan and J.C. King</i>		
Education Track Room 151 AB	8:00 AM – 9:30AM Clinical Emerging Leaders Award Competition		11:30 – 1:00 PM ASN Young Minority Investigator Oral Competition	1:30 – 4:30 PM Graduate Student Research Award Competition	The eNutrition Academy: Supporting a New Generation of Nutritional Scientists Around the World <i>S.M. Donovan and C.A. Gellisler</i>		International Forum-Korea		
152				Global Nutrition: Understanding and Predicting Program Impact	EMM: Energy Balance, Macronutrients and Weight Management		EMM: Protein and Amino Acid Metabolism		
153A		9:30 AM – 11:30 PM The Postdoctoral Research Award Competition			DBC: Mechanism of Action and Molecular Targets of Dietary Bioactive Components I		DBC: Mechanisms of Action and Molecular Targets of Dietary Bioactive Components II		
153B					Nutr. Epi: Epidemiological Research Addressing Diet and Health Outcomes		Nutr. Epi: Innovation and Validation of Dietary Assessment Tools and Their Applications		
153C	Global Nutrition: Nutrition and Cognitive and Neurological Outcomes	Global Nutrition: Recent Insights into Growth and Growth Monitoring			Comm Pub Hlth Nutr: Community and Public Health Nutrition Interventions		Comm Pub Hlth Nutr: Food Environment		
154					Lactation: Biology of Lactation Including Bioactive Components and Other Milk Constituents and Their Effect on the Infant		Lactation: Lactation and Maternal and Infant Health		
156A		Carotenoids and Retenoids in Human Health			Vit Min: Micronutrient Bioavailability and Antioxidant Function		Vit Min: B Vitamins and One-Carbon Metabolism		
156B					Animal: Animal Models of Fetal Nutrition, Programming and Neonatal Development		Nutr Edu: Childhood Obesity Prevention		
156C					Nutr:Trans: Nutrition Science for Public Policy, Practice and the Consumer		Animal: Comparative Animal Nutrition and Physiology		

This overview includes sessions programmed by ASN's Scientific Program Committee. View ASN's Society Highlights and Guest Society Highlights in the onsite program for Council, RIS and other activities.

American Society for Nutrition at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

		MONDAY, March 30, 2015				TUESDAY, March 31, 2015				
Ballroom East	8:00 – 10:00 AM	10:30 AM – 12:30 PM	1:45 – 2:45 PM	3:00 – 5:00 PM	8:00 – 10:00 AM	10:30 AM – 12:30 PM	12:45 – 2:45 PM	3:00 – 5:00 PM		
	Dietary Fiber, Gut Microbiota and Kidney Function <i>C.J. Ketchum and C. Peikman</i>	Low-Calorie Sweeteners and Health: What Does the Science Tell Us? <i>D. Greenberg and J.D. Fernstrom</i>	G.A. Leveille Lecture 1:45-2:45 PM	Gut Microbes and the Brain: What Is the Effect on Human Behavior? <i>E. Mayer and W. A. Walker</i>	Diet and Immunometabolism <i>S. R. Shaikh and L. Coleman</i>	An Interdisciplinary Examination of Potential Effects of Maternal Physiology and the Human Milk Microbiome <i>C. Lovelady and L. Nommisen-Rivers</i>	<i>W.O. Atwater Lecture</i> 12:45-1:45 PM	Pediatric Neurocognitive Development: Emerging Insights and Applications in Nutrition <i>M. Alonso-Alonso and E. C. Radlowski</i>		
157 ABC	Integrated Nutrition and Early Child Development Interventions: Preventing Health and Economic Disparities <i>K. Hurley and S. Fernandez-Raco</i>	Research Reporting in the 21 Century: How it is Different and Why You Should Care <i>N. Fukagawa</i>		Approaches to Account for the Effects of Inflammation on Nutrient Biomarkers: Nutrition Determinants of Anemia (BRINDA) Project <i>R. Flores and D. Raiten</i>	Is "When" We Eat as Important as "What" We Eat? - Chronobiological Aspects of Food Intake <i>L. Sanders and C.E. O'Neil</i>	Food and Nutrition Board Update: New Directions in Food, Nutrition and Population Health <i>A. Yaktine and S. P. Murphy</i>		Improving Cardio-Skeletal Health by Exploring the Heart - Bone Connection <i>C. M. Weaver</i>		
151 AB	Being "Social": How Scientists Can Find their Way in a 24-Hour Digital World <i>M.A. Johnson and V. Vieira-Potter</i>	<i>International Forum- ICAN/South America</i>				International Forum-China	Establishing Yourself as an Expert <i>E. Ciappio and M. N. Henderson</i>	International Forum-Taiwan	History of Nutrition: The Long Road Leading to the Dietary Reference Intakes <i>A. Yaktine and F.A. Nielsen</i>	
152	EMM: Lipid and Fatty Acid Metabolism and Transport	EMM: Obesity and the Metabolic Syndrome		EMM: Protein Intake and Health Implications	EMM: Carbohydrate Metabolism	EMM: Metabolic Phenotyping, Metabolomics and Biomarkers		EMM: Dietary Fatty Acids and Health		
153A	DBC: Bioavailability, Metabolism, and Biomarkers of Dietary Bioactive Components	DBC: Dietary Bioactive Components and Markers of Chronic Disease: Human Intervention Studies		DBC: Effects of Dietary Bioactive Components in Animal Models of Chronic Disease Risk	DBC: Dietary Bioactive Compounds of Medicinal, Functional, and Fermented Foods	DBC: Antioxidant and Anti-inflammatory Effects of Dietary Bioactive Components		DBC: Effects of Dietary Bioactive Components in Animal Models of Obesity and Cardiometabolic Risk		
153B	Nutr: Epi Research with Dietary Supplements and Bioactive Components	Nutr: Epi: Nutrition and Chronic Disease Epidemiology		Nutr: Epi: Advancing Nutritional Epidemiology with Public Use and Commercial Data Sets	Nutr: Epi: Epidemiologic Methods in Examining Health Outcomes in Diverse Populations	Global Nutrition: Understanding Pathways to Intervention Impact		Global Nutrition: Recent Advances in Biomarker Development and Use		
153C	Comm Pub Hlth Nutr: Health Disparities and Promoting Health in Diverse Populations	Comm Pub Hlth Nutr: Food Security and Its Connections to Nutrition and Health		Comm Pub Hlth Nutr: Policy and Systems Approaches in Community and Public Health Nutrition	Comm Pub Hlth Nutr: Food Environment II	Nutrition Across the Lifespan (Co-sponsor: Aging, Obesity and Nutrition Translation)		Nutrition Across the Lifespan: Early Childhood Nutrition		
154	Nutr Immunology: Nutrition, Immunity and Infection	MNC: Nutrition and the Microbiome		MNC: Interventions for the Treatment and Prevention of Nutrition-Related Diseases	Aging: Risk Factor Modification for Healthy Aging	MNC: Nutrition and Inflammation		Nutrient-Gene Interactions: Obesity and Inflammation		
156A	Vit Min: Water and Fat Soluble Vitamins and Chronic Disease	Vit Min: Micronutrient Interventions		Nutrient-Gene Interactions: Genomics, Proteomics, and Metabolomics	Nutrition Policies, Programs, and Public-Private Partnerships	Diet and Cancer: Fat versus Fiber in Colon Cancer: Opposite in the End?		Diet and Cancer: Uncovering the Role of Diet in Cancer Prevention: Population Based Studies		
156B	Obesity: Chronic Diseases	Nutr Edu: Nutrition Education and Behavior Change		Obesity: Childhood Obesity Management	Obesity: Gut Microbiome and Obesity	Nutr Edu: Developing Healthy Eating and Physical Activity Behaviors Across the Lifespan				
156C	Animal Models of Nutritional and Intestinal Disease									

This overview includes sessions programmed by ASN's Scientific Program Committee. View ASN's Society Highlights and Guest Society Highlights in the onsite program for Council, RIS and other activities.

American Society for Nutrition at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

WEDNESDAY, April 1, 2015	
	<p>8:00 – 10:00 AM Resistant Starch, Microbiota and Gut Health <i>D.F. Birt</i></p>
Ballroom East	<p>10:30 AM – 12:30 PM Moderate Alcohol Use, Nutrition and Chronic Diseases: What We Know and Where to Go Next <i>N. Parekhand L. M. Troy</i></p>
157 ABC	<p>"One Nutrition": Clinical Nutrition Across Species <i>L.M. Freeman and S.N. Meydani</i></p>

ASN Satellite Programs: <i>Satellite programs are planned and conducted by external groups in conjunction with the American Society for Nutrition's Scientific Sessions and Annual Meeting.</i>	
Friday	<p>Whole-Milk Dairy Foods in Nutrition and Health: An Evaluation of the Current State of the Science Organized and sponsored by the Dairy Research Institute 9:30 am – 12:00 pm Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom ABCD</p> <p>Neural - Physiologic Mechanisms Regulating Sodium Appetite Sponsored and organized by the Grocery Manufacturers Association 1:00 – 5:00 pm Room: Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom EFG</p> <p>Body Water Regulation: Vasopressin as New Predictor of Disease Risk? Organized and sponsored by Danone Nutricia Research 6:30 – 8:00 am Room: Boston Convention Center & Exhibit Center, 156 BC</p>
Saturday	<p>Science and Policy: Adopting a Fruitful Vegetable Encounter for Our Children Organized by the Alliance for Potato Research and Education 1:00 – 5:00 pm Room: Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom ABCD</p> <p>Sweeteners and Health: Current Understandings, Recent Research Findings and Directions for Future Research Organized and sponsored by the Rippe Lifestyle Institute 6:30 – 8:00 am Room: 153 AB</p> <p>Current Perspective on Protein Quality and Practical Implications for Policy Sponsored by DuPont Nutrition and Health 12:45 – 2:45 pm Room: 153 AB</p>
Sunday	<p>Oats. More Than Just a Whole Grain Organized and sponsored by PepsiCo Global R&D Nutrition 6:30 – 8:00 am Room: Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E</p> <p>Running on Empty: Is There a Metabolic or Cognitive Benefit to the Morning Meal? Organized and sponsored by the Kellogg Company 6:30 – 8:00 am Room: Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom ABCD</p>
Monday	<p>A Healthy Approach to Dietary Fat Consumption: Understanding the Science and Taking Action to Clear Up Consumer Confusion Organized and sponsored by the Haas Avocado Board 6:30 – 8:00 am Room: Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D</p> <p>Breakfast Bioactives Organized and sponsored by PepsiCo 6:30 – 8:00 am Room: Boston Convention Center & Exhibit Center, Pacific Ballroom E</p>
Tuesday	<p>Pairing Nuts and Dried Fruit for Cardiometabolic Health Organized and sponsored by the Sun-Maid Growers of California and American Pistachio Growers 6:30 – 8:00 am Room: TBD</p> <p>Smart Snacking: When Science Meets Nutrition Organized and sponsored by PepsiCo 6:30 – 8:00 am Room: Renaissance Boston Waterfront Hotel, Atlantic Ballroom 123</p>
Wednesday	<p>Moving Towards a More Effective National Food and Nutrition Policy: Balancing the Role of Research, Nutrition Science and Public Health Organized and sponsored by the Corn Refiners Association 6:30 – 8:00 am Room: Boston Convention Center & Exhibit Center, 151 AB</p> <p>Phenotypic Flexibility Organized and sponsored by Nutritech, a European Commission-funded Project 9:00 am – 12:30 pm Room: Boston Convention Center & Exhibit Center, 151 AB</p>

American Society for Nutrition at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Sunday Posters:	Monday Posters:	Tuesday Posters:
<ul style="list-style-type: none"> ▣ Global Nutrition: Anthropometry ▣ Lactation: Relationships of Maternal Diet and Health to Lactation Performance and Infant Health ▣ Lactation: Predictors of Lactation Initiation and Duration; and Interventions to Improve Lactation Success ▣ Lactation: Bioactive Components and Other Milk Constituents and Their Effect on the Infant ▣ Lactation: Biology of Lactogenesis, Lactation and Milk Composition ▣ Comm Pub Hlth Nutr: Community and Public Health Nutrition Interventions ▣ Comm Pub Hlth Nutr: Food Security and Its Connections to Nutrition and Health ▣ Nutr. Epi.: Research with Dietary Supplements and Bioactive Components ▣ Nutr. Epi.: Advancing Nutritional Epidemiology with Public Use and Commercial Data Sets ▣ Aging: Risk Factor Modification for Cardiometabolic Health and Chronic Disease ▣ Aging: Nutritional Needs and Assessment in Older Adults/Populations ▣ Nutrition Across the Lifespan: Nutrition and Reproductive Health - MNC: Personalized Nutrition ▣ MNC: Prenatal Nutrient Programming in Humans ▣ Nutr Immunology: Nutritional Immunology ▣ EMM: Energy Balance, Macronutrients and Weight Management ▣ EMM: Obesity and the Metabolic Syndrome (Co-sponsor: Obesity RIS) ▣ EMM: Carbohydrate Metabolism ▣ EMM: Diet and/or Exercise Regulation of Food Intake (Co-sponsor: Obesity RIS) ▣ EMM: Dietary Fatty Acids and Health ▣ EMM: Protein Intake and Health Implications ▣ Obesity: Diet, Devices, Medications and Surgery ▣ Obesity: Gut Microbiome and Obesity ▣ Obesity: Chronic Diseases ▣ CARIG: Carotenoids and Health/ Carotenoids & Retinoids Molecular Mechanisms of Action ▣ CARIG: Bioavailability and Metabolism of Carotenoids and Vitamin A ▣ CARIG: Biofortification of Staple Crops with Micronutrients ▣ DBC: Bioavailability, Metabolism and Biomarkers of Dietary Bioactive Components ▣ DBC: Mechanisms of Action and Molecular Targets of Dietary Bioactive Components ▣ DBC: Effects of Dietary Bioactive Components on Experimental Models of Chronic Disease Risk 	<ul style="list-style-type: none"> ▣ Global Nutrition: Micronutrients ▣ Nutrition and Sustainability ▣ Nutr Edu: Childhood Obesity Prevention ▣ Nutr Edu: Developing Healthy Eating and Physical Activity Behaviors Across the Lifespan ▣ Sports Nutr: Nutrition, Dietary Supplements and Human Performance ▣ Dairy and Yogurt: Health and Nutrition Effects ▣ Nutr. Epi.: Epidemiologic Methods in Examining Health Outcomes in Diverse Populations (Co-sponsor: Minority and Diversity Affairs Committee) ▣ Nutr. Epi.: Epidemiological Research Addressing Diet and Health Outcomes ▣ Aging: Nutrition and Sarcopenia ▣ Aging: Nutrition and Osteoporosis ▣ Nutr Trans: Nutrition Science for Public Policy, Practice and the Consumer ▣ Nutr Trans: Food Science and Technology in Nutrition ▣ Nutrition Policies and Programs: Implementation, Evaluation, and Monitoring ▣ EMM: Protein and Amino Acid Metabolism ▣ EMM: Lipid and Fatty Acid Metabolism and Transport ▣ EMM: Energy and Macronutrient Metabolism and the Gut ▣ EMM: Metabolic Phenotyping, Metabolomics and Biomarkers ▣ Obesity: Macronutrients and Obesity ▣ Obesity: Body Composition ▣ Nutrient-Gene Interactions: Genomics, Proteomics, and Metabolomics ▣ Nutrient-Gene Interactions: Epigenetics ▣ Nutrient-Gene Interactions: Obesity and Inflammation ▣ Nutrient-Gene Interactions: Biomarkers ▣ Diet and Cancer: Molecular Targets ▣ Diet and Cancer: Animal Studies ▣ Exp Animal Nutr: Animal Models of Fetal Nutrition, Programming and Neonatal Development ▣ Exp Animal Nutr: Animal Models of Nutrition and Disease ▣ Exp Animal Nutr: Animal Models for Nutrition across Physiological States ▣ Nutr Immunology: Nutrition and Infection ▣ Vit Min: Water and Fat Soluble Vitamins and Chronic Disease ▣ Vit Min: Selenium ▣ Vit Min: Micronutrient Bioavailability and Antioxidant Function ▣ Vit Min: Zinc 	<ul style="list-style-type: none"> ▣ Global Nutrition: Diets and foods ▣ Global Nutrition: Cognitive ▣ Nutrition Across the Lifespan: Nutrition, Neurobiology, Mood and Behavior (Co-sponsor: Aging, Obesity and Nutrition Translation) ▣ Nutrition Across the Lifespan: Early Childhood Nutrition ▣ Comm Pub Hlth Nutr: Health Disparities and Promoting Health in Diverse Populations ▣ Comm Pub Hlth Nutr: Food Environment ▣ Comm Pub Hlth Nutr: Policy and Systems Approaches in Community and Public Health Nutrition ▣ Nutr. Epi.: Innovation and Validation of Dietary Assessment Tools and Their Applications ▣ Nutr. Epi.: Nutrition and Chronic Disease Epidemiology ▣ Edu: Nutrition Education in Medical and Other Professional Schools ▣ Edu: Nutrition Education for Practicing Clinicians ▣ Edu: Innovations in Undergraduate, Graduate and Medical Nutrition Education ▣ Nutr Edu: Evidence-Based Nutrition Education: Development, Testing, and Evaluation ▣ Nutr Edu: Nutrition Education and Behavior Change ▣ MNC: Interventions for the Treatment and Prevention of Nutrition-Related Diseases ▣ MNC: Nutrition and Inflammation ▣ MNC: Nutrition and the Microbiome ▣ Nutrient-Gene Interactions: Chronic Disease ▣ Nutrient-Gene Interactions: Exercise ▣ Nutrient-Gene Interactions: Bioactives ▣ Diet and Cancer: Clinical and Human Studies ▣ Vit Min: B Vitamins and One-Carbon Metabolism ▣ Vit Min: Micronutrient Interventions ▣ Vit Min: Trace Element Transport and Homeostasis in Health and Disease ▣ DBC: Antioxidant and Anti-inflammatory Effects of Dietary Bioactive Components ▣ DBC: Cardiovascular Effects of Dietary Bioactive Components ▣ DBC: Dietary Bioactive Components of Medicinal, Functional and Whole Foods (including Probiotics and Fermented Foods)

Posters will be displayed 8:30 AM – 5:00 PM Sunday – Tuesday. Authors MUST be present by their boards during their designated time between 12:45 PM – 2:45 PM. Late Breaking posters will be displayed Wednesday, April 1, 2015 starting at 8:30 AM. Authors MUST be present by their boards 10:00 AM – 11:00 AM.

Late Breaking Posters will include: Variability in Responses to Diet and Food, Nutrition on Healthy Growth, Development and Reproduction, Disease Prevention, Progression and Treatment, Nutrition-Related Behaviors, Food Supply and Environment, Vitamins, Minerals, and Bioactives, Energy and Nutrient Metabolism, and Community, Public Health and Global Nutrition

American Society for Investigative Pathology Sessions at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Saturday, March 28		Sunday, March 29		Monday, March 30		Tuesday, March 31		Wednesday, April 1	
AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
<p>Special Course: Pathobiology for Basic Scientists: Looking Into the Crystal Ball: Inflammasomes and Disease P. D'Amore, R. Mitchell 8:30 AM – 160A/B</p>	<p>Highlights: Graduate Student Research in Pathology T.A. Reaves, S. Headland 1:30 PM – 162B</p>	<p>HCS Symposium: Advanced Imaging Techniques and Systems: Super Resolution Microscopy P. Goodwin, D. Rosene 8:30 AM – 160C</p>	<p>XIV Annual ASIP/AAA Career Development & Mentoring Program and Lunch: Fundamentals of Success: How to Give an Award Winning Presentation J. Reuben, E.A. Medina 11:45 AM – Westin Boston Waterfront, Marina I</p>	<p>ACVP Symposium: Intestinal Microbiome: Lessons From Comparative Medicine M.M. Schutten, R. Sullivan 8:30 AM – 160C</p>	<p>Molecular and Cellular Basis of Disease: Neuropathology as a Paradigm for Disease Processes: President's Symposium: Advances in Investigative Neuropathology K.A. Roth 2:00 PM – 160A/B</p>	<p>Cell Injury Workshop: Scars and Souvenirs: Inflammation and Fibrosis in the Heart, Lung, and Skin C.C. Yates, M.S. Willis 8:30 AM – 162B</p>	<p>SCVP Symposium: Protein Misfolding in the Heart: Conformation Cardiomyopathies J.R. Stone, M.S. Willis 2:00 PM – 162A</p>	<p>Symposium: Inflammasomes, NETs and Cell/Organ Injury P.A. Ward, C.T. Esmon 8:30 AM – 160A/B</p>	
<p>Lung Symposium: Ontogeny and Injury M.E. Sunday, C.W. Frevort 8:30 AM – 162A</p>	<p>ASIP Young Scientist Leadership Award Lecture: IQGAP1 is a Critical Regulator of Transendothelial Migration D. Sullivan 3:35 PM – 162B</p>	<p>Journal of Histochemistry & Cytochemistry Lecture: TBD J. Couchman 10:30 AM – 160C</p>	<p>Environmental and Toxicologic Pathology Symposium: Air Pollution and Health Effects: Cognition, Neuropathology, Cardiovascular, and Metabolic Disease – What You Ought to Know by Now! L.O. Calderon-Garciduenas, E. Galbreath 2:00 PM – 160C</p>	<p>Molecular and Cellular Basis of Disease: Neuropathology as a Paradigm for Disease Processes: Advances in the Understanding of Neural Development and Disease: Cells and Circuits J.J. Otero, A.F. Buckley 8:30 AM – 160A/B</p>	<p>Minisymposium: Breast and Prostate Cancer A. Kajdacsy-Balla, S. Catalano 2:00 PM – 160C</p>	<p>Molecular and Cellular Basis of Disease: Epithelial Junctions, Polarity and Cancer A.I. Ivanov, A. Nusrat 2:00 PM – 160A/B</p>	<p>Symposium: Epithelial Junctions, Polarity and Cancer A.I. Ivanov, A. Nusrat 2:00 PM – 160A/B</p>	<p>Molecular and Cellular Basis of Disease: Neoplasia Mornings: SIPMeT Symposium: Cancer Stem Cells S. Andò, K. Gardner 8:30 AM – 162A</p>	
<p>F-TROOP: Roadmap to Fellowship Grant Applications L.M. McManus, C.C. Yates 8:30 AM</p>	<p>Symposium: Inflammation and Wound Repair A. Nusrat, A.I. Ivanov 2:00 PM – 162A</p>	<p>Symposium: BLOOD VESSEL CLUB™: Macrophages in the Vessel Wall J.W. Homeister, J.R. Stone 8:30 AM – 160A/B</p>	<p>Symposium: Signaling Through the Matrix in Inflammation, Autophagy and Angiogenesis R.V. Iozzo, L. Schaefer 2:00 PM – 160A/B</p>	<p>Symposium: Programmed Non-Apoptotic Cell Death in Tissue Injury W.-X. Ding, W.-X. Zong 8:30 AM – 161</p>	<p>Minisymposium: Inflammation, Resolution of Inflammation and Leukocyte Trafficking M.B. Furie, C. Lefort 2:00 PM – 161</p>	<p>Minisymposium: Cellular and Molecular Mechanisms of Liver Repair U. Apte, G.K. Michalopoulos 2:00 PM -- 161</p>	<p>Minisymposium: Cellular and Molecular Mechanisms of Liver Repair U. Apte, G.K. Michalopoulos 2:00 PM -- 161</p>	<p>Minisymposium: Microbial Interactions with the Host D.A. Milner, A.S. Davis 8:30 AM – 160C</p>	
<p>Breast Cancer Workshop: Genetic and Phenotypic Diversity W. B. Coleman 8:30 AM – 160C</p>	<p>HCS/Stowell Symposium: Unlocking New Tools for Experimental Pathology: Advances in Detection Systems, From Super Resolution Microscopy to Whole Animal Imaging S. Hewitt 2:00 PM – 160C</p>	<p>Liver Pathobiology Workshop: Cellular and Molecular Mechanisms of Liver Injury: Implications in Disease Pathogenesis K. Nejak-Bowen, B.L. Copple 8:30 AM – 162A</p>	<p>Minisymposium: Cancer Pathogenesis and Progression E. Whiteley, E. Holthoff 2:00 PM – 161</p>	<p>Workshop: Lessons From TCGA T.J. Giordano, M. Meyerson 8:30 AM – 162A</p>	<p>Symposium: Modulators of Endothelial Cell Inflammation and Angiogenesis T.N. Mayadas, P. Alcaide 8:30 AM – 160A/B</p>	<p>Symposium: Exploring and Defining Biomarkers in Cancer T.J. Giordano 2:00 PM – 162B</p>	<p>Minisymposium: Exploring and Defining Biomarkers in Cancer T.J. Giordano 2:00 PM – 162B</p>		

American Society for Investigative Pathology Sessions at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Saturday, March 28		Sunday, March 29		Monday, March 30		Tuesday, March 31	
AM	PM	AM	PM	AM	PM	AM	PM
<p>Minisymposium: Cellular and Molecular Basis of Liver Tumors <i>J. Sanders, G. Alpini</i> 8:30 AM – 161</p>	<p>Minisymposium: Cellular and Molecular Mechanisms Underlying Hepatic Injury and Fibrosis <i>H. Francis, B.L. Coppie</i> 2:00 PM --</p>	<p>ASMB Lecture: ADAMTS Proteases, Novel Regulators of the Cellular Microenvironment Implicated in Diverse Pathologies <i>S.S. Apte</i> 8:30 AM – 161</p>	<p>Minisymposium: Cell Death: Pathways and Mechanisms <i>W-X. Ding, K. Hamilton</i> 2:00 PM – 162A</p>	<p>ASIP Membership Business Meeting & Awards Presentation <i>K.A. Roth</i> 5:00 PM – 160A/B</p>	<p>Minisymposium: Mechanisms of Oxidant-Induced Lung Injury and Disease <i>J. Dye, J. Chao</i> 8:30 AM – 160C</p>	<p>Minisymposium: Vascular Cell Biology and Molecular Mechanisms of Disease <i>P.A. D'Amore, D. Sullivan</i> 2:00 PM – 160C</p>	
<p>Minisymposium: Mechanisms of Cardiac Dysfunction <i>P. Alcaide-Alonso, D. Brown</i> 8:30 AM – 162B</p>	<p>Cotran Early Career Investigator Award Lecture: Cancer Progression: The Failure to Resolve? <i>D. Panigrahy</i> 2:00 PM – 160A/B</p>	<p>Minisymposium: Extracellular Matrix in Pathobiology <i>TBD</i> 9:30 AM – 161</p>	<p>Minisymposium: Neuropathology <i>W.G. Tourtellotte, C. Kolarcik</i> 2:00 PM – 162B</p>	<p>ASIP Awards Reception 6:00 PM – Southeast Lobby C</p>	<p>ASIP Scientific Sleuthing of Human Disease for High School Teachers <i>K. Nejak-Bowen, M.B. Furie</i> 9:30 AM -- Westin Boston Waterfront, Marina I</p>		
<p>XIV Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist <i>M.A. LaFlamme, J.S. Reichner</i> 11:45 AM – Westin Boston Waterfront, Marina I</p>	<p>Minisymposium: Signaling Mechanisms in Lung Cancer Initiation and Progression <i>D. Panigrahy, M. Hsiao</i> 3:00 PM – 160A/B</p> <p>ASIP Trainee Welcome Reception 4:00 PM – Northwest Lobby A</p>	<p>Minisymposium: Mucosal Inflammation and Tissue Repair <i>S. Keely, J. Brazil</i> 8:30 AM – 162B</p>	<p>Rous-Whipple Award Lecture: Leukocyte-Epithelial Interactions: A Double-Edged Sword <i>C. Parkos</i> 5:00 PM – 160A/B</p>	<p>ASIP Career Development Sessions</p> <p>ASIP Special Lectures</p> <p>ASIP Scientific Interest Group Poster Discussions</p> <p>ASIP Workshop for High School Teachers</p> <p>Guest Society Sessions</p>	<p>Lunch & Learn: The Ethics of Personalized Medicine: Quandaries Among the Possibilities <i>W. Mars, D.A. Milner, R.N. Mitchell</i> 11:45 AM -- Westin Boston Waterfront, Marina IV</p>	<p>ASIP Scientific Interest Group Networking Sessions and Poster Discussions:</p> <ul style="list-style-type: none"> • Biobanking • Breast Cancer • Club Hepatomania™ • Der Schadenklub • Digital and Computational Pathology • Environmental & Toxicologic Pathology • Gene Expression • Immunohistochemistry & Microscopy • Inflammation/Immunopathology • Molecular Diagnostic Pathology • Neuropathology • Regenerative Medicine • Vascular & Mucosal Pathobiology • Veterinary Pathobiology 	
<p>ASIP Outstanding Investigator Award Lecture: High Throughput Sequencing for Discovering New Biology <i>A. Dutta</i> 5:00 PM – 160A/B</p>	<p>The Histochemical Society (HCS) Member Awards Presentation, Business Meeting and Reception 6:00 PM – Renaissance Boston Waterfront, Atlantic 2/3</p>			<p>Receptions</p> <p>Special Course</p>	<p>Visit the ASIP Office / Member Networking Lounge Boston Convention and Exhibition Center, 159 Saturday – Tuesday, 8:00am – 5:00pm Wednesday, 8:00am – 12:00pm</p>		

American Society for Pharmacology and Experimental Therapeutics (ASPET) at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

SATURDAY		SUNDAY	
9:30 am - 12:00 pm	12:00 pm - 2:30 pm	9:30 am - 12:00 pm	12:30 pm - 2:30 pm
<p>Speed Networking for Careers Beyond the Academic Bench (Room 106)</p> <p>2015 Teaching Institute: Training Students for Teaching Careers (Room 108)</p> <p>Graduate Student-Postdoctoral Colloquium: How to Get Started (Room 109AB)</p> <p>ASPET Business Meeting and Award Presentations (Room 107AB)</p> <p>ASPET Opening and Awards Reception (SW Pre-Function)</p>	<p>ASPET Poster Presentations in Exhibit Hall</p>	<p>2:00 pm - 2:50 pm</p> <p>Julius Axelrod Award in Pharmacology Lecture Keynote: Jeffrey L. Benovic</p>	<p>3:00 pm - 5:30 pm</p> <p>Nanotoxicology: Small Particles, Big Concern</p> <p>Julius Axelrod Symposium: The Ins and Outs of G Protein-Coupled Receptor Signaling</p>
<p>12:00 pm - 2:30 pm</p> <p>2:45 pm - 5:15 pm</p> <p>6:00 pm - 7:30 pm</p> <p>7:30 pm - 9:30 pm</p>	<p>12:30 pm - 2:30 pm</p> <p>ASPET Poster Presentations in Exhibit Hall</p>	<p>2:00 pm - 2:50 pm</p> <p>Julius Axelrod Award in Pharmacology Lecture Keynote: Jeffrey L. Benovic</p>	<p>6:30 pm - 8:30 pm</p> <p>8:30 pm - 11:00 pm</p>
SUNDAY			
Location	9:30 am - 12:00 pm	12:30 pm - 2:30 pm	3:00 pm - 5:30 pm
Room 106	Bile Acids and Liver Disease in Pregnant Women and Neonates	ASPET Poster Presentations in Exhibit Hall	Nanotoxicology: Small Particles, Big Concern
Room 107AB	ASPET Presidential Symposium: Navigating the Future of Biomedical Research	ASPET Poster Presentations in Exhibit Hall	Julius Axelrod Symposium: The Ins and Outs of G Protein-Coupled Receptor Signaling
Room 107C	Ion Channel Drug Discovery - Advancements and Current Challenges	ASPET Poster Presentations in Exhibit Hall	
Room 108	Emerging Roles of Trace Amine Associated Receptor 1 (TAAR1) in Drug Abuse and Mental Disorders	ASPET Poster Presentations in Exhibit Hall	Elucidating the Molecular Underpinnings of Behavior Using Pharmacological Knock-in Mouse Models
Room 109A	Emerging Regenerative Therapies in Pulmonary Disease	ASPET Poster Presentations in Exhibit Hall	Vascular Stiffness, A Novel Therapeutic Approach for Hypertension
Room 109B	The Role of Protein-Protein and Protein-Membrane Interactions on P450 Function	ASPET Poster Presentations in Exhibit Hall	Interindividual Variability in CYP-Mediated Drug Metabolism
Westin		ASPET Poster Presentations in Exhibit Hall	Active Learning: What's Up with that Flipping Classroom (Westin, Grand Ballroom D - Concourse Level)
			ASPET Student & Postdoc Mixer (Westin, Harbor Ballroom III - North Wing, Concourse Level)
MONDAY			
Location	9:30 am - 12:00 pm	12:30 pm - 2:30 pm	3:00 pm - 5:30 pm
Room 106	Pharmacology of Neuronal Regeneration and Repair	ASPET Poster Presentations in Exhibit Hall	Neuropharmacology Division Postdoctoral Scientist Award Finalists
Room 107AB	Psychomotor Stimulant Addiction: Lessons from Methamphetamine	ASPET Poster Presentations in Exhibit Hall	ASPET Journal Symposium: Reproducibility in the Pharmacological Sciences: Moving the Discussion Forward
Room 107C	New Therapies for an Old Problem: The NINDS-Sponsored Anticonvulsant Screening Program	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Drug Discovery and Development (DDD)
Room 108	Protein Trafficking and Drug Development	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Molecular Pharmacology (MP)
Room 109A	Membrane Transporters at the Interface of Drug Interactions, Biomarker Monitoring, and Toxicity	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Drug Metabolism (DM)
Room 109B	Monoclonal and Neurotrophins in Inflammatory Bowel Disease/Irritable Bowel Syndrome	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Pharmacology Education (EDU)
Westin		ASPET Poster Presentations in Exhibit Hall	Div. for Beh. Pharm. (BEH) and Neuropharm. (NEU) Mixer (Lewis Room - North Wing)
			Div. for Drug Disc. and Dev. (DDD) / Pharm. Educ. (EDU) / Integrative Sys. Trans. and Clin. Pharm. (ISTCP) Mixer (Carlton Room - North Wing)
			Div. for Mol. Pharm. Mixer (MP) (Burroughs Room - North Wing)
Location	9:30 am - 12:00 pm	12:30 pm - 2:30 pm	3:00 pm - 5:30 pm
Room 106	Pharmacology of Neuronal Regeneration and Repair	ASPET Poster Presentations in Exhibit Hall	Neuropharmacology Division Postdoctoral Scientist Award Finalists
Room 107AB	Psychomotor Stimulant Addiction: Lessons from Methamphetamine	ASPET Poster Presentations in Exhibit Hall	ASPET Journal Symposium: Reproducibility in the Pharmacological Sciences: Moving the Discussion Forward
Room 107C	New Therapies for an Old Problem: The NINDS-Sponsored Anticonvulsant Screening Program	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Drug Discovery and Development (DDD)
Room 108	Protein Trafficking and Drug Development	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Molecular Pharmacology (MP)
Room 109A	Membrane Transporters at the Interface of Drug Interactions, Biomarker Monitoring, and Toxicity	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Drug Metabolism (DM)
Room 109B	Monoclonal and Neurotrophins in Inflammatory Bowel Disease/Irritable Bowel Syndrome	ASPET Poster Presentations in Exhibit Hall	Annual Division Meeting: Div. for Pharmacology Education (EDU)
Westin		ASPET Poster Presentations in Exhibit Hall	Div. for Beh. Pharm. (BEH) and Neuropharm. (NEU) Mixer (Lewis Room - North Wing)
			Div. for Drug Disc. and Dev. (DDD) / Pharm. Educ. (EDU) / Integrative Sys. Trans. and Clin. Pharm. (ISTCP) Mixer (Carlton Room - North Wing)
			Div. for Mol. Pharm. Mixer (MP) (Burroughs Room - North Wing)

American Society for Pharmacology and Experimental Therapeutics (ASPET) at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

TUESDAY		9:30 am - 12:00 pm	12:30 pm	2:30 pm	3:00 pm - 5:30 pm	5:30 pm - 6:30 pm	6:30 pm - 8:00 pm
		7:00 am - 9:00 am - Networking Walk (weather permitting) - meet at concierge desk at the Westin Boston Waterfront					
		8:30 am - 9:20 am - Reynold Spector Award in Clinical Pharmacology Lecture - Keynote: Scott A. Waldman (Room 107AB)					
Room 106	Biased GPCR Signaling in Drug Development: From Theory to Physiology	Structural and Dynamic Basis of Receptor-Ligand Interactions					
Room 107AB	Cardiac Fibroblasts: Fair-Weather Friends in Myocardial Fibrosis and Repair	2:30 pm - 4:30 pm -- Division for Cardiovascular Pharmacology Trainee Showcase 4:30 pm - 5:30 pm - Benedict R. Lucchesi Distinguished Lectureship in Cardiac Pharmacology - Keynote: Andre Terzic	Annual Division Meeting: Div. for Cardiovascular Pharmacology (CVP)				
Room 107C	The Human Microbiome: Systems Pharmacology Insights and the Potential for New Drug Discovery		Annual Division Meeting: Div. for Integrative Systems, Translational and Clinical Pharmacology (ISTCP)				
Room 108	New Technologies to Measure Mitochondrial Changes		Annual Division Meeting: Div. for Toxicology (TOX)				
Room 109A	Systems Pharmacology: Enhancing Translational Research by Network and Pharmacodynamic Modeling		Annual Division Meeting: Div. for Behavioral Pharmacology (BEH)				
Room 109B	Novel Therapeutic Targets and Preclinical Models of Post-Traumatic Stress Disorder						
Westin	"Can We Talk?" Strategies for Collaborative Pharmacology Education (Westin, Grand Ballroom C - Concourse Level)	12:30 pm - 2:30 pm ASPT Poster Presentations in Exhibit Hall					Div. for Cardiovascular Pharm. (CVP) Mixer (Commonwealth Ballroom B) Div. for Drug Metabolism (DM) and Toxicology (TOX) Mixer (Commonwealth Ballroom A)
WEDNESDAY		9:30 am - 12:00 pm	12:30 pm - 2:30 pm	2:30 pm - 5:30 pm	5:30 pm - 8:00 pm		
Room 106		Common Pathways and Mechanisms of Chronic Pain and Opioid Addiction					
Room 107AB	Norman Weiner Lecture - Keynote: William Catterall	Structural Basis for Ion Channel Pharmacology					
Room 107C		Moving Beyond Traditional Stimulants: Emerging Characteristics and Therapeutic Applications of Atypical Reuptake Inhibitors					
Room 108		Natural Products: Bioactive Molecules from Nature					
Room 109A		Crossing the Line: Exploring the Borders Between Physiological Redox Signaling and Oxidative Stress					
Room 109B		Transporter-Mediated Drug Interactions: Clinical Significance and Predictions					
Exhibit Hall			ASPT Regular and Late-Breaking Poster Presentations				

Since 1908, ASPET has been committed to providing our members with the tools and resources to advance their careers, promote their research and discipline, and build lasting relationships with fellow colleagues.

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American Society for Pharmacology and Experimental Therapeutics (ASPET) at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

ASPET POSTERS			
SUNDAY Viewing: 7:30 am - 6:00 pm Presentations: 12:30 pm - 2:30 pm	MONDAY Viewing: 7:30 am - 6:00 pm Presentations: 12:30 pm - 2:30 pm	TUESDAY Viewing: 7:30 am - 4:00 pm Presentations: 12:30 pm - 2:30 pm	WEDNESDAY Viewing: 7:30 am - 4:00 pm Presentations: 12:30 pm - 2:30 pm
Div. Topic	Div. Topic	Div. Topic	Div. Topic
BEH Tolerance and Dependence: Drugs of Abuse	BEH Neuropharmacological Effects of Drugs of Abuse	EDU Pharmacology Education	BEH Drug Abuse: Nicotine, Opioids, Cannabinoids, etc.
BEH Behavioral Pharmacology: General	BEH Cognition and Learning	BEH Pain Mechanisms: Opioids and Other	BEH Alcohol and Lipid Biology
BEH Pain Therapeutics	BEH Pain Mechanisms: Inflammation and Cannabinoids	BEH Drug Abuse: Psychomotor Stimulants	NEU Ion Channel Pharmacology
NEU Neuropharmacology of Spinal Cord Injury	NEU Neurodegeneration and Neurotoxicology	NEU Neuropsychiatric Disorders	DDD Novel Drug Targets
MP Heterotrimeric G Protein and Second Messenger Signaling	MP GPCR Pharmacology	NEU Neurotransmitter Transporters	TOX General Toxicology
MP Gene Expression	DDD Natural Products I	NEU Neurotransmitter Receptors	TOX Ocular Toxicity
DDD Nanoformulations in Drug Therapy	TOX Chemical Warfare Agents	MP Protein Kinases: Pharmacology and Function	CVP Cardiac Pharmacology - Signaling
TOX Oxidative Stress	TOX Pulmonary Disease and Toxicology	MP GPCR Interactions and Trafficking	CVP Cardiovascular Ischemia and Reperfusion
DM Phase II Drug Metabolizing Enzymes	TOX Pesticides	DDD Natural Products II	ISTCP Organ Pharmacology
CVP Hypertension and Blood Pressure Regulation	TOX Mitochondrial Pharmacology/ Toxicology	TOX Hepatotoxicity/Drug-Induced Liver Injury - Mechanisms	
CVP Hypotension	DM The Biophysics and Regulation of Cytochromes P450	TOX Nephrotoxicity	Late-Breaking Abstracts
CVP Endothelial Cell Dysfunction - General	DM Pharmacokinetics	DM Drug Transporters	Cardiovascular Pharmacology
CVP Endothelial Cells and Inflammation	CVP Cerebrovascular Signaling	DM Interindividual Variability in Drug Metabolism	Cellular and Molecular Pharmacology
CVP Vascular Signaling - Endothelium	CVP Cardiac Hypertrophy	CVP Hemostasis, Thrombosis and Inflammation	Central Nervous System Pharmacology
ISTCP GI Pharmacology	CVP Vascular Pharmacology - Smooth Muscle	CVP Heart Failure	Drug Metabolism and Disposition
CAN Cancer Biology and Prevention	CVP Vascular Pharmacology - General	CVP Vascular Pharmacology - Ion Channels	Systems Pharmacology and Toxicology
	ISTCP Kidney Pharmacology	ISTCP Diabetes and Metabolic Syndrome	Pharmacogenomics and Translational Pharmacology
	CAN Cancer Therapeutics I: Overcoming Treatment Resistance and Toxicity	CAN Cancer Therapeutics II: New Targets	Drug Discovery and Development
			Pharmacology Education
			Cancer Pharmacology
			Pharmacology - Other

Key to Division Names:

BEH=Behavioral Pharmacology CAN=Cancer CVP=Cardiovascular Pharmacology DDD=Drug Discovery and Development DM=Drug Metabolism EDU=Pharmacology Education
ISTCP=Integrative Systems, Translational and Clinical Pharmacology MP=Molecular Pharmacology NEU=Neuropharmacology TOX=Toxicology

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www.aspet.org

The American Physiological Society at Experimental Biology 2015 – Boston, MA

All rooms are in the Boston Convention & Exhibition Center unless otherwise noted.

Saturday, March 28, 2015 Time as indicated		Sunday, March 29, 2015 Time as indicated		Monday, March 30, 2015 Time as indicated		Tuesday, March 31, 2015 Time as indicated		Wednesday, April 1, 2015 Time as indicated			
8:00 AM-12:00 Noon Edu Com Refresher Course: It's All in Your Head: A Refresher Course on the Brain and Systems Control Young Rodenbaugh Rm 210A	8:00-10:00 TPFG Oral: Translational Physiology: Focus on Obesity, Hypertension, and Diabetes Andresen Rm 210 BC	10:30-11:30 AM Teaching Bernard Lecture Macknight Rm 210A	2:00-3:00 PM CAMPS Davson Lecture Aperia Room 205C	8:00-9:00 AM NCAR Ludwig Lecture Mitchell Rm 210A	10:30-11:30 AM E&M Berson Lecture Hardie Rm 210A	8:00-10:00 Careers Symp: Resilience is Power: Dealing with the Ups and Downs of Your Scientific Career Wehrwein Schmackenberg Room 207	10:30-11:30 AM Oncis and Epithelial Systems Physiology Delpire McCormick Rm 210 BC	3:15-5:15 PM PSS Symp: The Future of Obesity Research Hasty Rm 210 BC	8:00-10:00 Resp FT: Evolution of Air Breathing Harris Wilson Rm 210A	10:30-12:30 Contributors to the Slowed Aging Phenotype: Exercise and other Common Mediators Hamilton Rm 210 BC	4:45-5:45 PM Nobel Prize Lecture Lefkowitz Rm 210 BC
9:30-11:30 AM MCS: Microcirculation: Oxygen/Blood Flow Frame Room 205B	9:00-10:00 AM NCAR Minisym: Neural Control of the Circulation during Exercise in Normal and Disease States Mitchell Smith Rm 210A	9:00-10:00 AM NCAR Ludwig Lecture Mitchell Rm 210A	9:00-10:00 AM NCAR Minisym: Neural Control of the Circulation during Exercise in Normal and Disease States Mitchell Smith Rm 210A	9:00-10:00 AM NCAR Ludwig Lecture Mitchell Rm 210A	10:30-11:30 AM E&M Berson Lecture Hardie Rm 210A	10:30-11:30 AM XSEC Symp: Neurohormonal Mechanisms in Blood Pressure Control Haywood Cowley Rm 210 BC	10:30-11:30 AM Respiration Control Lecture Raj Rm 210A	2:00-3:00 PM CVS Berne Lecture Ping Rm 210A	2:00-3:00 PM EEP Symp: Who can Tolerate Blood Loss? New Insights into Mechanisms of Compensation to Hemorrhage Convertino Hinojosa-Laborde Room 207	History Symp: Neuroplasticity in Space: Reflections from the STS-90 NeuroLab Space Shuttle Crew Dean Rm 210A	BMES Symp: Vascular Bioengineering Dai Tien Rm 212 Room 212
1:00-3:00 PM Big Data Workshop Larkin Lindsey Room 206A	CV FT: Cerebrovascular Abnormalities in Hypertensive Disease Warrington Room 205C	CV FT: Cardiovascular Responses to Trauma Hester Room 205B	CV FT: Vascular, Endothelial Cell Insulin Resistance: A New target for Reducing Vascular Risk in Diabetes? Pierce Room 205C	CV FT: The Physical Biology of Thrombus Formation McCarthy Nieves Room 205B	CV/MSCT Kaley Lecture and Complementary Presentations Nelson Room 205B	CNS Symp: Brainstem Mechanisms Underlying Cardiorespiratory Signaling: From Synapses to Circuits Derbenev Andresen Room 205C	APS/Physoc Symp: Voltage-gated Calcium Channels and the Function of Excitable Cells: From Basic Mechanisms to Disease Dolphin Room 205C	EM Symp: Rejuvenating the Beta Cell Lynch Sanson Room 205C	SFBIS and SCCF Pan/American Symp: Salt-Sensitive Hypertension: The Brain of the Kidney to Blame Antunes Reyes Room 205C	EEP FT: Sympathetic Control of the Vasculature in Clinical Populations Alexander Greaney Room 207	AFMR Symp: Emerging Concepts in Hypoxia-related Disease Signaling Rosouli Coigan Room 211
1:00-3:00 PM Sci Policy Symp: Reproducibility in Research: What Are the Problems? How Can We Fix Them? What Happens If We Don't? Nordcott Room 209	CV FT: Cardiovascular Responses to Trauma Hester Room 205B	CV FT: Vascular, Endothelial Cell Insulin Resistance: A New target for Reducing Vascular Risk in Diabetes? Pierce Room 205C	CV FT: The Physical Biology of Thrombus Formation McCarthy Nieves Room 205B	CV FT: Exercise at the Molecular Level: Myokines and Other Novel Therapeutic Opportunities White Room 212	CV FT: Wiggers Award Featured Topic Spain Chilian Room 205B	EEP Symp: Exercise at the Molecular Level: Myokines and Other Novel Therapeutic Opportunities White Room 212	WIPC Symp: Mentoring for Diverse Careers: Mentor and Protégé Perspectives Dwinnell Mathis Room 205B	WIPG Symp: Translational Strategies for Musculoskeletal Regenerative Medicine Mendis Funai Room 206A	NCAR FT: Refreshing Perspectives on the Role of the Chemoreflexes in the Control of Cardiorespiratory Functions: New Pathways and Players Marcus Room 205B	NCAR FT: Perspectives on the Role of the Chemoreflexes in the Control of Cardiorespiratory Functions: New Pathways and Players Marcus Room 205B	EEP FT: Autophagy in Muscle Hood Room 207
1:00-5:15 PM 2nd Annual APS Physiological Genomics Group Conference Room 211	NCAR FT: NCAR Trainee Featured Topic Xia Itack Room 206A	CV Symp: New Insights into Vascular Function from In Vivo Vascular Imaging Wier Zhang Room 206A	EM Symp: Limitations to and Potential of Exercise for the Spinal Cord injured Taylor Room 206A	EM FT: Diet, Nutrition, and Adipose Tissue: You are What You Eat Nosten Room 206A	NCAR FT: Interactions Between Cardiovascular and Ingestive Behavioral Signals at the Circumventricular Organs Collister Ferguson Metzger Room 206A	EM FT: Diet, Nutrition, and Adipose Tissue: You are What You Eat Nosten Room 206A	MBG Symp: Membrane Repair in Muscle Cells: Molecular Mechanisms and Therapeutic Approaches Michele Metzger Room 206A	TPG Symp: Translational Strategies for Musculoskeletal Regenerative Medicine Mendis Funai Room 206A	TAC Symp: Scientists as Supervisors: Hiring, Firing, and Beyond Banek Stener Room 206A	CV FT: Systemic and Pulmonary Vascular Function at High Altitude/Hypoxia: Learning from Maldaptations Scherrer Room 206B	CV FT: Molecular Regulators of Skeletal Muscle miRNA in Diabetic Heart Failure Mishra Room 208
1:30-3:00 PM Microcirculation: Inflammation Gonzalez Room 205B	Renal FT: Recent Advances in Renal Physiology and Kidney Disease I Ortiz Li Room 206B	WEH FT: Hypertension: Developing Concepts Sullivan Ryan Room 206B	WEH FT: Hypertension: Developing Concepts Sullivan Ryan Room 206B	WEH FT: Hypertension: Developing Concepts Sullivan Ryan Room 206B	WEH FT: The Biology of Oxygen Homeostasis and Hypoxia Polchunowski Evans Room 206B	CNS FT: CNS Mechanisms of Blood Pressure Regulation Wainford Room 206B	CNS FT: CNS Mechanisms of Blood Pressure Regulation Wainford Room 206B	CAMP Symp: Gation Channels Controlling Intracellular Functions Kozak Bruggemann Room 206B	MBG FT: Neurovascular Diseases: Novel Therapeutic Strategies Lubjic Room 206B	CV FT: Molecular Regulators of Skeletal Muscle miRNA in Diabetic Heart Failure Mishra Room 208	CV FT: Molecular Regulators of Skeletal Muscle miRNA in Diabetic Heart Failure Mishra Room 208

The American Physiological Society at Experimental Biology 2015 – Boston, MA

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Saturday, March 28, 2015 Time as indicated	Sunday, March 29, 2015 10:30-12:30 3:15-5:15	Monday, March 30, 2015 10:30-12:30 3:15-5:15	Tuesday, March 31, 2015 10:30-12:30 3:15-5:15	Wednesday, April 1, 2015 10:30-12:30 2:30-4:30
2:15-5:15 PM WEH Trainee Award Finalists and Data Diuresis O'Connor Room 205C Valten Room 208	CV Symp: Cardiopulmonary Consequences of Perinatal Exposures Rogers Room 208 Valten Room 208	CV Symp: The Role of Stone- Operated Calcium Physiology and Disease Lompre Collins Room 208	CV Symp: Treating CV Disease with Exercise: Mechanistic Insight Translated from Animal Models Emter Libonati Room 208	GIL Symp: Wanted and Unwanted Paracellular Passage in Intestinal Epithelia Fromm Schulze Room 208 Klein Room 208 Nelin Abman Room 208
3:00-5:00 PM Data NCARation Creeluis Dick Room 212	Hypoxia Symp: Molecular Oxygen: At the Crossroads of Inflammation and Metabolism Haase Room 209	NCAR FT: Baroreflex and Chemoreflex Controls of the Human Cerebral Circulation Richardts Room 209	CAMP FT: Ion Channels and Transporters in Health and Disease O'Grady Srauthy Room 209	EM FT: Circadian Clock in Metabolic Regulation Wang Room 209 McGuinness Room 209 White Yaddanapudi Room 209
3:15-5:15 PM Workshop: Proteomics for the Physiologist Adhikari Rinehart Room 206A	Renal Symp: Control of Electrolyte Balance by Novel Pathways in Intercalated Cells Sansom Grimm Room 211	Renal Symp: Novel Mechanisms in Renal Function and Blood Pressure Regulation Weisz Caecres Room 211	Renal FT: Recent Advances in Renal Physiology and Kidney Disease II Welling Ilatovskaya Room 211	CV Symp: The Pathophysiology of Drug-Induced Vascular Injury (DIVI) Wamhoff Turk Room 211 Singh McDonough Room 205B
3:15-5:15 PM The Heart of the Matter: Menopause, Sex Steroids, and Cardiovascular Disease Reckelhoff Wenner Room 212 Kuebler Waters Room 212	Resp FT: Respiratory Related Disorders in Aging and Neurodegeneration Greising Seick Room 212	CEPS FT: CEPS Abstract-driven Trainee Featured Topic Martinez Kirkton Room 212	CEPS FT: The Cost of Physiological Plasticity Hindle van Breukelen Room 212	AFMR Symp: From Basic Science to Precision Medicine: The Use of Genomic, Epigenomic and Translational Research to Develop Personalized Treatments Payne Colburn Room 212
3:30-5:00 PM Microcirculation: Signaling/Channels Butcher Room 205B	PG Symp: Revolutionary Systems-Medicine Approaches to Understand Disease and Drug Response Physiology Blackman Room 207	Hypoxia FT: Cellular, Molecular and Systems Integration Underlying Adaptation and Maladaptation to Hypoxia Ramirez Singh Room 207	EEP FT: Sex Hormone Effects on Autonomic and Endothelial Function Stachenfeld Room 207	EEP Symp: Muscle Atrophy, Hypertrophy and MicroRNA Carson Wang Room 207
5:30-6:30 PM Canon Award Lecture Yanagisawa Rm 210 BC	4:15-5:15 PM WEH New Investigator Award Lecture Grobe Rm 210A	WEH Symp: Gastro-Renal Communication Jose Room 207	PG: Trainee Highlights in Physiological Genomics Kriegel Cai Room 211	

The American Physiological Society at Experimental Biology 2015 – Boston, MA

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Saturday, March 28, 2015 Time as indicated	8:00-10:00	Sunday, March 29, 2015 10:30-12:30	3:15-5:15	8:00-10:00	Monday, March 30, 2015 10:30-12:30	3:15-5:15	8:00-10:00	Tuesday, March 31, 2015 10:30-12:30	3:15-5:15	8:00-10:00	Wednesday, April 1, 2015 10:30-12:30	2:30-4:30
		5:45-6:45 PM Bowditch Award Lecture LaMarea Rm 210 BC			4:15-5:15 PM CNS Minisymposium: Modern Methods to Understand Brain Connections and Neural Function Deisweeth Room 205C				1:00-2:00 PM History Group Lecture Ryan Westin, Grand Ballroom E			
					5:30-6:30 PM A Conversation with Denis Noble and Michael Joyner on the Integration of Evolutionary Biology with Physiological Science Patterson Room 205B				5:45-7:00 PM APS Business Meeting Rm 210 BC			

FASEB Career Center Activities at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Friday, March 27, 9:00AM-5:00PM and Saturday, March 28, 9:00 AM-5:00 PM	NIH Boot Camp: <i>Becoming a Manager</i> Room: 206 B Boston Convention & Exhibition Center	Leadership & Management Training for PhD-level Scientists and Senior-level Graduate Students who will be leading their own groups in academics, industry, non-profits and government (research and non-research related positions). <i>[Pre-registration required.]</i>
Saturday, March 28, 9:00 AM-5:00 PM	"Career Corner" Satellite Sessions: <i>One-on-One Counseling/Resume & CV critiques</i> EB2015 Meeting Registration Area Boston Convention & Exhibition Center	Individual one-on-one resume/CV critiques, career counseling sessions by career counseling experts will be available in the EB2015 Meeting Registration Area on Saturday only. NOTE: Beginning Sunday, March 29th, the sessions will resume in the EB2015/FASEB Career Center located in Hall B – (EB2015 Exhibit Hall).
Hall B - Boston Convention & Exhibition Center		Resume Critique/CV and Career Counseling Room BCEC/Hall B
Sun., March 29 9:00AM	CRC-1 The Strategic Postdoc: How to Find & Leverage Your Postdoc Experience 9:00-10:00 (Green)	CRC-4 Get Up With Something on Your Mind 9:00-10:00 (Adams)
Sun., March 29 10:00AM	CRC-2 How to Choose Your Ideal Career 9:30-10:30 (Lindstaedt)	One-on-One Sessions: Debra Behrens, John Lombardo, Naledi Saul
Sun., March 29 11:00AM	CRC-3 Your Behavioral CV 9:30-10:30 (Blumenthal)	One-on-One Sessions: Andrew Green, John Lombardo, Bill Lindstaedt
Sun., March 29 1:00PM	CRC-2 How to Choose Your Ideal Career (continues until 10:30) Understanding Search Committees & Finding Job Announcements 11:00-12:00 (Green)	One-on-One Sessions: Bill Lindstaedt, Judy Blumenthal
Sun., March 29 2:00PM	CRC-3 But I Have No Skills! 11:00-12:00 (Lombardo)	One-on-One Sessions: Judy Blumenthal, Naledi Saul, John Lombardo
Sun., March 29 3:00PM	CRC-2 Creating Effective CV's Cover Letters, Research & Teaching Statements 1:30-2:30 (Green) Creating Effective CV's Cover Letters, Research & Teaching Statements (continues until 2:30)	One-on-One Sessions: Andrew Green, John Lombardo, Debra Behrens
Sun., March 29 4:00PM	CRC-1 Networking: A Required Life Skill 2:30-3:30 (Adams) Networking: A Required Life Skill (continues until 3:30)	One-on-One Sessions: Judy Blumenthal, Debra Behrens, John Lombardo
MONDAY MARCH 30 BCEC/Hall B	CRC-2 Nailing the Job Talk & Interview Prep 3:30-4:30 (Green) Nailing the Job Talk & Interview Prep (continues until 4:30)	One-on-One Sessions: John Lombardo, Naledi Saul
Mon., March 30 9:00AM	CRC-3 Attitudes and Behaviors: How are you Perceived? 4:00-5:00 (Blumenthal) MONDAY MARCH 30 CRC-3 I Said What?!? 9:00-10:00 (Blumenthal)	One-on-One Sessions: Andrew Green, Debra Behrens, Naledi Saul, John Lombardo
	MONDAY MARCH 30 CRC-2 NIH K Awards 9:00-10:30 (Khachatryan)	MONDAY MARCH 30 CRC-4
	CRC-1 Beyond the Elevator Speech: Understanding the Power of Networking" 9:00-10:00 (Sinche)	MONDAY MARCH 30 CRC-4 Job Hunting in Biotech Part 1: Finding and Applying for Scientist Position 9:00-10:00 (Lindstaedt)

FASEB Career Center Activities at Experimental Biology 2015 – Boston, MA

All sessions listed are in the Boston Convention & Exhibition Center unless otherwise noted.

Mon., March 30 10:00AM	Goal Setting, Prioritizing, Time & Stress Management 10:30-11:30 (Adams)	NIH K Awards (continues until 10:30)	Developing Your Core Message/"Elevator Pitch" 10:30-11:30 (Lombardo)	Identifying Your Options using ScienceCareers.org... 10:30-11:30 (Green)	One-on-One Sessions: Melanie Sinche, Naledi Saul, Debra Behrens, Bill Lindstaedt, Judy Blumenthal
Hall B - Boston Convention & Exhibition Center	CRC-1	CRC-2	CRC-3	CRC-4	Resume Critique/CV and Career Counseling Room BCEC/Hall B
Mon., March 30 11:00AM	Goal Setting, Prioritizing, (continues until 11:30)	Negotiation Strategies for Scientists 11:00-12:00 (Behrens)	Developing Your Core Message/"Elevator Pitch" (continues until 11:30)	Identifying Your Options... (continues until 11:30)	One-on-One Sessions: Bill Lindstaedt, Judy Blumenthal, Naledi Saul, Melanie Sinche
Mon., March 30 1:00PM	Striving for EXCELLENCE 1:00-2:00 (Adams)	Ten Ways to Get Lucky in the Job Search 1:00-2:00 (Lombardo & Clifford)	Networking: Is It Only Who You Know? 1:00-2:00 (Blumenthal)	Building Your Skills, Networking & Informational Interviews 1:00-2:00 (Green)	One-on-One Sessions: Melanie Sinche, Bill Lindstaedt, Debra Behrens, Naledi Saul
Mon., March 30 2:00PM	Job Hunting in Biotech Part 2: Interviewing for Scientist Positions 2:30-3:30 (Lindstaedt)	Job Talk/Chalk Talk: Making the Grade 2:30-3:30 (Behrens)		Translating Your Credentials on Paper... 2:15-3:15 (Green)	One-on-One Sessions: Judy Blumenthal, Naledi Saul, John Lombardo, Melanie Sinche
Mon., March 30 3:00PM	Job Hunting in Biotech Part 2: Interviewing... (continues until 3:30)	Job Talk/Chalk Talk: Making the Grade (continues until 3:30)	Handshakes, Eye Contact, Small Talk: How to Successfully Network at a Conference 3:00-4:30 (Saul)	Translating Your Credentials on Paper... (continues until 3:15)	One-on-One Sessions: Judy Blumenthal, John Lombardo, Melanie Sinche
Mon., March 30 4:00PM	Attitudes & Behaviors: How are you Perceived? 4:00-5:00 (Blumenthal)	Job Hunting in Biotech Part 3: Compensation Negotiation for Scientist Positions 4:00-5:00 (Lindstaedt)	Handshakes, Eye Contact... (continues until 4:30)	NIH F Awards 3:30-5:00 (Khachatryan)	One-on-One Sessions: Andrew Green, Melanie Sinche, Debra Behrens, John Lombardo
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Tue., March 31 10:00AM	Talking About Yourself... (continues until 10:30)	NIH K Awards (continues until 10:30)	Developing your Core Message/"Elevator Pitch" (continues until 10:30)	Negotiation Strategies for Scientists (continues until 10:30)	One-on-One Sessions: Andrew Green, Bill Lindstaedt, Judy Blumenthal
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Tue., March 31 3:00PM	Navigating the Protocol, Milestones & Graduate Degree Requirements (continues until 3:30)	NIH F Awards (continues until 4:00)	Handshakes, Eye Contact, Small Talk... (continues until 3:30)	But I Have No Skills! 3:00-4:00 (Lombardo)	One-on-One Sessions: Bill Lindstaedt, Debra Behrens, Judy Blumenthal
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Wed., April 1 11:00AM	Job Talk/Chalk Talk: Making the Grade (continues until 11:30)	Ten Ways to Get Lucky... (continues until 11:30)	Attitudes & Behaviors: How are You Perceived? 11:00-12:00 (Blumenthal)	Translating Your Credentials 11:00-12:00 (Green)	One-on-One Sessions: Bill Lindstaedt, Naledi Saul, John Lombardo
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Wed., April 1 2:00PM					One-on-One Sessions: Naledi Saul, John Lombardo
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Across Societies – Experimental Biology

1. NIH BOOT CAMP: BECOMING A MANAGER

Seminar

(Sponsored by: ASIP Committee for Career Development and Diversity and the FASEB Maximizing Access to Research Careers (MARC) Office)

FRI. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206B

CHAIRIED: S. MILGRAM AND L. CONLAN, Off. of Intramural Trng.
and Educ., NIH

Career Development

Leadership and Management Training for PhD-level Scientists and Senior-level Graduate Students who will be leading their own groups in academics, industry, non-profits and government (research and non-research related positions)

Management of people and resources is a key component to being successful as you move forward in your career. Staff from the NIH OITE has developed an intense course to give advanced PhD-level scientists and senior-level graduate students an overview of common management concepts that are not often taught in a research environment. The topics covered will be applicable to all sectors (academics, industry, non-profits, government, etc.)

8:30 Welcome and Introductions.
9:00 Self-Awareness: The Key to Professional Success.
12:30 Lunch on Your Own.
1:15 Relating to Those Around You: Emotional Intelligence, Communication, Culture and Diversity.

Biochemistry and Molecular Biology

2. ASBMB GRADUATE AND POSTDOCTORAL TRAVEL AWARD PROFESSIONAL NETWORKING EVENT

Special Event

FRI. 5:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 255

COCHAIRIED: C. HEINEN AND T. O'CONNELL

Invitation only. Required participation by all Graduate/ Postdoctoral and Underrepresented Graduate Student Travel Award recipients.

Nutrition

4. ASN SPONSORED SATELLITE PROGRAM: WHOLE-MILK DAIRY FOODS IN NUTRITION AND HEALTH: AN EVALUATION OF THE CURRENT STATE OF THE SCIENCE

ASN Satellite

(Sponsored by: The National Dairy Council)

FRI. 8:30 AM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

5. ASN SPONSORED SATELLITE PROGRAM: SCIENCE AND POLICY: ADOPTING A FRUITFUL VEGETABLE ENCOUNTER FOR OUR CHILDREN

ASN Satellite

(Sponsored by: The Alliance for Potato Research and Education)

FRI. 1:00 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

**6. ASN SPONSORED SATELLITE PROGRAM:
NEURAL - PHYSIOLOGIC MECHANISMS
REGULATING SODIUM APPETITE**

ASN Satellite

(Sponsored by: The Grocery Manufacturers Association)

FRI. 1:00 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM EFG

**6A. ASN CAROTENOID AND RETINOID
INTEGRATIVE GROUP (CARIG) RIS
ANNUAL SYMPOSIUM**

Ris Forum

(Sponsored by: CARIG RIS)

FRI. 1:00 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
ATLANTIC 2/3

SATURDAY, MARCH 28

Across Societies – Experimental Biology

7. NIH BOOT CAMP: BECOMING A MANAGER

Seminar

(Sponsored by: ASIP Committee for Career Development and Diversity and the FASEB Maximizing Access to Research Careers (MARC) Office)

SAT. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206B

CHAired: S. MILGRAM AND L. CONLAN, Off. of Intramural Trng. and Educ., NIH

Leadership and Management Training for PhD-level Scientists and Senior-level Graduate Students who will be leading their own groups in academics, industry, non-profits and government (research and non-research related positions)

Management of people and resources is a key component to being successful as you move forward in your career. Staff from the NIH OITE has developed an intense course to give advanced PhD-level scientists and senior-level graduate students an overview of common management concepts that are not often taught in a research environment. The topics covered will be applicable to all sectors (academics, industry, non-profits, government, etc.)

9:00 Conflict, Feedback and Difficult Conversations.

10:30 Staffing Your Units.

12:00 Lunch on Your Own.

1:00 Supervisory, Mentoring and Advocacy Relationships in Work Environments.

3:00 Motivating Your Staff.

Visit the Exhibits

March 29 – March 31

Exhibit Hours

Sunday – Tuesday

9:00 AM – 4:00 PM

Anatomy

8. HOW TO MENTOR: BASIC SCIENCE, CLINICAL SCIENCE, AND EDUCATIONAL SCHOLARSHIP SKILLS FOR GRADUATE STUDENTS AND POSTDOCS

Symposium

SAT. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104C

CHAired: L. MAY AND J. WISCO

Professional Development

Career Development

- 8:00 What Every Young Investigator Needs to Know about Establishing a Basic or Clinical Science Research Program and Where to Get Help **S. Thakur**. UCLA David Geffen Sch. of Med.
- 8:30 Discussion.
- 8:40 Writing Papers Can be a Scary Thing: How to Mentor Students to Navigate the Monsters and See that Manuscript to Publication **M. Loukas**. St. George's Univ. Sch. of Med.
- 9:10 Discussion.
- 9:20 What is My Role as a Post Graduate Student with Regard to Mentorship and Mentoring? **B. Huang**. Natl. Postdoc Assn.
- 9:50 Discussion.

9. LEANING IN WITHOUT FALLING OVER: SUPPORTING THE SUCCESS OF WOMEN IN SCIENCE

Symposium

SAT. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104C

CHAired: L. SMITH AND V. O'LOUGHLIN

Professional Development

Career Development

- 10:30 **9.1** Creating Change in Scientific Institutions through Subversion, Revolution (Title IX) and Climate Change **D. Rolison**. U.S. Naval Res. Lab., Washington, DC.
- 11:00 **9.2** "Just the Facts, Ma'am": The Gender Gap in Academia, from the Classroom to the Bank **L. Lee**. Univ. of Colorado Sch. of Med. Aurora.
- 11:30 **9.3** Surviving the Sexodus Project: How STEM Women Approach Career Challenges **J.F. Brinkworth, J.F. Brinkworth and M-C. Shanahan**. Univ. of Montreal.
- 12:00 **9.4** I Say Assertive, You Say Bossy; I Say Leader, You Say Bi***: Gender Bias in Academia **V. O'Loughlin**. Indiana Univ. Sch. of Med., Bloomington.

10. "BACK TO BASICS" ANATOMY FOR EVERYDAY PRACTICE: INTEGRATING ANATOMY EDUCATION INTO THE CLINICAL YEARS

Symposium

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 102AB

CHAired: N. LACHMAN

Education & Teaching

Education

- 2:00 **10.1** Expanding Program Specific Anatomy Education during Residency: New Opportunities and Challenges **A. Agur**. Univ. of Toronto.
- 2:30 **10.2** Integrating Anatomical Education into a Residency Curriculum of a Surgical Specialty **G. Cundiff**. Univ. of British Columbia.
- 3:00 **10.3** Back to Basics: Applied Anatomy in Regional Anesthesia **A.K. Jacob, C.W. Njathi and J.K. Panchamia**. Mayo Clin.
- 3:30 **10.4** Teaching Anatomy in the Simulation Center **D.B.B. Jones**. Harvard Med. Sch.


11. ANATOMY OF AGING

Symposium

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

CHAired: H.W. LAMBERT

- 2:00 **11.1** The Aging Brain **L. McCullough**. Univ. of Connecticut Hlth. Ctr.
- 2:30 **11.2** The Ups and Downs of Aging in the Male Genitourinary Tract **J.L. Hannan**. Brody Sch. of Med., East Carolina Univ.
- 3:00 **11.3** You Are as Old as Your Arteries – and Microvessels **Z. Ungvari**. Univ. of Oklahoma Hlth. Sci. Ctr.
- 3:30 **11.4** Osteophytes for Neophytes – Geriatric MSK Anatomy for Health Care Students **A.F. Dalley**. Vanderbilt Univ. Sch. of Med.

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12. VASCULAR AND CONNECTIVE TISSUE IMAGING IN SITU: RETURNING BONE TO THE SKELETON

Symposium

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

CHAired: M. SERRAT

Developmental Biology

- 2:00 Introduction.
- 2:05 **12.1** Imaging the Dynamics of Bone Elongation: Integrating Macro- and Micro-scale Processes at the Organ Level In Situ **C. Farnum**. Cornell Univ.
- 2:27 **12.2** New Strategies for Cellular-Scale Imaging of Bone and Cartilage **R. Williams**. Cornell Univ.
- 2:49 **12.3** Conversion of Bone Marrow Blood Vessels into Bone Leads to “Microvascular Dead Space”: A Potential Etiology for Bone and Bone Marrow Disease with Advancing Age **R. Prisby**. Univ. of Delaware.
- 3:11 **12.4** Mechanisms Need Not Be Molecular – Tissue-Level Mechanisms for Drug-Induced Changes to Bone Mechanical Properties **M. Allen**. Indiana Univ. Sch. of Med.
- 3:33 **12.5** Imaging IGF-I Uptake in Growth Plate Cartilage Using In Vivo Multiphoton Microscopy **M.A. Serrat and G. Ion**. Marshall Univ. Joan C. Edwards Sch. of Med.
- 3:55 Discussion.

13. CREATION OF TISSUE-LIKE STRUCTURES IN VITRO USING ADVANCED TECHNOLOGIES

Symposium

(Sponsored by: The Anatomical Society)

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

CHAired: S. PRZYBORSKI

Cell Biology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

- 2:00 **13.1** Platform Technologies for Routine Generation of Advanced Organotypic Three Dimensional Cell Culture Models **S. Przyborski**. Sch. of Biol. and Biomed. Sci., Durham Univ., U.K.
- 2:30 **13.2** Three Dimensional Hydrogel Scaffolds and Applications in the CNS **M. Shoichet, R.G. Wylie, Y. Aizawa, R.Y. Tam and S.C. Owen**. Univ. of Toronto.
- 3:00 **13.3** Development of 3D In Vitro Models of Nerve and Skin for Disease, Disorder and Testing Studies **J. Haycock**. Univ. of Sheffield.
- 3:30 **13.4** Microengineered Physiological Biomimicry: Human Organs-on-Chips **D. Huh**. Univ. of Pennsylvania.

14. WELCOME AND KEYNOTE

Keynote Lecture

SAT. 4:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

Welcome and Introduction by AAA President Lynne Opperman

- 4:30 Introduction.
- 4:45 **14.1** Evo-Devo and an Expanding Evolutionary Synthesis **S. Carroll**. Univ. of Wisconsin-Madison.

Biochemistry and Molecular Biology

15. ASBMB PROFESSIONAL DEVELOPMENT PROGRAM FOR GRADUATE STUDENTS AND POSTDOCTORAL TRAINEES

Special Session

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 253A

COCHAIRSD: C. HEINEN AND T. O'CONNELL

Invitation only. Required participation by all Graduate/ Postdoctoral and Underrepresented Graduate Student Travel Award recipients.

16. HOW TO INCORPORATE SCIENCE OUTREACH INTO YOUR PORTFOLIO – BEST PRACTICES AND BROADER IMPACTS

Workshop

SAT. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 252B

Advance event registration required.

This session will serve to showcase past grant recipients from the ASBMB HOPES and Outreach Seed Grant programs, and to promote upcoming ASBMB funding opportunities. The session will also provide insight into the National Science Foundation's Broader Impacts requirement.

17. ASBMB UNDERGRADUATE STUDENT ANNUAL MEETING ORIENTATION

Special Session

SAT. 11:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAIRSD: J. PROVOST

Orientation open to all undergraduates attending the poster competition. No registration required.

18. ASBMB 19TH ANNUAL UNDERGRADUATE STUDENT RESEARCH POSTER COMPETITION

Special Event

SAT. 1:00 PM—BOSTON CONVENTION & EXHIBITION CENTER –
EAST REGISTRATION

COCHAIRSD: K. CORNELLY, K. FOX, P.A. ORTIZ

Pre-registration required. Check in and set up begin at noon.

19. ASBMB CAREERS SPEED DATING: A WORKSHOP FOR UNDERGRADUATES

Workshop

SAT. 4:45 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

Students learn about a variety of exciting career options in this fun and fast-paced workshop.

20. ASBMB BUSINESS MEETING

Business Meeting

SAT. 6:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM WEST

21. ASBMB OPENING LECTURE: HERBERT TABOR RESEARCH AWARD LECTURE

Award Lecture

SAT. 6:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM WEST

6:00 Meeting Introduction, the State of the Society and Award Presentation.

6:20 21.1 Noncoding RNAs: Small, Large and Viral J.A. Steitz. Yale Univ., HHMI.

22. ASBMB OPENING RECEPTION

Special Event

SAT. 7:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM PRE-FUNCTION AREA

Immediately follows the ASBMB Opening Lecture. ASBMB members and biochemistry attendees welcome. Science Outreach and ASBMB Student Chapter Activity Posters will be presented during the reception for attendees to explore and become inspired.

23. ASBMB SCIENCE OUTREACH AND STUDENT CHAPTERS ACTIVITY POSTERS

Poster Discussion

SAT. 7:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM PRE-FUNCTION AREA

Science Outreach and ASBMB Student Chapters activity posters will be featured during the ASBMB Opening Reception.

All posters presented at 7:30 PM.

- 1) The Jackson Laboratory Expanding Quantitative Biology Outreach to Many More Learners through Online Education. **N. Schafheimer**. MIT
- 2) Women in Science & Technology (WST): The Evolution of a Program That Is Creating a Community of Women in Science **L. O'Connell**. Boston Col.
- 3) Science in the News: Graduate Student Outreach Group at Harvard University **K. Taylor**. Harvard Univ.
- 4) Optimizing conditions for high throughput screening of small molecules for inhibiting Lysyl Oxidase-like 2 (LOXL2) **T. Ronnebaum**. Univ. of Kansas.
- 5) Women in Scientific Discovery or Medicine (WISDOM): Utilizing Interprofessional Mentorship to Promote Graduate Education **N. Woitowich**. Rosalind Franklin Univ. of Med. and Sci.
- 6) Developing Engaged Scientists and Citizens: A Network of Partnerships for Effective Service-Learning **G. Begley**. Northeastern Univ.
- 7) University of Arizona's UAN Chapter In Sync with the Tucson Community **J. Hazzard**. Univ. of Arizona.
- 8) Transforming Undergraduate Education in the Molecular Life Sciences-A Special Summer Symposium. **M. Huff**. Bellarmine Univ.
- 9) Presenting NABI: The Alliance for Broader Impacts **K. Storm**. Stanford Univ.
- 10) Inspiring Students and the General Public through Outreach at the Broad Institute **R. Gesserman**. The Broad Inst.
- 11) What's it like to be a B.O.S.S.? **C. Streu**. St. Mary's Col. MD
- 12) Beyond Collaboration: Building a Life Science Community of Practice for Science Education **C. Fritz**. St. Joseph's Univ.
- 13) Living Laboratory: Data Collection as an Educational Experience and Professional Development Opportunity **J. Harris**. Museum of Sci., Boston.
- 14) The Marymount Manhattan College Undergraduate Affiliate Network Chapter **A. Aguanno**. Marymount Manhattan Col.
- 15) Fostering Undergraduate Biology Students' Engagement in Active Community Education **A. Shor**. Saint Leo Univ.
- 16) The University of Tampa's ASBMB-UAN Chapter Outreach **Z. Connelly**. Univ. of Tampa.
- 17) The Biochemical Deconstruction of an Egg and Avocado Sandwich: Exploring Basic Macromolecules through Food Science **J. Garbarino**. Rockefeller Univ.
- 18) ASBMB UAN at UMass Amherst: Life Science Research, Careers and Community Outreach **J. Normanly**. UMass Amherst.
- 19) Chapter Activities at the Suffolk University UAN **C. Peterson**. Suffolk Univ.
- 20) UAN Outreach at Otterbein University **J. Tansey**. Otterbein Univ.
- 21) ASBMB UAN at the University of South Carolina **Z. Roth**. Univ. of South Carolina
- 22) Teen Meetings Outside the Box: Building Science Communication Skills through a Network of Graduate Level Trainees, Science Teachers and High School Teens **T. Evans**. Univ. of Texas Southwestern Med. Ctr.
- 23) Wonderview Junior High School Tutoring and Science Exploration **M. Kellems**. Hendrix Univ.

Nutrition

24. ASN SPONSORED SATELLITE PROGRAM: SWEETENERS AND HEALTH: CURRENT UNDERSTANDINGS, RECENT RESEARCH FINDINGS AND DIRECTIONS FOR FUTURE RESEARCH

ASN Satellite

(Sponsored by: The Rippe Lifestyle Institute)

SAT. 6:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153AB

25. ASN SPONSORED SATELLITE PROGRAM: BODY WATER REGULATION: VASOPRESSIN AS NEW PREDICTOR OF DISEASE RISK?

ASN Satellite

(Sponsored by: Danone Nutricia Research)

SAT. 6:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156BC

26. CREATING THE FUTURE OF EVIDENCE-BASED NUTRITION RECOMMENDATIONS, USING LIPID RESEARCH CASE STUDIES

Symposium

(Supported by International Life Sciences Institute, North America)

(Sponsored by: International Life Sciences Institute, North America)

SAT. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST

CHAIR: K.H. RUBIN AND J.T. DWYER

Global and Public Health Nutrition

- 8:30 Chair's Introduction.
- 8:45 Conducting Research to Inform Future Evidence-Based Dietary Guidance **T. Psota**. USDA Nutr. Evidence Library.
- 9:30 Inflammatory Biomarkers in Lipid Studies **K.L. Fritsche**. Univ. of Missouri-Columbia.
- 9:55 Research on Partially Hydrogenated Oils and LDL-Cholesterol for Regulatory Decisions **D.J. Liska**. Biofortis.
- 10:20 Break.

- 10:40 Research Informing Dietary Guidance on Omega-3 Fatty Acids **W.S. Harris**. OmegaQuant.
- 11:05 Evidence Approach to Nutrition Guidance in the U.S. Military: Using Omega-3 as a Case Study **S.J. Montain**. U.S. Army Res. Inst. of Environ. Med., Natick, MA.
- 11:30 Panel Discussion
Recommendations to Improve Lipid Nutrition Research Impact on Evidence-Based Guidelines and Policy Decision-Making **J.T. Dwyer**. Tufts Med. Ctr.

27. CLINICAL EMERGING LEADERS AWARD COMPETITION

Award Competition

(Supported by Medical Nutrition Council (MNC))

(Sponsored by: Medical Nutrition Council)

SAT. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAIR: C. BALES

ASN Competition

- 8:00 Introductory Remarks.
- 8:15 Double Trouble: Energy Density and Portion Size Combine to Increase Preschool Children's Lunch Intake **S.M.R. Kling, K.L. Keller, L.S. Roe and B.J. Rolls**. Penn State. (276.3)
- 8:30 Patterns of Self-Reported Dieting and Energy Intake in 15y Girls **K.N. Balantekin, L.L. Birch and J.S. Savage**. Penn State and Univ. of Georgia. (597.9)
- 8:45 Effect of a High Protein, High Egg Diet on Muscle Composition, Metabolic Health and Systemic Inflammation in Overweight and Obese, Older Adults **C.S. Wright, J. Zhou, R.D. Sayer, J-E. Kim and W.W. Campbell**. Purdue Univ. (270.6)
- 9:00 Common rs3808607 Polymorphism in the Cholesterol 7 α -Hydroxylase (*CYP7A1*) Gene Determines the Degree of Responsiveness of Circulating Cholesterol Concentrations to Dairy Consumption **M. Abdullah, P. Eck, P. Couture, B. Lamarche and P. Jones**. Univ. of Manitoba and Laval Univ., Quebec. (751.1)
- 9:15 Genetic Variants in *GLUT14* Gene Enhance Susceptibility to Inflammatory Bowel Disease **M. Amir Shaghghi, C.N. Bernstein and P. Eck**. Univ. of Manitoba. (591.3)

28. GLOBAL NUTRITION: NUTRITION AND COGNITIVE AND NEUROLOGICAL OUTCOMES

Minisymposium

(Sponsored by: Global Nutrition Council)

SAT. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153C

CHAired: M. BLACK

COCHAired: A. DIGIROLAMO

8:00 **28.1** Effects of Pre-conceptual Micronutrient Supplementation on Maternal Depression in Vietnamese Women **U. Ramakrishnan, A. DiGirolamo, P. Nguyen, I. Gonzalez-Casanova, H. Nguyen, H. Pham, T.V. Truong, S. Nguyen and R. Martorell.** Emory Univ., Georgia State Univ., Thai Nguyen Univ. of Med. and Pharm., Viet Nam and Intl. Food Policy Res. Inst., Hanoi.

8:15 **28.2** Multiple Micronutrients and Early Learning Interventions Promote Infant Micronutrient Status and Development **S. Fernandez-Rao, K. Hurley, M. Nair, N. Balakrishna, N. Tilton, V. Radhakrishna, G. Reinhart, K. Harding and M. Black.** Univ. of Maryland Sch. of Med., Natl. Inst. of Nutr., Hyderabad, India, Johns Hopkins Bloomberg Sch. of Publ. Hlth., Mathile Inst., Dayton and Micronutrient Initiative, Ottawa.

8:30 **28.3** Cognitive Development in Rural Gambia: Relating Behavior and Growth from 6 – 24 Months of Age **S. Lloyd-Fox, D. Halliday, K. Begus, P. Vellekoop, H. Maris, L. Sanyang, S. Drammeh, M.K. Darboe, A.M. Prentice, S.E. Moore and C.E. Elwell.** Birkbeck, Univ. of London, University Col. London, MRC Unit, London Sch. of Hyg. & Trop. Med. and Univ. of Cambridge.

8:45 **28.4** The Role of Antenatal Anemia and Lead Exposure in Determining Early Child Temperament: Evidence from the Avon Longitudinal Study of Parents and Children **K. Kordas, C.M. Taylor and J. Golding.** Univ. of Bristol.

9:00 **28.5** Connecting Early Life Undernutrition to Hearing Loss: Evidence from Nepal **S.D. Emmett, J. Schmitz, S.K. Khatry, L. Wu, S. LeClerq, S. Karna, J. Pillion and K.P. West, Jr.** Johns Hopkins Sch. of Publ. Hlth., Occidental Col., CA, Nepal Nutr. Intervent. Proj. Sarlahi and Inst. of Med., Nepal.

9:15 **28.6** Iodized Salt Improves Child's Iodine Status, Mental Development, and Physical Growth in a Cluster Randomized Trial in Ethiopia **K. Bougma, G.S. Marquis, F.E. Aboud, E.A. Frongillo, T. Lemma and A. Samuel.** McGill Univ. Sch. of Dietetics and Human Nutr., McGill Univ., Univ. of South Carolina, Bahir Dar Univ. Sch. of Psychol. and Ethiopian Publ. Hlth. Inst., Addis Ababa.

9:30 **28.7** Maternal Multiple Micronutrient Supplementation and Children's Cognition at Age 9-12 Years in Indonesia **E.L. Prado, S.K. Sebayang, M. Apriatni, N. Hidayati, S.R. Adawiyah, A. Islamiyah, S. Siddiq, B. Harefa, K.J. Alcock, M.T. Ullman, H. Muadz and A.H. Shankar.** Summit Inst. of Develop., Indonesia, Univ. of California, Davis, Lancaster Univ., U.K., Georgetown Univ., Mataram Univ., Indonesia and Harvard Univ.

9:45 **28.8** Effect of Vitamin B12 Supplementation on B12 Status and Neurophysiological Function in Older Chileans Analyzed by the Combined Indicator of B12 Status **A. Brito, J.W. Miller, R. Green, S.N. Fedosov, D. Harvey, S. Shahab-Ferdows, R. Verdugo, H. Sanchez, C. Albala, R. Uauy and L.H. Allen.** USDA, Davis, Rutgers Univ., Univ. of California, Davis, Aarhus Univ. and INTA, Univ. of Chile.

29. THE POSTDOCTORAL RESEARCH AWARD COMPETITION

Award Competition

(Supported by DuPont Nutrition and Health)

(Sponsored by: Young Professional Interest Group)

SAT. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153AB

CHAired: E. CIAPPIO

ASN Competition

9:30 Chair's Introduction.

9:40 Slower Rate of Fat Absorption at Dinner versus Lunch Is Associated with Lower Concentrations of Triacylglycerols the Following Morning **M. Jacome-Sosa, Q. Hu, C. Manrique and E.J. Parks.** Univ. of Missouri-Columbia. (744.7)

10:00 Diet Influences the Oral Microbiota of Infants during the First Six Months of Life **H.D. Holscher, R.A. Mathai, J. Kim and K.S. Swanson.** Univ. of Illinois, Urbana, Dominican Univ., IL and East Carolina Univ. (121.8)

10:20 Dietary Protein Food Pattern Is Not Associated with Muscle Mass or Strength among Protein Replete Adults **K.M. Mangano, S. Sahni, K.L. Tucker, K.P. Douglas, A.B. Dufour, R.R. McLean and M.T. Hannan.** IFAR, Hebrew SeniorLife, BIDMC, Harvard Med. Sch. and Univ. of Massachusetts Lowell. (737.3)

10:40 A Diet Containing EGCG and Beta-Alanine Decreases Mortality and Improves Balance in Aged Mice, but Does Not Affect Cognitive Function **B.D. Pence, T.K. Bhattacharya, P. Park, Y. Sun, J.L. Rytych, J.M. Allen, R.H. McCusker, K.W. Kelley, R.W. Johnson, J.S. Rhodes and J.A. Woods.** Univ. of Illinois at Urbana-Champaign. (392.4)

11:00 Vitamin D Supplementation and Quality of Life following Diagnosis in Stage II Colorectal Cancer Survivors **C.M. Lewis, P. Xun and K. He.** Indiana Univ. (253.6)

11:20 Loss of Lipoprotein Lipase Expression Reduces Circulating Monocytes and Decreases Bone Marrow Myeloid Proliferation **C.L. Chang, A.J. Murphy, I.J. Goldberg and R.J. Deckelbaum.** Columbia Univ. and NYU. (913.5)

11:40 Conclusion.

30. MATERNAL/FETAL NUTRITION AND PROGRAMMING: WHAT HAVE WE LEARNED FROM FARM ANIMAL MODELS?

Symposium

(Supported by Mead Johnson Pediatric Nutrition Institute)

SAT. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: G.M. HILL AND T.A. DAVIS

Pediatric Nutrition and Early Development

- 10:30 Select Nutrients and Their Effects on Conceptus Development in Mammals **F.W. Bazer**. Texas A & M Univ.
- 11:00 Altering Specific Functions of the Ruminant Placenta: New Approaches to Assess Causation of Fetal Growth Restrictions **R.V. Anthony**. Colorado State Univ.
- 11:30 Role of Nutrition in Vascular Dysfunction and Prematurity **L.P. Reynolds**. North Dakota State Univ.
- 12:00 The Role of the Small Intestine in Developmental Programming: Impact of Maternal Nutrition on the Dam and Offspring **A.M. Meyer**. Univ. of Missouri.

31. GLOBAL NUTRITION: RECENT INSIGHTS INTO GROWTH AND GROWTH MONITORING

Minisymposium

(Sponsored by: Global Nutrition Council)

SAT. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153C

CHAired: A. STEIN

COCHAired: B. CROOKSTON

- 10:30 **31.1** Patterns of Fetal Growth Based on Ultrasound Measurement and Its Relationship to Small-for-Gestational Age at Birth in Vietnam **P.H. Nguyen, O.Y. Addo, I. Gonzalez-Casanova, H. Pham, T.V. Truong, S. Nguyen, H. Nguyen, R. Martorell and U. Ramakrishnan**. Thai Nguyen Univ. of Pharm. and Med., Intl. Food Policy Res. Inst. Hanoi and Emory Univ.
- 10:45 **31.2** Maternal Weight Loss Increases Preterm Birth in Kenya **B. Barr, B. Natamba, O. Sumba, P. Baresel, F. Opinya, A. Dent, E. Toko, R. Rochford and S. Mehta**. Cornell Univ., Kenya Med. Res. Inst., SUNY Upstate Med. Univ. and Case Western Reserve Univ.
- 11:00 **31.3** Measuring Child Length and Height: Assessing the Accuracy of a Portable Infrared-Based Digital Tool **J.-A.B. Baxter, D.E. Roth, S.H. Zlotkin, S. Yin, P. Milgram and M. Mouzaki**. Hosp. for Sick Children, Univ. of Toronto and Vismage Sys. Inc., Richmond Hill, Canada.
- 11:15 **31.4** Growth Monitoring and Promotion in Rural Ghana: Lack of Motivation or Tools? **M.E. Laar, G.S. Marquis, A. Lartey and K. Gray-Donald**. Sch. of Dietetics and Human Nutr., McGill Univ. and Univ. of Ghana.

11:30 **31.5** Dietary Predictors of Growth in Vulnerable Young Children from Four Low-Resource Countries: A Longitudinal Study **R. Lander, N. Krebs, M. Mazariegos, A. Garces, J. Westcott, N. Goco, A. Tshefu, O. Pasha, E. Chomba, M. Hambidge and First Bites Study Group**. Univ. of Colorado Denver, Aurora, INCAP, Guatemala City, RTI Intl., Research Triangle Park, Kinshasa Sch. of Publ. Hlth., Congo, Aga Khan Univ., Pakistan and Univ. Teaching Hosp., Lusaka, Zambia.

11:45 **31.6** Association of Blood Fatty Acids and Growth in Tanzanian Children 2-6 Years of Age **S. Hahn, T. Jumbe, W.S. Harris, J. Kinabo and J.I. Fenton**. Michigan State Univ., Sanford Sch. of Med., Univ. of South Dakota and OmegaQuant Analytics LLC and Sokoine Univ. of Agr., Tanzania.

12:00 **31.7** Do We Have the Wrong End of the Stick on Reducing Undernutrition? Insights on Determinants of Subnational Trends in India **P. Menon, S. Cyriac and S. Kadiyala**. Intl. Food Policy Res. Inst., India and London Sch. of Hyg. and Trop. Med.

12:15 **31.8** Infant Nutritional Outcomes in an Integrated Agriculture, Health and Nutrition Program in Western Kenya **A. Webb Girard, R. Wanjala, H. Okuku, C. Levin, D. Cole, J. Low and F. Grant**. Rollins Schl. of Publ. Hlth., Emory Univ., Intl. Potato Ctr., Kenya, Univ. of Washington and Dalla Lana Sch. of Publ. Hlth., Univ. of Toronto.

32. CAROTENOIDS AND RETINOIDS IN HUMAN HEALTH

Minisymposium

(Sponsored by: Carotenoid and Retinoid Interactive Group (CARIG) RIS)

SAT. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: S. TANUMIHARDJO AND L. JAHNS

STUDENT CHAIR: STUDENT CHAIR: J. COOPERSTONE

- 10:30 **32.1** The Uptake of Vitamin A into the Neonatal Brain **J.K. Urbanek, L. Tan, A.C. Ross and M.H. Green**. Penn State.
- 10:45 **32.2** A Role for *BCO1* beyond Carotenoid Metabolism: Effects on Androgen Status and Prostatic Homeostasis **J.W. Smith, N.A. Ford, K.J. Austin, S.K. Clinton and J.W. Erdman, Jr.** Univ. of Illinois at Urbana-Champaign, Hass Avocado Bd., Irvine and The Ohio State Univ.
- 11:00 **32.3** Selective Carotenoid Growth Inhibition in Breast Cancer: Independence of Hormonal Sensitivity **J.R. Smith, X. Gong and L.P. Rubin**. Col. of Sci., Univ. of Texas at El Paso and Texas Tech Univ. Hlth. Sci. Ctr. at El Paso.
- 11:15 **32.4** BALB/c and C57BL/6 Mice Develop Distinct Levels of Tissue Retinol Depending on Growth Stage and Dietary Vitamin A Exposure **C-H. Wei, Y. Li and A.C. Ross**. Penn State.
- 11:30 **32.5** Dose to the Mother Method: Milk Intake and Vitamin A Transfer to the Lactating Infant of Mexican Mothers, Using Stable Isotopes **V. Lopez Teros, A.T. Limón-Miró, R.C. Villegas-Valle, L.E. Antunez-Roman, O. Tortoledo-Ortiz, H. Astiazaran-Garcia and M.E. Valencia**. Univ. of Sonora and Ctr. for Food Res. and Develop. (CIAD), Hermosillo, Mexico.

- 11:45 **32.6** Astaxanthin Prevented and Reversed the Activation of Mouse Primary Hepatic Stellate Cells by Inhibiting the Myocyte Enhancer Factor 2-Dependent Expression of Histone Deacetylase 9 **Y. Yang, M. Bae, B. Kim, S. Rudraiah, J. Manautou, Y-K. Park, S.I. Koo and J-Y. Lee.** Univ. of Connecticut and Univ. of Connecticut.
- 12:00 **32.7** A 4-Month Intervention with Daily Consumption of Yellow Cassava by Kenyan School Age Children Does Not Affect Thyroid Function Negatively **A. Melse-Boonstra, E.F. Talsma, Z. Gomora, A.Y. Demir, I.D. Brouwer and M.B. Zimmermann.** Wageningen Univ., Meander Med. Ctr., Netherlands and Swiss Fed. Inst. of Technol., Zurich.
- 12:15 **32.8** Avocado Consumption Increases Neural Lutein and Improves Cognitive Function **E.J. Johnson, R. Vishwanathan, E.S. Mohn, J. Haddock, H.M. Rasmussen and T.M. Scott.** USDA at Tufts Univ.

33. ASN YOUNG MINORITY INVESTIGATOR ORAL COMPETITION

Award Competition

(Supported by DSM Nutritional Products)

(Sponsored by: Minority and Diversity Affairs Committee)

SAT. 11:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAired: C. PRATT

ASN Competition

Finalists are chosen after the publication deadline for this Program. Please see the addendum and/or the ASN Onsite Program for details on presentations.

34. ASN SPONSORED SATELLITE PROGRAM: CURRENT PERSPECTIVE ON PROTEIN QUALITY AND PRACTICAL IMPLICATIONS FOR POLICY

ASN Satellite

(Sponsored by: DuPont Nutrition and Health)

SAT. 12:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153AB

35. ASN SPONSORED SATELLITE PROGRAM: YOGURT IN NUTRITION: THE ROLE OF YOGURT IN WEIGHT MANAGEMENT

ASN Satellite

(Sponsored by: The Danone Institute International and the American Society for Nutrition)

SAT. 12:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156BC

35A. PHENHRIG ANNUAL SYMPOSIUM

Symposium

(Sponsored by: Plant Phenolic and Human Health Research Interest Group (PhenHRIG))

SAT. 1:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

Understanding Polyphenolic Bioactives: Highlights of Recent Progress

PHENHRIG information, including speakers, is available at www.phenhrig.org

36. GRADUATE STUDENT RESEARCH AWARD COMPETITION

Award Competition

(Sponsored by: Nutritional Sciences Council)

SAT. 1:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAired: C. DAVIS

ASN Competition

- 1:30 Association between Transcobalamin II C776G Polymorphism and Neuropathy Is Modified by Folate Intake in Vitamin B-12 Sufficient Elders **H. Sawaengsri, W.Q. Qiu, T.M. Scott, I.H. Rosenberg, P.F. Jaques, J. Selhub and L. Paul.** Friedman Sch. of Nutr. and USDA at Tufts Univ. and Boston Univ. (134.7)
- 1:45 Prebiotic Fiber Consumption Decreases Energy Intake in Overweight and Obese Children **M. Hume, A. Nicolucci and R. Reimer.** Univ. of Calgary. (597.3)
- 2:00 Prostate Specific Antigen Ratio Is Negatively Associated with Blood Cadmium Concentration and Smoking Status **T.M. Vance and O.K. Chun.** Univ. of Connecticut. (918.5)
- 2:15 A Magnetic Separation Method to Improve Signal-to-Noise Ratio in the Measurement of Iron Deficiency Biomarkers Using a Photonic Crystal Biosensor Immunoassay **R.D. Peterson, B.T. Cunningham and J.E. Andrade.** Univ. of Illinois at Urbana-Champaign. (741.6)
- 2:30 Iodized Salt Improves Child's Iodine Status, Mental Development, and Physical Growth in a Cluster Randomized Trial in Ethiopia **K. Bougma, G.S. Marquis, F.E. Aboud, E.A. Frongillo, T. Lemma and A. Samuel.** McGill Univ. Sch. of Dietetics and Human Nutr., McGill Univ., Univ. of South Carolina, Bahir Dar Univ. Sch. of Psychol. and Ethiopian Publ. Hlth. Inst., Addis Ababa. (28.6)
- 2:45 Vitamin D Status and Functional Health Outcomes: A Randomized Vitamin D Dose-Response Trial in 2-8 Year Olds **N.R. Brett, P. Lavery, C.A. Vanstone, J. Maguire, F. Rauch and H.A. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ., Univ. of Toronto and McGill Univ. (734.5)
- 3:00 The Uptake of Vitamin A into the Neonatal Brain **J.K. Urbanek, L. Tan, A.C. Ross and M.H. Green.** Penn State. (32.1)

- 3:15 Novel Ferroxidases in Mammalian Intestinal Epithelial Cells **C. Doguer, J-H. Ha, S. Gulec, S. Flores, X. Wang and Y. Han.** Univ. of Florida and Izmir Inst. of Technol., Turkey. (263.8)
- 3:30 Dysfunctional Cardiac Fatty Acid Metabolism in Cystathionine-beta-Synthase +/- Mice with Obesity **M.B. Glier, R.B. Wambolt, R.P. da Silva, S.L. Gerrard, R.E. Aleliunas, R.L. Jacobs, M.F. Allard and A.M. Devlin.** Univ. of British Columbia and Univ. of Alberta. (919.18)
- 3:45 Epigenetic Regulation of the FXR by High Fat Diet and APC in Colon Cells **A. Lyon, O. Selmin, C. Fang, J.W. Smith, T. Doetschman, P. Thompson, J. Martinez, P. Lance and D. Romagnolo.** Univ. of Arizona and Sanford-Burnham Med. Res. Inst. (394.2)
- 4:00 Cystathionine Gamma-Lyase Inhibition in Primary Human Hepatocytes Affects the Production of Hydrogen Sulfide Biomarkers through the Transsulfuration Pathway **B. DeRatt, R. da Silva, M. Ralat, R.L. Jacobs and J.F. Gregory.** Univ. of Florida and Univ. of Alberta. (919.2)
- 4:15 Green Tea Extract Attenuates Oxidative Stress, Inflammation, and Lipogenesis through Nrf2-Dependent and -Independent Mechanisms in Diet-Induced Obese Mice with Nonalcoholic Steatohepatitis **J. Li, T.N. Sapper, K.E. Schill, C. Chitchumroonchokchai, M.V. Moller, P.R. Rohrer, S. Rudraiah, J.E. Manautou and R.S. Bruno.** The Ohio State Univ. and Univ. of Connecticut. (390.4)

37. NUTRITIONAL APPROACHES FOR OSTEOSARCOPENIC OBESITY: INTERRELATIONSHIPS BETWEEN BONE, MUSCLE, AND FAT

Symposium

(Supported by PepsiCo, Inc.)

(Sponsored by: Aging and Chronic Disease RIS)

SAT. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 157ABC

CHAired: B.H. ARJMANDI AND C. CASTANEDA-SCEPPA

Diet and Non-Communicable Diseases

- 3:00 Osteosarcopenic Obesity: What is It and How Can It Be Managed and Prevented? **J. Ilich-Ernst.** Florida State Univ.
- 3:25 Muscle, Bone, and Fat: Connections and Implications **C.J. Rosen.** Maine Med. Ctr. Res. Inst.
- 3:50 Emerging Therapies for Musculoskeletal Health **R. Roubenoff.** Novartis Institutes for Biomed. Res.
- 4:15 Dietary Protein Intake During Weight Loss: Does It Impact Bone, Muscle and Fat Comparably **W.W. Campbell.** Purdue Univ.

38. ASN ENERGY AND MACRONUTRIENT METABOLISM RIS HOT TOPICS SEMINAR

RIS Forum

(Sponsored by: Energy & Macronutrient Metabolism RIS)

SAT. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 152

CHAired: A. THALACKER-MERCER

39. GLOBAL NUTRITION: UNDERSTANDING AND PREDICTING PROGRAM IMPACT

Minisymposium

(Sponsored by: Global Nutrition Council)

SAT. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: K. DICKIN

COCHAired: R. HEIDKAMP

- 3:00 **39.1** Calcium Supplementation for Preeclampsia Prevention: Estimated Risk of Excessive Intake in Ethiopian Women **B. Tesfaye, S. Wuehler, K. Baye, L.M. De-Regil, T. Moges, A. Adish and K.L. Dickin.** Ethiopian Publ. Hlth. Inst., The Micronutr. Initiative, Canada, Addis Ababa Univ. and Cornell Univ.
- 3:15 **39.2** Household Poverty Does Not Correlate with Micronutrient Malnutrition: Preliminary Findings from a Cross-Sectional Survey in Madhya Pradesh **N. Perumal, S. Kaur, R. Sachdeva, R. Sankar and S. Jungjohann.** Hosp. for Sick Children, Univ. of Toronto Dalla Lana Sch. of Publ. Hlth., Publ. Hlth. Fndn. of India and Global Alliance for Improved Nutr., India and Switzerland.
- 3:30 **39.3** Mixed Methods Approach to Characterize Longitudinal Food Insecurity and Coping Strategies in the Peruvian Amazon **R. Ambikapathi, P. Yori, J. Rothstein, M. Paredes Olortegui, G. Lee, M. Kosek and L.E. Caulfield.** Johns Hopkins Sch. of Publ. Hlth.
- 3:45 **39.4** Influence of Inflammation on Breast Milk Retinol Concentrations of Apparently Healthy Women in Rural Zambia **A.C. Palmer, J. Chileshe, M. Barffour, A.G. Hall, K.P. West, Jr. and M.J. Haskell.** Johns Hopkins Bloomberg Sch. of Publ. Hlth., Trop. Dis. Res. Ctr., Zambia and Univ. of California, Davis.
- 4:00 **39.5** Effects of Small-Quantity Lipid-Based Nutrient Supplement on Hemoglobin and Iron Status of Pregnant Ghanaian Women **S. Adu-Afarwuah, A. Lartey, H. Okronipa, J.M. Peerson, P. Ashorn and K.G. Dewey.** Univ. of Ghana, Univ. of California, Davis and Univ. of Tampere, Finland.

- 4:15 **39.6** Anemia Prevalence May Be Reduced among Countries that Fortify Flour **H. Pachon, J.S. Barkley and K.S. Wheeler.** Food Fortification Init., U.S. and Emory Univ.
- 4:30 **39.7** The Impact of Tubaramure, a Food-Assisted Integrated Health and Nutrition Program In Burundi, on Household Food Consumption and Maternal and Child Dietary Diversity **J.L. Leroy, D.K. Olney, L. Bliznashka and M. Ruel.** Intl. Food Policy Res. Inst., Washington, DC.
- 4:45 **39.8** Cost-Effectiveness of Mama-SASHA: A Project to Improve Health and Nutrition through an Integrated Orange-Fleshed Sweet Potato Production and Health Service Delivery Model **J.L. Self, A. Webb Girard, D. McFarland, F.K. Grant, J. Low, D. Cole and C. Levin.** Emory Univ., Intl. Potato Ctr., Bungoma, Kenya, Intl. Potato Ctr., Nairobi, Univ. of Toronto and Univ. of Washington.
- 40. ASN'S EMERGING LEADERS IN NUTRITION SCIENCE POSTER COMPETITION**
- Award Competition**
- (Supported by PepsiCo, Inc.)*
- (Sponsored by: Research Interest Sections, Global Nutrition Council, Medical Nutrition Council and Public Policy Committee)*
- SAT. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST
- CHAired:* K. SCHALINSKE, L. Neufeld and C. Bales
- ASN Competition**
- 5:00 Effects of Dietary Protein on Skeletal Muscle Mass and Sarcopenia Risk in Middle-Aged Framingham Adults **J.R. Buendia, S.R. Hasnain, M.L. Bradlee, M.R. Singer, R.B. D'Agostino and L.L. Moore.** Boston Univ. Sch. of Med. and Boston Univ. (737.1)
- 5:00 Effects of Dietary Blueberry on Cognition and In Vivo and In Vitro Inflammatory Status **M.G. Miller, D.R. Fisher, M.E. Kelly, D.F. Bielinski and B. Shukitt-Hale.** USDA at Tufts Univ. (900.2)
- 5:00 mTORC1 Nutrient Signaling and Autophagy in Young and Older Skeletal Muscle after Bed Rest and Rehabilitation **R. Tanner, L. Brunker, J. Agergaard, O-S. Kwon, K. Barrows, D. McClain and M. Drummond.** Univ. of Utah. (737.2)
- 5:00 Dietary Protein Food Pattern Is Not Associated with Muscle Mass or Strength among Protein Replete Adults **K.M. Mangano, S. Sahni, K.L. Tucker, K.P. Douglas, A.B. Dufour, R.R. McLean and M.T. Hannan.** IFAR, Hebrew SeniorLife, BIDMC, Harvard Med. Sch. and Univ. of Massachusetts Lowell. (737.3)
- 5:00 The Effect of a Synbiotic Diet on Bone Structure in Aging Male Mice **M.T. Choman, C. Blanton and A. Gabaldón.** Colorado State Univ. – Pueblo and Idaho State Univ. (738.1)
- 5:00 Caffeine, Coffee and Tea in Relation to Risk of Hip Fracture in the Singapore Chinese Health Study **Z. Dai, J-M. Yuan and W.P. Koh.** Natl. Univ. of Singapore, Grad. Sch. of Publ. Hlth., Univ. of Pittsburgh and Duke-NUS Grad. Med. Sch., Singapore. (392.8)
- 5:00 A Diet Containing EGCG and Beta-Alanine Decreases Mortality and Improves Balance in Aged Mice, but Does Not Affect Cognitive Function **B.D. Pence, T.K. Bhattacharya, P. Park, Y. Sun, J.L. Ryttych, J.M. Allen, R.H. McCusker, K.W. Kelley, R.W. Johnson, J.S. Rhodes and J.A. Woods.** Univ. of Illinois at Urbana-Champaign. (392.4)
- 5:00 Dietary Supplementation with Quercetin Rejuvenates Cognitive Performance Independent of Adult Hippocampal Neurogenesis **K. Du, S.D. Perez, P.T. Kozak, A.A. Sheriff, J.H. Baxter, R. Vazhappilly and J.S. Rhodes.** Univ. of Illinois, Urbana and Abbott Nutr., Columbus. (900.4)
- 5:00 High Maternal Choline Consumption during Pregnancy and Nursing Alleviates Deficits in Social Interaction and Improves Anxiety-Like Behaviors in the BTBR T+Itpr3tf /J Mouse Model of Autism **E.A. Langley, M. Krykbaeva, J.K. Blusztajn and T.J. Mellott.** Boston Univ. Sch. of Med. (900.5)
- 5:00 Eating Behaviors, Mental Health, and Food Intake Are Associated with Obesity in Older Congregate Meal Participants **K.N. Porter Starr, J.G. Fischer and M.A. Johnson.** Duke Univ. Med. Ctr., Durham VA Med. Ctr. and Univ. of Georgia. (383.3)
- 5:00 Dietary Inflammatory Index Scores and C-Reactive Protein Concentrations among Older Adults **J.M. Houdek, C.C. Tangney, K.A. Roehl, K.A. Varady, N. Shivappa, J.R. Hebert, D.A. Bennett and M.C. Morris.** Rush Univ. Med. Ctr., Univ. of Illinois at Chicago and Univ. of South Carolina. (589.1)
- 5:00 Creatine Supplementation Increases Muscle Branched-Chain Amino Acids in an Alzheimer Mouse Model **F. Farshidfar, M. Suh, W.M. Snow, B.C. Albensi and S.B. Myrie.** Univ. of Manitoba. (383.5)
- 5:00 Dietary Intake among Home-Delivered Meal Recipients before and after Receiving Meals **B. Moore, S. Marceaux, B.J. Friedman and S. Crixell.** Texas State Univ., San Marcos and Meals on Wheels and More, Austin. (589.3)
- 5:00 Assessing Nutritional and Vitamin D Status of Postmenopausal Obese and Osteosarcopenic Obese Women **J.E. Inglis, O.J. Kelly and J.Z. Ilich.** Florida State Univ. and Abbott Nutr., Columbus. (738.2)
- 5:00 Do Food Group Intake and Physical Activity during Growth Spurt Have Impact on Bone Health during Adulthood **E. Movassagh and H. Vatanparats.** Univ. of Saskatchewan. (738.3)
- 5:00 Pulse Pressure and Blood Triglyceride Levels among a Young Multi-ethnic Group Living in South Florida **S. Ajabshir, J.C. Exebio, G.G. Zarini, A. Nayer, J.A. Vaccaro and F.G. Huffman.** Florida Intl. Univ. and Univ. of Miami Miller Sch. of Med. (584.7)
- 5:00 Validation of ALIVE!® Block Food Frequency Questionnaire for Use with College Students **J. Ross, A. Schweitzer, C. Klein, E.R. Mackey and D.K.Y. Lei.** Univ. of Maryland College Park and Children's Natl. Med. Ctr. (584.4)
- 5:00 Replacement of Sugar-Sweetened Beverages with Water and its Impact on Insulin Sensitivity among Overweight Adolescents and Young Adults **R. Jin, L. Collin, M. Vos and J. Welsh.** Children's Healthcare of Atlanta and Emory Univ. (584.12)

- 5:00 Food Insecurity and Its Association with Depression among Injection Drug Users with or without HIV in Chennai, India **J. Sackey, K. Chui and A. Tang.** Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy and Tufts Univ. Sch. of Med. (585.1)
- 5:00 Oxidative Stress in Healthy Subjects with Cardiometabolic Risk Factors **B.E. Martinez-Carrillo, M. Neri, A.D. Benitez, R. Valdés-Ramos and J.A. Escoto-Herrera.** Autonomous Univ. of Mexico State, Toluca. (584.9)
- 5:00 Is Diversity in Agricultural Production Linked to Dietary Diversity among Nepalese Women? **C.M. Fitch, S. Manohar, R. Shrestha, R. Klemm and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. (585.7)
- 5:00 Changes in Self-Efficacy and Fruit and Vegetable Intake in the FAITH Trial **A. Morel L'Horset, A.M. Schoenthaler, W. Chaplin, G. Ogedegbe and K.J. Lancaster.** NYU, NYU Sch. of Med. and St. Johns Univ., NY. (584.6)
- 5:00 Who Reads Nutrition Labels? Label Usage by College Students in a Dining Hall Setting **M.J. Christoph and B.D. Ellison.** Univ. of Illinois at Urbana-Champaign. (904.5)
- 5:00 Employed U.S. Adults' Support for Food and Beverage Worksite Wellness Strategies and Sugar-Sweetened Beverage Intake during the Workday **S.H. Lee-Kwan, L. Pan, J. Kimmons, J. Foltz and S. Park.** Ctrs. for Dis. Control and Prevent. (903.19)
- 5:00 Chemopreventive Effects of Nobiletin on Azoxymethane-Induced Colon Carcinogenesis in Rats Is Associated with Inhibition of Heat Shock Proteins **X. Wu, M. Song, Z. Gao, J. Zheng and H. Xiao.** Univ. of Massachusetts Amherst. (752.20)
- 5:00 Docosahexaenoic Acid and Doxorubicin Act Synergistically to Disrupt Cell Cycle and Increase Cell Death of MDA-MB-231 Breast Cancer Cells **M. Newell, V. Mazurak and C.J. Field.** Univ. of Alberta. (752.16)
- 5:00 Delta Tocotrienol Inhibits MMP-9 Dependent Invasion and Metastasis of Non-Small Cell Lung Cancer Cell by Suppressing Notch-1 Mediated NF- κ B and uPA Pathways **L.D. Rajasinghe, R.S.H. Pindiprolu, N. Razalli, Y. Wu and S.V. Gupta.** Wayne State Univ. (752.18)
- 5:00 Selenoprotein W Inhibits the c-Met Oncogene by Regulating Receptor Ubiquitination **C.R. Wilcox, Z. Alkan and W.C. Hawkes.** Univ. of California, Davis and USDA, Davis. (752.17)
- 5:00 Walnut Phenol Extracts Inhibit Stemness of Colon Cancer Stem Cells In Vitro **Y-S. Kim, S-W. Choi, S.J. Min, J. Lee and Y. Kim.** Ewha Womans Univ. and CHA Univ. (752.10)
- 5:00 Inhibition of Colon Carcinogenesis by 5-Demethylnobiletin in Azoxymethane-Treated Rats **M. Song, X. Wu, M. Wang and H. Xiao.** Univ. of Massachusetts Amherst. (753.5)
- 5:00 Relationships of Prostaglandin E₂ with Fatty Acid Concentrations and Gene Expression in Colon of Individuals at Increased Risk of Colon Cancer **E.H. Sidahmed, A. Sen, J. Ren, K. Turgeon, M. Ruffin, D. Brenner and Z. Djuric.** Univ. of Michigan. (753.9)
- 5:00 Tumor Progression Locus 2 Depletion Inhibits Hepatic Inflammation and Steatosis and Incidence of Hepatocellular Carcinoma **X. Li, C. Liu, C.P. Stice, B.C. Ip, K-Q. Hu, A.S. Greenberg and X-D. Wang.** USDA at Tufts Univ. and Sch. of Publ. Hlth., Med. Col. of Soochow Univ. (752.11)
- 5:00 Obesity-Induced Intestinal Tumorigenesis Is Associated with Inflammatory Cytokines and Activation of Pro-tumorigenic Signaling Pathways in the Colon **A.C. Pfalzer, L. Iyer, L.D. Parnell, A. Tai, Z. Liu, J.B. Mason and J. Crott.** USDA at Tufts Univ., Tufts Univ. Sch. of Med., Tufts Univ., Univ. of Massachusetts Amherst and USDA, Boston. (753.16)
- 5:00 Polyphenolics from Mango (*Mangifera Indica* L.) Suppress Breast Cancer Ductal Carcinoma In Situ Proliferation in Both In Vitro and In Vivo Models for Cancer **M.J. Nemeč, H. Kim, A.B. Marciante, R.C. Barnes, S.T. Talcott and S.U. Mertens-Talcott.** Texas A&M Univ. (918.12)
- 5:00 Fatty Acid Patterns and the Risk of Prostate Cancer in the Physicians' Health Study **M. Yang, A. Ayuningtyas, S.A. Kenfield, H.D. Sesso, H. Campos, J. Ma, M.J. Stampfer and J.E. Chavarro.** Harvard Sch. of Publ. Hlth., UCSF and Brigham and Women's Hosp., Harvard Med. Sch. (918.11)
- 5:00 Global DNA Methylation and Hydroxymethylation Differ in Hepatocellular- and Cholangio-Carcinoma and Relate to Survival Rate **S. Udali, P. Guarini, S. Moruzzi, A. Ruzzenente, S.A. Tammen, A. Guglielmi, S. Conci, P. Pattini, S-W. Choi and S. Friso.** Univ. of Verona, Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and CHA Univ., Seoul. (918.10)
- 5:00 Differentiated Caco-2 Cell Monolayers Exhibit Differential Adaptation to Chronic Exposure of Green Tea and Grape Seed Extracts Rich in Flavan-3-ols **B.W. Redan and M.G. Ferruzzi.** Purdue Univ. (249.4)
- 5:00 Ellagic Acid Supplementation Attenuates Sucrose-Induced Obesity and Metabolic Complication in C57BL/6 Mice **I. Kang, T.P. Carr and S. Chung.** Univ. of Nebraska-Lincoln. (402.6)
- 5:00 Cranberry Phenolic Compounds Decrease Fat Accumulation in *Caenorhabditis elegans* **Q. Sun, P. Shen, J. Yang and Y. Park.** Univ. of Massachusetts Amherst and Amherst Regional H.S. (608.16)
- 5:00 Anthocyanin-Rich Black Elderberry Extract Improves Inflammatory Markers and Insulin Resistance in a High-Fat Diet-Induced Obesity Model of Mice **N.J. Farrell, G.H. Norris, J. Ryan and C. Blesso.** Univ. of Connecticut. (402.1)
- 5:00 Identification and Characterization of Tocotrienols in Muscadine Grape Seed Oil and their Inhibitory Effects on Adipogenesis and Inflammation **L. Zhao, Y. Yagiz, C. Xu, L. Jiang, S. Chung and M. Marshall.** Univ. of Florida, China Agr. Univ. and Univ. of Nebraska-Lincoln. (390.8)
- 5:00 Metabolic Syndrome and Hepatic Steatosis Is Reduced in C57BL/6J Mice Fed High-Fat Diets Supplemented with Soy Isoflavones **T. Luo, S.M. Smith, B.S. Zhao, J.M. Hamilton-Reeves, D.K. Sullivan and N.F. Shay.** Oregon State Univ. and Univ. of Kansas Med. Ctr. (402.4)

- 5:00 Shiitake-Derived β -Glucan, Lentinan, Reduces CCL3/MIP-1 α Production via Down-Modulation of TLR2- and TLR4-Mediated NF κ B Activation and TLR2 Expression in Human THP-1 Monocytes **X. Dai and S.S. Percival**. Univ. of Florida. (130.6)
- 5:00 Mango Supplementation Averts Hepatic and Cardiac Mitochondrial Dysfunction in Mice Fed a High-Fat Diet **B. Ojo, L. Wu, X. Gou, J. Semkoff, S. Janthachotikun, H. Eldoumi, S. Peterson, P. Perkins-Veazie, D. Lin, B.J. Smith and E.A. Lucas**. Oklahoma State Univ. and North Carolina State Univ., Kannapolis. (130.2)
- 5:00 Acute Peanut Consumption Benefits Postprandial Endothelial Function in Overweight Healthy Males **X. Liu, A.M. Hill, S.G. West, R.M. Gabauer, C.E. McCrea, J.A. Fleming and P.M. Kris-Etherton**. Penn State and Univ. of South Australia. (259.6)
- 5:00 Structure-Function Analysis of Ursolic Acid and its Analogs to Identify Their Anti-inflammatory Mechanism of Action **H.N. Nguyen, H.S. Kim, S. Ullevig and R. Asmis**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Texas at San Antonio. (390.6)
- 5:00 Black Raspberries Prevent Angiotensin II-Induced Senescence in Vascular Smooth Muscle Cells **R.G. Feresin, Y. Zhao and G. Salazar**. Florida State Univ. (118.5)
- 5:00 Nanoemulsion-Based Delivery Systems for Nutraceuticals: Influence of Carrier Oil Type on Bioavailability of Pterostilbene **Y. Sun, Z. Xia, J. Zheng, P. Qiu, L. Zhang, D.J. McClements and H. Xiao**. Univ. of Massachusetts Amherst and Ocean Univ. of China, Qingdao. (249.5)
- 5:00 Effects of Early Administration of Conjugated Linoleic Acid on Development of Obesity in NescientBasic Helix-Loop-Helix 2 Knockout Mice **Y. Kim, D.J. Good and Y. Park**. Univ. of Massachusetts Amherst and VPI and State Univ. (608.19)
- 5:00 The Effect of EGCG and EGCG Nanoparticles on Body Weight and Body Composition in LDL Receptor Null Mice **Y. Zu, J. Zhang, S. Nie and S. Wang**. Texas Tech Univ. (402.5)
- 5:00 GojiBerry Attenuates Dextran Sulfate Sodium-Induced Colitis **Y. Kang, Y. Xue, M. Du and M. Zhu**. Sch. of Food Sci., Washington State Univ. and Sch. of Food Sci., Univ. of Idaho. (271.1)
- 5:00 Soy Flour Muffins Do Not Improve Risk Factors for Cardiovascular Disease in Adults with Hypercholesterolemia **E.M.T. Padhi, A. Hawke, H.J. Blewett, T.M.S. Wolever, A.M. Duncan and D.D. Ramdath**. Agr. and Agri-Food Canada, Guelph, Ont., Univ. of Guelph, St. Boniface Hosp., Winnipeg, Man. and Glycemic Index Labs. Inc., Toronto. (259.5)
- 5:00 Grape Seed Extract Enhances Jejenum Epithelial Differentiation Likely through Suppressing Inflammation in *IL10*^{-/-} Mice **S. Bibi, Y. Kang, M. Du and M-J. Zhu**. Sch. of Food Sci., Washington State Univ., Washington State Univ. and Sch. of Food Sci., Univ. of Idaho. (380.1)
- 5:00 Characterization of Serum and Urinary Zearalenone and its Metabolites (Z) and its Association with Dietary Intake **T. Mauro, B. Buckley, S. Schneider, C. Pop, M. Liu, B. Chang and S. Shapses**. Rutgers-New Brunswick and Rutgers Robert Wood Johnson Med. Sch. (924.36)
- 5:00 Plasma Alkylresorcinols as a Biomarker for Whole Grain Intake and Predictor of Metabolic Syndrome Risk **M.R. MacArthur, S. Magnanti, R. Landberg and I.E. Lofgren**. Univ. of Rhode Island, Swedish Univ. of Agr. Sci. and Inst. of Environ. Med., Karolinska Inst. (606.8)
- 5:00 Cranberry Extract Ameliorates Obesity-Related Liver Inflammation via the Toll-Like Receptor 4 Pathway **S.L. Glisan and J.D. Lambert**. Penn State. (118.3)
- 5:00 Potato Phenolics Modulate Rate of Glucose Transport in a Caco-2 Human Intestinal Cell Model **S.E. Moser, I. Aragon, A. Furrer, J. Van Klinken, M. Kaczmarczyk, B-H. Lee, B. Hamaker and M.G. Ferruzzi**. Purdue Univ. and PepsiCo Global R&D. (606.6)
- 5:00 The In Vivo Effect of Oil Palm Phenolics in Atherogenic Diet-Induced Rat Model of Alzheimer's Disease **Y. Wu, V. Srirajavatsavai, K. Monplaisir, R. Sambanthamurthi and S. Gupta**. Wayne State Univ. and Malaysian Palm Oil Board, Selangor. (271.8)
- 5:00 Effect of Fresh Preparation and Industrial Processing on Stability of Potato Phytochemicals **A. Furrer, D. Cladis, A. Kurilich, G. Hawkins, R. Manoharan and M. Ferruzzi**. Purdue Univ and McCain Foods Ltd. (924.18)
- 5:00 Green Tea Extract Attenuates Oxidative Stress, Inflammation, and Lipogenesis through Nrf2-Dependent and -Independent Mechanisms in Diet-Induced Obese Mice with Nonalcoholic Steatohepatitis **J. Li, T.N. Sapper, K.E. Schill, C. Chitchumroonchokchai, M.V. Moller, P.R. Rohrer, S. Rudraiah, J.E. Manautou and R.S. Bruno**. The Ohio State Univ. and Univ. of Connecticut. (390.4)
- 5:00 Green Tea Consumption Reduces Oxidative DNA Damage and Lipid Peroxidation in Smokers and Non-smokers **Y. Liu, Z. Wang, A.D. Fly and J.E. Klaunig**. Indiana Univ. Sch. of Publ. Hlth. (922.8)
- 5:00 Dietary Cocoa Improves Hepatic Mitochondrial Function in Obese Mice **M. Sun, L. Tao, Y. Gu and J.D. Lambert**. Penn State. (271.7)
- 5:00 Effect of Freeze-Drying and Hot-Air-Drying Methods on the Anti-oxidative Activities of Selected Sprouts **J-H. Yoo, Y. Liu, H. Park, J. Shin and H-S. Kim**. SookMyung Women's Univ. and Joongbu Univ., South Korea. (922.22)
- 5:00 Estimation of Dietary Flavonoid Intake and Major Food Sources of Korean Adults – The Korea National Health and Nutrition Examination Survey (KNHANES) 2007-2012-* **S. Jun, S. Shin, S. Kim, C. Min, S. Park and H. Joung**. Grad. Sch. of Publ. Hlth. and Inst. of Hlth. and Environ., Seoul Natl. Univ. (922.29)
- 5:00 Effect of Grape Consumption on Biomarkers of Endothelial and Cardiovascular Health **Q. Hu, J.M. Randolph, K.A. Giebler, A.M. Stevens and F.M. Steinberg**. Univ. of California, Davis. (923.5)
- 5:00 Protective Effect of HT057 Treatment on Dextran Sulfate Sodium-Induced Colitis in Mice **D. Lee, J. Song, H.S. Kim, H.J. Lee, Y-S. Kim, S.H. Lee, J. Park and H. Kim**. Col. of Korean Med., Kyung Hee Univ. and NeuMed Inc., Seoul. (924.32)
- 5:00 Tolerance and Efficacy of a Probiotic Supplement Delivered in Capsule Form **G.M. Labellarte, S.T. Cooper and M.A. Maher**. Univ. of Wisconsin-La Crosse. (924.33)

- 5:00 Comparison of Different Tea Types on Osteoblast Activity **L.A. Nash and W.E. Ward.** Brock Univ., Canada. (924.34)
- 5:00 Formononetin Enhances the Expression of Genes Related to Adipocyte Differentiation and Insulin Sensitivity **S-Y. Yu, Y. Choi, Y-I. Kwon, R. Wood and Y-C. Kim.** Univ. of Massachusetts Amherst and Hannam Univ., South Korea. (607.20)
- 5:00 Tracking Isoflavones in Whole Soy Flour, Soy Muffins and Plasma after Consumption of Muffins by Healthy Adults **E.M.T. Padhi, A. Hawke, R. Liu, H. Zhu, A.M. Duncan, R. Tsao and D.D. Ramdath.** Agr. and Agri-Food Canada, Guelph and Univ. of Guelph. (606.19)
- 5:00 Transport of MicroRNA-Containing, Milk-Borne Extracellular Vesicles by Human Colon Carcinoma Caco-2 Cells **T. Wolf, S. Baier and J. Zempleni.** Univ. of Nebraska-Lincoln. (924.2)
- 5:00 Dried Plums Promote Increased Antioxidant Capacity in Smokers and Nonsmokers **A. Zawilski, S. Nelson, B. McGill, M. McIntosh, M.Y. Hong, S. Hooshmand and M. Kern.** San Diego State Univ. (922.15)
- 5:00 Polyphenols Extracted from Grape Powder Induce Lipogenesis and Glucose Uptake during Differentiation of Murine 3T3-F442A Preadipocytes **S. Torabi and N.M. DiMarco.** Texas Woman's Univ. (608.22)
- 5:00 Sulforaphane Reduces Inflammatory Gene Expression in Microglia from Aged Mice **B.E. Townsend, J.L. Rytch and R.W. Johnson.** Univ. of Illinois at Urbana-Champaign. (922.23)
- 5:00 Anthocyanin-Rich Black Elderberry Extract Improves Markers of HDL Function and Reduces Aortic Cholesterol in Hyperlipidemic Mice **N. Farrell, G. Norris, S.G. Lee, O.K. Chun and C.N. Blesso.** Univ. of Connecticut. (923.7)
- 5:00 Resistant Starch and *Lactobacillus* Feeding Improve Metabolic Functions in Diet-Induced Obese Mice **J. Barouei, D. Mishchuk, D. Kieffer, A. Martinic, R. Martin, C. Slupsky and M. Marco.** Univ. of California and USDA-ARS. (924.29)
- 5:00 Carnosic Acid as the Major Bioactive Component in Rosemary Extract Ameliorates High-Fat Diet-Induced Obesity and Metabolic Syndrome in Mice **Y. Zhao, R. Sedighi, P. Wang, H. Chen, Y. Zhu and S. Sang.** North Carolina A&T State Univ. (402.3)
- 5:00 Effect of Yoghurt and its Probiotics on Fecal Probiotic Content: A Randomized Controlled Trial **K.L. Ivey, R. Yang, U. Ryan, S-Y. Lin, J. Hodgson and R. Prince.** Sch. of Med. and Pharmacol., Univ. of Western Australia and Murdoch Univ., Australia. (924.35)
- 5:00 The Change in Human Microvascular Function and its Relationship to Plasma Epoxide Content after Short-Term Walnut Intake **R.R. Holt, S.J. Yim, G.C. Shearer, C.L. Keen, D. Djurica, J.W. Newman and R.M. Hackman.** Univ. of California, Davis and Penn State. (923.9)
- 5:00 Metabolites of Blueberry Anthocyanins Suppress Lipotoxicity-Induced Endothelial Inflammation **R. Cavalcanti, N. Begaye, M. Costa, L.P. Bharath, J.D. Symons, T. Jalili, N.S. Rajasekaran, Z. Jia and P.V.A. Babu.** Col. of Hlth., Univ. of Utah, Univ. of Utah, Univ. of North Carolina at Greensboro and Univ. of Alabama at Birmingham. (118.6)
- 5:00 Prebiotic Fiber Consumption Decreases Energy Intake in Overweight and Obese Children **M. Hume, A. Nicolucci and R. Reimer.** Univ. of Calgary. (597.3)
- 5:00 Probiotics Do Not Enhance Anti-hypertensive Effect of Blueberry Diets in Hypertensive Rats **L. He, C. Blanton, K. Gottschall-Pass and M.I. Sweeney.** Univ. of Prince Edward Island and Idaho State Univ. (608.34)
- 5:00 High Fructose Corn Syrup and Sucrose Do Not Differ in Their Effects on Cardiometabolic Risk Factors: A Series of Systematic Reviews and Meta-analyses of Randomized Controlled Trials **V.L. Choo, V. Ha, S. Blanco Mejia, C.W.C. Kendall, R.J. de Souza, D.J.A. Jenkins and J.L. Sievenpiper.** St. Michael's Hosp., Univ. of Toronto and McMaster Univ., Canada. (595.19)
- 5:00 Effects of Milk Protein Concentrate on Energy Restriction-Induced Changes in Body Composition and Indices of Metabolic Syndrome **J. Zhou, J.E. Kim and W.W. Campbell.** Purdue Univ. (595.22)
- 5:00 Effect of Eating Speed at Breakfast on Gut Appetite Hormone Responses and Daily Energy Intake **K. Crisp, M. Phillips, B. Adams-Huet, L. Dart, B. Bouza, B. Franklin and M. Shah.** Texas Christian Univ. and Univ. of Texas Southwestern Med. Ctr. (597.1)
- 5:00 Effects of a Diet-Based Weight-Reducing Intervention in Obese Women Resistant to Weight Loss **S. Panahi, C. Couture, C. Lepage, V. Drapeau and A. Tremblay.** Laval Univ., Quebec City. (595.6)
- 5:00 Increasing Healthful Food Variety Is Associated with Reduced Total and Food-Specific Cravings among Men in the POUNDS Lost Weight-Loss Trial **M. Vadiveloo, F.M. Sacks, G.A. Bray and J. Mattei.** Harvard Sch. of Publ. Hlth. and Pennington Biomed. Res. Ctr., Baton Rouge. (597.7)
- 5:00 Increasing Plasma Antioxidant Performance after Lifestyle Modification Is Impaired by the Presence Metabolic Syndrome and Its Pro-oxidant Status **F. Moreto, H.T. Kano, G.A. Torezan, O. Teixeira, C.R. Correa and R.C. Burini.** Botucatu Med. Sch., São Paulo State Univ. (595.21)
- 5:00 Enzyme-Treated Wheat Bran Alters Gut Microbiota and Liver Metabolome in Mice Fed a High Fat Diet **D.A. Kieffer, R.J. Martin, M.L. Marco, E.B. Kim, M.J. Keenan, K.E. Knudsen, T.N. Dunn, S.H. Adams and B.D. Piccolo.** USDA, Davis, Univ. of California, Davis, LSU, Baton Rouge and Aarhus Univ., Denmark. (258.6)
- 5:00 Effect of a High Protein, High Egg Diet on Muscle Composition, Metabolic Health and Systemic Inflammation in Overweight and Obese, Older Adults **C.S. Wright, J. Zhou, R.D. Sayer, J-E. Kim and W.W. Campbell.** Purdue Univ. (270.6)
- 5:00 The Impact of Beverages Varying in Macronutrient Content on Appetite and Energy Intake **A. Dougkas and E. Östman.** Lund Univ. (597.4)
- 5:00 Early Childhood Malnutrition Increases Metabolic Syndrome in Adulthood **L. Fischer and J. Galler.** Harvard Med. Sch. (258.2)

- 5:00 Soy-Dairy Protein Blend Supplementation during 3 Months of Resistance Exercise Training Enhances Lean Body Mass **P.T. Reidy, M.S. Borack, M.M. Markofski, J.M. Dickinson, R.R. Deer, S.H. Husaini, W.K. Walker, S.N. Igbini, M.B. Cope, R. Mukherjea, K. Jennings, E. Volpi and B.B. Rasmussen.** Univ. of Texas Med. Branch and Dupont, St. Louis. (129.5)
- 5:00 Higher Total Protein Intake and Change in Total Protein Intake Impact Body Composition Changes in Adults Who Performed Exercise Training for 36 Weeks **J.E. Kim, T.B. Conley, E.M. Weinheimer-Haus and W.W. Campbell.** Purdue Univ. (270.7)
- 5:00 Quenching of Cytotoxic Reactive Carbonyl Species by Black Rice with Giant Embryo **M. Colzani, Y-M. Lee, S-I. Han, G. Aldini and K-J. Yeum.** Univ. of Milan, Konkuk Univ. and Natl. Inst. of Crop Sci., RDA, Miryang, South Korea. (595.14)
- 5:00 Adipocyte Ablation of Long-Chain Acyl-CoA Synthetase-4 (ACSL4) Protects against Diet-Induced Obesity **E.A. Killion, M-J. Lee, R.A. Coleman and A.S. Greenberg.** USDA at Tufts Univ., Boston Univ. Sch. of Med. and Univ. of North Carolina at Chapel Hill. (743.1)
- 5:00 Influence of High Fat Diet on Macrophage Behavior and Metabolic Processes in Obesity-Sensitive and -Resistant Mice: Role of Monocyte Chemoattractant Protein 1 **T.L. Cranford, R.T. Enos, K.T. Velazquez, J.L. McClellan, M. Nagarkatti and E.A. Murphy.** Univ. of South Carolina Sch. of Med. (595.31)
- 5:00 The Effect of Diet and Exercise in Women with Polycystic Ovary Syndrome **K. Sweatt, F. Ovalle, R. Azziz and B. Gower.** Univ. of Alabama at Birmingham and Georgia Regents Univ. (596.12)
- 5:00 Short Chain Fatty Acid Production and Glucose Responses by Methane Producers **B. Rust, I. Gray, D. Kieffer, J.W. Newman, D. Cooper, L. Welch, W. Horn, M. Marco, C. Pelkman and N. Keim.** Univ. of California, Davis, USDA, Davis and Ingredient, IL. (744.6)
- 5:00 Long-Chain Polyunsaturated Fatty Acid Status Associates with Bone Mass in Overweight and Obese Children **I.L. Mak, T.R. Cohen, S-E. Loiselle, C.A. Vanstone, T.J. Hazell and H.A. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ. and Wilfrid Laurier Univ., Canada. (598.13)
- 5:00 Inter-relationship between the In Vivo Metabolism of Apolipoprotein B₁₀₀-Containing Lipoproteins and LDL Particle Size and LDL Particle Number **M. Leclerc, E.M. Ooi, P. Couture, C. Richard, S. Desroches, J. Marin, A.J. Tremblay and B. Lamarche.** Laval Univ., Canada and Univ. of Western Australia. (248.3)
- 5:00 Glycemic and Insulinemic Responses Are Blunted by the Consumption of a Smoothie-Type Beverage Containing a Whole-Grain Fiber Composite Ingredient **L.E. O'Connor and W.W. Campbell.** Purdue Univ. (379.2)
- 5:00 Omega-3 Polyunsaturated Fatty Acids Have Sex-Specific Effects on the Phospholipid Fatty Acid Composition and Neurotrophin Expression in the Brain of C57BL/6 Mice **B.A. Feltham, K.A. Balogun and S.K. Cheema.** Mem. Univ. of Newfoundland. (401.8)
- 5:00 A Diet High in Protein Reduces Weight Gain, Food Intake and Liver Weight in Obese Zucker Rats **W.W. French, S.A. Shouse, X. Gu, S-O. Lee and J.I. Baum.** Univ. of Arkansas. (129.7)
- 5:00 Low Serum Sphingolipids in Attention Deficit Hyperactivity Disorder **M. Henríquez-Henríquez, S. Solari, F. Allende, T. Quiroga, B. Kim, R.J. Deckelbaum and T.S. Worgall.** Col. of P&S, Columbia Univ., Pontifical Catholic Univ. of Chile, Santiago and Colombia Univ. (389.4)
- 5:00 Marine Sources but Not Plant Sources of Omega-3 Fatty Acids Prevents Progression of Hepatic Steatosis in *fa/fa* Zucker Rats **L. Hong, P. Zahradka and C.G. Taylor.** Univ. of Manitoba. (595.12)
- 5:00 C/EBP-beta Regulates Lipid Homeostasis and Autophagy Activation in Liver and Macrophages **M.K. Zahid, A. Doyel, R.C. Janssen, S. Wang, J.E. Friedman and S.M. Rahman.** Texas Tech Univ. and Univ. of Colorado Denver, Aurora. (743.16)
- 5:00 Impact of Liquid Sugar Reduction on Behavioral and Brain Responses to Food Viewing **C. Crézé, M-L. Bielser, J-F. Knebel, V. Campos, L. Tappy, M.M. Murray and U. Toepel.** Univ. and Hosp. Ctr., Univ. of Lausanne and Ctr. for Biomed. Imaging, Lausanne. (597.6)
- 5:00 Patterns of Self-Reported Dieting and Energy Intake in 15y Girls **K.N. Balantekin, L.L. Birch and J.S. Savage.** Penn State and Univ. of Georgia. (597.9)
- 5:00 Potential Role of PYY in Skeletal Muscle Cells? **D. Gupta, H. Roman, S. Touhamy II, K. Lin and A. Thalacker-Mercer.** Cornell Univ. (598.7)
- 5:00 Serum Biomarkers of Dietary Fatty Acids Are Associated with Abdominal Obesity Measures in a Large Population-Based Cohort of Men and Women **Z. Alsharari, M. Marklund, M-L. Hellénus, F. Laguzzi, B. Gigante, K. Leander, P. Sjögren, T. Cederholm, U. de Faire and U. Risérus.** Uppsala Univ. and Karolinska Inst. (598.16)
- 5:00 Correspondence between Effects of Dietary Cholesterol versus Plant Sterols on Plasma Cholesterol Responsiveness and Cholesterol Trafficking in Healthy Humans **P.A.S. Alphonse, V.R. Ramprasath and P.J.H. Jones.** Univ. of Manitoba. (248.5)
- 5:00 The Effects of Consuming High Protein Solid versus Beverage Breakfasts on Changes in Body Weight and Body Composition in Overweight, Breakfast Skipping Adolescents **J.A. Gwin and H.J. Leidy.** Univ. of Missouri-Columbia. (599.1)
- 5:00 Role of Acyl-Coenzyme A:Cholesterol Acyltransferase 1 in Lipogenesis in Adipocytes **Y. Zhu, C-Y. Chen and K-H. Kim.** Purdue Univ. (248.7)
- 5:00 Obesity Is Associated with Changes in Plasma Oxylipids **C.A. Pickens, L. Sordillo, S.S. Comstock and J.I. Fenton.** Michigan State Univ. (389.1)
- 5:00 High-Protein Diet during Gestation Promotes Adiposity and Food Intake in Female Rat Pups in the Longer Term **C. Desclée de Maredsous, A. Oosting, C. Delteil, F. Blachier, P. Barbillon, T. Mary-Huard, D. Tomé, R. Oozeer and A-M. Davila.** AgroParisTech/INRA and Danone Nutricia Res., Utrecht. (270.2)

- 5:00 Sugar Consumption and Cardiovascular Risk Factors in College Students **E.R. Nelson, B.M. Navrkal, I.E. Lofgren and K.J. Melanson.** Univ. of Rhode Island. (379.6)
- 5:00 Effect of Prolonged Enteral Leucine Supplementation on Muscle Protein Synthesis and mTOR Activation in Neonatal Pigs Fed a Restricted Protein Diet **D.A. Columbus, J. Steinhoff-Wagner, A. Suryawan, H.V. Nguyen, A. Hernandez-Garcia, M.L. Fiorotto and T.A. Davis.** CNRC, Baylor Col. of Med. (129.2)
- 5:00 Frequent Consumption of Meals Prepared Outside Home Influence Dietary Adequacy and Diversity in Korean Adults **K.W. Lee, W.O. Song and M.S. Cho.** Michigan State Univ. and Ewha Womans Univ., South Korea. (597.11)
- 5:00 Omega-3 Fatty Acids Modify Treatment Effect of High-Dose B Vitamins in Cognitively Impaired Elderly **F. Jernerén, A.K. Elshorbagy, A. Oulhaj, S.M. Smith, H. Refsum and D. Smith.** Univ. of Oxford, Univ. of Alexandria, United Arab Emirates Univ. and Univ. of Oslo. (401.1)
- 5:00 Association between Fatty Acid Status and Executive Function in Tanzanian Children Aged 2-6 **T. Jumbe, S. Hahn, W.S. Harris, J. Kinabo, M. Pontifex and J.I. Fenton.** Michigan State Univ., Univ. of South Dakota and OmegaQuant Analytics, LLC and Sokoine Univ. of Agr., Tanzania. (598.8)
- 5:00 Immunohistochemical Detection of Gut-Brain-Axis Markers along the Gastrointestinal Tract of Formula-Fed Piglets **K. Berding, M. Wang, M.H. Monaco, B. Berg, R. Waworuntu, R.N. Dilger and S.M. Donovan.** Univ. of Illinois, Urbana and Mead Johnson, Evansville. (754.1)
- 5:00 Breakfasts Higher in Protein Increase Postprandial Energy Metabolism in Overweight, Breakfast Skipping Women **A.C. Dunn, B.L. Neumann, D. Johnson, J.D. Adams and J.I. Baum.** Univ. of Arkansas. (270.1)
- 5:00 Early Exposure to Phytosterols Protects Offspring from Hypercholesterolemia Induced by Maternal Cholesterol Feeding in Syrian Golden Hamsters **J. Liu, A. Raslawsky, C. Movsesian, M.S. Patel and T.C. Rideout.** SUNY at Buffalo. (754.9)
- 5:00 Postnatal Iron Deficiency Impairs White Matter Development in Neonatal Piglets **B.J. Leyshon and R.W. Johnson.** Univ. of Illinois, Urbana. (754.10)
- 5:00 Tissue Distribution of Oxidases and Transaminases mRNA in Broiler Chickens Fed with Methionine Isomers or Precursors **S. Zhang, B. Saremi, E. Gilbert and E. Wong.** Virginia Tech and Evonik Industries AG, Hanau, Germany. (754.25)
- 5:00 Protein Synthesis Is Impaired in Low Compared to Normal Birth Weight Neonatal Pigs **H. Zhu, Y. Chen, S.R. McCauley and S.W. El-Kadi.** Virginia Tech. (754.20)
- 5:00 Leucine Antagonizes Protein Degradation Induced by Endotoxin in Skeletal Muscle of Neonatal Pigs **A. Hernandez-Garcia, R.A. Orellana, A. Suryawan, D. Columbus, R. Manjarin, H. Nguyen and T. Davis.** CNRS, Baylor Col. of Med. and Texas Children's Hosp., Houston. (755.3)
- 5:00 The Effect of Dietary Saturated and Unsaturated Fatty Acid on Gene Expression and Fatty Acid Composition of Various Tissues in Pre-ruminant Calves **C-Y. Tsai, W.I. Loucks, K.C. Ramsey, C.M. Scholte, M.E. Doumit and P. Rezamand.** Univ. of Idaho. (755.4)
- 5:00 Effects of Contaminated Fish Oil on Hepatic FAS and HMGR Gene Expression and Liver Function Enzyme Activities **J.C. Lumibao and M.Y. Hong.** San Diego State Univ. (755.6)
- 5:00 Effect of Heat Stress on Pig Skeletal Muscle Metabolism **L. Zhao, R. McMillan, Z. Zhang, G. Xie, L. Baumgard, S. El-Kadi, J. Selsby, J. Ross, N. Gabler, M. Hulver and R. Rhoads.** Virginia Tech and Iowa State Univ. (755.7)
- 5:00 Anti-hyperglycemia Effect of *Lactobacillus reuteri* GMNL-89 through Modulating of PPARs and Energy Metabolism Related Genes Expression in Insulin-Resistant Rats **M-H. Fan, W-K. Huang, C-H. Chan and H-Y. Huang.** Shih Chien Univ. (756.5)
- 5:00 Investigating Tissue Level Gene-by-Diet Interactions with Metabolomics **A. Wells, B. Barrington, D. Threadgill, S. Campagna and B. Voy.** Univ. of Tennessee, Knoxville and Texas A&M Univ. (755.19)
- 5:00 Breastmilk Vitamin B12 Concentration Is Low among Women in Western Kenya and Is Not Associated with Animal Source Food Intake or Food Insecurity **A. Williams, C. Chantry, S. Young, C. Null and C. Stewart.** Univ. of California, Davis, Univ of California Davis Med. Ctr., Cornell Univ. and Intl. Policy Res. and Eval., Mathematica. (133.4)
- 5:00 The Relationship of Breast Milk Intake as Assessed with Deuterium Dilution on Growth and Body Composition of Infants in Jamaica **S.N. Whyte, T. Royal-Thomas, A.V. Badaloo and M.E. Reid.** Univ. of the West Indies, Jamaica. (133.6)
- 5:00 Diet Influences the Oral Microbiota of Infants during the First Six Months of Life **H.D. Holscher, R.A. Mathai, J. Kim and K.S. Swanson.** Univ. of Illinois, Urbana, Dominican Univ., IL and East Carolina Univ. (121.8)
- 5:00 Milk Osteopontin May Promote Brain Development Via Up-Regulating Osteopontin Expression In Vivo **R. Jiang, C. Prell and B. Lönnnerdal.** Univ. of California, Davis. (121.4)
- 5:00 Early Supplementation of Phospholipids and Gangliosides Affects Brain and Cognitive Development in Neonatal Piglets **E.C. Radlowski, H. Liu, M.S. Conrad, Y. Li, R.N. Dilger and R.W. Johnson.** Univ. of Illinois, Urbana and Northeast Agr. Univ. (121.5)
- 5:00 A Longitudinal Study of Human Milk Composition Beyond One Year Postpartum **M.T. Perrin, A.D. Fogleman and J.C. Allen.** North Carolina State Univ. (582.6)
- 5:00 Human Milk Leptin, Insulin and N6/N3 Fatty Acids Are Associated with Early Differences in Gut Microbiome of Infants Born to Normal Weight and Obese Mothers **D. Lemas, B. Young, A. Tomczik, T. Hernandez, B. DeLaHoussaye, C. Robertson, M. Rudolph, N. Krebs, S. Santorico, L. Barbour, D. Frank and J. Friedman.** Univ. of Colorado Anschutz Med. Campus, Aurora and Univ. of Colorado Denver. (121.1)

- 5:00 Infection-Specific Responses of Breastmilk Leukocytes
F. Hassiotou, D. Savigni, J. Underhill, L. Moles, P.E. Hartmann and D.T. Geddes. Sch. of Chem. and Biochem., Univ. of Western Australia, Univ. of Basel and Complutense Univ. of Madrid. (121.2)
- 5:00 The Role of ZnT2 in the Mammary Gland during Lactation **S. Lee, D. Soybel and S.L. Kelleher.** Penn State Hershey Col. of Med. and Penn State. (121.6)
- 5:00 Branch Chain Fatty Acids of Human Milk: Influenced by Maternal Diet? **K.A. Dingess, C.J. Valentine, B.S. Davidson, Y.M. Peng, M.L. Guerrero, G.M. Ruiz-Palacios, N. Ollberding, S. Summer, D. Ward, D. Newburg, J.T. Brenna, R.J. McMahon and A.L. Morrow.** Cincinnati Children's Hosp., Shanghai Children's Hosp., Natl. Inst. of Med. Sci. & Nutr., Mexico, Broad Inst., Boston Col., Cornell Univ. and Mead Johnson. (582.10)
- 5:00 Bovine Lactoferrin Is a Transcription Factor Stimulating IL-1 Beta Gene Expression in the Small Intestine **R. Jiang and B. Lönnerdal.** Univ. of California, Davis. (582.1)
- 5:00 Milk Mineral and Cytokine Concentrations Differ in Guatemalan Mothers with Subclinical Mastitis by Stage of Lactation **C. Li, H.M. Wren, N.W. Solomons, M.E. Scott and K.G. Koski.** McGill Univ. and CeSSIAM, Guatemala. (582.3)
- 5:00 The Effects of Childhood Malnutrition on DNAMethylation in Adulthood **L. Fischer, C. Peter, P. Garg, A. Sharp, S. Akbarian and J. Galler.** Harvard Med. Sch. and Icahn Sch. of Med. at Mount Sinai. (749.2)
- 5:00 Pulsatile Delivery of Cortisol Regulates Lipid Storage in Adipocytes In Vitro and Human Adipose Gene Expression In Vivo **K. Karastergiou, P. Pramyothin, A. Port, C.M. Apovian, M-J. Lee and S.K. Fried.** Boston Univ. Sch. of Med., Mahidol Univ., Bangkok and Univ. of Maryland Sch. of Med. (405.3)
- 5:00 All *trans*-Retinoic Acid Mediates Wnt/ β -Catenin Signaling through MED28 in Human Colon Cancer Cells **N-T. Hsieh, C-Y. Huang, C-I. Li and M-F. Lee.** China Med. Univ. and Chang Jung Christian Univ., Taiwan. (915.3)
- 5:00 Leptin Gene Polymorphism and Blood Pressure Changes during Pregnancy and Early Postpartum: Longitudinal Study **D.R. Farias, J. Trujilo, M. Martins and G. Kac.** Fed. Univ. of Rio de Janeiro. (751.3)
- 5:00 Diet-Induced Weight Loss Changes in Gene Regulatory Networks in the Rectum: Network Analysis as a Complement to Traditional Gene Expression Analysis **A.J. Vargas, J. Quackenbush and K. Glass.** Harvard Sch. of Publ. Hlth., NCI, NIH and Brigham and Women's Hosp. (275.5)
- 5:00 The *RFC1* 80G>A Relates to Survival Rate According to PBMCs DNA Global Methylation in Primary Liver Cancer **S. Moruzzi, S. Udali, P. Guarini, A. Guglielmi, A. Ruzzenente, P. Pattini, S. Conci, S.A. Tammen, O. Olivieri, S-W. Choi and S. Friso.** Univ. of Verona, Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and CHA Univ., Seoul. (749.4)
- 5:00 Obesity-Induced Inflammation in Human Mammary Tissues: A Microenvironment Favorable for the Development of Postmenopausal Breast Cancer **A.A. Roubert, L. Lyu, A.C. Pfalzer, K. Gauger, W. Choi, S.S. Schneider and Z. Liu.** Sch. of Publ. Hlth. and Hlth. Sci., Univ. of Massachusetts Amherst, Baystate Med. Ctr., Springfield, MA and USDA at Tufts Univ. (405.6)
- 5:00 Inflammation Attenuates Adaptive Thermogenesis via Autophagy and ER Stress-Associated Mechanism **M. Okla, W. Wang, I. Kang and S. Chung.** Univ. of Nebraska-Lincoln. (405.4)
- 5:00 Effects of High Fat Diets on Metabolic Gene Expression in the Liver and Adipose of the Offspring through Multi-generations via Epigenetic Alterations **J.H. Park, Y. Yoo and Y.J. Park.** Ewha Womans Univ., South Korea. (749.5)
- 5:00 Diverse Classes of Bitter Phytochemicals Modulate Carbohydrate Metabolism and Immune Responses through Gastrointestinal Bitter Taste Receptors **K. Palatini, M. Wilson, J. Alley, D. Esposito and S. Komarnytsky.** North Carolina State Univ., Kannapolis and Raleigh and Appalachian State Univ. (405.5)
- 5:00 Diet-Gene Interaction in Arachidonic and Docosahexaenoic Acid Synthesis Shows Compensatory Upregulation **H. Su, D. Zhou, Y-X. Pan and M.T. Nakamura.** Univ. of Illinois at Urbana-Champaign and Jiangnan Univ., China. (915.5)
- 5:00 Macronutrients Differentially Regulate PFKFB3 Expression and Increase Inflammation in Intestinal Epithelial Cells **R. Botchlett, X. Hu, T. Qi, J. Zhao, H. Li and C. Wu.** Texas A&M Univ. (405.1)
- 5:00 Skin Carotenoids Correlate with Plasma Carotenoids and Reported Intake in 4th-Grade Children **L.M. Nguyen, R.E. Scherr, I.V. Ermakov, W. Gellermann, J.D. Linnell, C.L. Keen, S. Miyamoto, F.M. Steinberg, H.M. Young and S. Zidenberg-Cherr.** Univ. of California, Davis, Univ. of Utah and Sch. of Nursing, Univ. of California, Davis, Sacramento. (910.2)
- 5:00 Teachers Don't Know What They Don't Know about Nutrition: A Case for Improving Professional Development **J.D. Linnell, M.H. Smith, K.M. Brian, R.E. Scherr and S. Zidenberg-Cherr.** Univ. of California, Davis. (910.4)
- 5:00 Piloting of a Learner-Centered Nutrition Curriculum for School Nutrition Staff **A.M. Jones, K.M. Brian, M. Briggs and S. Zidenberg-Cherr.** Univ. of California, Davis and Univ. of California Coop. Ext. Placer/Nevada Counties. (910.5)
- 5:00 Can Nutrition Education Support Academic Achievement? Evidence Supporting Integration of Food and Nutrition Education into Intermediate Curricula **V. Carraway-Stage, K.M. Kolasa, S.R. Diaz and M.W. Duffrin.** East Carolina Univ., Brody Sch. of Med. and Diaz Consulting LLC, WV. (910.7)
- 5:00 Physical Activity Guide Development for Parents of Preschoolers: Qualitative Analysis **C. Delaney, J.T. Martin-Biggers and C. Byrd-Bredbenner.** Rutgers Univ. (910.8)

- 5:00 One-Year and Two-Year Effects of the USDA Fresh Fruit and Vegetable Program (FFVP) on Students' Fruit and Vegetable Intake Frequency and Variety **Y-C. Lin, E.B. Foland, A. Caito-Sipe and A.D. Fly.** Sch. of Publ. Hlth., Indiana Univ. and Indiana Dept. of Educ. (911.1)
- 5:00 Association of Video Game Playing and Lifestyle Behaviors in Adults **C. Cemelli, J. Burris and K. Woolf.** NYU Steinhardt. (911.2)
- 5:00 Supporting Autonomy in a Nutrition Intervention for Overweight/Obese Children Using Self-Determination Theory with Motivational Interviewing **A.M. Maia and A. White.** Univ. of Maine. (911.3)
- 5:00 Self-Efficacy Is Associated with Healthy Eating Behaviors for Fifth Grade Students **E. Hall, W. Chai, W. Koszewski and J.A. Albrecht.** Univ. of Nebraska-Lincoln and Univ. of North Dakota. (911.5)
- 5:00 Examine the Knowledge of Nutrition and Physical Activity among 3rd-Graders Using Two Different Teaching Methods in Elementary School **S. Melhorn, T. Crook, J. Phelps and R. Hakkak.** Univ. of Arkansas for Med. Sci. (911.4)
- 5:00 Evaluating the Discrimination of Sugar Content Thresholds in the Canadian Nutrient File Classification System **J.T. Bernstein and M.R. L'Abbe.** Univ. of Toronto. (124.7)
- 5:00 Accuracy of Consumers' Ability in Identifying Whole Grains Foods: Implications for Policy Change **M. Chea, J.S. Foster and A.R. Mobley.** Univ. of Connecticut. (124.3)
- 5:00 A Comparison of the Healthfulness of Prepackaged Children's Foods from Participants and Non-participants of the Canadian Voluntary Code on Marketing to Children **C.W. Murray and M.R. L'Abbe.** Univ. of Toronto. (124.1)
- 5:00 Does Mere Exposure Mediate Sensitivity to Bitter Taste on Consumer Liking and Acceptability of Whole Grain Foods? **A. De Leon, M. Giovanni, W. Horn, D. Burnett and N.L. Keim.** Univ. of California, Davis, California State Univ. Chico and USDA, Davis. (124.4)
- 5:00 Medicinal and Nutritional Plants in Rural Panama: Artisanal Lemongrass Tea Has High Community Acceptability **T.P. van der Have, I. Bermudez, J. Kearney and O. Bermudez.** Catholic Univ. of Leuven, Tech Univ. of Panama, Dublin Inst. of Technol. and Tufts Univ. Sch. of Med. (740.1)
- 5:00 Understanding Aspects of Carbohydrate Quality in Rice Related to Differences in Gastric Emptying Rate **E. Pletsch and B. Hamaker.** Purdue Univ. (740.5)
- 5:00 Trends in the Content and Forms of Vitamin K in Processed Foods **M.Z. Brown-Ramos, A.J. Centi, D.B. Haytowitz and S.L. Booth.** USDA at Tufts Univ. and USDA, Beltsville. (739.6)
- 5:00 Beverage Groups Consumed by U.S. Children and Their Impact on Nutrient Intake **E.A. Parker, J.C. Clemens and A.J. Moshfegh.** USDA, Beltsville. (739.8)
- 5:00 Index-Based Dietary Patterns and All-Cause and Cause-Specific Mortality Stratified by Body Mass Index and Race/Ethnicity: NIH-AARP Diet and Health Study **T. Schap, A. Subar, G. Anic, S. George, S. Krebs-Smith, Y. Park and J. Reedy.** NCI, NIH, Rockville and Washington Univ. (119.2)
- 5:00 Higher Red Blood Cell n-3 Fatty Acid Composition Prospectively Relates to Lower Depressive Symptomatology **S.J. Bigornia, K.L. Tucker, L.M. Falcon and W.S. Harris.** Univ. of Massachusetts Lowell and Sanford Sch. of Med. of the Univ. of South Dakota. (119.7)
- 5:00 Adherence to the DASH Diet and Risk of Incident Chronic Kidney Disease: The Atherosclerosis Risk in Communities Study **C.M. Rebholz, D.C. Crews, M.E. Grams, A.S. Levey, E.R. Miller III, L.J. Appel and J. Coresh.** Johns Hopkins Univ. and Tufts Med. Ctr. (119.1)
- 5:00 Changes in Intake and Major Food Sources of Flavonoids among U.S. Adults between 1999-2002 and 2007-2010 **K. Kim, T.M. Vance and O.K. Chun.** Univ. of Connecticut and BOM Res. Inst., Seoul. (131.1)
- 5:00 Quantity and Variety in Fruit and Vegetable Intake and Cardiovascular Disease Risk: The Women's Health Initiative **S.N. Bhupathiraju, L.F. Tinker, T. Dubowitz, K.C. Johnson, R.A. Seguin, J.E. Manson and F.B. Hu.** Harvard Sch. of Publ. Hlth., Fred Hutchinson Cancer Res. Ctr., Seattle, RAND Grad. Sch., PA, Univ. of Tennessee Hlth. Sci. Ctr., Memphis, Cornell Univ. and Brigham and Women's Hosp. (260.2)
- 5:00 Characterizing Household Food Shopping Behavior Using Novel Receipt-Based Geospatial Measures **T.L. Barnes, S.A. French, N.R. Mitchell and D. Van Riper.** Univ. of Minnesota, Minneapolis. (119.6)
- 5:00 Food Groups Associated with a Reduced Risk of 15-Year All-Cause Death **V. Bongard, D. Arveiler, J. Dallongeville, J-B. Ruidavets, A. Wagner, C. Simon, N. Marecaux and J. Ferrieres.** Toulouse Univ. – INSERM, Strasbourg Univ., Inst. Pasteur de Lille – INSERM and Lyon Univ. – INSERM. (736.32)
- 5:00 Dietary Flavonoid Intake and Weight Change **M.L. Bertoia, E.B. Rimm, K.J. Mukamal, F.B. Hu, W.C. Willett and A. Cassidy.** Harvard Sch. of Publ. Hlth., Beth Israel Deaconess Med. Ctr. and Univ. of East Anglia Norwich Med. Sch., U.K. (906.31)
- 5:00 Increased Carbohydrate Intake and Glycemic Load Are Associated with Left Ventricular Hypertrophy **N. Bush, B. Gower, K. Pearson, S. Judd, J. Shikany, V. Howard, S. Soliman and G. Howard.** Univ. of Alabama at Birmingham and Wake Forest. (736.31)
- 5:00 Are Food Processing and Convenience Linked with the Nutritional Quality of Foods Purchased by U.S. Households? **J. Poti, M. Mendez, S.W. Ng and B. Popkin.** Univ. of North Carolina at Chapel Hill. (587.9)
- 5:00 Social Support in Context and Its Association with Three Healthy Diet Indicators **S.P. Arévalo, L.M. Falcón and K.L. Tucker.** Univ. of Massachusetts Lowell. (736.36)

Visit the Exhibits

Sunday – Tuesday

9:00 AM – 4:00 PM

- 5:00 Association between Dietary Inflammatory Potential and Breast Cancer Incidence and Mortality: Results from the Women's Health Initiative **F. Tabung, S. Steck, A. Liese, J. Zhang, Y. Ma, B. Caan, R. Chlebowski, J. Freudenheim, L. Hou, Y. Mossavar-Rahmani, N. Shivappa, M. Vitolins, J. Wactawski-Wende, J. Ockene and J. Hebert.** Univ. of South Carolina, UMass Med. Sch, Kaiser Permanente, Oakland, UCLA Biomed. Res. Inst., Univ. at Buffalo, Feinberg Sch. of Med., Albert Einstein Col. of Med. and Wake Forest Sch. of Med. (260.5)
- 5:00 Waist Size in 9-11 Year-Old Black and White Girls Predicts Development of Cardiometabolic Risk over Ten Years **S.E. Ferreira, M.M. Mott, M.R. Singer, M.L. Bradlee, S.R. Daniels and L.L. Moore.** Boston Univ. Sch. of Med. and Univ. of Colorado CO Sch. of Med. (381.2)
- 5:00 Combining Public Datasets to Explore Relationships between Dietary Change, Development and Health 1980-2009 **R. Green, J. Sutherland, A. Dangour and P. Webb.** London Sch. of Hyg. and Trop. Med. and Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy. (272.8)
- 5:00 Overtime Growth and Spatial Distribution of Fast Food Industry in China during 2005-2012 **X. Cheng, Y. Wang, H. Xue and W. Qu.** Univ at Buffalo and Fudan Univ., Shanghai. (119.5)
- 5:00 Development and Validation of a Novel Household Grocery Food Purchase Quality Score **P.J. Brewster, P.M. Guenther, K.C. Jordan and J.F. Hurdle.** Univ. of Utah. (131.3)
- 5:00 Circulating Biomarkers in Breast Cancer Prognosis and Survival: A Systematic Review **J. Cheng, S. Liu and F.F. Zhang.** Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy. (906.21)
- 5:00 The Association between Insomnia Symptoms and Diet Quality and Energy Intake **F.W. Cheng, Y. Li, J.W. Winkelman, F.B. Hu, E.B. Rimm and X. Gao.** Penn State, Harvard Sch. of Publ. Hlth. and Massachusetts Gen. Hosp. (260.7)
- 5:00 Comparability of Dietary Data Collection Programs for U.S. Adults, 2007-2011 **Z. Conrad, K. Chui, T. Griffin and C. Peters.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and Tufts Univ. Sch. of Med. (131.8)
- 5:00 Vitamin B₆ Status Is Associated with Depression among Women with Inflammation **J.M. Faraj, L.M. Troy, E.R. Bertone-Johnson and A.G. Ronnenberg.** Univ. of Massachusetts Amherst. (587.18)
- 5:00 The DASH Diet, Cardiovascular Disease Risk and Obesity in the United Kingdom **N.R.V. Jones, S. Ray and P. Monsivais.** Univ. of Cambridge and Cambridge Inst. of Publ. Hlth. (119.3)
- 5:00 Does Pollution Exacerbate Obesity Risks? A Systematic Review and Meta-analysis **K.A. Smith, W. Qu, X. Ren and Y. Wang.** Univ. at Buffalo, SUNY and Fudan Univ., China. (736.34)
- 5:00 Dietary Patterns and Risk of Age-Related Macular Degeneration after More Than Two Decades of Follow-Up **J. Wu, D. Schaumberg, T. Fung, S. Sastry and W. Willett.** Harvard Sch. of Publ. Hlth., Univ. of Utah, Harvard Med. Sch., Simmons Col. and Bethesda Retina. (260.6)
- 5:00 Food Craving in Childhood Cancer Survivors **M.M. Shams-White, M. Kelly, S.B. Roberts, A. Must, S.K. Parsons, E. Saltzman and F.F. Zhang.** Tufts Univ. and Tufts Med. Ctr. (736.35)
- 5:00 Examining the Impact of Walmart's Healthier Foods Initiative on the Nutrient Profile of U.S. Packaged Food Purchases **L.P. Smith, S.W. Ng and B. Popkin.** Univ. of North Carolina at Chapel Hill. (272.1)
- 5:00 Comparing Growth Assessments Using CDC and WHO Reference Data in Native Hawaiian Pacific Islander Children: Baseline Data from the Children's Healthy Living Program in Hawai'i **M.K. Esquivel, F. Li and R. Novotny.** Univ. of Hawaii Manoa. (381.5)
- 5:00 Cardiometabolic and Immunological Impacts of Extra Virgin Olive Oil Consumption in Overweight and Obese Older Adults: A Randomized Controlled Trial **M. Rozati, J. Barnett, D. Wu, G. Handelman, G. Dallal, E. Saltzman, T. Wilson, L. Li, J. Wang, A. Marcos, J.M. Ordovás, Y-C. Lee, M. Meydani and S.N. Meydani.** USDA at Tufts Univ., Univ. of Massachusetts Lowell and Inst. of Food Sci., Technol. and Nutr., Madrid. (252.6)
- 5:00 Immune Response to a *Salmonella* Enteritidis Infection in Chickens Fed Different Immunomodulatory Nutrients **E.L. Wils-Plotz and K.C. Klasing.** Univ. of California, Davis. (593.2)
- 5:00 Changes in Leukocytes Populations Related to Commercial Sucralose Intake **M. Sánchez Delgado, J.A. Estrada and I. Contreras.** Fac. of Med., UAEM, Toluca, Mexico. (593.4)
- 5:00 Feeding a Docosahexaenoic Acid Rich Diet during the Suckling and Weaning Period Modulates Immune Function in Offspring **C. Richard, S. Goruk and C. Field.** Univ. of Alberta. (252.4)
- 5:00 Vitamin D Status and Respiratory Tract Infections: A Systematic Review and Meta-Analysis of Observational Evidence **K. Furlong, J. Omand, M. Pitino, M. Science, D. O'Connor, J. Maguire and D. Tran.** Univ. of Toronto, The Hosp. for Sick Children and St. Michael's Hosp., Toronto. (252.5)
- 5:00 *Citrobacter rodentium* Infection Alters Murine Colonic microRNA Signature **B. Wen, J. Chen, A. Taibi and E.M. Comelli.** Univ. of Toronto. (252.3)
- 5:00 Effects of Early Life Pathogenic Exposures and Obesity on Childhood Inflammation Levels in Galápagos, Ecuador **K.M. Houck, A.L. Thompson and M. Sorensen.** Univ. of North Carolina at Chapel Hill. (252.7)
- 5:00 Vitamin D Status and Severity of Pneumonia in Ecuadorian Children **R.R. Mokhtar, M.F. Holick, F. Sempértegui, J.K. Griffiths, B. Estrella, L.L. Moore and D.H. Hamer.** Boston Univ., Ecuadorian Corp. of Biotechnol. and Tufts Univ. (757.2)
- 5:00 Infection with *Entamoeba coli* and *Ascaris lumbricoides* Affects Energy, Nutrients and Foods Intake in Mexican Children **G.A. Zavala, C.M. Doak, O.P. García, M. Caamaño, D. Ronquillo, M. Campos-Ponce, K. Polman and J.L. Rosado.** VU Amsterdam Univ. and Autonomous Univ. of Queretaro, Mexico. (757.3)

- 5:00 Effect of Sinigrin on Vascular Cell Adhesion Molecule-1 Expression in TNF- α -Stimulated Mouse Vascular Smooth Muscle Cells via Downregulation of NF- κ B Signaling Pathways **H.W. Lee and K.R. Lee.** Sch. of Pharm., Sungkyunkwan Univ., South Korea. (593.15)
- 5:00 Does the recommendation to drink 8 cups of water per day promote weight loss? **J.M. Wong, C.B. Ebbeling, L. Robinson, H.A. Feldman and D.S. Ludwig.** Boston Children's Hosp. (747.18)
- 5:00 Dyslipidemia Induces Independent Mechanisms Regulating Skeletal Muscle Protein Metabolism and Glucose Balance in Human Obesity **L. Tran, E.A. De Filippis, D.F. Lake, L.J. Mandarino and C.S. Katsanos.** Arizona State Univ. and Mayo Clin. (746.3)
- 5:00 Consumption of Acai Beverage (*Euterpe oleracea* Mart.) in Cardio-metabolic Syndrome **S. Simbo, H. Kim, J. Chrown, A. Roque, N. Banerjee, S.T. Talcott, R.B. Kreider and S.U. Mertens-Talcott.** Texas A&M Univ. (602.8)
- 5:00 Pregnancy Body Weight and Neonate Gut Microbiota **N.T. Mueller, H.A. Goldani, A. Pizoni, U. Matte, I. Werlang, M.Z. Goldani, H. Shin and M.G. Dominguez-Bello.** Columbia Univ., Fac. of Med., Hosp. Clin. of Porto Alegre, Brazil and NYU Sch. of Med. (601.2)
- 5:00 Statistical Modeling Approaches with Taste Functioning and Central Adiposity in Women: Implications for Mining the New National Health and Nutrition Examination Survey (NHANES) Taste and Smell Protocol **S. Rawal, T.B. Huedo-Medina, H.J. Hoffman and V.B. Duffy.** Univ. of Connecticut and NIDCD, NIH. (602.4)
- 5:00 Obesity and Hypothalamic Inflammation from High Fat Diets of Different Fatty Acid Profile **K.J. Mamounis and T.A. Roepke.** Rutgers Univ. (746.2)
- 5:00 Nopal Consumption Attenuates Biochemical Abnormalities and Microbiota Disbiosis in a Diet-Induced Obesity Model **M. Sanchez-Tapia, A.R. Tovar and N. Torres.** Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City. (601.1)
- 5:00 The Effect of Mango Supplementation on Clinical Parameters of Pre-diabetic Individuals **J. Semkoff, S. Evans, S. Jantachotikun, H. Eldoumi, M. Mahmood, M. Meister, M. Payton, S. Peterson, P. Perkins-Veazie, S. Clarke, B. Smith and E. Lucas.** Oklahoma State Univ. and North Carolina State Univ. (602.12)
- 5:00 Diet Quality and Adiposity in Adolescents **K. Mellendick, L. Shanahan, L. Wideman, S. Calkins, S. Keane and C. Lovelady.** Univ. of North Carolina at Greensboro and Univ. of North Carolina at Chapel Hill. (747.12)
- 5:00 MD2 May Mediate Free Fatty Acid-Induced Inflammation and Insulin Resistance **Q. Fang, Y. Pan and G. Liang.** Sch. of Pharmaceut. Sci., Wenzhou Med. Univ., China. (602.14)
- 5:00 A randomized control trial of sugar-sweetened and artificially sweetened beverages and intrahepatic fat in overweight subjects **V. Campos, C. Despland, P. Schneider, V. Brandejsky, R. Kreis, C. Boesch and L. Tappy.** Univ. of Lausanne and Univ. of Bern. (602.5)
- 5:00 Under Reporting of Hypertension in Obese Teenagers **Y. Yeh, K. Brogan Hartlieb, S. Naar-King and C.K-L. Jen.** Wayne State Univ., Florida Intl. Univ. and Wayne State Univ. (602.13)
- 5:00 Regional Fat Mass Estimations in Caucasian Adults from Regional Subcutaneous Fat Thickness Measured by Ultrasound **M. Wall, A.B. Welk and R.T. Davidson.** Logan Univ., MO. (747.11)
- 5:00 Body Weight Status Are Associated with Biomarkers of Inflammation and Bone Turnover in Former Smokers **S.G. Lee, T.M. Vance, P. Hurbert, L. Xie, B. Kim, J. Lee, B.W. Boling, S-K. Lee and O.K. Chun.** Univ. of Connecticut, Univ. of Wisconsin-Madison and Univ. of Connecticut Hlth. Ctr. (602.16)
- 5:00 Vitamin D Prevents Oxidative Stress via Regulating NOX4/Nrf2/Trx Signaling Cascade and Upregulates SIRT1-Mediated AMPK/IRS1/GLUT4 Pathway and Glucose Uptake in High Glucose-Treated 3T3L1 Adipocytes **P. Manna and S.K. Jain.** LSU Hlth. Sci. Ctr., Shreveport. (253.1)
- 5:00 Effects of Roux-en-Y Gastric Bypass on Sugar-Induced Hypertriglyceridemia **A. Surowska, S. De Giorgi, F. Theytaz, V. Lecoultre, V. Campos, V. Giusti and L. Tappy.** Univ. of Lausanne and Broye Intercantonal Hosp. (600.3)
- 5:00 Iron Bioavailability of Sorghum, Cowpea, Corn and Soybean Fortified Blended Foods **K. Penugonda, S. Alavi and B.L. Lindshield.** Kansas State Univ. (122.1)
- 5:00 Investigation of the 3-Epimer of 25-Hydroxyvitamin D3 in Urban Schoolchildren **S.E. Berger, M. Van Rompay, C.M. Gordon, E. Goodman, C.D. Economos, M. Eliasziw, M.F. Holick and J. Sackeck.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ., Hasbro Children's Hosp., Providence, Massachusetts Gen. Hosp., Harvard Med. Sch., Tufts Univ., Boston and Sch. of Med., Boston Univ. (253.4)
- 5:00 Association between Transcobalamin II C776G Polymorphism and Neuropathy Is Modified by Folate Intake in Vitamin B-12 Sufficient Elders **H. Sawaengsri, W.Q. Qiu, T.M. Scott, I.H. Rosenberg, P.F. Jaques, J. Selhub and L. Paul.** Friedman Sch. of Nutr. and USDA at Tufts Univ. and Boston Univ. (134.7)
- 5:00 Dysfunctional Cardiac Fatty Acid Metabolism in Cystathionine-beta-Synthase +/- Mice with Obesity **M.B. Glier, R.B. Wambolt, R.P. da Silva, S.L. Gerrard, R.E. Aleliunas, R.L. Jacobs, M.F. Allard and A.M. Devlin.** Univ. of British Columbia and Univ. of Alberta. (919.18)
- 5:00 Placental Zip 8 Expression Is Associated with Heme and Non-heme Iron Trafficking Proteins **Y. Ru, C.E. Thomas, E.M. Cooper, I. Hamza, E.K. Pressman, R. Guillet and K.O. O'Brien.** Cornell Univ., Sch. of Med., Univ. of Rochester and Univ. of Maryland College Park. (921.4)
- 5:00 Whey-Based Supplement Added to a Plant-Based Diet Increases Total Zinc Absorption, but Not Total Iron in Mexican Children **A. Pérez-Pérez, O.P. Garcia, M. Camacho, J.E. Westcott, K.M. Hambidge, N.F. Krebs and J.L. Rosado.** Sch. of Nat. Sci., Autonomous Univ. of Querétaro, Mexico and Univ. of Colorado Denver. (122.2)

- 5:00 Novel Ferroxidases in Mammalian Intestinal Epithelial Cells **C. Doguer, J-H. Ha, S. Gulec, S. Flores, X. Wang and Y. Han.** Univ. of Florida and Izmir Inst. of Technol., Turkey. (263.8)
- 5:00 Dietary Fat Dose-Dependently Increases α -Tocopherol Bioaccessibility **T.N. Sapper, E. Mah, C. Chitchumroonchokchai, M.L. Failla and R.S. Bruno.** The Ohio State Univ. (122.8)
- 5:00 The Zinc Transporting Network Is a Central Component of Dysregulation in Breast Cancer **P. Chandler, B. Kochupurakkal, V. Lopez, S. Alam, D. Soybel and S. Kelleher.** Penn State, Dana-Farber Cancer Inst. and Consumnes River Col., CA. (921.3)
- 5:00 Assessing Vitamin D₃ Stability in Dietary Supplements **S. Su and T.C. Chen.** Boston Univ. Sch. of Med. (253.5)
- 5:00 γ -Carboxyethyl Hydroxychroman Preserves Nitric Oxide Bioavailability by Attenuating Oxidative Stress and Inflammation in Endothelial Cells Treated with High Glucose **Y. Li, L. Bharath, Y. Quan, E. Mah, Y. Guo, M. Hawkins, R.S. Bruno, P.V.A. Babu, T. Jalili and J.D. Symons.** Univ. of Utah and The Ohio State Univ. (758.1)
- 5:00 25-Hydroxyvitamin D and Its C-3 Epimer in a Mouse Model of Non-melanoma Skin Cancer **M.D. Teegarden, K.M. Riedl, K.L. Tober, S.J. Schwartz and T.M. Oberyszyn.** The Ohio State Univ. and The Ohio State Univ. Wexner Med. Ctr. (758.2)
- 5:00 Effect of High Protein Consumption on Markers of B₆ Status in a Rodent Model of Moderate Pyridoxine Deficiency **S. Raposo-Blouw, S. Mayengbam and J.D. House.** Univ. of Manitoba. (134.4)
- 5:00 Vitamin D Supplementation and Quality of Life following Diagnosis in Stage II Colorectal Cancer Survivors **C.M. Lewis, P. Xun and K. He.** Indiana Univ. (253.6)
- 5:00 Vitamin B12 Status in a Cohort of Canadian Pregnant Women and Newborn Infants **C.E. Visentin, S. Masih, L. Plumptre, T.H. Schroder, K-J. Sohn, A. Ly, D. Nielsen, A.Y. Lausman, H. Berger, R. Croxford, Y. Lamers, D.L. O'Connor and Y-I. Kim.** Fac. of Med., Univ. of Toronto and Univ. of British Columbia. (134.8)
- 5:00 Effects of Folic Acid Deficiency on the Murine Mammary Gland **S.G. Miszewski, G.E. Berryhill, R. Green, A.D. Borowsky, J.W. Miller and R.C. Hovey.** Univ. of California, Davis, Univ. of California Davis Med. Ctr., Sacramento and Rutgers Univ. (919.10)
- 5:00 Associations between Plasma Folate and Kidney Dysfunction in Type 2 Diabetes **Y-L. Liao, H-R. Jhang, H-F. Chung, M-C. Huang, C-C. Hsu and S-J. Hwang.** Kaohsiung Med. Univ., Kaohsiung Med. Univ. Hosp., Taiwan, Sch. of Popul. Hlth., Univ. of Queensland and Natl. Hlth. Res. Insts., Zhunan, Taiwan. (758.3)
- 5:00 Maternal Folic Acid/Vitamin B12 Imbalance Programs Hepatic Gene Expression in Female Offspring **A. Aljaadi, R. Aleliunas, M. Glier, T. Green, J. Miller and A. Devlin.** Univ. of British Columbia and Rutgers Univ. (919.13)
- 5:00 The Role of Serine Hydroxymethyltransferase and Methylene-Tetrahydrofolate Dehydrogenase in Genome Stability **A. DiRisio, E. Kamynina and P.J. Stover.** Cornell Univ. (919.1)
- 5:00 The Higher Calcium Absorption Associated with a High Fat Diet Is Not Due to Intestinal Calcium Availability **E. Bandali, M. Rogers and S. Shapses.** Rutgers Univ. (760.2)
- 5:00 Cystathionine Gamma-Lyase Inhibition in Primary Human Hepatocytes Affects the Production of Hydrogen Sulfide Biomarkers through the Transsulfuration Pathway **B. DeRatt, R. da Silva, M. Ralat, R.L. Jacobs and J.F. Gregory.** Univ. of Florida and Univ. of Alberta. (919.2)
- 5:00 Supplementation of Aging Transgenic Mice with Folic Acid and Folinic Acid Alleviates Alzheimer's Disease-Associated Neuronal Amyloid- β Pathological Progression and Genomic Expression Profiles **T-F. Chen, H-C. Hsu, M-J. Chiu and R-F.S. Huang.** Natl. Taiwan Univ. Hosp., Fu-Jen Univ., Taiwan and Natl. Taiwan Univ. (919.3)
- 5:00 Maternal Weight Loss Increases Preterm Birth in Kenya **B. Barr, B. Natamba, O. Sumba, P. Baresel, F. Opinya, A. Dent, E. Toko, R. Rochford and S. Mehta.** Cornell Univ., Kenya Med. Res. Inst., SUNY Upstate Med. Univ. and Case Western Reserve Univ. (31.2)
- 5:00 Maternal Choline Supplementation Modulates Fetal Growth Patterns in a Mouse Model of Placental Insufficiency **J.H. King, S.T. Kwan, J. Yan, V.G. Fomin, M.S. Roberson and M.A. Caudill.** Cornell Univ. (919.8)
- 5:00 Growth Monitoring and Promotion in Rural Ghana: Lack of Motivation or Tools? **M.E. Laar, G.S. Marquis, A. Lartey and K. Gray-Donald.** Sch. of Dietetics and Human Nutr., McGill Univ. and Univ. of Ghana. (31.4)
- 5:00 Association of Blood Fatty Acids and Growth in Tanzanian Children 2-6 Years of Age **S. Hahn, T. Jumbe, W.S. Harris, J. Kinabo and J.I. Fenton.** Michigan State Univ., Sanford Sch. of Med., Univ. of South Dakota and OmegaQuant Analytics LLC and Sokoine Univ. of Agr., Tanzania. (31.6)
- 5:00 Cost-Effectiveness of Mama-SASHA: A Project to Improve Health and Nutrition through an Integrated Orange-Fleshed Sweet Potato Production and Health Service Delivery Model **J.L. Self, A. Webb Girard, D. McFarland, F.K. Grant, J. Low, D. Cole and C. Levin.** Emory Univ., Intl. Potato Ctr., Bungoma, Kenya, Intl. Potato Ctr., Nairobi, Univ. of Toronto and Univ. of Washington. (39.8)
- 5:00 Calcium Supplementation for Preeclampsia Prevention: Estimated Risk of Excessive Intake in Ethiopian Women **B. Tesfaye, S. Wuehler, K. Baye, L.M. De-Regil, T. Moges, A. Adish and K.L. Dickin.** Ethiopian Publ. Hlth. Inst., The Micronutr. Initiative, Canada, Addis Ababa Univ. and Cornell Univ. (39.1)
- 5:00 Iodized Salt Improves Child's Iodine Status, Mental Development, and Physical Growth in a Cluster Randomized Trial in Ethiopia **K. Bougma, G.S. Marquis, F.E. Aboud, E.A. Frongillo, T. Lemma and A. Samuel.** McGill Univ. Sch. of Dietetics and Human Nutr., McGill Univ., Univ. of South Carolina, Bahir Dar Univ. Sch. of Psychol. and Ethiopian Publ. Hlth. Inst., Addis Ababa. (28.6)

- 5:00 How Does Homestead Food Production Improve Child Nutrition? Path Analysis of the AAMA Project in Nepal **J.L. Self, R. Haardörfer, A.D. Stein, P. Pandey, R. Martorell and A. Webb Girard.** Emory Univ. and Helen Keller Intl., Kathmandu. (391.7)
- 5:00 An Evaluation of Two Methods to Measure Hemoglobin Concentration among Women with Genetic Hemoglobin Disorders in Cambodia: A Method-Comparison Study **C. Karakochuk, A. Janmohamed, K. Whitfield, S. Barr, S. Vercauteren, H. Kroeun, A. Talukder, J. McLean and T. Green.** Univ. of British Columbia, Children's and Women's Hlth. Ctr. of British Columbia and Helen Keller Intl., Phnom Penh. (403.1)
- 5:00 Effect of Vitamin B12 Supplementation on B12 Status and Neurophysiological Function in Older Chileans Analyzed by the Combined Indicator of B12 Status **A. Brito, J.W. Miller, R. Green, S.N. Fedosov, D. Harvey, S. Shahab-Ferdows, R. Verdugo, H. Sanchez, C. Albala, R. Uauy and L.H. Allen.** USDA, Davis, Rutgers Univ., Univ. of California, Davis, Aarhus Univ. and INTA, Univ. of Chile. (28.8)
- 5:00 Elevated Umbilical Cord Cytokines are Related to Birth Size in HIV-Exposed and Unexposed Infants **A.L. Wilkinson, S.H. Pedersen, M. Urassa, D.M. Michael, A. Andreasen, J. Todd, S. Kinung'hi, J. Changalucha and J.M. McDermid.** Cornell Univ., London Sch. of Hyg. and Trop. Med. and Natl. Inst. for Med. Res., Tanzania. (403.2)
- 5:00 A Plasma Proteome Associated with Inflammation in Nepalese School-Aged Children **S.E. Lee, K. West, R. Cole, K. Schulze, J. Yager, J. Groopman and P. Christian.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Johns Hopkins Sch. of Med. (403.7)
- 5:00 Household Poverty Does Not Correlate with Micronutrient Malnutrition: Preliminary Findings from a Cross-Sectional Survey in Madhya Pradesh **N. Perumal, S. Kaur, R. Sachdeva, R. Sankar and S. Jungjohann.** Hosp. for Sick Children, Univ. of Toronto Dalla Lana Sch. of Publ. Hlth., Publ. Hlth. Fndn. of India and Global Alliance for Improved Nutr., India and Switzerland. (39.2)
- 5:00 Mixed Methods Approach to Characterize Longitudinal Food Insecurity and Coping Strategies in the Peruvian Amazon **R. Ambikapathi, P. Yori, J. Rothstein, M. Paredes Olortegui, G. Lee, M. Kosek and L.E. Caulfield.** Johns Hopkins Sch. of Publ. Hlth. (39.3)
- 5:00 Availability and Intake of Foods with Naturally Occurring or Added Vitamin D in a Setting of High Vitamin D Deficiency **M.B. Cooper, S.S. Shanta, A.A. Mahmud, D.E. Roth and A.D. Gernand.** Penn State, ICDDR, Bangladesh and Univ. of Toronto & Hosp. for Sick Children. (391.3)
- 5:00 Conducting Formative Research to Understand Patterns and Determinants of Small-Quantity LNS Utilization in Rural Malawi and Mozambique **S. Kodish, N.J. Aburto, M. Nseluke Hambayi, F. Dibari, V. Buanausse and J. Gittelsohn.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and World Food Prog. Rome. (391.1)
- 5:00 Civil Conflict and Child Health in Africa: An Instrumental Variables Approach **A.F. Darrouzet-Nardi.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. (391.4)
- 5:00 Evaluating Growth Regulating Hormones in Rural Gambian Children **H.M. Nabwera, R.M. Bernstein, A.T. Jallow, M.W. Jallow and A.M. Prentice.** MRC, The Gambia, London Sch. of Hyg. and Trop. Med. and Univ. of Colorado at Boulder. (579.3)
- 5:00 Women's Economic Autonomy, Education, and Experience of Domestic Violence Are Associated with Household Food Security among Pregnant Women in MINIMat Study in Bangladesh **S. Kulkarni, E.A. Frongillo, Jr., R.T. Naved and E-C. Ekström.** Univ. of South Carolina, ICDDR,B, Dhaka and Uppsala Univ. (898.3)
- 5:00 α 2-Heremans-Schmid Glycoprotein Polymorphism and HOMA-IR in Young Mexican Adults **K.N. Robinson, C. Marques, F.C.D. Andrade, C. Aradillas-Garcia and M. Teran-Garcia.** Auton. Univ. of San Luis Potosi, Mexico and Univ. of Illinois, Urbana. (898.49)
- 5:00 Components of a Mediterranean Diet Are Associated with Gut Permeability in Obese Adults **O. Moss, A. Keshavarzian, C. Tangney, K. Shawron, K. Kester, K. Clifford, B. Piazza, M. Shaikh, M. Betz and H. Rasmussen.** Rush Univ. (262.2)
- 5:00 Goji Berry Improves Colitis in IL10^{-/-} Mice through Modulating Gut Microbiota **Y. Kang, M. Du, G. Yang and M. Zhu.** Washington State Univ. (262.7)
- 5:00 Altering the Gut Microbiome to Improve Tolerability of Metformin **M.R. Johnson, J.H. Burton, F.L. Greenway and M.L. Heiman.** Pennington Biomed. Res. Ctr., Baton Rouge and MicroBiome Therapeut., Broomfield, CO. (914.3)
- 5:00 Dietary Protein Source Impacts Bone, Acid Load and Calcium Excretion in Murine and Human Phenylketonuria **B.M. Stroup, E.A. Sawin, S.G. Murali and D.M. Ney.** Univ. of Wisconsin-Madison. (274.3)
- 5:00 Improvement of Metabolic Parameters in Mice Supplemented with Vitamin D throughout Life **C.R. Villa, J. Chen, B. Wen, A. Taibi, W.E. Ward and E.M. Comelli.** Univ. of Toronto and Brock Univ., Canada. (274.1)
- 5:00 Resistant Starch Alters Gut Microbiota and Reduces Uremic Retention Solutes in Rats with Adenine-Induced Chronic Kidney Disease **D. Kieffer, B. Piccolo, S. Liu, W. Lau, M. Khazaeli, S. Nazertehrani, N. Vaziri, R. Martin and S. Adams.** USDA, Univ. of California, Davis and Univ. of California, Irvine. (274.4)
- 5:00 Changes in Fecal Vitamin K Content Are Associated with the Gut Microbiota **J.P. Karl, X. Fu, X. Wang, Y. Zhao, J. Shen, C. Zhang, E. Saltzman, L. Zhao and S.L. Booth.** USDA at Tufts Univ. and Shanghai Jiao Tong Univ. (262.1)
- 5:00 Impact of Gut Microbiome Modulation on Gut Inflammation **A. Ballou, R. Ali, J. Croom and M. Koci.** North Carolina State Univ. (262.3)
- 5:00 Balancing the Risk of Infant Low Birth Weight and Macrosomia: An Examination of Gestational Weight Gain or Weight Loss among Obese Women **N.P. Deputy, A. Sharma and S. Kim.** Emory Univ. and Ctrs. for Dis. Control and Prevent. (590.3)

- 5:00 Intake of 2 Eggs or Oatmeal for Breakfast Does Not Increase Biomarkers for Heart Disease while Eggs Improve Liver Enzymes and Raise HDL Cholesterol in Young Healthy Individuals **A. Missimer, D. DiMarco, M. Vergara-Jimenez, G. Murillo, B. Creighton, C.J. Andersen and M-L. Fernandez.** Univ. of Connecticut and Univ. of Sinaloa. (274.2)
- 5:00 Hepcidin, Iron Status and Inflammation in School-Aged Nepalese Children **S. Baker, K. Schulze, L. Wu, P. Christian and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. (913.8)
- 5:00 The Effect of a Low Glycemic Index Diet on Diabetic Nephropathy **K. Srichaikul, V. Hertzog, H. Dutton, C.W.C. Kendall, J. Sievenpiper and D.J.A. Jenkins.** St. Michael's Hosp., Univ. of Toronto and Queens' Univ., Canada. (274.7)
- 5:00 A Healthy Lifestyle Score Is Associated with Inflammation Markers among Puerto Rican Adults **M. Sotos-Prieto, S.N. Bhupathiraju, L.M. Falcon, X. Gao, K.L. Tucker and J. Mattei.** Harvard Sch. of Publ. Hlth., Univ. of Massachusetts and Penn State. (393.2)
- 5:00 Effect of Low Glycemic Index Diet on Apolipoprotein B and LDL Particle Size **K. Srichaikul, C. Ireland, C.W.C. Kendall, J.L. Sievenpiper, B. Lamarche and D.J.A. Jenkins.** St. Michael's Hosp., Univ. of Toronto and Laval Univ., Canada. (274.8)
- 5:00 Changes in the Intestinal Microbiota and Host Inflammatory Gene Expression in Pigs Fed a Flavanol-Enriched Cocoa Powder **S. Jang, J. Sun, P. Chen, S. Lakshman, A. Molokin, J. Harnly, J.F. Urban, Jr., C.D. Davis and G. Solano-Aguilar.** USDA, Beltsville and ODS, NIH. (914.4)
- 5:00 Dietary Quality in Nulliparous Women Planning Pregnancy: Results from the ISIS Study **P.Y. Hsiao, J.L. Fung, D.C. Mitchell, T.J. Hartman and M.B. Goldman.** Indiana Univ. of Pennsylvania, Geisel Sch. of Med., Dartmouth Col., Penn State and Emory Univ. (590.8)
- 5:00 Cereal-in-the-Bottle Associated with Increased Time between Feeds Among a Sample of Low-Income Women **K.M. Bower, J.C. Nicklas, J.L. Burney, B.P. Greer, Z. Lou and K.F. Kavanagh.** Univ. of Tennessee and WIC, City and County of Broomfield. (404.1)
- 5:00 Genetic Variants in *GLUT14* Gene Enhance Susceptibility to Inflammatory Bowel Disease **M. Amir Shaghghi, C.N. Bernstein and P. Eck.** university of Manitoba. (591.3)
- 5:00 Complementary Feeding Pattern Reduces the Impact of Diarrhea on Relative Weight: A Longitudinal Analysis of the Interaction of Diet and Diarrhea on Weight-for-Length in Cebu Infants **M. Wright and L. Adair.** Univ. of North Carolina at Chapel Hill. (404.2)

Pathology

41. LUNG SYMPOSIUM: ONTOGENY AND INJURY

Symposium

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 162A

CHAired: M.E. SUNDAY AND C.W. FREVERT

Pulmonary Pathobiology

Cancer Biology

Inflammation/Immunity

- 8:30 Role of Lung Pericytes and Resident Fibroblasts in Development and Pathogenesis of Pulmonary Fibrosis **J. Duffield.** Biogen Idec Inc.
- 9:05 Pluripotent Stem Cells for Modeling Lung Disease **D.N. Kotton.** Boston Univ. Sch. of Med.
- 9:40 Mesenchymal Stem Cells as Therapy for Chronic Lung Disease of Newborns **S. Kourembanas.** Children's Hosp. Boston/Harvard Med.Sch.
- 10:15 Mechanisms of Lung Hypoplasia in Congenital Diaphragmatic Hernia **P.K. Donahoe.** Massachusetts Gen.Hosp.
- 10:50 Epithelial Stem Cells in Lung Cancer **C.F. Kim.** Children's Hosp. Boston.

42. PATHOBIOLOGY FOR BASIC SCIENTISTS: LOOKING INTO THE CRYSTAL BALL: INFLAMMASOMES AND DISEASE

Course

(Supported by an unrestricted educational grant from Elsevier)

(Sponsored by: ASIP Education Committee)

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160A

CHAired: R.N. MITCHELL AND P.A. D'AMORE

Inflammation

Inflammation/Immunity

- 8:30 Inflammasomes: The Basics and Beyond **M.J. Scott.** Univ. of Pittsburgh.
- 9:30 Inflammasomes and Atherosclerosis **A. Lichtman.** Brigham & Women's Hosp.
- 10:30 Inflammasomes and Age-Related Macular Degeneration **P.A. D'Amore.** Schepens Eye Research Inst./Harvard Med. Sch.

43. BREAST CANCER WORKSHOP: GENETIC AND PHENOTYPIC DIVERSITY

Workshop

(Supported by an unrestricted educational grant from Elsevier and earlier.org — Friends for an Earlier Breast Cancer Test)

(Sponsored by: ASIP Breast Cancer Scientific Interest Group)

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAired: W.B. COLEMAN

Neoplasia

Cancer Biology

- 8:30 Session Overview and Introduction **W.B. Coleman.** Univ. of North Carolina Chapel Hill Sch. of Med.
- 9:35 Breast Cancer Heterogeneity **K. Polyak.** Dana-Farber Cancer Inst.
- 9:30 Contributions of Stromal-Epithelial Interactions to Breast Cancer Diversity **C. Kuperwasser.** Tufts Univ. Sch. of Med., Sackler Sch. of Graduate BioMed. Sciences.
- 10:25 Genetic Diversity Among Breast Cancers **J.E. Garber.** Harvard Med. Sch., Dana-Farber Cancer Inst.

44. F-TROOP: ROADMAP TO FELLOWSHIP GRANT APPLICATIONS

Special Session

(Supported by an unrestricted educational grant from Elsevier)

(Sponsored by: FASEB Maximizing Access to Research Careers (MARC) Office and ASIP Committee for Career Development and Diversity)

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

CHAired: L.M. McMANUS AND C.C. YATES

Career Development

F TROOP: Roadmap to Fellowship Grant Applications – F Troop is a hands-on workshop targeted to pre- and postdoctoral trainees who are working to prepare an application for an individual NRSA Fellowship (F Awards, including F30, F31, or F32) for submission to the NIH. Equivalent fellowship applications to other funding agencies are also encompassed by this program. IMPORTANT: Handouts and resource materials will be provided on-site.

- 8:30 Introduction to the Seminar and F-TROOP Team **C.C. Yates.** Univ. of Pittsburgh Sch. of Nursing.
- 8:45 Introduction to NIH and Fellowship Applications **L.M. McManus.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- 10:00 F-Mock Study Section. SRO **C. Yates.** Univ. of Pittsburgh.

Section Chair: **L.M. McManus.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

- Reviewer 1 — **M.S. Willis.** Univ. of North Carolina at Chapel Hill.
- Reviewer 2 — **T.M. Evans.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- Reviewer 3 — **K.Y. DeLeon-Pennell.** Univ. of Mississippi Med. Ctr.

- 10:45 Personal Experiences Applying for F-Awards **M.S. Willis.** Univ. of North Carolina at Chapel Hill Sch. of Med., and **T.M. Evans.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- 11:00 Active Writing F-Grants.
- 11:25 Closing Remarks.

45. CELLULAR AND MOLECULAR BASIS OF LIVER TUMORS

Minisymposium

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160B

CHAired: J. SANDERS AND T. WU

Liver Pathobiology

Cancer Biology

- 8:30 **45.1** Immunohistochemical Analysis of LGR5 Expression in Pediatric Liver Disease **Z. Khan, A. Orr, G.K. Michalopoulos and S. Ranganathan.** Children's Hosp. of Pittsburgh and Univ. of Pittsburgh Sch. of Med.
- 8:45 **45.2** Effect of Rapamycin on the Gene Expression Signature of Focal Lesions in a Model of Progenitor-Derived HCC **A.O. Adebayo, H. Francois-Vaughan, K. Brilliant, P.A. Gruppuso and J.A. Sanders.** Rhode Island Hosp. and Brown Univ. and Alpert Med. Sch. of Brown Univ.
- 9:00 **45.3** Differential and Cooperative Roles of β -Catenin and Yap during Hepatoblastoma Pathogenesis **J. Tao, X. Li, S. Singh, X. Chen and S.P. Monga.** Univ. of Pittsburgh and UCSF.
- 9:15 **45.4** Evaluation of YAP as a Therapeutic Target in HCC and CCA **H. Bai, Q. Nguyen, Q. Zhu, G. Alpini and R. Anders.** Baylor Scott&White Healthcare, Texas A&M Univ. Col. of Med., Johns Hopkins Univ. Sch. of Med. and Central Texas Veterans Hlth. Care Syst.
- 9:30 **45.5** Origin and Diversity of Fibroblastic Cells From Intrahepatic Cholangiocarcinoma **A.E. Sirica, A. Usui, D.J.W. Campbell and C.I. Dumur.** Virginia Commonwealth Univ. Sch. of Med.
- 9:45 **45.6** CRISPLD2 in Hepatic Fibrogenesis and Cholangiocellular Carcinoma Progression **C. Saravanan, C. Spence, J. Trevaskis, X. Wang, J-R. Galarneau, W. Chutkow and K. Mansfield.** Novartis Insts. for Biomed. Res., Cambridge, MA.
- 10:00 **45.7** Functional Role of MicroRNA-200 Family in Human Gall Bladder Cancer Stem Cells **F. Meng, H. Francis, Y. Han, S. Glaser and G. Alpini.** Texas A&M Hlth. Sci. Ctr. Col. of Med. and Central Texas Veterans Hlth. Care Syst., Temple.
- 10:15 **45.8** Effects of Alcohol Metabolism on Hepatocellular Carcinoma Progression **W.M. Puszyk, R.A. Hlady, R.L. Tiedemann, K.D. Robertson and C. Liu.** Univ. of Florida and Mayo Clin.
- 10:30 **45.9** Bile Acids Promote Diethylnitrosamine-Induced Hepatocellular Carcinoma via Increased Inflammatory Signaling **U. Apte, L. Sun, P. Borude, B. Bhushan, M.W. Manley, Jr. and H. Li.** Univ. of Kansas Med. Ctr. and Third Affil.

Hosp., Sun Yat-Sen Univ., China.

10:45 **45.10** C-Met and β -Catenin Co-delivery by Hydrodynamic Tail Vein Injection Promotes HCC Development In Mice **J. Tao, S. Singh and S.P. Monga**. Univ. of Pittsburgh.

46. MECHANISMS OF CARDIAC DYSFUNCTION

Minisymposium

SAT. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162B

CHAired: P. ALCAIDE-ALONSO AND D. BROWN

Cardiac Pathobiology

Obesity

8:30 **46.1** The Absence of MuRF1 Protects against Calpain1-Induced Systolic Dysfunction In Vivo **D.I. Brown, J. Robbins and M.S. Willis**. Univ. of North Carolina at Chapel Hill and Cincinnati Children's Hosp.

8:45 **46.2** Circulating CXCL-9, -10 and -11 Levels Improve the Discrimination of Risk Prediction Models for Left Ventricular Dysfunction **R. Altara, Y. Gu, H.A.J. Struijker-Boudier, J.A. Staessen and W.M. Blankesteyn**. Maastricht Univ., Netherlands, Univ. of Leuven, Belgium and Univ. of Mississippi Med. Ctr.

9:00 **46.3** Intercellular Adhesion Molecule 1 Regulates Cardiac Remodeling and Function in Pressure Overload-Induced Heart Failure **A.M. Salvador, T. Nevers, M. Aronovitz, R. Blanton and P. Alcaide**. Tufts Med. Ctr. and Tufts Univ. Sch. of Med.

9:15 **46.4** MuRF2 Attenuates the Severity of High-Fat Diet-Induced Diabetic Cardiomyopathy by Regulating Cardiac PPAR- γ **J. He, M.T. Quintana, J. Sullivan, Y. Han and M.S. Willis**. Gen. Hosp. of Ningxia Med. Univ., China and Univ. of North Carolina at Chapel Hill.

9:30 **46.5** T Cells Control Cardiac Remodeling in Pressure Overload-Induced Heart Failure **T. Nevers, A.M. Salvador, A. Grodecki-Pena, A. Knapp, F. Velazquez, M. Aronovitz, T. Kershaw, R. Blanton, N. Kapur, R. Karas and P. Alcaide**. Tufts Med. Ctr.

9:45 **46.6** Bag3+ P209L Transgene Provides a Cardiac-Specific Murine Model of Protein Misfolding and Aggregation **M. Quintana, C. Yates, S. Takayama and M. Willis**. Univ. of North Carolina at Chapel Hill.

10:00 **46.7** Differential Role of Toll-like Receptors in Elicitation of Cardiac Innate Response to IL-10 **A.K. Bagchi, G. Akolkar, S. Mandal, X. Gao, X. Yang and P.K. Singal**. St. Boniface Hosp. Res. and Univ. of Manitoba.

10:15 **46.8** Inhibitors of the Renin-Angiotensin System Completely Prevents Cardiac Hypertrophy Induced by Ischemic Renal Injury via Angiotensin II/Toll-Like Receptors Cross-Talk **M.V. Abrahão, G. Monnerat-Cahli, E. Medei and M.S. Carneiro-Ramos**. Fed. Univ. of ABC, São Paulo and Fed. Univ. of Rio de Janeiro.

10:30 **46.9** PKGI α Leucine Zipper Domain Mediates a Novel Interaction with MLK3, a Potential Anti-remodeling Substrate in the Heart **T. Calamaras, R. Baumgartner, G-R. Wang, A. Lane, M. Aronovitz, R. Davis, M. Mendelsohn, D. Kass, R. Karas and R. Blanton**. Tufts Med. Ctr., Univ. of Pittsburgh Med. Ctr., Tulane Univ., Univ. of Massachusetts Worcester, Mendelsohn Consult. Gp. LLC, Boston and Johns Hopkins Univ.

10:45 **46.10** Identification of MicroRNA-mRNA Dysregulations in Paroxysmal Atrial Fibrillation **D. Chiang, M. Zhang, N. Voigt, K. Alsina, H. Jakob, J. Martin, D. Dobrev, X. Wehrens and N. Li**. Baylor Col. of Med. and Univ. Duisburg-Essen.

11:00 **46.11** Circulating Microparticles Exhibit Multiple Discrete Changes in Annexin V Binding and Calcein-AM Cleavage in Cardiovascular Disease **W. Gray, A. Mitchell and C. Searles**. Emory Univ. and Atlanta VA, Decatur.

47. XVTH ANNUAL WORKSHOP ON GRADUATE EDUCATION IN PATHOLOGY: DEVELOPING AND TRAINING THE PHYSICIAN SCIENTIST

Workshop

SAT. 11:45 AM—WESTIN BOSTON WATERFRONT, MARINA I

Education

11:45 Physician Scientists Pathway in Pathology **D.G. Remick**. Boston Univ. Sch. of Med.

11:45 The Brigham and Women's Department of Pathology Experience and Outcomes **J. Golden**. Brigham & Women's Hosp.

48. HIGHLIGHTS: GRADUATE STUDENT RESEARCH IN PATHOLOGY

Poster Discussion

(Sponsored by: ASIP Committee for Career Development and Diversity)

SAT. 1:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162B

CHAired: T.A. REAVES

COCHAired: S. HEADLAND

Epithelial Pathobiology

Inflammation/Immunity

1:30 Welcome and Introduction **T.A. Reaves**. Med Univ. of South Carolina.

Oral Presentations

1:35 *Giardia duodenalis* Depletes Goblet Cell Mucins and Degrades MUC2, Facilitating Bacterial Translocation **C.B. Amat, J-P. Motta, A. Bhargava, K. Chadee and A.G. Buret**. Univ. of Calgary, Canada. (507.1)

1:45 Microbe-Host Crosstalk between Short-Chain Fatty Acids and Intestinal Epithelial HIF Provides a New Mechanism to Augment Tissue Barrier Function **L. Zheng, C. Kelly, E. Campbell, B. Saeedi, C. Scholz, A. Bayless, K. Wilson, L. Glover, D. Kominsky, A. Magnuson, T. Weir, S. Ehrentraut, V. Nguyen, C. Taylor and S. Colgan**. Univ. of Colorado, Aurora and Colorado State Univ. (282.6)

1:55 Intercellular Adhesion Molecule 1 Regulates Cardiac Remodeling and Function in Pressure Overload-Induced Heart Failure **A.M. Salvador, T. Nevers, M. Aronovitz, R. Blanton and P. Alcaide**. Tufts Med. Ctr. and Tufts Univ. Sch. of Med. (46.3)

2:05–2:35 **Poster Presentations**

- P1 Resistin Promotes Angiogenesis in Endothelial Progenitor Cells through Inhibition of MicroRNA-206 **C-M. Su, W-C. Chang and C-H. Tang.** China Med. Univ. and Chang Jung Christian Univ., Taiwan. (927.9)
- P3 Novel Drug DCQ Induces Colon Cancer Cell Apoptosis through HIF-1 α Pathway **A-J.T. Sougiannis, A. Saxena, K. Kaur, S. Depaepe and R. Fayad.** Univ. of South Carolina. (926.10)
- P5 Atp6v1c1 Facilitates Breast Cancer Growth and Bone Metastasis through the mTORC1 Pathway **M. McConnell, S. Feng, W. Chen, G. Zhu, L. Deng and Y-P. Li.** Univ. of Alabama at Birmingham and Ruijin Hosp., Jiao Tong Univ. Sch. of Med., Shanghai. (284.8)
- P7 Mice Lacking β -Catenin in Liver Develop Hepatic Fibrosis in Response to Iron Overload **M. Preziosi, S. Singh, T. Ganz and S.P. Monga.** Univ. of Pittsburgh and UCLA. (611.6)
- P9 Circulating CXCL-9, -10 and -11 Levels Improve the Discrimination of Risk Prediction Models for Left Ventricular Dysfunction **R. Altara, Y. Gu, H.A.J. Struijker-Boudier, J.A. Staessen and W.M. Blankesteyn.** Maastricht Univ., Netherlands, Univ. of Leuven, Belgium and Univ. of Mississippi Med. Ctr. (46.2)
- P11 Anti-fibrotic Effects of Chinese Herbal Formula ALF in Mice **Z. Xin, K. Chi Man, K. Chun Hay, Y. Tai Wai, L. Clara Bik San, L. Ping Chung and F. Kwok Pui.** The Chinese Univ. of Hong Kong. (611.7)

Oral Presentations

- 2:35 Receptor Interacting Protein Kinase 3 Deficiency Exacerbates Cholestatic Liver Injury in Mice **B. Woolbright, C.D. Williams, M-L. Bajt, W-X. Ding and H. Jaeschke.** Univ. of Kansas Med. Ctr. (53.8)
- 2:45 Integrin Crosstalk Regulation of Human Neutrophils Adhered to Fibronectin and β -Glucan **C.M. Johnson, A. Byrd, X. O'Brien, V. Parisi and J. Reichner.** Brown Univ. and Rhode Island Hosp. (925.2)
- 2:55 Caveolin-1 Loss in Human Breast Cancer Is Associated with Increased Tumor Aggressiveness and Mortality **P.C. Hart, R.D. Minshall and M.G. Bonini.** Univ. of Illinois at Chicago. (284.6)

3:05–3:35 **Poster Presentations**

- P2 Identification of MicroRNA-mRNA Dysregulations in Paroxysmal Atrial Fibrillation **D. Chiang, M. Zhang, N. Voigt, K. Alsina, H. Jakob, J. Martin, D. Dobrev, X. Wehrens and N. Li.** Baylor Col. of Med. and Univ. Duisburg-Essen. (46.10)
- P4 Distinct Roles of the Mucus Layer and Microbiota in Conferring Innate Host Defense and Susceptibility to Disease **A. Leon-Coria, F. Moreau, M. Surette and K. Chadee.** Univ. of Calgary. (507.7)
- P6 Loss of Cortactin Is Associated with Intestinal Epithelial Barrier Dysfunction and Development of Colitis **A.F. Citalán-Madrid, A. García, H. Vargas, A. Betanzos, P. Nava, K. Rottner, R. Menningen and M. Schnoor.** CINVESTAV-IPN, Mexico City, Helmholtz Ctr. for Infect. Res., Braunschweig and Univ. Hosp. Münster. (282.1)
- P8 Parenchymal Platelet-Derived Growth Factor Receptor Alpha Expression Is Dispensable for Hepatic Fibrosis during Chronic Liver Injury **A. Kikuchi and S.P. Monga.** Univ. of Pittsburgh. (53.7)

- P10 Analysis of the Retinoblastoma Protein in Aortic Valve Calcification **M. Freytsis, P. Hinds and G. Huggins.** Tufts Univ. Sch. of Med. and Tufts Med. Ctr. (764.1)
- P12 Prevalence of Metabolic Syndrome in Patients with End Stage Renal Disease and Relevance of Biomarkers **J. Saluk, V. Bansal, D. Hoppensteadt, D. Syed, S. Abro and J. Fareed.** Loyola Univ. Med. Ctr. (763.4)
- 3:35 **Young Scientist Leadership Award Lecture**
IQGAP1 is a Critical Regulator of Transendothelial Migration. **D. Sullivan.** Northwestern Univ.
- 3:50 Concluding Remarks.

49. ASIP YOUNG SCIENTIST LEADERSHIP AWARD LECTURE**Award Lecture**

SAT. 3:35 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162B

- 3:35 ASIP Young Scientist Leadership Award Lecture
IQGAP1 is a Critical Regulator of Transendothelial Migration **D. Sullivan.** Northwestern Univ.

50. ASIP COTRAN EARLY CAREER INVESTIGATOR AWARD LECTURE

(Supported by an unrestricted educational grant from Elsevier)

Award Lecture

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

- 2:00 Cancer Progression: The Failure to Resolve? **D. Panigrahy.** Harvard Med. Sch.

51. HCS/STOWELL SYMPOSIUM: UNLOCKING NEW TOOLS FOR EXPERIMENTAL PATHOLOGY: ADVANCES IN DETECTION SYSTEMS, FROM SUPER RESOLUTION MICROSCOPY TO WHOLE ANIMAL IMAGING**Symposium**

(Supported by The Robert E. Stowell Endowment Fund)

(Sponsored by: The Histochemical Society and ASIP Immunohistochemistry and Microscopy Scientific Interest Group)

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAired: S.M. HEWITT

Imaging, Immunohistochemistry and Microscopy

- 2:00 New Fluorescent Probes For Super-Resolution Imaging **J.C. Vaughan.** Univ. of Washington.
- 2:45 Analyzing Spatial Organization in the Human Microbiome using Spectral Imaging and Multiplexed Fluorescence in situ Hybridization **J.M. Welch.** Josephine Bay Paul Ctr., Woods Hole.
- 3:30 Quantitative Imaging of Subcellular Metabolism with Stable Isotopes and Multi-Isotope Imaging Mass Spectrometry **C.P. Lechene.** Brigham & Women's Hosp.

4:15 A Multimodal Imaging Agent for Correlative Investigations: From Whole Body in vivo Imaging to ex vivo Tissue Microscopy **J. Grant**. UHN Princess Margaret Cancer Ctr., Toronto.

52. INFLAMMATION AND WOUND REPAIR

Symposium

(Sponsored by: ASIP Cell Injury, Vascular and Mucosal Pathobiology (VAMP) and Inflammation/Immunopathology Scientific Interest Groups)

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162A

CHAired: A. NUSRAT AND A.I. IVANOV

Inflammation

Regenerative Medicine

Injury/Connective Tissue/Fibrosis

- 2:00 Adult Mesenchymal Stem Cells: The Control of Innate Regeneration/Repair Capacity **A.I. Caplan**. Case Western Reserve Univ.
- 2:45 Mechanisms of Repair in the Injured Epithelium **G.P. Downey**. Natl. Jewish Hlth. Affairs.
- 3:30 The Function of the Inflammatory System During Breast Development and Regeneration **Z. Werb**. UCSF.
- 4:15 Wound Healing Signals in the Nematode *C. Elegans* **A.D. Chisholm**. UCSD.

53. CELLULAR AND MOLECULAR MECHANISMS UNDERLYING HEPATIC INJURY AND FIBROSIS

Minisymposium

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 161

COCHAired: H. FRANCIS AND B. COPPLE

Liver Pathobiology

Injury/Connective Tissue/Fibrosis

- 2:00 **53.1** 15-PGDH Prevents LPS-induced Acute Liver Injury through Activation PPAR- γ **L. Yao, C. Han and T. Wu**. Tulane Univ. Sch. of Med.
- 2:15 **53.2** Alcohol Exacerbates Liver Injury and Fibrosis in Mice with Liver-Specific Deficiency of Augmenter of Liver Regeneration **S. Kumar, A. Dangi and C. Gandhi**. Univ. of Cincinnati, VA Med. Ctr. and Cincinnati Children's Hosp. Med. Ctr.
- 2:30 **53.3** Mitochondrial-Targeted Antioxidant Treatment in a Mouse Model of Non-alcoholic Fatty Liver Disease **M.D. Thompson, M. Cismowski, H.K. Bid and P.A. Lucchesi**. Nationwide Children's Hosp., Columbus.
- 2:45 **53.4** Integrated Computational Model of Intracellular Signaling and MicroRNA Regulation Predicts the Molecular Components and Timing Critical to Hepatic Stellate Cell Activation **A. Parrish, L. Kuttippurathu and R. Vadigepalli**. Thomas Jefferson Univ.
- 3:00 **53.5** Regulation of Kupffer Cell Activation by Hepatic Stellate Cells **K. Roth, R. Albee and B. Copple**. Michigan State Univ.

3:15 **53.6** Knockout of Histidine Decarboxylase Reduces Hepatic Fibrosis in Bile Duct Ligated Mice **H. Francis and L. Hargrove**. Central Texas Veteran's Healthcare Syst. and Scott & White Healthcare, Temple, TX.

3:30 **53.7** Parenchymal Platelet-Derived Growth Factor Receptor Alpha Expression Is Dispensable for Hepatic Fibrosis during Chronic Liver Injury **A. Kikuchi and S.P. Monga**. Univ. of Pittsburgh.

3:45 **53.8** Receptor Interacting Protein Kinase 3 Deficiency Exacerbates Cholestatic Liver Injury in Mice **B. Woolbright, C.D. Williams, M-L. Bajt, W-X. Ding and H. Jaeschke**. Univ. of Kansas Med. Ctr.

4:00 **53.9** The Novel Growth Factor, Progranulin, Regulates Autophagy in a Mouse Model of Cholestasis **S. DeMorrow and H. Francis**. Texas A&M Hlth. Sci. Ctr., Col. of Med., Central Texas VA Healthcare Syst. and BaylorScott & White Healthcare.

4:15 **53.10** Human Precision-Cut Tissue Slices as a Tool to Study Fibrosis and the Efficacy of Antifibrotic Compounds **H.A. Mutsaers, I. Westra, I. Stribos, D. Oosterhuis and P. Olinga**. Univ. of Groningen, Netherlands.

54. SIGNALING MECHANISMS IN LUNG CANCER INITIATION AND PROGRESSION

Minisymposium

SAT. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

CHAired: D. PANIGRAHY AND M. HSAIO

Pulmonary Pathobiology

Cancer Biology

2:00 **ASIP Cotran Early Career Investigator Award Lecture:**

(Supported by an unrestricted educational grant from Elsevier) Cancer Progression: The Failure to Resolve? **D. Panigrahy**. Harvard Med. Sch.

3:00 **54.1** Different Pattern of ATP-Mediated Increases in $[Ca^{2+}]_{cyt}$ Contributes to ATP-Induced Increase in Bcl-2/Bax Ratio in Lung Cancer Cells but Not in Normal Control Cells **S. Song, K.N. Jacobson, K.M. McDermott, A. Makino and J.X-J. Yuan**. Univ. of Arizona.

3:15 **54.2** Suppression of PIK3 Expression by Ni(II) May Contribute to Nickel Carcinogenesis in the Lung **C. Li, S. Park, W. Dai and D. Xu**. New York Med. Col. and NYU Sch. of Med.

3:30 **54.3** Gene 33 Mediates Cr(VI)-Induced DNA Damage Response **S. Park, C. Li, H. Zhao, Z. Darzynkiewicz and D. Xu**. New York Med. Col.

3:45 **54.4** Inhibition of AMPK by Adenylate Kinase 4 Promotes EMT in Lung Cancer through ROS-Dependent Stabilization of HIF1- α **Y-H. Jan and M. Hsiao**. Genomics Res. Ctr., Acad. Sinica, Taipei.

4:00 **54.5** NIFK Promotes Lung Cancer Metastasis through Runx1-Dependent Repression of Casein Kinase 1 α to Activate Wnt/ β -Catenin Signaling **T-C.C. Lin, C-Y. Su, M-D. Tsai and M. Hsiao**. Genomics Res. Ctr., Acad. Sinica and Inst. of Biol. Chem., Acad. Sinica, Taipei.

4:15 **54.6** Control of Lung Cancer with Aspirin-Triggered Stimulation of Resolution **M.M. Gilligan, M.L. Sulciner, S. Ramon, R. Colas, S. Huang, C.N. Serhan and D. Panigrahy**. Beth Israel Deaconess Med. Ctr., Brigham and Women's Hosp. and Inst. for Syst. Biol., Seattle.

- 4:30 **54.7** GIT1 Regulates Lung Cancer Metastasis through Modulating Rac1/Cdc42 Activity and Acts as an Independent Prognostic Factor in Human Non-small Cell Lung Cancer **J-S. Chang, K-T. Hua, M-L. Kuo and M. Hsiao.** Natl. Yang-Ming Univ., Genomics Res. Ctr., Acad. Sinica, Taipei, Natl. Taiwan Univ. Col. of Med. and Natl. Taiwan Univ. Col. of Life Sci.
- 4:45 **54.8** Non-glycolytic Function of Aldolase A Promotes Lung Cancer Metastasis through Down-regulation of PLD2 Enzyme to Activate PLD1 **Y-C. Chang, Y-H. Jan, C-Y. Su and M. Hsiao.** Genomics Res. Ctr., Acad. Sinica and Natl. Defense Med. Ctr., Taipei.

55. ASIP TRAINEE WELCOME RECEPTION**Special Event**

(Sponsored by: ASIP Committee for Career Development and Diversity)

SAT. 4:00 PM—BOSTON CONVENTION & EXHIBITION CENTER – NORTHWEST LOBBY A

56. ASIP OUTSTANDING INVESTIGATOR AWARD LECTURE**Award Lecture**

SAT. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

- 5:00 High Throughput Sequencing for Discovering New Biology **A. Dutta.** Univ. of Virginia Hlth. Systs.

Pharmacology

57. SPEED NETWORKING FOR CAREERS BEYOND THE ACADEMIC BENCH**Symposium**

(Sponsored by: The Division for Pharmacology Education and co-sponsored by all Divisions)

SAT. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 106

CHAired: J.E. CLARK AND P. MCGONIGLE

Education**Career Development**

- 9:30 Introduction & Biomedical Careers in the Pharmaceutical Industry **J.E. Clark.** NIMH, NIH.
- 9:45 Career Paths in the Biotechnology Industry and Startup Companies **P. McGonigle.** Drexel Univ. Col. of Med.
- 10:00 Pursuing a Career in Intellectual Property, Technology Transfer and Business Development in the Biomedical Sciences **J. Amara.** Boston Children's Hosp.
- 10:15 Science Policy as a Biomedical Career Path **M. Fox.** NIMH, NIH.
- 10:30 The Scientific Review Officer and Program Officer Career Paths **A. Pawlyk.** NIDDK, NIH.
- 10:45 Directing Virtual Research **M.W. Wood.** AstraZeneca Neurosci.
- 11:00 Science: A Constant Rewrite **C.G. Thomas.** NINDS, NIH.
- 11:15 Small Discussion Groups.

58. 2015 TEACHING INSTITUTE: TRAINING STUDENTS FOR TEACHING CAREERS**Symposium**

(Sponsored by: The Division for Pharmacology Education)

SAT. 12:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

CHAired: K. KARPA AND K. HARDY

Education**Career Development**

- 12:00 Overview **K. Karpa and K. Hardy** Penn State Univ. Col. of Med. and Lipscomb Univ. Col. of Pharm.
- 12:05 Why Train our Trainees to Train? **W.T. McCormack.** Univ. of Florida Col. of Med.
- 12:35 Giving STEM Doctoral Students a FAST (Future Academic Scholars in Teaching) Start for Academic Careers **H. Campa III** Michigan State Univ.
- 1:05 Your Future Craft: How Gaining Experience in the Classroom is Essential for Life Outside the Lab **J. Neiswinger.** NIA, NIH.
- 1:35 Mentoring Future Educators **C.N. Fuhrmann.** Univ. of Massachusetts Med. Sch.
- 2:05 Panel Discussion.

59. GRADUATE STUDENT-POSTDOCTORAL COLLOQUIUM: HOW TO GET STARTED**Colloquium**

(Sponsored by: Mentoring and Career Development Committee)

SAT. 2:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109AB

CHAired: A.T. HANNA-MITCHELL AND H. GOTTLIEB

Education**Career Development**

- 2:45 Who Owns the Data I Generated and How do I Transition from Graduate School/Postdoctoral to an Independent Career **L. Wecker**. Univ. of South Florida Morsani Col. of Med.
- 3:15 10 Things I Wish I Had Known When I Graduated **H. Gottlieb and U.B. Chu** UIW Feik Sch. of Pharm., San Antonio and Univ. of Wisconsin-Madison.
- 3:35 Working for America **D.L. Birkle Dreer**. NCCAM, NIH.
- 3:55 Working with Pharmaceutical Companies: What Industry Wants from You **L.P. Carter**. Jazz Pharmaceut.
- 4:15 Table Breakout Sessions.

60. ASPET BUSINESS MEETING AND AWARDS PRESENTATION**Business Meeting**

SAT. 6:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

Hear updates on Society activities and initiatives. Celebrate with us as we present the ASPET 2015 Scientific Achievement Awards, Travel Awards and PhRMA Foundation Awards.

61. ASPET OPENING AND AWARDS RECEPTION**Special Event**

SAT. 7:30 PM—BOSTON CONVENTION & EXHIBITION CENTER – SOUTHWEST PREFUNCTION AREA – LEVEL 1

The Opening Reception immediately follows the conclusion of the Business Meeting. ASPET members and pharmacology attendees are welcome.

Physiology

62. IT'S ALL IN YOUR HEAD — A REFRESHER COURSE ON THE BRAIN AND SYSTEMS CONTROL**Symposium**

(Sponsored by: Education Committee)

SAT. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

CHAired: C.G. YOUNG AND D.W. RODENBAUGH

Education

- 8:00 The Brain and the Cardiovascular System **R. Dampney**. Univ. of Sydney.
- 9:00 The Brain and the Immune System **F. Abboud**. Univ. of Iowa.
- 10:00 The Brain and the Respiratory System **G. Mitchell**. Univ. of Wisconsin-Madison Sch. of Vet. Med.
- 11:00 The Brain and the Gut **G.M. Mawe**. Univ. of Vermont.

63. MICROCIRCULATION: OXYGEN/BLOOD FLOW**Symposium**

(Sponsored by: Microcirculatory Society)

SAT. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: M. FRAME

- 9:30 Novel Oxygen Sensors to Show Nutrient Blood Flow in Peripheral Tissue **R. Pitman**. Virginia Commonwealth Univ.
- 10:00 Oxyhemoglobin and Flow Measures in Cerebral Arterioles With Specific Neuronal Stimulation **C. Du**. Stony Brook Univ.
- 10:30 The Effect of Gap Junction Blockade on Renal Autoregulation and Phase Synchronization of Autoregulation Dynamics **N. Mitrou, B. Braam and W.A. Cupples**. Simon Fraser Univ., Canada and Univ. of Alberta. (787.2)

- 10:45 Resveratrol Treatment Rescues Neurovascular Coupling in Aged Mice: Role of Improved Cerebromicrovascular Endothelial Function and Down-Regulation of NADPH Oxidase **P. Toth, S. Tarantini, Z. Tucsek, N.M. Ashpole, D. Sosnowska, T. Gautam, P. Ballabh, A. Koller, W.E. Sonntag, A. Csiszar and Z. Ungvari.** Univ. of Oklahoma Hlth. Sci. Ctr., Univ. of Pecs, New York Med. Col. Westchester Med. Ctr. and New York Med. Col. (787.6)
- 11:00 Microscopic Study of PO₂ and VO₂ Kinetics in Contracting Rat Spinotrapezius Muscle **A.S. Golub, W.H. Nugent, B.K. Song and R.N. Pittman.** Virginia Commonwealth Univ. (787.7)
- 11:15 Image-Based Characterization of Functional and Structural Heterogeneity of Tumor Xenografts Using Blood Flow Modeling, Oxygenation Modeling and Multivariate Analysis **S.K. Stamatelos, E. Kim, A.P. Pathak and A.S. Popel.** Johns Hopkins Sch. of Med. and Norwegian Inst. of Sci. and Technol., Trondheim. (787.11)

64. BIG DATA WORKSHOP

Workshop

SAT. 1:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: J. LARKIN AND M.L. LINDSEY

Education

- 1:00 What Does Big Data Mean? **H.M. Berman.** Rutgers Univ.
- 1:30 Big Data Standards: How to Set the Bar **S-A. Sansone.** Univ. of Oxford.
- 2:00 How to Train the Next Generation for Big Data Projects: Building a Curriculum **C.G. Wilson.** Loma Linda Univ.
- 2:30 Joint Discussion: How to Use Big Data Resources for Your Own Projects.

65. REPRODUCIBILITY IN RESEARCH: WHAT ARE THE PROBLEMS? HOW CAN WE FIX THEM? WHAT HAPPENS IF WE DON'T?

Symposium

(Sponsored by: Science Policy Committee)

SAT. 1:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: C. NORTHCOTT

Science Policy

- 1:00 How Do We Improve Research Methods and Reporting? **S. Silberberg.** NINDS, NIH.
- 1:45 Animal Models for Human Diseases: How Can We Improve Translation of Effects to Humans? **M. Macleod.** Edinburgh Univ.
- 2:15 What Role Should Peer Review Play Assessing Study Design and Evaluating the *Scientific Premise* of Proposals? **R.K. Nakamura.** CSR, NIH.

66. SECOND ANNUAL APS PHYSIOLOGICAL GENOMICS GROUP CONFERENCE

Mini-Meeting

(Supported by Vector BioLabs)

(Sponsored by: APS Physiological Genomics Group)

SAT. 1:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

67. MICROCIRCULATION: INFLAMMATION

Symposium

(Sponsored by: Microcirculatory Society)

SAT. 1:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: A. GONZALEZ

- 1:30 The Endothelial Glycocalyx: a Regulator of Vascular Injury and Recovery **E. Schmidt.** Univ. of Colorado Denver, Aurora.
- 2:00 Monocyte Recruitment from Venules During Angiogenesis **S. Peirce.** Univ. of Virginia.
- 2:30 Platelet-Endothelial Association with Fibrinogen/Fibrin, Coupled with Oxidative Stress, Protein Nitrosylation, and Fibrosis May Underlie Pulmonary Endothelial Cell Dysfunction in a Mouse Model of Type 1 Diabetes **A.M. Roberts, R. Jagadapillai, J.T. Dixon, Y. Tan, L. Cai and E. Gozal.** Univ. of Louisville Sch. of Med. (634.8)
- 2:45 miR155 Expression Is Increased by Inflammation and Modulates the Expression of CD11a in Monocytes **S. Syed, M.A. Amin and B.J. Rabquer.** Albion Col., MI and Univ. of Michigan. (634.6)

68. WATER AND ELECTROLYTE HOMEOSTASIS SECTION TRAINEE FINALISTS SESSION AND DATA DIURESIS

Award

(Sponsored by: APS Water and Electrolyte Homeostasis Section)

SAT. 2:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: P. O'CONNOR

Predocctoral Award Finalist Presentations

- 2:15 Sildenafil Treatment Improves the Maternal Syndrome in the Preeclamptic Dahl Salt Sensitive Rat **E.E. Gillis, J.N. Mooney, M.R. Garrett and J.M. Sasser.** Univ. of Mississippi Med. Ctr. (810.7)
- 2:25 The Effects of Sepsis on Osmosensory Neurons Mediating Thirst **J. Stare, S. Siami, E. Trudel, M. Prager-Khoutorsky, T. Sharshar and C.W. Bourque.** McGill Univ., McGill Univ. Hlth. Ctr., Ctr. Hosp. d'Étampes, France and Hosp. Raymond Poincaré, France. (968.17)

- 2:35 Postmenopausal Hypertension Is Blunted following Chronic Flutamide Treatment in Intrauterine Growth Restricted Female Rat **J.H. Dasinger, S. Intapad, B.R. Rudenske, A.J. Carter and B.T. Alexander.** Univ. of Mississippi Med. Ctr. (966.2)

Postdoctoral Award Finalists Presentations

- 2:45 Early-Life Stress Induces Dysregulated Heme Homeostasis and Pro-inflammatory Phenotype in Adult Male Mice **D.H. Ho, Y. Pettway, M.L. Burch and J.S. Pollock.** Univ. of Alabama at Birmingham. (811.12)
- 2:55 Intracellular Renin in the Brain Contributes to Cardiovascular and Metabolic Control **K. Shinohara, B.J. Weidemann, M.D. Folchert, X. Liu, D.A. Morgan, K. Rahmouni, J.L. Grobe and C.D. Sigmund.** Univ. of Iowa. (968.6)
- 3:05 Agonistic Autoantibodies to the Angiotensin II Type 1 Receptor Enhance ANGII Binding on Vascular Endothelial Cells **M.W. Cunningham, J. Faulkner, L. Amaral, D. Cornelius, R. Kramer and B. LaMarca.** Univ. of Mississippi Med. Ctr. (810.12)
- 3:15 **Mingle with Open Bar.**

Data Diuresis Brief Presentations

- 3:50 Evidence of an Impaired Neuroimmune Pathway in Autoimmune-Associated Hypertension **K.W. Mathis.** Univ. of North Texas Hlth. Sci. Ctr. (811.13)
- 3:55 Induced Pan-Nephron Mineralocorticoid Receptor Knockout Causes Na⁺ Wasting and K⁺ Retention **A. Terker, R. Lazelle, C-L. Yang and D. Ellison.** Oregon Hlth. & Sci. Univ. (968.2)
- 4:00 Evidence that Vascular Endothelial-Derived Endothelin-1 Promotes Development of Tunicamycin-Induced Endoplasmic Reticulum Stress in Renal Vessels **C. De Miguel, M.A. Rodriguez, D.M. Pollock and J.S. Pollock.** Univ. of Alabama at Birmingham. (811.15)
- 4:05 Radiofrequency Renal Denervation Produces Sustained Decreases in Blood Pressure and Cytokines, Tumor Necrosis Factor α and Interleukin 17, in Spontaneously Hypertensive Rats **J. Gao, D.J. Polhemus, F. Smart, D.J. Lefer and D.R. Kapusta.** LSU Hlth. Sci. Ctr., New Orleans. (811.27)
- 4:10 Vasopressin Infusion during Pregnancy Is Associated with Cardiovascular and Metabolic Dysfunction in Offspring **J.A. Sandgren, S.M. Scroggins, D.A. Santillan, N.A. Pearson, G.L. Pierce, C.D. Sigmund, K.N. Gibson-Corley, M.K. Santillan and J.L. Grobe.** Univ. of Iowa. (810.2)
- 4:15 A Fructose-Enriched Diet Induces Salt-Sensitive Hypertension and Enhances NKCC2 and SPAK/OSR1 Phosphorylation in Thick Ascending Limbs **G.R. Ares, M.Z. Haque, E. Henson and P.A. Ortiz.** Henry Ford Hlth. Syst. (811.3)
- 4:20 Leptin-Induced Hypertension Is Aldosterone Dependent in Obese Females **A-C. Huby, M. Cortez-Cooper, J. Cannon and E.J. Belin De Chantemele.** Georgia Regents Univ. and Georgia Regents Univ. Col. of Allied Hlth. Sci. (811.18)
- 2:25 **Mingle with Open Bar (and Announcement of Trainee Research Recognition Awardees)**

69. DATA NCARNATION

Award

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

SAT. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: A. CRECELIUS AND T. DICK

- 3:00 Introduction **H. Schultz.** Univ. of Nebraska Med. Ctr.

Theme: Autonomic Functions in Humans

- 3:05 Acute Oral Ingestion of Alcohol Modulates Muscle Sympathetic Neural Activity Differently in Caucasians and African Americans **I.T. Fonkoue, Q-H. Chen and J.R. Carter.** Michigan Technol. Univ. (652.15)
- 3:10 Insulin Resistance Impairs Arterial Stiffness and Peripheral Vascular Resistance in Metabolic Syndrome Patients **S. Rodrigues, F.X. Cepeda, A.C.B. Dutra-Marques, J.C. Carvalho, E. Toschi-Dias, C. Maki-Nunes, L.A. Bortolotto, V. Costa-Hong, M.U.P.B. Rondon, M.J.N.N. Alves, C.E. Negro and I.C. Tombetta.** Med. Sch., Univ. of São Paulo and Sch. of Phys. Educ. and Sports, Univ. of São Paulo. (652.16)
- 3:15 Self-Paced Slow Deep Breathing: Persistence of Effects on Vascular Function **K. Kelly, T.E. Dick, J. Lin, J. Moser and E.A. Wehrwein.** Michigan State Univ. and Case West Reserve Univ. (652.17)
- 3:20 The Effect of Multiple Sclerosis on Carotid Baroreflex Control of Heart Rate and Blood Pressure **M. Huang, D.R. Allen, D.M. Keller and S.L. Davis.** Southern Methodist Univ., Univ. of Texas at Arlington and Univ. of Texas Southwestern Med. Ctr. (652.18)
- 3:25 Discussion and Break.

Theme: Cell Signaling

- 3:45 Sympathetic Tone Differentially Regulates MHC-II Expression by Macrophages and Enteric Glia in the Gastrointestinal Tract **R.J. Vanderkamp, A. Chow, H. Garver, G. Fink and B. Gulbransen.** Michigan State Univ. (652.19)
- 3:50 Dissociating the Metabolic and Cardiovascular Effects of Leptin through mTORC1 Signaling **M. Rouabhi, B.B. Bell, D.A. Morgan and K. Rahmouni.** Univ. of Iowa. (652.20)
- 3:55 Neuron-Specific (Pro)renin Receptor Deletion Regulates Renin-Angiotensin Components and Contributes to the Amelioration of DOCA-Salt Hypertension **A. Ali, W. Li, M.N. Sullivan and Y. Feng.** Colorado State Univ. (652.21)
- 4:00 Chronic Salt-Loading Alters Pre-autonomic Neuropeptide Expression in the Paraventricular Nucleus **J.A. Smith, D. Pati, H. Hiller, L. Wang, J. Frazier, A. de Kloet and E. Krause.** Univ. of Florida. (652.22)
- 4:05 Discussion and Break.

Theme: Central Regulation of Peripheral Function

- 4:25 Lesion of the Area Postrema Reduces Cardiac Sympathoexcitation and Improves Cardiac Function in Heart Failure **Y. Abukar, C.J. Thomas, R. Ramchandra, S.T. Yao and C.N. May.** Univ. of Melbourne and La Trobe Univ., Australia. (652.23)
- 4:30 Selective Inhibition of the Adrenergic C1 Neurons Reduces the Hypoxic Ventilatory Response in Unanesthetized Rats **M.R. Malheiros-Lima, A.C. Takakura and T.S. Moreira.** Univ. of São Paulo. (652.24)
- 4:35 Ablation of Sympathetic Neurons Projecting to Mesenteric Blood Vessels Reduces Splanchnic Nerve Evoked Systemic Blood Pressure Increase: Widespread Projection of Prevertebral Neurons to the Mesenteric Circulation **B. Hammond and D. Kreulen.** Michigan State Univ. (652.25)
- 4:40 PVN Neuropeptide Y Contributes to the Sympathoexcitatory Effect of Leptin **Z. Shi, B. Li and V.L. Brooks.** Oregon Hlth. & Sci. Univ. (652.26)
- 4:45 Discussion and Wrap-Up.

70. COMMUNICATING WITH THE MEDIA (ALAN ALDA CENTER FOR COMMUNICATING SCIENCE)

Symposium*(Sponsored by: Communications Committee)*

SAT. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: B. GOODMAN

Career DevelopmentFacilitators **S. E. Kaplan-Liss and S. Reiner** Alan Alda Ctr. for Communicating Sci. and Stony Brook Univ. Sch. of Journalism.**71. PROTEOMICS FOR THE PHYSIOLOGIST****Workshop***(Sponsored by: Communications Committee)*

SAT. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: B. ADHIKARI AND J. REINHART

Education

- 3:15 Proteomics Strategies for the Physiologist **K. Schey.** Vanderbilt Univ.
- 3:40 Discussion.
- 3:45 Interacting With a Proteomics Core: How to Achieve Success **L. de Castro Bras.** East Carolina Univ. Brody Sch. of Med.

- 4:10 Discussion.
- 4:15 Proteomics Resources I Should Know About: How to Integrate Databases Results Into My Research **Y-F. Jin.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- 4:45 How to Train the Next Generation of Physiologists for Proteomics Projects: Building a Curriculum **P.A. Welling.** Univ. of Maryland Sch. of Med.
- 3:40 Discussion.
- 5:10 Discussion.

72. MICROCIRCULATION: SIGNALING/CHANNELS**Symposium***(Sponsored by: Microcirculatory Society)*

SAT. 3:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B



CHAired: J. BUTCHER

- 3:30 Calcium Signaling Regulation at the Myoendothelial Junction **J. LeDeaux.** Univ. of Montreal.
- 4:00 Novel Role for Mitochondrial Telomerase in Vascular Stress Response and Maintenance of NO Mediated Dilatation **A. Beyer.** Med. Col. of Wisconsin.
- 4:30 Recruitment of RGS5 Protein to Mechanically Activated AT₁R in Arteriolar VSMC **K. Hong, M. Li, G.A. Meininger and M.A. Hill.** Univ. of Missouri-Columbia. (636.5)
- 4:45 Ca²⁺ Dynamics and Contraction of Junctional Pericytes in the Retinal Vasculature **A.L. Gonzales, B. Shui, M.I. Kotlikoff and M.T. Nelson.** Univ. of Vermont and Col. of Vet. Med., Cornell Univ. (790.1)

73. PHYSIOLOGY IN PERSPECTIVE — THE WALTER B. CANNON MEMORIAL AWARD LECTURE**Lecture***(Supported by Sucampo AG)*

SAT. 5:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

Solving the Mystery of Sleep: from Orphan Receptors to Forward Genetics **M. Yanagisawa.** Univ. of Tsukuba.

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SUNDAY, MARCH 29

Across Societies – Experimental Biology

74. CAREER DEVELOPMENT WORKSHOPS

Workshop

SUN. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
HALL B

Career Development

The following workshops will be held in the EB2015/FASEB Career Center. There is no fee or pre-registration associated with the workshops — just walk in and sit down!

Critiquing of CV/Resumes is by appointment and starts at 9:00 AM on Sunday and continues until 3:00 PM on Wednesday. Sign up on-site in the EB2015/FASEB Career Center, Hall B.

- 9:00 The Strategic Postdoc: How to Find & Leverage Your Postdoc Experience **A. Green.** Univ. of California, Berkeley.
- 9:00 Get Up With Something on Your Mind **H. Adams.** H.G. Adams & Assocs. Inc., Norfolk, VA.
- 9:30 How to Choose Your Ideal Career **B. Lindstaedt.** UCSF.
- 9:30 Your Behavioral CV **J. Blumenthal.** Montgomery Col., Rockville, MD.
- 10:30 Global Interview Skills **D. Behrens.** Univ. of California, Berkeley.
- 10:30 Transforming Your CV **N. Saul.** UCSF.

- 11:00 Understanding Search Committees & Finding Job Announcements **A. Green.** Univ. of California, Berkeley.
- 11:00 But I have no Skills! **J. Lombardo.** Med. Col. of Wisconsin and Marquette Univ.
- 1:00 Job Search in Academia & Industry **D. Behrens.** Univ. of California, Berkeley.
- 1:00 Job Hunting in Biotech Part 1: Finding & Applying for Scientist Positions **B. Lindstaedt.** UCSF.
- 1:30 Creating Effective CV's Cover Letters, Research & Teaching Statements **A. Green.** Univ. of California, Berkeley.
- 2:00 Job Hunting in Biotech Part 2: Interviewing for Scientist Positions **B. Lindstaedt.** UCSF.
- 2:30 Networking: A Required Life Skill **H. Adams.** H.G. Adams & Assocs. Inc., Norfolk, VA.
- 2:30 Talking About Yourself **N. Saul.** UCSF.
- 3:30 Nailing the Job Talk & Interview Prep **A. Green.** Univ. of California, Berkeley.
- 3:30 Job Hunting in Biotech Part 3: Compensation Negotiation for Scientist Positions **B. Lindstaedt.** UCSF.
- 4:00 Job Talk/Chalk Talk: Making the Grade **D. Behrens.** Univ. of California, Berkeley.
- 4:00 Attitudes and Behaviors: How Are You Perceived? **J. Blumenthal.** Montgomery Col., Rockville, MD.

Anatomy

75. CARDIOVASCULAR BIOLOGY PLENARY SESSION

Plenary

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAIR: M. SIMONS AND A. EICHMANN

Cardiovascular

Part of the Cardiovascular Biology Mini-meeting

- 8:30 Chair's Introduction.
- 8:34 **75.1** Molecular Parallels between Neural and Vascular Development **Anne Eichmann.** Yale Univ. Sch. of Med.
- 9:17 **75.2** Adipose Tissue – Vasculature Interactions **K. Walsh.** Boston Univ. Med. Campus.

76. ANATOMY EDUCATION ROUNDTABLE – DEVELOPING EFFECTIVE COGNITIVE STRATEGIES FOR FUTURE LONG-TERM RECALL OF MEDICAL KNOWLEDGE

Education Roundtable

SUN. 10:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

CHAIR: J. WALKER

Education & Teaching

Education

- 10:00 **76.1** Developing Effective Cognitive Strategies for Future Long-Term Recall of Medical Knowledge: What Are the Questions We Need to Answer? **J. Pelley.** Texas Tech Univ. Hlth. Sci. Ctr. Sch. of Med.
- 10:30 General Discussion.

77. VASCULAR ORGANIZATION AND PATTERNING**Mini-Meeting**

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: M. SIMONS AND A. EICHMANN

Cardiovascular

Part of the Cardiovascular Biology Mini-meeting

- 10:30 **77.1** Fetal Macrophages Mediate Vascularization and Cord Formation during Testis Organogenesis **B. Capel, T. DeFalco and J. Cool.** Duke Univ. Med. Ctr.
- 10:55 **77.2** Imaging Cardiovascular Development: Insights into Congenital Disease **M.E. Dickinson.** Baylor Col. of Med.
- 11:20 **77.3** Role of Flow in Lymphatic Vessel Remodeling and Patterning **M. Kahn.** Univ. of Pennsylvania Sch. of Med.
- 11:45 **77.4** Development of Coronary Vessels **M. Majesky.** Seattle Children's Res. Inst., Univ. of Washington.

78. STRUCTURES AND FUNCTIONS OF PRIMARY CILIA**Symposium**

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

CHAired: T. INOUE

Cell Biology

- 10:30 **78.1** IFT25 and IFT27 Couple the BBSome to the IFT Particle for Maintenance of the Ciliary Signaling Compartment **T. Eguether and G. Pazour.** UMass Med. Sch.
- 11:00 **78.2** Restricted Access: The Transition Zone Controls Ciliary Composition and Signaling **J.F. Reiter.** UCSF.
- 11:30 **78.3** New Insights into the Complex Physiologic Role of the Cilium in Secretory Epithelia **L. Satlin.** Icahn Sch. of Med. at Mount Sinai.

79. AAA LANGMAN GRADUATE STUDENT PLATFORM AWARD SESSION**Award Competition**

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

Graduate Student finalists present oral presentations to compete for Platform Award

- 10:30 Enhancement of Wound Healing with Dietary Ketosis: In Vivo and In Vitro Experiments **S.L. Kesl, M.Y. Jung, J.W. Sherwood, M. Wu, L.J. Gould and D.P. D'Agostino.** Morsani Col. of Med., Univ. of South Florida. (876.4)
- 10:45 Neural Stem/Progenitor Cells of the Spinal Cord are Activated in Response to Tail Loss in the Leopard Gecko **E.A.B. Gilbert and M.K. Vickaryous.** Univ. of Guelph, Canada. (346.2)
- 11:00 Identification and Characterization of a *Francisella tularensis* Protein Required for Vacuole Escape and Tularemia Development **K.Y. Lo, S. Visram, A.W. Vogl, J. Shen and J.A. Guttman.** Simon Fraser Univ., BC and Univ. of British Columbia. (86.4)

- 11:15 BMP-pSmad1/5/8 Pathway Activation in Calcific Aortic Valve Disease **M.V. Gomez and K.E. Yutzey.** Cincinnati Children's Hosp. and Univ. of Cincinnati. (553.4)
- 11:30 Fibrinogen Regulates MMP-9 Processing of VEGF-Induced Angiogenesis and Tumor Growth in Osteosarcoma **S.N. Moore, T. Ohba, J.M. Cates, H. Cole, N.A. Mignemi, J. Ichikawa, H. Hirota, H.S. Schwartz and J.G. Schoenecker.** Vanderbilt Univ. and Univ. of Yamanashi, Japan. (347.6)
- 11:45 Lmx1b-Mediated *Emx2*-Associated Regulatory Region Active during Limb Development **E.J. Kim, E. Haro, C.U. Pira, L. Tegeler and K.C. Oberg.** Loma Linda Univ. (871.3)

80. EDUCATIONAL NEUROSCIENCE: TOWARDS THE SCIENCE OF LEARNING**Symposium**

SUN. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

CHAired: A. ZUMWALT

Education & Teaching**Education**

- 2:30 Introduction.
- 2:35 **80.1** Advancing the Neuroscience of Learning **P.R. Bergethon.** Pfizer Neurosci.
- 3:05 **80.2** Cerebral Blood Flow and Spatial Ability **T. Wilson.** Western Univ., Canada.
- 3:35 **80.3** In Pursuit of an Objective Assessment of Learning Using Gaze Tracking and EEG **A. Zumwalt, A. El-Shaar, C. Nagle and M. Tat.** Boston Univ. Sch. of Med. and VA Boston Healthcare Syst.
- 4:05 Break.
- 4:10 e-Poster Slam.

81. ENDOTHELIAL-TO-MESENCHYMAL TRANSITION**Mini-Meeting**

SUN. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: M. SIMONS AND A. EICHMANN

Cardiovascular

Part of the Cardiovascular Biology Mini-meeting

- 2:30 The Biology of Endothelial to Mesenchymal Transition and Its Role in Cancer **R. Kalluri.** Harvard Med. Sch.
- 3:00 **81.1** The Pathological Modifications of the Blood Brain Barrier and Cerebral Cavernous Malformations **E. Dejana, N. Rudini, R. Cattanò, L. Bravi and M. Grazia.** Univ. of Milan.
- 3:30 **81.2** Endothelial-to-Mesenchymal Transition in Cardiovascular Pathology **M. Simons.** Yale Univ. Sch. of Med.
- 4:00 **81.3** Endothelial-Mesenchymal Transition as a Novel Mechanism for Tissue Regeneration **D. Medici.** Warren Alpert Med. Sch. of Brown Univ. and Rhode Island Hosp.

82. CILIA IN DEVELOPMENT**Symposium**

SUN. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

CHAired: J. AMACK

Cell Biology

- 2:30 **82.1** Cilia and Extracellular Vesicles Are Signaling Organelles **M. Barr, J. Wang, M. Silva, D.H. Hall and J. Maguire.** Rutgers Univ., Piscataway and Albert Einstein Col. of Med.
- 3:00 **82.2** Motile and Sensory Cilia Function in Zebrafish **I. Drummond.** Massachusetts Gen. Hosp.
- 3:30 **82.3** Mammalian DRC, Ciliary, Motility and Left-Right Body Asymmetry **B. Yoder, W.R. Lewis, E.B. Malarkey, J.M. Parant, I. Drummond, F. Hildebrandt and N.F. Barbari.** Univ. of Alabama at Birmingham, Massachusetts Gen. Hosp., Charlestown, Indiana Univ.-Purdue Univ. Indianapolis and Harvard Med. Sch.
- 4:00 **82.4** Planar Cell Polarity, Ciliogenesis, and Human Disease **J. Wallingford.** Univ. of Texas at Austin.

83. MAJOR TRANSFORMATIONS OF THE AMNIOTE NOSE**Symposium**

SUN. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

CHAired: T. OWERKOWICZ

Evolution/Anthropology

- 2:30 **83.1** Origin of the Mammalian Nose **A.W. Crompton.** Harvard Univ.
- 3:00 **83.2** Nasal Morphometry in Primates: Is There a Sensory Trade-Off for Visual Specialists? **T. Smith, B.A. Craven and V.B. DeLeon.** Sch. of Phys. Therapy, Slippery Rock Univ., Penn State and Univ. of Florida.
- 3:30 **83.3** Using airflow patterns to aid inferences of nasal soft-tissue reconstructions in dinosaurs **J. Bourke, R. Porter, R.C. Ridgely and L.M. Witmer.** Ohio Univ.
- 4:00 **83.4** Respiratory Turbinates in Endotherms and Ectotherms **T. Owerkowicz.** California State Univ.

84. DEVELOPMENTAL BIOLOGY AWARD HYBRID SYMPOSIUM**Hybrid Symposium**

SUN. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

Developmental Biology**Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)**

H.W. Mossman Award Lecture in Developmental Biology featuring 2015 Young Investigator Award Recipient, Dirk Hockemeyer

- 5:00 **84.1** Elucidating Telomerase Function in Human Tumor and Stem Cell **D. Hockemeyer.** Univ. of California, Berkeley.
- 5:30 **84.2** TBX1 Protein Interactions and *microRNA-96-5p* Regulation Controls Stem Cell Proliferation during Craniofacial and Dental Development **B.A. Amendt, S. Gao, M. Moreno, S. Eliason, F.B. Bidlack, H.C. Margolis and A. Baldini.** Univ. of Iowa and The Forsyth Inst.
- 5:45 The Craniofacial-Specific Role of the Ribosomal Gene *Polr1c* and Its Role in Treacher Collins Syndrome **A. Achilleos, G. Bugarinovic and P.A. Trainor.** Stowers Inst. for Med. Res., Kansas City, MO. (872.12)
- 6:00 **84.3** Developmental Origins for Kidney Disease in Shroom3 Deficient Mice **D. Bridgewater, H. Khalili, A. Sull and T. Drysdale.** McMaster Univ., Canada and Univ. of Western Ontario.
- 6:15 e-Poster Slam.

85. CARDIOVASCULAR BIOLOGY PLATFORM SESSION**Mini-Meeting**

SUN. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: K. BENTLEY

Cardiovascular

Part of the Cardiovascular Biology Mini-meeting

- 5:00 **85.1** Targeting BMP Signaling for the Treatment of Neovascular Age-Related Macular Degeneration **B. Larrivee and K. Ntumba.** Univ. of Montreal.
- 5:15 **85.2** Semaphorin 3A and VEGF Promote Inflammation in Retinopathy **P.M. Sapiaha, G. Mawambo and D. Agnieszka.** Univ. of Montreal.
- 5:30 **85.3** Context-Specific Regulation of VEGF Receptor Signaling **F. Mac Gabhann and L. Clegg.** Johns Hopkins Univ.

Visit the Exhibits

Sunday – Tuesday

9:00 AM – 4:00 PM

- 5:45 **85.4** Vascular Endothelia Mechanically Sense Barrier Quality and Maintain Functional Integrity through ROS-Dependent Actin Remodeling **C.V. Carman, M. Kamei, L. Varghese, T.E. Sciuto, A.M. Dvorak and R. Martinelli.** Harvard Med. Sch., Beth Israel Deaconess Med. Ctr.
- 6:00 **85.5** Force Chains and Gap Formation in Thrombin-Induced Endothelial Permeability **R. Krishnan, C.C. Hardin, Q. Dang, G. Manomohan, X. Tian, O. Dubrovski, D. Tambe, C. Jader, E.D. Gado, J.P. Butler, J.J. Fredberg and K. Birukov.** Beth Israel Deaconess Med. Ctr., Massachusetts Gen. Hosp., Univ. of Chicago, Harvard T Chen Sch. of Publ. Hlth., ETH, Zurich, Georgetown Univ. and Univ. of South Alabama.
- 6:15 **85.6** Temporal Dynamics of Vascular Patterning, an Integrative Approach **K. Bentley.** Beth Israel Hosp., Harvard Med. Sch.

86. CELL BIOLOGY AWARD HYBRID SYMPOSIUM

Hybrid Symposium

SUN. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

Cell Biology

R.R. Bensley Award Lecture in Cell Biology featuring 2015 Young Investigator Award Recipient, Bungo Akiyoshi

- 5:00 **86.1** Discovery of Unconventional Kinetochores in Kinetoplastids **B. Akiyoshi.** Univ. of Oxford.
- 5:30 **86.2** GLI-Dependent Etiology of Craniofacial Ciliopathies **S. Brugmann, C-F. Chang and G. Millington.** Cincinnati Children's Hosp. Med. Ctr.
- 5:45 **86.3** Inhibition of the Ubiquitin Proteasomal System Reversibly Blocks Myofibrillogenesis **J.W. Sanger, J. Wang, Y. Fan, N. Wanko, D.K. Dube and J.M. Sanger.** SUNY Upstate Med. Univ.
- 6:00 **86.4** Identification and Characterization of a *Francisella tularensis* Protein Required for Vacuole Escape and Tularemia Development **K.Y. Lo, S. Visram, A.W. Vogl, J. Shen and J.A. Guttman.** Simon Fraser Univ., BC and Univ. of British Columbia.
- 6:15 e-Poster Slam.

87. AAA POSTDOCTORAL PLATFORM AWARD SESSION

Award Competition

SUN. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

Postdoc finalists present oral presentations to compete for Platform Award

- 5:00 Sex-Specific Calcium Handling Underlying Sex-Specific Cardiomyocyte Death in Heart Failure **G. Kararigas, C.E. Molina, H. Summer, I. Baczko, S. Golz and V. Regitz-Zagrosek.** Charité Univ. Hosp., Berlin, Hosp. de la Santa Creu i Sant Pau, Barcelona, Bayer HealthCare, Wuppertal and Univ. of Szeged, Hungary. (555.2)
- 5:15 Neural Crest-Derived Valve Interstitial Cells Calcify in the *Klotho*-Deficient Mouse Model of Aortic Valve Disease **E.E. Wirrig and K.E. Yutzey.** Cincinnati Children's Hosp. Med. Ctr. (553.8)
- 5:30 Heart Specific Deletion of RNA Binding Protein Rbfox1 Sensitizes Mice to Pressure Overload-Induced Cardiac Dysfunction **W. Zhu, I. Bender, A. Yellamilli and J. van Berlo.** Univ. of Minnesota, Minneapolis. (553.2)
- 5:45 Delineating the Cellular Hierarchy of Glioblastoma and Gliosarcoma for Identification of Therapeutic Targets **F. Hassiotou, M. Jackson, T. Seymour and A. Nowak.** Sch. of Chem. and Biochem., Univ. of Western Australia and Sch. of Med. and Pharmacol., Univ. of Western Australia. (706.6)
- 6:00 Diminished Ang-2 Expression and Microvascular Density in COX-2 Knockout Mouse Cerebral Cortex in Moderate Hypobaric Hypoxia **G.F. Bendorro, K. Xu and J.C. LaManna.** Case Western Reserve Univ. (706.8)
- 6:15 Facial Development and Alterations in FGF Signaling in a Mouse Model of Crouzon Syndrome **K. Brakora, Y. Ho, A. Lainoff, J. Wong and R. Marcucio.** UCSF and UCSF Sch. of Dent. (872.11)

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Biochemistry and Molecular Biology

88. ASBMB PLENARY LECTURE

Plenary

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM WEST

- 8:00 Plenary Lecturer Introduction.
8:05 **88.1** Manipulating Quorum Sensing to Control Bacterial Pathogenicity **B.L. Bassler**. Princeton Univ., HHMI.

89. EARL AND THRESSA STADTMAN DISTINGUISHED SCIENTIST AWARD LECTURE

Award Lecture

SUN. 8:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM WEST

- 8:45 Award Lecturer Introduction and Award Presentation.
8:50 **89.1** Novel Kinases Which Phosphorylate Proteins and Proteoglycans in the Secretory Pathway **J.E. Dixon, V.S. Tagliabracci, J.L. Engel, J. Wen, S.E. Wiley, C.A. Worby, J. Cui, L.N. Kinch, J. Xiao and N.V. Grishin**. UCSD and Univ. of Texas, Southwestern Med. Ctr., TX, HHMI, Chevy Chase.

90. MULTITALENTED LIPIDS

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 252AB

CHAired: W. CHO

Follow the conversation: #lipids

- 9:45 Chair's Introduction.
9:50 **90.1** Phosphoinositide Signaling in the Control of Membrane Dynamics and Interactions **P. De Camilli**. Yale Univ., HHMI.
10:15 Investigating the Role of Cellular Lipid Recognition in Trafficking and Viral Particle Formation by Ebola Virus Matrix Protein VP40 **K.A. Johnson and R.V. Stahelin**. Univ. of Notre Dame and Indiana Univ. Sch. of Med., South Bend. (886.6)
10:30 **90.2** Transcriptional Regulation by Nuclear Phosphoinositides **Y. Stijf-Bultsma, L. Somer, M. Tauber, P. Giardoglou, D.R. Jones, K.A. Gelato, M. Baalbaki, D. Hart, S.M. Lauberth, A-P.G. Haramis, W. Fischle and N. Divecha**. Univ. of Southampton, U.K.
10:55 Phosphoinositide Binding to ErbB3-Binding Protein 1 Contributes to Its Nucleolar Localization **A.E. Lewis, T. Karlsson and A. Altankhuyag**. Univ. of Bergen. (715.25)
11:10 The Lipid Transfer Protein STARD3: An Architect from Inside the Cell **C.L. Tomasetto, F. Alpy, G. Drin and T.P. Levine**. IGBMC- U964 INSERM, Strasbourg, University Col. London and Univ. of Nice Sophia-Antipolis. (568.1)
11:25 **90.3** Hedgehogs and Lipids **A. Salic**. Harvard Med. Sch.
11:50 Discussion.

91. MEASURING AND PREDICTING MICROBIAL COMMUNITY DYNAMICS

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAired: L. HOOPER

Follow the conversation: #microbiome

- 9:45 Chair's Introduction.
9:50 **91.1** Metagenomic Systems Biology: Metabolic Modeling and Multi-meta-omic Analysis of the Human Microbiome **E. Borenstein**. Univ. of Washington and Santa Fe Inst.
10:20 Source Tracking of Fecal Contamination along San Luis Obispo Creek **D.R. Shapiro, J.D. Kent, M.F. Zuleta, C.L. Kitts, M.W. Black and J. VanderKelen**. California Polytech State Univ., San Luis Obispo. (575.12)
10:35 **91.2** Think Globally, Act Locally: Regulated Deployment of Polysaccharide Degradation Abilities by Our Symbiotic Gut Bacteria **E. Martens**. Univ. of Michigan Med. Sch.
11:05 Production of Antimicrobial Substances by Nonpathogenic *Neisseria* Species **J. Ogle, A. Finck and E. Aho**. Concordia Col., MN. (575.7)
11:20 **91.3** The Extraordinary Evolution of the Great Ape Microbiome **H. Ochman**. Univ. of Texas at Austin.
11:50 Discussion.

92. INTERACTIONS OF GROWTH FACTORS AND INTEGRINS WITH THE EXTRACELLULAR MATRIX

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

Follow the conversation: #ECM

- 9:45 Chair's Introduction.
9:50 **92.1** Integrins Cooperate during Mechanosensing **R. Fässler**. Max Planck Inst. of Biochem., Martinsried.
10:15 Trimeric G Protein Activation by the Non-receptor Protein GIV/ Girdin Is Required for Integrin Signaling **A. Leyme, L. Perez-Gutierrez, L.T. Nguyen and M. Garcia-Marcos**. Boston Univ. (719.5)
10:30 **92.2** Members of the CCN Family of Matricellular Proteins are Required for the Formation and Maintenance of Multiple Skeletal Tissues **K.M. Lyons**. UCLA.
10:55 Endothelial Deficiency of the Extracellular Matrix Protein CCN1 Alters Developmental and Pathological Angiogenesis **B. Chaqour, I. Krupka, L. Yan, L. Lau, M.B. Grant and H. Chintala**. SUNY Downstate Med. Ctr., Univ. of Illinois at Chicago and Indiana Univ. (719.2)
11:10 Extracellular Matrix Fibronectin Attenuates PDGF-Induced Intracellular Calcium Release **C.S. Farrar and D.C. Hocking**. Univ. of Rochester. (719.3)

- 11:25 **92.3** Engineering Interactions between Growth Factors and the Extracellular Matrix **J.A. Hubbell, M.M. Martino, P.S. Briquez, W.W. Kilariski, E. Guc and M.A. Swartz.** Univ. of Chicago and Swiss Fed. Inst. of Technol. Lausanne.
11:50 Discussion.

93. NEW REACTIONS OF OLD COFACTORS

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258A

CHAired: C. FIERKE

Follow the conversation: #enzyme

- 9:45 Chair's Introduction.
9:50 **93.1** Cofactor Dynamics and Ammonia Selectivity in GMP Reductase **L. Hedstrom.** Brandeis Univ.
10:15 Fresh Surprises from the Old Cofactor NAD(P) **H R.G. Rosenthal, B. Vögeli, G. Stoffel and T.J. Erb.** ETH Zurich. (573.9)
10:30 **93.2** The Mechanistic Enzymology of Thiamin Biosynthesis **T.P. Begley.** Texas A&M Univ.
10:55 An Old Cofactor in a New Light: Adenosylcobalamin in Light-Dependent Gene Regulation **M. Jost, S. Padmanabhan, M. Elíaz-Arnanz and C.L. Drennan.** MIT, Rocasolano Phys. Chem Inst., Spanish Natl. Res. Council and Univ. of Murcia, Spain. (573.25)
11:10 Radically New Methylation Reactions in Antibiotic Biosynthesis: Insights into the Mechanism of B₁₂-Dependent Radical SAM Enzymes **O. Berteau, S. Pierre, A. Benjdia, C. Gherasim and R. Banerjee.** INRA, Jouy en Josas and Univ. of Michigan Med. Sch. (573.39)
11:25 **93.3** NaturalProduct Biosynthesis – A Treasure Trove of Multitalented Flavoenzymes **B. Moore.** Scripps Inst. of Oceanography and Skaggs Sch. of Pharm. and Pharmaceut. Sci., UCSD.
11:50 Discussion.

94. STRUCTURE AND FUNCTION OF THE TRANSCRIPTION MACHINERY

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258B

CHAired: G. GILL

Follow the conversation: #RNA

- 9:45 Chair's Introduction.
9:50 **94.1** Genome-Wide Mapping of RNA Polymerase II Termination Sites **J.L. Corden, J. Merran and P. Schaughency.** Johns Hopkins Med. Sch.
10:15 Regiospecific Function of the C-terminal Domain of RNA Polymerase II in Yeast **S.M. Fuchs, M. Babokhov, M. Mosaheb and S.A. Morrill.** Tufts Univ. (562.11)
10:30 **94.2** CTD Code: A Combinatorial Code for Eukaryotic Transcription **Y.J. Zhang, J.E. Mayfield, M. Zhang and F.A. Etzkorn.** Univ. of Texas at Austin and Virginia Tech.
10:55 Interactome Dynamics of the Transcription Elongation Complex Revealed by Quantitative Proteomics **K.M. Harlen and S. Churchman.** Harvard Med. Sch. (562.3)

- 11:10 Transcriptional Elongation Requires DNA Double Strand Break and Repair **H. Bunch, T. Westerling, B. Lawney, Y. Wang, M. Brown and S.K. Calderwood.** Beth Israel Deaconess Med. Ctr. and Dana-Farber Cancer Inst., Harvard Med. Sch. (877.1)
11:25 **94.3** Functional Interplay between Epigenetic DNA Modifications and Transcription Machinery **D. Wang.** UCSD.
11:50 Discussion.

95. MEMBRANE CHANNELS I – MOLECULAR BASIS OF GATING, ACTIVATION AND SELECTIVITY

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: E. TAJKHORSHID

Follow the conversation: #protein

- 9:45 Chair's Introduction.
9:50 **95.1** Structural Basis for Ion Conductance and Selectivity in Sodium and Calcium Channels **W. Catterall.** Univ. of Washington.
10:15 Role of Pore Lining Residues in Drug Modulation of Ligand-Gated Ion Channels **T.R. Schneider, J-A.M. Facey, G.E. Joyce, T.B. Voigt, E.P. Stater, M.J. Hyde, L.C. Venner and R.J. Howard.** Skidmore Col., NY. (566.3)
10:30 **95.2** Inactivation of a Potassium Channel **A.E. McDermott, M. Bhate, B. Wyle and Y. Xu.** Columbia Univ.
10:55 Dimer Intermediate in the Assembly of Influenza A M2 Transmembrane Domain in Lipid Membranes **E.R. Georgieva, P.P. Borbat, H.D. Norman and J.H. Freed.** Cornell Univ. and Cornell Univ. Sch. of Engin. (714.6)
11:10 Effects of Agonist and Regulator Binding on the Structure and Conformational Flexibility of the Ligand Binding Domains of Ionotropic Glutamate Receptors **F. Barkdoll-Weil, C. Guzman, Z. Asif, P. Varnes and J.E. Bell.** Univ. of Richmond. (574.17)
11:25 **95.3** Structural Studies on Glutamate Receptor Gating **M.L. Mayer, J. Meyerson, S. Chittori and S. Subramaniam.** NICHD, NIH.
11:50 Discussion.

96. DIVERSE CAREER OPPORTUNITIES FOR SCIENTISTS

Symposium

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 256

CHAired: M. WALLERT

Follow the conversation: #training

- 9:45 Chair's Introduction.
9:50 **96.1** Diverse Career Opportunities for Scientists **B. Coughlin.** Denver Museum of Nature & Sci.
10:15 Broader Impact Careers for Scientists in Science Education and Communication **B. Jacque, S.A. Tammen and K. Meiri.** Tufts Univ. Sch. of Med. (559.8)
10:30 **96.2** One Degree, Many Job Opportunities **J.S. Bond.** Penn State Col. of Med. and Univ. of North Carolina at Chapel Hill.

- 10:55 Acquiring Skills beyond the Bench through the Great Diseases – a Teacher-Scientist Partnership **S.A. Tammen, K. Malanson, B. Jacque and K. Meiri.** Tufts Univ. Sch. of Med. (559.12)
- 11:10 Fostering Critical Thinking Skills in a Master's-Level Course via In-Depth Analysis of Primary Literature **E. Tour, C. Abdullah, J. Parris, R. Lie and A. Guzdar.** UCSD. (559.20)
- 11:25 **96.3** A Non-linear Career Path **C.P. Bailey.** Mount Mary Univ.
- 11:50 Discussion.

97. TRAINING THE MIND OF AN INTERDISCIPLINARY SCIENTIST

Symposium

(Sponsored by: Society for Experimental Biology and Medicine (SEBM))

SUN. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 255

Follow the conversation: #training

Speakers:

How People Perceive and Understand Behavior and Intentions of Others **A.P. Saygin.** UCSD

Problem Finding and Understanding for Creativity **R.L. Price.** Univ. of Illinois at Urbana Champaign

Lessons Learned from a 25 Year History of University Wide Interdisciplinary Biomedical Doctoral Programs **D. Medeiros.** Univ. of Missouri-Kansas City

Collaborative Learning and Integrated Mentoring in the Biosciences **R. McGee.** Northwestern Univ. Feinberg Sch. of Med.

98. ASBMB AWARD FOR EXEMPLARY CONTRIBUTIONS TO EDUCATION LECTURE

Award Lecture

SUN. 12:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 253BC

Undergraduate Student Research Poster Competition Award Winners will be announced during this lecture.

12:15 Award Lecturer Introduction and Award Presentation

12:45 **98.1** Don't Teach Biochemistry, Teach Students! **J.E. Bell.** Univ. of Richmond.

99. WHO SHOULD BE FUNDING BIOMEDICAL RESEARCH?

Public Policy

(Sponsored by: ASBMB Public Affairs Advisory Committee)

SUN. 12:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 253A

Follow the conversation: #scicomm

As federal funding becomes more competitive, more and more investigators are pursuing alternative funding sources for their research. Some of those sources have been long established, like private foundations and disease-specific charities. But emerging opportunities, such as crowd-funding, industrial partnerships and wealthy individuals, are gaining attention. Join the discussion of the benefits and pitfalls of various sources of funding to conduct research.

100. MILDRED COHN AWARD IN BIOLOGICAL CHEMISTRY LECTURE

Award Lecture

SUN. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM WEST

2:30 Award Lecturer Introduction and Award Presentation.

2:35 **100.1** Moving through Barriers: Unlocking the Mysteries of How Enzymes Really Work **J.P. Klinman.** Univ. of California, Berkeley.

101. RUTH KIRSCHSTEIN DIVERSITY IN SCIENCE AWARD LECTURE

Award Lecture

SUN. 3:05 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM WEST

3:05 Award Lecturer Introduction and Award Presentation.

3:10 **101.1** Exploring GPCR Biased Signaling from Inside and Outside the Cell **J. Trejo.** UCSD.

102. ASBMB YOUNG INVESTIGATOR AWARD LECTURE

Award Lecture

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 257AB

Presented in the session, "Glycobiology in Infection and Immunity" See session 106 for details.

4:10 **102.1** The Molecular Tool-Kit of Viral Hemorrhagic Fevers **E. Ollmann Saphire, Z. Bornholdt, M. Fusco, D. Abelson, T. Hashiguchi, J. Lee, Y. Kawaoka, J. Dye and J. Crowe.** The Scripps Res. Inst., Kyushu Univ., Univ. of Toronto, Univ. of Wisconsin-Madison, Univ. of Tokyo, U.S. Army Res. Inst. of Infect. Dis., Frederick, MD and Vanderbilt Univ. Sch. of Med.

103. VITAMIN AND AMINO ACID METABOLISM OF PLANTS

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 252AB

CHAired: M. SUSSMAN

Follow the conversation: #plants

- 3:55 Chair's Introduction.
- 4:00 **103.1** B Vitamin Damage and Its Repair or Pre-emption **A.D. Hanson**. Univ. of Florida.
- 4:25 Mechanism of Plant Growth Promoting Activity of *Burkholderia* Species **V.R. Thakkar and R.R. Patel**. BRD Sch. of Biosci., Sardar Patel Univ. (887.3)
- 4:40 **103.2** Aromatic Amino Acid Network: Biosynthesis, Regulation and Transport **N. Dudareva**. Purdue Univ.
- 5:05 Isopentenyl Diphosphate Inhibition of Thiamin Diphosphate Enzymes, Especially Deoxyxylulose 5-Phosphate Synthase **T.D. Sharkey, A. Banerjee and L.E. Cheaney**. Michigan State Univ. (887.20)
- 5:20 Diversification of Tyrosine Biosynthetic Pathways in Plants: Non-plastidic, Tyrosine-Insensitive Prephenate Dehydrogenases in Legumes **H.A. Maeda, C.A. Schenck and S. Chen**. Univ. of Wisconsin-Madison. (887.15)
- 5:35 **103.3** A Systems Biology Approach to Detect the Hidden Reactions of Terpenoid Quinone Metabolism **G.J. Basset**. Univ. of Nebraska-Lincoln.
- 6:00 Discussion.

104. IMAGING: A PICTURE IS WORTH >1,000 WORDS

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 254AB

COCHAired: N. FEDARKO

Follow the conversation: #cancer

- 3:55 Chair's Introduction.
- 4:00 **104.1** Ras-Induced Macropinocytosis: Metabolic Adaptation to Signaling in the Absence of Adequate Nutrients **C.B. Thompson**. Mem. Sloan-Kettering Cancer Ctr.
- 4:25 New Strategies for Probing and Inhibiting CDK4/cyclin D Hyperactivity in Melanoma **C. Prével, M. Pellerano, F. Bihel, L. Meunier and M.C. Morris**. Biomolec Inst. Max Mousseron Fac. of Pharm., Montpellier and Fac. of Pharm.-UMR CNRS, Srasbourg. (577.4)
- 4:40 **104.2** VLA-4 Targeted Radiopharmaceuticals for Seeing and Treating Metastatic Melanoma **C.J. Anderson, W. Beaino and J.R. Nedrow**. Univ. of Pittsburgh.
- 5:05 Monitoring Cellular Adenine Nucleotide Levels and Their Relevance to Cellular Metabolic Functions Using Bioluminescence-Based Strategies **S. Goueli, K. Hsiao and S. Mondal**. Promega Corp., Madison and Univ. of Wisconsin Med. Sch. (577.6)

- 5:20 Imaging Tumor Targeted Delivery Using FRET In Vivo **M. Barroso, A. Rudkouskaya, K. Anderson, S. Rajoria, L. Zhao, N. Sinsuebphon and X. Intes**. Albany Med. Col. and Rensselaer Polytech Inst. (577.1)
- 5:35 **104.3** PET Radiopharmaceuticals for the Diagnosis of Cancer **J.S. Lewis**. Mem. Sloan-Kettering Cancer Ctr.
- 6:00 Discussion.

105. DIET, OBESITY, NUTRITION AND GUT MICROBIOME

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 255

- 3:55 Chair's Introduction.
- 4:00 **105.1** Obesity, Bariatric Surgery, and the Gut Microbiome **Z.E. Ilhan**. Arizona State Univ.
- 4:30 Characterization of an Alternative Starch Utilization System from the Human Gut Bacterium *Bacteroides thetaiotaomicron* and Its Implications in Human Nutrition **M.M. Chaudet and D.R. Rose**. Univ. of Waterloo, Canada. (575.4)
- 4:45 **105.2** What the HIV-Associated Gut Microbiome May Tell Us about the Role of the Adaptive Immune System in Matching Our Gut Microbes to Our Diet **C. Lozupone, P. Neff, M. Rhodes, J. Donnelly, T. Campbell and B. Palmer**. Univ. of Colorado Denver.
- 5:15 **105.3** Maternal Obesity Alters Gut Microbial Ecology in Offspring of NOD Mice **M. Zhu, Y. Kang and M. Du**. Washington State Univ. and Univ. of Idaho.
- 5:30 Mucosal IgA Responses to the Gut Microbiota in Healthy versus Malnourished Children **A. Kau**. Washington Univ. in St. Louis.
- 6:00 Discussion.

106. GLYCOBIOLOGY IN INFECTION AND IMMUNITY

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 257AB

CHAired: B. BAKER

Follow the conversation: #immunology

- 3:55 Chair's Introduction.
- 4:00 Award Lecturer Introduction and Award Presentation.
- 4:10 **102.1** The Molecular Tool-Kit of Viral Hemorrhagic Fevers **E. Ollmann Saphire, Z. Bornholdt, M. Fusco, D. Abelson, T. Hashiguchi, J. Lee, Y. Kawaoka, J. Dye and J. Crowe**. The Scripps Res. Inst., Kyushu Univ., Univ. of Toronto, Univ. of Wisconsin-Madison, Univ. of Tokyo, U.S. Army Res. Inst. of Infect. Dis., Frederick, MD and Vanderbilt Univ. Sch. of Med.
- 4:35 **106.1** Microbial Manipulation of Antibody Effector Functions **E. Sundberg**. Univ. of Maryland Sch. of Med.
- 5:00 Pathogenetic Pathways of Aberrant O-Glycosylation of IgA1 in an Autoimmune Disease, IgA Nephropathy **J. Novak, K. Takahashi, H. Suzuki, K. Yamada, C. Reily, T. Stewart, H. Ueda, S. Hall, Z. Moldoveanu, M. Raska, B.A. Julian and M.B. Renfrow**. Univ. of Alabama at Birmingham. (718.26)

- 5:15 **106.2** Glycan Targeted Vaccines for the Induction of Immunity **Y. van Kooyk, C. Fehres, S. Horrevorts, S. Bruijns, H. Kalay, M. Ambrosini, J. Garcia Vallejo and W. Unger.** VU Univ. Med. Ctr. Amsterdam.
- 5:40 **106.3** Penetrating the Glycan Shield on HIV-1 **P. Kwong.** NIAID, NIH.
- 6:05 Discussion.

107. POSTTRANSLATIONAL MODIFICATIONS OF LYSINE

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258A

CHAired: P. R. THOMPSON

Follow the conversation: #PTMs

- 3:55 Chair's Introduction.
- 4:00 **107.1** A Chemical Toolbox for Lysine Deacetylases **D. Schwarzer.** Univ. of Tübingen.
- 4:25 Mechanism of Nicotinamide Riboside as an Aid to Weight Loss **C. Brenner, B.J. Weidemann, S.A.J. Trammell, J.J. Coon, L. Yu, M.E. Migaud and J.L. Grobe.** Univ. of Iowa, Queens Univ. Belfast and Univ. of Wisconsin-Madison. (717.19)
- 4:40 **107.2** Protein Methyltransferase Inhibitors as Cancer Therapeutics **R.A. Copeland.** Epizyme Inc., Cambridge, MA.
- 5:05 N-Chlorination, a Reversible Post-translational Modification that Activates Chaperone Function in RidA **A. Müller, S. Langklotz, N. Lupilova, K. Kuhlmann, J.E. Bandow and L.I.O. Leichert.** Ruhr Univ. Bochum. (717.3)
- 5:20 Evaluating the Role of Histone H2A Variants and Epigenetic Modification in the DNA Repair System of Bdelloid Rotifers **M.A. McFadden, J.S. Higgins and A.M. Schurko.** Hendrix Col., AK. (877.22)
- 5:35 **107.3** Targeting Reversible Lysine Modifications **P. Cole.** Johns Hopkins Univ. Sch. of Med.
- 6:00 Discussion.

108. ENGAGING STALLED REPLICATION FORKS

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258B

CHAired: M. G. FRIED

Follow the conversation: #DNA

- 3:55 Chair's Introduction.
- 4:00 **108.1** Mechanisms for Translesion DNA Synthesis **W. Yang, Y. Lee, Y. Gao and M.T. Gregory.** NIDDK, NIH.
- 4:25 Incision-Independent Repair of a Psoralen-Interstrand Crosslink **J. Zhang, M. Budzowska and J. Walter.** Harvard Med. Sch. and HHMI. (560.14)
- 4:40 **108.2** The Rev1-Pol ζ Mutasome **P.M.J. Burgers, A.V. Makarova and S.K. Binz.** Washington Univ. Sch. of Med.

- 5:05 Biochemical Mechanism for Recruitment of the Checkpoint Activator TOPBP1 to Stalled Replication Forks **M. Michael.** Univ. of So. California. (560.12)
- 5:20 Dampening Checkpoint Signaling via Coordinated Action of DNA Repair Scaffolds and the Pph3 Phosphatase **C.M. Jablonowski, J.R. Cussiol, S.L. Oberly and M.B. Smolka.** Cornell Univ. (879.24)
- 5:35 **108.3** Mutations for Worse or Better: Low Fidelity DNA Synthesis by SOS DNA Polymerase V Is a Tightly-Regulated Double-Edged Sword **M.F. Goodman, A.L. Erdem, M. Jaszczur, J.G. Bertram, R. Woodgate and M.M. Cox.** Univ. of So. California, NICHD, NIH and Univ. of Wisconsin-Madison.
- 6:00 Discussion.

109. MEDIATING PROTEIN INTERACTIONS: IS FOLDING REQUIRED?

Symposium

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: E. RHOADES

Follow the conversation: #protein

- 3:55 Chair's Introduction.
- 4:00 **109.1** Mechanisms of Folding upon Binding **J. Clarke.** Univ. of Cambridge.
- 4:25 Changes in Water Availability or Molecular Crowding Induce Folding in Intrinsically Disordered Stress Proteins from Plants **A.A. Covarrubias, C.L. Cuevas-Velazquez, L.Y. Rivera-Najera, D.F. Rendon-Luna, G. Saab-Rincón, M.A. Martinez-Yamout, H. Dyson and C. Amero.** Biotechnol. Inst., UNAM, Cuernavaca, The Scripps Res. Inst. and UAEM, Autonomous Univ. of Mexico State, Cuernavaca. (712.11)
- 4:40 **109.2** The Role of Protein Disorder and Self-Association in the Formation of Cellular Bodies **T. Mittag, M.R. Marzahn, J. Lee, A. Palud, S. Marada, A. Nourse, J.P. Taylor and S.K. Ogden.** St. Jude Children's Res. Hosp.
- 5:05 Specificity of the Yeast Auxilin Homolog Swa2 in [URE3] Prion Propagation Is Solely Determined by the TPR Domain **J.K. Hines, E.M. Troisi, M.E. Rockman and E.E. Oliver.** Lafayette Col., PA. (713.5)
- 5:20 Regulation of Ubiquitin Independent Proteasomal Degradation of Intrinsically Disordered Proteins **Y. Shaul.** Weizmann Inst. of Sci. (563.13)
- 5:35 **109.3** Probing Protein Intrinsic Disorder and Allosteric Modulation at Single-Molecule Resolution **A. Deniz.** The Scripps Res. Inst.
- 6:00 Discussion.

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110. INDUSTRY CAREERS**Symposium**

SUN. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 256

CHAired: S. E. BARBOUR

Follow the conversation: #training

- 3:55 Chair's Introduction.
- 4:00 **110.1** Entrepreneurial Drug Hunter: A Trek for Breakthrough Medicines at the Academic-Industrial Interface **T.K. Sawyer**. Merck Res. Labs., Boston.
- 4:25 Design and Implementation of a Professional Master of Science in Biotechnology Innovation and Regulatory Science with Global Impact **K.L. Clase and S.R. Byrn**. Purdue Univ. (**559.19**)
- 4:40 **110.2** Build a Successful Career in Industry by Attaining Multidisciplinary Knowledge and Experience **M. Urh**. Promega Corp., Madison.
- 5:05 Teaching Professional Skills to Chemistry and Biochemistry Majors **C.A. Sarisky and W.G. Hollis, Jr.** Roanoke Col., VA. (**559.4**)

- 5:20 A Practical Approach to Career Advising for Biochemistry and Molecular Biology Majors **P.J. Kennelly**. VPI & State Univ. (**559.10**)
- 5:35 **110.3** Diversifying Training Options for Undergraduate and Graduate Students to Support Industry Careers **M. Wallert**. Minnesota State Univ. Moorhead.
- 6:00 Discussion.

111. WELCOME RECEPTION SPONSORED BY THE ASBMB MINORITY AFFAIRS COMMITTEE**Special Event**

SUN. 7:30 PM—WESTIN BOSTON WATERFRONT, HARBOR
BALLROOM II

A professional networking event featuring ASBMB Underrepresented Graduate Student Travel Award research posters. ASBMB members and biochemistry registrants welcome.

Nutrition**112. ASN SPONSORED SATELLITE PROGRAM: OATS, MORE THAN JUST A WHOLE GRAIN****ASN Satellite**

(Sponsored by: PepsiCo, Inc.)

SUN. 6:30 AM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM E

113. ASN SPONSORED SATELLITE PROGRAM: RUNNING ON EMPTY: IS THERE A METABOLIC OR COGNITIVE BENEFIT TO THE MORNING MEAL?**ASN Satellite**

(Sponsored by: The Kellogg Company)

SUN. 6:30 AM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

114. TRANSLATIONAL AND TRANSFORMATIONAL CONCEPTS IN AMINO ACID SENSING**Symposium**

(Supported by Ajinomoto Co., Inc.)

(Sponsored by: Energy and Macronutrient Metabolism
RIS and Nutrient-Gene Interaction RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: S.M. HUTSON AND T.G. ANTHONY

Biochemical, Molecular and Genetic Mechanisms

- 8:00 Distributed Nutrient Sensing in the Integrated Control of Energy Balance **G.J. Schwartz**. Albert Einstein Col. of Med. of Yeshiva Univ.
- 8:25 Amino Acid Transporters in Amino Acid Sensing and Nutritional Regulation **Y. Kanai**. Osaka Univ. Sch. of Med.
- 8:50 Amino Acid Control of Cell Signaling **M.S. Kilberg**. Univ. of Florida Col. of Med.
- 9:15 Methionine Mistranslation in Stress Response and Adaptation **T. Pan**. Univ. of Chicago.

115. DETERMINANTS OF DISEASE RISK IN THE POSTPRANDIAL PERIOD

Symposium

(Supported by Egg Nutrition Center)

(Sponsored by: Energy and Macronutrient Metabolism RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: B.O. SCHNEEMAN AND T.M. RAINS

Diet and Non-Communicable Diseases

- 8:00 Advances in the Understanding of Enterocyte Lipid Handling **E.J. Parks**. Univ. of Missouri.
- 8:20 Gut Peptide Regulation of Intestinal Lipoprotein Particle Production **G.F. Lewis**. Univ. Hlth. Network.
- 8:40 Postprandial Hyperglycemia-mediated Vascular Endothelial Dysfunction **R.S. Bruno**. The Ohio State Univ.
- 9:00 Sleep, Free Fatty Acids and Diabetes Risk **E. Tasali**. The Univ. of Chicago Med.

116. THE eNUTRITION ACADEMY: SUPPORTING A NEW GENERATION OF NUTRITIONAL SCIENTISTS AROUND THE WORLD

Symposium

(Supported by The Nutrition Society UK)

(Sponsored by: Nutrition Education Committee)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 151AB

CHAired: S.M. DONOVAN AND C.A. GEISSLER

Education Track

- 8:00 Overview of Public Health Nutrition in Africa **P. Amuna**. Univ. of Greenwich/Primary Hlth. Care Corp. Qatar.
- 8:20 Capacity Development in Africa **F.B. Zotor**. Univ. of Hlth. and Allied Sci. (UHAS)
- 8:40 The Development of Inter-institutional eLearning Graduate Degrees **K. Kattelmann**. South Dakota State Univ.
- 9:00 The eNutrition Academy – Aims and Objectives **C.A. Geissler**. King's Col. London.
- 9:20 Questions and Open Forum **S.M. Donovan and C.A. Geissler**

117. ENERGY AND MACRONUTRIENT METABOLISM: ENERGY BALANCE, MACRONUTRIENTS AND WEIGHT MANAGEMENT

Minisymposium

(Sponsored by: Energy & Macronutrient Metabolism RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 152

CHAired: J. CARBONE

COCHAired: S. PASIAKOS

- 8:00 **117.1** Consuming 2 Eggs per Day Results in Reduced Glycemic Load, Lower Intake of Sugar and Increased Satiety Compared to Oatmeal Consumption in a Young Healthy Population **D. DiMarco, A. Missimer, M. Vergara-Jimenez, R. Kretzmer, I. Soto and M-L. Fernandez**. Univ. of Connecticut and Univ. of Sinaloa.
- 8:15 **117.2** Effect of a Behavioral Intervention with Cereal Fiber or Resistant Starch on Gestational Weight Gain: A Randomized Clinical Trial **S.K. Das, S.B. Roberts, E. Saltzman, J. Yopchick, S. Power, S. Sen, N.S. Lowery, E.R. Norwitz and L.E. Urban**. USDA at Tufts Univ. and Tufts Med. Ctr.
- 8:30 **117.3** A Protein-Based Breakfast Increases Postprandial Fat Metabolism in Overweight and Obese Children **J.I. Baum and M. Gray**. Univ. of Arkansas.
- 8:45 **117.4** A Systematic Review of the Literature on Intermittent Fasting for Weight Management **C.R. Hankey, D.A. Klukowska and M.E. Lean**. Univ. of Glasgow Sch. of Med.
- 9:00 **117.5** Energy Density and Adherence as Predictors of Weight Loss in the POUNDS LOST Study **C.M. Champagne, J. Burton, L. DeCesare, C. Johnson, G. Talbot, F. Sacks and G.A. Bray**. Pennington Biomed Res. Ctr., Baton Rouge and Harvard Sch. of Publ. Hlth.
- 9:15 **117.6** Constant Rules to Guide Nutrition Guidelines **D.M. Thomas and S.B. Heymsfield**. Montclair State Univ. and Pennington Biomed. Res. Ctr., Baton Rouge.
- 9:30 **117.7** Moderately High Protein Diets during Resistance/Aerobic Exercise Training Improve Body Composition via Positive Changes in Adiposity but Not Lean Mass Accretion **S.L. Gordon, J.E. Kim, E. Weinheimer-Haus and W.W. Campbell**. Purdue Univ.
- 9:45 **117.8** Low-Fat Diets Differing in Protein and Carbohydrate Content on Cardiometabolic Risk Factors in Adults with Type 2 Diabetes **N.A. Watson, K.A. Dyer, J.D. Buckley, G.D. Brinkworth, A.M. Coates, G. Parfitt, P.R. Howe, M. Noakes and K.J. Murphy**. Univ. of South Australia, Commonwealth Sci. and Indust. Res. Org., Adelaide and Univ. of Newcastle.

118. DIETARY BIOACTIVE COMPONENTS: MECHANISM OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS I

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153A

CHAired: C. KAY

COCHAired: S. GEBAUER

- 8:00 **118.1** The Role of Metallothioneins in the Differential Pro-oxidant Effects of (-)-Epigallocatechin-3-Gallate in Oral Cells **L. Tao, M. Sun, W.Y.H. Khoo, J-Y. Park, S-Y. Lee, S.L. Kelleher and J.D. Lambert.** Penn State and Penn State Hershey Col. of Med.
- 8:15 **118.2** Activity-Guided Isolation of a Sirtuin2 Inhibiting Compound from Coffee: Structural and Activity Confirmation of Javamide-II (*N*-Caffeoyltryptophan) and Its Cellular Effects on Histone H3, alpha-Tubulin and p53 Implicated in Human Diseases **J. Park.** USDA, Beltsville, MD.
- 8:30 **118.3** Cranberry Extract Ameliorates Obesity-Related Liver Inflammation via the Toll-Like Receptor 4 Pathway **S.L. Glisan and J.D. Lambert.** Penn State.
- 8:45 **118.4** The Bioactivity of Flavonoids Is Likely the Result of Cumulative Low Exposure to A Variety of Structurally Similar Phenolic Metabolites **C.D. Kay, J.L. de Gesso, E. Warner, H.P. Amin, R.M. de Ferrars, M. Edwards, Q. Zang, D. O'Hagan and M. O'Connell.** Univ. of East Anglia and Univ. of St Andrews, U.K.
- 9:00 **118.5** Black Raspberries Prevent Angiotensin II-Induced Senescence in Vascular Smooth Muscle Cells **R.G. Feresin, Y. Zhao and G. Salazar.** Florida State Univ.
- 9:15 **118.6** Metabolites of Blueberry Anthocyanins Suppress Lipotoxicity-Induced Endothelial Inflammation **R. Cavalcanti, N. Begaye, M. Costa, L.P. Bharath, J.D. Symons, T. Jalili, N.S. Rajasekaran, Z. Jia and P.V.A. Babu.** Col. of Hlth., Univ. of Utah, Univ. of Utah, Univ. of North Carolina at Greensboro and Univ. of Alabama at Birmingham.
- 9:30 **118.7** Anthocyanins of Blackcurrant and Black Chokeberry Induced the Expression of Low-density Lipoprotein Receptor in Caco-2 and HepG2 Cells by Distinct Mechanisms **B. Kim, Y-K. Park, H. Ma, T. Yuan, N. Seeram, S.I. Koo and J-Y. Lee.** Univ. of Connecticut and Univ. of Rhode Island.
- 9:45 **118.8** Characterizing Heterogeneous Cellular Responses to Polymethoxyflavones Using Raman Microscopy **H. Zhang, L. He and H. Xiao.** Univ. of Massachusetts Amherst.

119. NUTRITIONAL EPIDEMIOLOGY: EPIDEMIOLOGICAL RESEARCH ADDRESSING DIET AND HEALTH OUTCOMES

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153B

CHAired: S. SAHNI

COCHAired: N. PAREKH

- 8:00 **119.1** Adherence to the DASH Diet and Risk of Incident Chronic Kidney Disease: The Atherosclerosis Risk in Communities Study **C.M. Rebholz, D.C. Crews, M.E. Grams, A.S. Levey, E.R. Miller III, L.J. Appel and J. Coresh.** Johns Hopkins Univ. and Tufts Med. Ctr.
- 8:15 **119.2** Index-Based Dietary Patterns and All-Cause and Cause-Specific Mortality Stratified by Body Mass Index and Race/Ethnicity: NIH-AARP Diet and Health Study **T. Schap, A. Subar, G. Anic, S. George, S. Krebs-Smith, Y. Park and J. Reedy.** NCI, NIH, Rockville and Washington Univ.
- 8:30 **119.3** The DASH Diet, Cardiovascular Disease Risk and Obesity in the United Kingdom **N.R.V. Jones, S. Ray and P. Monsivais.** Univ. of Cambridge and Cambridge Inst. of Publ. Hlth.
- 8:45 **119.4** Household-Level Analysis of Shared and Unique Predictors of Central Obesity in Chinese Children and Adults **A.L. Thompson, K.M. Houck, L. Adair, P. Gordon-Larsen and B. Popkin.** Univ. of North Carolina at Chapel Hill and Gillings Sch. of Global Publ. Hlth., Univ. of North Carolina.
- 9:00 **119.5** Overtime Growth and Spatial Distribution of Fast Food Industry in China during 2005-2012 **X. Cheng, Y. Wang, H. Xue and W. Qu.** Univ at Buffalo and Fudan Univ., Shanghai.
- 9:15 **119.6** Characterizing Household Food Shopping Behavior Using Novel Receipt-Based Geospatial Measures **T.L. Barnes, S.A. French, N.R. Mitchell and D. Van Riper.** Univ. of Minnesota, Minneapolis.
- 9:30 **119.7** Higher Red Blood Cell n-3 Fatty Acid Composition Prospectively Relates to Lower Depressive Symptomatology **S.J. Bigornia, K.L. Tucker, L.M. Falcon and W.S. Harris.** Univ. of Massachusetts Lowell and Sanford Sch. of Med. of the Univ. of South Dakota.
- 9:45 **119.8** Adherence to Dietary Guidelines and Successful Aging **B. Gopinath, V.M. Flood, A. Kifley, J. Russell and P. Mitchell.** Univ. of Sydney and Univ. of Wollongong.

120. COMMUNITY AND PUBLIC HEALTH NUTRITION: COMMUNITY AND PUBLIC HEALTH NUTRITION INTERVENTIONS

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: V. CARRAWAY-STAGE

COCHAired: L. JOHNS

- 8:00 **120.1** Food Security among Households with Children in Indiana Improved following a Supplemental Nutrition Assistance Program—Education Intervention **R.L. Rivera, M.K. Maulding, A.R. Abbott and H.A. Eicher-Miller.** Purdue Univ.
- 8:15 **120.2** Cardiac Kids Club: A Childhood Obesity Prevention Afterschool Intervention for Elementary School Students **M. Spence, A. McDonald and C. Perry-Burst.** Univ. of Tennessee, Knoxville, Pellissippi State Community Col. and Knox County Schs., TN.
- 8:30 **120.3** Additive Effects of Interpersonal Counseling and Mass Media on Psychosocial Determinants of Exclusive Breastfeeding among Vietnamese Mothers **P.H. Nguyen, S.S. Kim, T.T. Nguyen, N. Hajeebhoy, L.M. Tran, M.T. Ruel, R. Rawat, E.A. Frongillo and P. Menon.** Intl. Food Policy Res. Inst., Washington, DC, FHI360, Viet Nam and Univ. of South Carolina.
- 8:45 **120.4** Feasibility and Acceptability of Group Cell Phones to Promote Optimal Breastfeeding in a Women's Microcredit Program in Nigeria **V.L. Flax, A.U. Ibrahim, M. Negerie, D. Yakubu, S. Leatherman and M.E. Bentley.** Univ. of North Carolina at Chapel Hill and Partners for Develop.
- 9:00 **120.5** Effect of Fortified Complementary Food Supplementation on Child Growth in Rural Bangladesh – A Cluster-Randomized Trial **P. Christian, S. Shaikh, A.A. Shamim, S. Mehra, L. Wu, R.D. Merrill, R. Klemm, K. Schulze, S.d. Pee, T. Ahmed, K.P. West, Jr. and JiViA-4 Study Team.** Johns Hopkins Sch. of Publ. Hlth., JiViA Proj., Bangladesh, World Food Prog., Italy and icddr,b, Bangaldesh.
- 9:15 **120.6** Changes in Food Consumption Patterns of Mexican-Heritage Children during a Nutrition Intervention **A.L. Aguilera, A. de la Torre and L.L. Kaiser.** Univ. of California, Davis.
- 9:30 **120.7** Improving Infant and Young Child Feeding in Ethiopia through Community-Based Grain Banks Using Local Foods **M.L. Roche, B. Sako, S.J.M. Osendarp, A.A. Adish and A.L. Tolossa.** Micronutrient Initiative, Canada and Micronutrient Initiative, Ethiopia.
- 9:45 **120.8** Food Safety and School Garden Program for Elementary and Middle School Students **V.A. Calberry, L.F. Pivarnik and I.E. Lofgren.** Univ. of Rhode Island.

121. LACTATION: BIOLOGY OF LACTATION INCLUDING BIOACTIVE COMPONENTS AND OTHER MILK CONSTITUENTS AND THEIR EFFECT ON THE INFANT

Minisymposium

(Sponsored by: Lactation RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

CHAired: S. KELLEHER

STUDENT CHAIR: H. HOLSCHER

- 8:00 **121.1** Human Milk Leptin, Insulin and N6/N3 Fatty Acids Are Associated with Early Differences in Gut Microbiome of Infants Born to Normal Weight and Obese Mothers **D. Lemas, B. Young, A. Tomczik, T. Hernandez, B. DeLaHoussaye, C. Robertson, M. Rudolph, N. Krebs, S. Santorico, L. Barbour, D. Frank and J. Friedman.** Univ. of Colorado Anschutz Med. Campus, Aurora and Univ. of Colorado Denver.
- 8:15 **121.2** Infection-Specific Responses of Breastmilk Leukocytes **F. Hassiotou, D. Savigni, J. Underhill, L. Moles, P.E. Hartmann and D.T. Geddes.** Sch. of Chem. and Biochem., Univ. of Western Australia, Univ. of Basel and Complutense Univ. of Madrid.
- 8:30 **121.3** Human Milk Exosomes Resist Digestion In Vitro and are Internalized by Human Intestinal Cells **B. Lönnerdal, X. Du, Y. Liao and J. Li.** Univ. of California, Davis.
- 8:45 **121.4** Milk Osteopontin May Promote Brain Development Via Up-Regulating Osteopontin Expression In Vivo **R. Jiang, C. Prell and B. Lönnerdal.** Univ. of California, Davis.
- 9:00 **121.5** Early Supplementation of Phospholipids and Gangliosides Affects Brain and Cognitive Development in Neonatal Piglets **E.C. Radlowski, H. Liu, M.S. Conrad, Y. Li, R.N. Dilger and R.W. Johnson.** Univ. of Illinois, Urbana and Northeast Agr. Univ.
- 9:15 **121.6** The Role of ZnT2 in the Mammary Gland during Lactation **S. Lee, D. Soybel and S.L. Kelleher.** Penn State Hershey Col. of Med. and Penn State.
- 9:30 **121.7** Expression of Genes from Breast Milk Fat Globule Reveals Events Related to the Pathophysiology of Lactation Failure in Obese Women **M.A. Mohammad, T-A. Mistretta and M.W. Haymond.** Baylor Col. of Med.
- 9:45 **121.8** Diet Influences the Oral Microbiota of Infants during the First Six Months of Life **H.D. Holscher, R.A. Mathai, J. Kim and K.S. Swanson.** Univ. of Illinois, Urbana, Dominican Univ., IL and East Carolina Univ.

122. VITAMINS AND MINERALS: MICRONUTRIENT BIOAVAILABILITY AND ANTIOXIDANT FUNCTION (INCLUDING SELENIUM)

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: L. TUSSING-HUMPHREYS

COCHAired: C. KARAKOCHUK

- 8:00 **122.1** Iron Bioavailability of Sorghum, Cowpea, Corn and Soybean Fortified Blended Foods **K. Penugonda, S. Alavi and B.L. Lindshield**. Kansas State Univ.
- 8:15 **122.2** Whey-Based Supplement Added to a Plant-Based Diet Increases Total Zinc Absorption, but Not Total Iron in Mexican Children **A. Pérez-Pérez, O.P. Garcia, M. Camacho, J.E. Westcott, K.M. Hambidge, N.F. Krebs and J.L. Rosado**. Sch. of Nat. Sci., Autonomous Univ. of Querétaro, Mexico and Univ. of Colorado Denver.
- 8:30 **122.3** Mild Zinc Deficiency Augments Increased TNF- α Expression but Not Decreased Muscle Protein Synthesis after Acute Sepsis **K.T. Crowell, M. Navaratnarajah, S.L. Kelleher, D.I. Soybel and C.H. Lang**. Penn State Hershey Med. Ctr. and Penn State Col. of Med.
- 8:45 **122.4** High Dietary Selenium Intake Alters Tissue Lipid and Protein Profiles and Metabolisms of Growing Pigs **X. Lei, Z. Zhao and M. Barcus**. Cornell Univ.
- 9:00 **122.5** Selenium Binding Protein 1 Levels Predict Prostate Cancer Recurrence **A.M. Diamond, E. Ansong, R.J. Deaton and P.H. Gann**. Univ. of Illinois at Chicago.
- 9:15 **122.6** Defect in Stress Erythropoiesis during Selenium Deficiency **C. Liao, R.F. Paulson and K.S. Prabhu**. Penn State.
- 9:30 **122.7** Selenium Status Biomarkers and Selenium Requirements in the Turkey (*M. gallopavo*) **R.M. Taylor and R.A. Sunde**. Univ. of Wisconsin-Madison.
- 9:45 **122.8** Dietary Fat Dose-Dependently Increases α -Tocopherol Bioaccessibility **T.N. Sapper, E. Mah, C. Chitchumroonchokchai, M.L. Failla and R.S. Bruno**. The Ohio State Univ.

123. EXPERIMENTAL ANIMAL NUTRITION: ANIMAL MODELS OF FETAL NUTRITION, PROGRAMMING AND NEONATAL DEVELOPMENT

Minisymposium

(Sponsored by: Experimental Animal Nutrition RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156B

CHAired: T. HERFEL

COCHAired: S. EL-KADI

- 8:00 **123.1** Maternal Metformin Treatment during Obese Pregnancy Reduces Offspring Fatty Liver and Hepatic Inflammation **H.N.B. Thomas, A. Berlanga, C.D. Byrne and F.R. Cagampang**. Univ. of Southampton.
- 8:15 **123.2** Maternal High-Fat Diet Programs Sex-Specific Intergenerational Effects in Male and Female F1 Mouse Progeny **K.M. Thakali, P. Kang, Y. Zhong, H. Gomez-Acevedo and K. Shankar**. Arkansas Children's Hosp. and Univ. of Arkansas for Med. Sci.
- 8:30 **123.3** Neurodevelopment in Piglets Is Influenced by Perinatal Choline Status as Evidenced by Magnetic Resonance Imaging **A.T. Mudd, C.M. Getty and R.N. Dilger**. Univ. of Illinois, Urbana.
- 8:45 **123.4** Maternal Choline Consumption during Pregnancy Modulates Cellular and Functional Aspects of Placental Development **S.T. Kwan, J. King, J. Yan, H. Klein, V. Fomin, M.S. Roberson and M.A. Caudill**. Cornell Univ.
- 9:00 **123.5** Sex-Specific Effects of Prenatal and Post-weaning High Fat Diet on Adult Mouse Offspring Skeletal Muscle Contraction **L.E. Jones, F.P. Markiewicz, R.S. James, F.R. Cagampang, E. Rustighi, K.R. Poore, P.L. Newland and L.R. Green**. Univ. of Southampton and Coventry Univ., U.K.
- 9:15 **123.6** Leucine Pulses during Long-term Continuous Feeding Enhance mTORC1 and mTORC2 Activation in Skeletal Muscle of Neonatal Pigs **A. Suryawan, C. Boutry, S. El-Kadi, J. Steinhoff-Wagner, H. Nguyen, R. Parada, B. Stoll, R. Orellana and T. Davis**. CNRC, Baylor Col. of Med.
- 9:30 **123.7** Translation Initiation Signaling in Myotubes from Normal and Low Birth Weight Neonatal Pigs **Y. Chen, H. Zhu and S.W. El-Kadi**. Virginia Tech.
- 9:45 **123.8** Leucine Supplementation of a Protein and Energy Restricted Diet Enhances mTORC1 Activation but not Protein Synthesis in Muscle of Neonatal Pigs **R. Manjarín, D.A. Columbus, A. Suryawan, A.D. Hernandez-García, H.V. Nguyen, M.L. Fiorotto, N-M. Hoang and T.A. Davis**. USDA, Baylor Col. of Med.

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124. NUTRITION TRANSLATION: NUTRITION SCIENCE FOR PUBLIC POLICY, PRACTICE AND THE CONSUMER

Minisymposium

(Sponsored by: Nutrition Translation RIS)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156C

CHAired: B. BRADLEY AND F. COLETTA

STUDENT CHAIR: E. GLYNN

- 8:00 **124.1** A Comparison of the Healthfulness of Prepackaged Children's Foods from Participants and Non-participants of the Canadian Voluntary Code on Marketing to Children **C.W. Murray and M.R. L'Abbé**. Univ. of Toronto.
- 8:15 **124.2** Why Qualified Health Claims Do Not Work: A Content Analysis of Language Characteristics **A. Berhaupt-Glickstein and W.K. Hallman**. Rutgers Univ.
- 8:30 **124.3** Accuracy of Consumers' Ability in Identifying Whole Grains Foods: Implications for Policy Change **M. Chea, J.S. Foster and A.R. Mobley**. Univ. of Connecticut.
- 8:45 **124.4** Does Mere Exposure Mediate Sensitivity to Bitter Taste on Consumer Liking and Acceptability of Whole Grain Foods? **A. De Leon, M. Giovanni, W. Horn, D. Burnett and N.L. Keim**. Univ. of California, Davis, California State Univ. Chico and USDA, Davis.
- 9:00 **124.5** Dietary Fiber and Added Fiber **D.T. Gordon**. PIC&PC, Puget Island, Cathlamet, WA.
- 9:15 **124.6** Estimating the Sugars Content of Simulated Diets that Follow *Eating Well with Canada's Food Guide* **S. St-Pierre, J-A. Gilbert and L-A. Elvidge**. Hlth. Canada, Ottawa.
- 9:30 **124.7** Evaluating the Discrimination of Sugar Content Thresholds in the Canadian Nutrient File Classification System **J.T. Bernstein and M.R. L'Abbe**. Univ. of Toronto.
- 9:45 **124.8** Canned Fruit and Vegetable Intake Is Associated with Greater Total Fruit and Vegetable Consumption, Better Diet Quality, Increased Nutrient and Same Sodium and Added Sugar Intake in Adults: NHANES 2001-2010 **M.R. Freedman and V. Fulgoni**. San Jose State Univ. and Nutr. Impact, Battle Creek, MI.

125. THE PRESIDENTIAL SYMPOSIUM: NUTRITION AND DEVELOPMENTAL ORIGINS OF HEALTH AND DISEASE

Special Session

(Supported by Mead Johnson Pediatric Nutrition Institute)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: S.N. MEYDANI

Pediatric Nutrition and Early Development

- 10:30 Nutritional Influences on Human Developmental Epigenetics **R.A. Waterland**. Baylor Col. of Med.
- 11:00 Early Life Gut Microflora and Immune System Development **D. An**. Boston Children's Hosp.
- 11:30 Fructose, Pregnancy and Later Life Impact **D. Sloboda**. McMaster Univ., Canada.
- 12:00 Paternal Nutrition and Transgenerational Health Outcomes **L.O. Bygren**. Univ. of Umea.

125A. NATIONAL OSTEOPOROSIS FOUNDATION/ AMERICAN SOCIETY FOR NUTRITION DRAFT STATEMENT ON PEAK BONE MASS DEVELOPMENT AND LIFESTYLE FACTORS

Symposium

SUN. 12:45 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 151AB

CHAired: T.C. WALLACE

- 12:45 Introduction **B.S. Zemel**. Univ. of Pennsylvania.
- 1:00 Exercise and Physical Activity **R. Lewis**. Univ. of Georgia.
- 1:30 Calcium and Vitamin D **D.H.J. Kalkwarf**. Cincinnati Children's Hosp. Med. Ctr.
- 2:00 Research Gaps and Implementation Strategy **C.M. Weaver**. Purdue Univ.

126. HUMAN VARIABILITY AND PHYSIOLOGICAL EXTREMES: BLESSING OR CURSE?

Symposium

(Supported by PepsiCo, Inc.)

(Sponsored by: Nutritional Sciences Council)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: S.H. ADAMS AND D.B. ALLISON

Human Nutrition and Metabolism

- 3:00 System Approaches for Analyzing Nutrient Effects on Human Physiology **J. Kaput**. Nestle Inst. for Hlth. Sci.
- 3:30 Blood Lipidomics: Sub-groups and Responses to Nutrient Interventions **J.W. Newman**. USDA, Davis.
- 4:00 Precision Medicine: Lessons from Membrane Transporters in Metabolic Disease **K. Giacomini**. UCSF.
- 4:30 Clinical Trial Designs and Challenges in the Omics Era **S.J. Mandrekar**. Mayo Clin.

127. DO WE NEED PRECONCEPTION NUTRITION INTERVENTIONS TO IMPROVE BIRTH OUTCOMES BEYOND THE PREVENTION OF NEURAL TUBE DEFECTS? CURRENT KNOWLEDGE AND FUTURE DIRECTIONS

Symposium

(Supported by Micronutrient Initiative)

(Sponsored by: Global Nutrition Council)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 157ABC

CHAired: U. RAMAKRISHNAN AND J.C. KING

Global and Public Health Nutrition

- 3:00 Why Should Preconception Nutrition Interventions Improve Birth Outcomes? Insights from Recent Advances in Reproductive Biology. **J.C. King**. CHORI – Univ. of California at Berkeley and Davis.
- 3:30 Do Weekly Preconceptional Micronutrient Supplements Improve Birth Outcomes? **P.H. Nguyen**. Thai Nguyen Univ. of Med. and Pharmacy (TUMP)
- 4:00 Role of Food Based Approaches to Improve Preconception Nutrition and Birth Outcomes **C. Fall**. Univ. of Southampton.
- 4:30 Current Guidelines for Preconception Interventions: Future Needs and Gaps for Research and Policy **L.M. De-Regil**. Micronutrient Initiative.

128. INTERNATIONAL FORUM – KOREA

International Forum

(Sponsored by: The Korean Nutrition Society)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAired: K.J. YEUM AND N.S. JOO

- 3:00 Vitamin D – Skeletal and Non-skeletal Actions **N-S. Joo**. Ajou Univ. Sch. of Med.
- 3:20 Update on Vitamin D and the Role in Skeletal Muscle **L. Ceglia**. USDA at Tufts Univ.
- 3:40 Nutrition Policy in Korea: Focusing on Micronutrients **Y-O. Cho**. Duksung Women's Univ.
- 4:00 Impact of Vitamin D and Calcium Insufficiencies on Bone Health in Korea **K-J. Yeum**. Konkuk Univ.
- 4:20 The New Korean Dietary Reference Intakes (KDRIs) for Vitamin D **J-H. Kim**. Pai Chai Univ., South Korea.

129. ENERGY AND MACRONUTRIENT METABOLISM: PROTEIN AND AMINO ACID METABOLISM

Minisymposium

(Sponsored by: Energy & Macronutrient Metabolism RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 152

CHAired: J. MARINI

COCHAired: S. EL-KADI

- 3:00 **129.1** Comparing Arginine Flux, Catabolism and Availability for NO Synthesis in American, Indian, and Jamaican Women **J.W. Hsu, C.C. Kao, P. Dwarkanath, J.M. Karnes, T.M. Baker, K.M. Bohren, A. Badaloo, M.M. Thame, A.V. Kurpad and F. Jahoor**. CNRC, Baylor Col. of Med., St John's Res. Inst., Bangalore and Univ. of the West Indies.
- 3:15 **129.2** Effect of Prolonged Enteral Leucine Supplementation on Muscle Protein Synthesis and mTOR Activation in Neonatal Pigs Fed a Restricted Protein Diet **D.A. Columbus, J. Steinhoff-Wagner, A. Suryawan, H.V. Nguyen, A. Hernandez-Garcia, M.L. Fiorotto and T.A. Davis**. CNRC, Baylor Col. of Med.
- 3:30 **129.3** Leucine Guides Meal Distribution of Dietary Protein for Muscle Protein Synthesis and Mass **D.K. Layman and L.E. Norton**. Univ. of Illinois at Urbana-Champaign.
- 3:45 **129.4** Endurance Capacity of Muscle-Specific Branched-Chain Alpha-Ketoacid Dehydrogenase Kinase-Deficient Mice **Y. Shimomura, M. Xu, T. Ishikawa, Y. Kadota, T. Morioka, T. Toyoda, R. Kato, Y. Kondo, M. Ota, Y. Morishita, J.V. Bariuan, H. Zhen and Y. Kitaura**. Grad. Sch. of Bioagr. Sci., Nagoya Univ.
- 4:00 **129.5** Soy-Dairy Protein Blend Supplementation during 3 Months of Resistance Exercise Training Enhances Lean Body Mass **P.T. Reidy, M.S. Borack, M.M. Markofski, J.M. Dickinson, R.R. Deer, S.H. Husaini, W.K. Walker, S.N. Igbini, M.B. Cope, R. Mukherjea, K. Jennings, E. Volpi and B.B. Rasmussen**. Univ. of Texas Med. Branch and Dupont, St. Louis.
- 4:15 **129.6** Determination of the Tolerable Upper Intake Level of Leucine in Healthy Elderly (70-75y) **B.F. Rasmussen, A. Turki, K. Madden and R. Elango**. Univ. of British Columbia.
- 4:30 **129.7** A Diet High in Protein Reduces Weight Gain, Food Intake and Liver Weight in Obese Zucker Rats **W.W. French, S.A. Shouse, X. Gu, S-O. Lee and J.I. Baum**. Univ. of Arkansas.
- 4:45 **129.8** Dietary Arginine Requirements are Dependent on the Rate of Citrulline Production in Mice **J.C. Marini and I.C. Didelija**. USDA, Baylor Col. of Med.

130. DIETARY BIOACTIVE COMPONENTS: MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS II

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153A

CHAired: J. WHELAN

COCHAired: D. DONOHOE

- 3:00 **130.1** Urolithin C, a Gut Microbiota Metabolite Derived from Ellagic Acid, Attenuates Triglyceride Accumulation in Human Adipocytes and Hepatoma Huh7 Cells **I. Kang, F.A. Tomás-Barberán, J. Carlos Espín and S. Chung.** Univ. of Nebraska-Lincoln and CEBAS-CSIC, Spain.
- 3:15 **130.2** Mango Supplementation Averts Hepatic and Cardiac Mitochondrial Dysfunction in Mice Fed a High-Fat Diet **B. Ojo, L. Wu, X. Gou, J. Semkoff, S. Jantachotikun, H. Eldoumi, S. Peterson, P. Perkins-Veazie, D. Lin, B.J. Smith and E.A. Lucas.** Oklahoma State Univ. and North Carolina State Univ., Kannapolis.
- 3:30 **130.3** Phenethyl Isothiocyanate from Cruciferous Vegetables Targets Human Cancer Stem-Like Cells **B. Upadhyaya, Y. Liu, D. Wang, D. Knudsen and M. Dey.** South Dakota State Univ.
- 3:45 **130.4** Reduction of Nitrosative Stress by Vitamin C: A New Approach for Mitigation of Doxorubicin-Induced Cardiomyopathy **G. Akolkar, A. Bagchi, S. Mandal, D. Jassal and P. Singal.** Univ. of Manitoba.
- 4:00 **130.5** Local Vitamin D Metabolism Is Differentially Regulated by MKP-1 in Osteoclasts Stimulated with RANKL versus LPS **M.S. Valerio and K.L. Kirkwood.** Med. Univ. of South Carolina.
- 4:15 **130.6** Shiitake-Derived β -Glucan, Lentinan, Reduces CCL3/MIP-1 α Production via Down-Modulation of TLR2- and TLR4-Mediated NF κ B Activation and TLR2 Expression in Human THP-1 Monocytes **X. Dai and S.S. Percival.** Univ. of Florida.
- 4:30 **130.7** Ripened Cheddar Cheese Peptides Protect Human Vein Endothelial Cells against Expression of Risk Markers for CVD: Role of Paraoxonase-2 as Peptide Molecular Target **S. Ravisankar and G. Noratto.** Washington State Univ.
- 4:45 **130.8** Polyherbal Supplements Can Modify Energetics and Lipid Metabolism in Cancer Cells by Activating AMPK Signaling **J. Whelan, Y. Zhao and D. Donohoe.** Univ. of Tennessee, Knoxville.

131. NUTRITIONAL EPIDEMIOLOGY: INNOVATION AND VALIDATION OF DIETARY ASSESSMENT TOOLS AND THEIR APPLICATIONS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153B

CHAired: C.J. BOUSHEY

COCHAired: C. ZIZZA

- 3:00 **131.1** Changes in Intake and Major Food Sources of Flavonoids among U.S. Adults between 1999-2002 and 2007-2010 **K. Kim, T.M. Vance and O.K. Chun.** Univ. of Connecticut and BOM Res. Inst., Seoul.
- 3:15 **131.2** Visualization of Dietary Patterns **S.M. Krebs-Smith, M.M. Wilson and J. Reedy.** NCI, NIH.
- 3:30 **131.3** Development and Validation of a Novel Household Grocery Food Purchase Quality Score **P.J. Brewster, P.M. Guenther, K.C. Jordan and J.F. Hurdle.** Univ. of Utah.
- 3:45 **131.4** Validation of Stable Isotope Ratios as Biomarkers of Meat, Fish, and Soda Intake **D.M. O'Brien, S. Votruba and J. Krakoff.** Univ. of Alaska Fairbanks and NIDDK, Phoenix.
- 4:00 **131.5** Factors Associated with Misreporting of Energy Intake in Food Records: A Validation Study with DLW in Brazilian Low Income Adults **T.deS. Lopes, D. Hoffman, E. Ferrioli, R.R. Luiz, R. Sichieri and R. Pereira.** Fed. Univ. of Rio de Janeiro, State Univ. of New Jersey, Fac. of Med. of Ribeirão Preto-Univ., Univ. of São Paulo and State Univ. of Rio de Janeiro.
- 4:15 **131.6** Use of the Automated Self-Administered 24-Hour Recall in the Real World **A.F. Subar, B. Mittl, T.P. Zimmerman, S.I. Kirkpatrick, T.E. Schap, M.M. Wilson and N. Potischman.** NCI, NIH, Westat and Univ. of Waterloo, Canada.
- 4:30 **131.7** The Feasibility of Teacher and Parent Volunteers Collecting Digital Image Data of Children's Fruit and Vegetable Consumption during School Lunch **S.A. Amin, T.R. Stickle, B.A. Yon, A. Howard, H. Eriksen, R. Cochran and R.K. Johnson.** Univ. of Vermont.
- 4:45 **131.8** Comparability of Dietary Data Collection Programs for U.S. Adults, 2007-2011 **Z. Conrad, K. Chui, T. Griffin and C. Peters.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and Tufts Univ. Sch. of Med.

132. COMMUNITY AND PUBLIC HEALTH NUTRITION: FOOD ENVIRONMENT**Minisymposium**

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: S. COLBY

COCHAired: N. FITZGERALD

- 3:00 **132.1** Validation of Instruments to Assess Home Food Environment of Pre-adolescents: A Pilot Study **M.J. Nepper, M. Ludemann and W. Chai.** Univ. of Nebraska-Lincoln.
- 3:15 **132.2** The Home Food Environment and a Young Child's Weight Status **J.A. Emond, D. Gilbert-Diamond, Y. Ma, D. Grewal and K.L. Ailawadi.** Dartmouth Col., Univ. of Alberta and Babson Col., MA.
- 3:30 **132.3** Customer Utilization of Small Stores in Rural Maryland and Association with Diet and Psychosocial Variables **M. Shapiro, C. Welsh, D. Dennis, E. Campbell and J. Gittelsohn.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- 3:45 **132.4** Area Deprivation and the Food Environment Over Time: A Repeated Cross-Sectional Study on Fast Food Outlet Density and Supermarket Presence in Norfolk, U.K., 1990-2008 **E.R. Maguire, T. Burgoine and P. Monsivais.** Univ. of Cambridge.
- 4:00 **132.5** Diet Quality of Supermarket Sales Circulars Measured by the Healthy Eating Index-2010 **L. Jahns, A.J. Scheett, L.K. Johnson, B.S. Hoverson, S.M. Krebs-Smith, C.R. Payne, L.D. Whigham and S. Kranz.** USDA, Grand Forks, NCI, NIH, New Mexico State Univ., Univ. of Texas at El Paso and Univ. of Bristol.
- 4:15 **132.6** Associations between Vegetable-and-Fruit Consumption and Food Deserts: Urban Adults 40+ Years, NHANES 2003-2010 **J.J. Gahche and N. Sahyoun.** Univ. of Maryland College Park.
- 4:30 **132.7** Sleep and Ultra-processed Intake in Early Childhood: A Longitudinal Analyses **F. Rauber, M.R. Vitolo and E.M. Taveras.** Fed. Univ. of Hlth. Sci. of Porto Alegre, Brazil and MassGeneral Hosp. for Children.
- 4:45 **132.8** Eating Away from Home: A Parent's Perspective **S. Looney, L. Crosby and L. Stark.** Cincinnati Children's Hosp. Med. Ctr.

133. LACTATION: LACTATION AND MATERNAL AND INFANT HEALTH**Minisymposium**

(Sponsored by: Lactation RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

CHAired: C. LOVELADY

COCHAired: E. SHEARER

- 3:00 **133.1** *My People are Dying of Ignorance: Changes in Exclusive Breastfeeding Knowledge, Benefits, Barriers, and Misconceptions in Family Members Involved in a Breastfeeding Promotion Campaign* **K. Reinsma, N. Bolima, F. Fonteh and S. Montgomery.** Liberty Univ., VA, Hlth. and Develop. Consult. Svcs., Bamenda, Cameroon, Univ. of Dschang, Cameroon and Loma Linda Univ.
- 3:15 **133.2** Breast Milk Collection Method and Diurnal Variation Affect Estimates of Fat- and Water-Soluble Vitamin Content **D. Hampel, S. Shahab-Ferdows, M.D. Islam and L.H. Allen.** USDA, Davis, Univ. of California, Davis and ICDDR,B, Dhaka.
- 3:30 **133.3** Relationships between Fluid Intake, Breast Milk Volume, and Urine Volume in Lactating Women **A.L. McKenzie, E.T. Perrier, L. Jimenez and L.E. Armstrong.** Univ. of Connecticut and Danone Res., Palaiseau, France.
- 3:45 **133.4** Breastmilk Vitamin B12 Concentration Is Low among Women in Western Kenya and Is Not Associated with Animal Source Food Intake or Food Insecurity **A. Williams, C. Chantry, S. Young, C. Null and C. Stewart.** Univ. of California, Davis, Univ of California Davis Med. Ctr., Cornell Univ. and Intl. Policy Res. and Eval., Mathematica.
- 4:00 **133.5** Effects and Kinetics of Maternal Supplementation on Vitamin Concentrations in Human Milk **S. Shahab-Ferdows, D. Hampel, M. Islam and L.H. Allen.** USDA, Davis, Univ. of California, Davis and ICDDR,B, Dhaka.
- 4:15 **133.6** The Relationship of Breast Milk Intake as Assessed with Deuterium Dilution on Growth and Body Composition of Infants in Jamaica **S.N. Whyte, T. Royal-Thomas, A.V. Badaloo and M.E. Reid.** Univ. of the West Indies, Jamaica.
- 4:30 **133.7** Feeding of Infant Formula at Birth Links with Feeding of Infant Formula and Discontinuation of Breastfeeding in Vietnam **T.T. Nguyen, E.A. Frongillo and N. Hajebehoy.** FHI 360, Viet Nam and Univ. of South Carolina.
- 4:45 **133.8** Reported Barriers to Appropriate Early Breastfeeding Practices in Lebanon **C. Akik, H. Ghattas, S. Filteau and C. Knai.** London Sch. of Hyg. and Trop. Med. and American Univ. of Beirut.

134. VITAMINS AND MINERALS: B VITAMINS AND ONE-CARBON METABOLISM

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: D. RAI

COCHAired: N. GLETSU-MILLER AND P. MANNA

- 3:00 **134.1** Vision Issues and Space Flight: Evaluation of One-Carbon Metabolism Polymorphisms **S.M. Smith, J.F. Gregory, S.H. Zeisel, P. Ueland, C.R. Gibson, T. Mader, J.M. Kinchen, R. Ploutz-Snyder and S.R. Zwart.** NASA Johnson Space Ctr., Univ. of Florida, Univ. of North Carolina at Chapel Hill, Univ. of Bergen, Coastal Eye Assocs., TX, U.S. Army (ret.), Metabolism and Univs. Space Res. Assn., DC.
- 3:15 **134.2** The Effect of Early Life Methyl Donor Supplementation on Obesity Development **S.E. McKee and T.M. Reyes.** Univ. of Pennsylvania.
- 3:30 **134.3** Oral S-Adenosylmethionine Administration Increases Whole Brain Concentrations of Dopamine and Norepinephrine in Rats **K.L. Schalinske and A.L. Smazal.** Iowa State Univ.
- 3:45 **134.4** Effect of High Protein Consumption on Markers of B₆ Status in a Rodent Model of Moderate Pyridoxine Deficiency **S. Raposo-Blouw, S. Mayengbam and J.D. House.** Univ. of Manitoba.
- 4:00 **134.5** Unmetabolized Folic Acid by Sources of Folic Acid Intake among U.S. Adults in the National Health and Nutrition Examination Survey 2007-2008 **Y.P. Qi, K.S. Crider, S.S. Tinker and R.J. Berry.** Carter Consulting Inc., Atlanta and Ctrs. for Dis. Control and Prevent.
- 4:15 **134.6** Effect of Vitamin B₆-Antagonist from Flaxseed on Amino Acid Metabolism in Moderately Vitamin B₆-Deficient Rats **S. Mayengbam, S. Raposo and J.D. House.** Univ. of Manitoba.
- 4:30 **134.7** Association between Transcobalamin II C776G Polymorphism and Neuropathy Is Modified by Folate Intake in Vitamin B-12 Sufficient Elders **H. Sawaengsri, W.Q. Qiu, T.M. Scott, I.H. Rosenberg, P.F. Jaques, J. Selhub and L. Paul.** Friedman Sch. of Nutr. and USDA at Tufts Univ. and Boston Univ.
- 4:45 **134.8** Vitamin B12 Status in a Cohort of Canadian Pregnant Women and Newborn Infants **C.E. Visentin, S. Masih, L. Plumptre, T.H. Schroder, K-J. Sohn, A. Ly, D. Nielsen, A.Y. Lausman, H. Berger, R. Croxford, Y. Lamers, D.L. O'Connor and Y-I. Kim.** Fac. of Med., Univ. of Toronto and Univ. of British Columbia.

135. NUTRITION EDUCATION: CHILDHOOD OBESITY PREVENTION

Minisymposium

(Sponsored by: Nutrition Education and Behavior Science RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156B

CHAired: A. MOBLEY

COCHAired: L. EDELSON

- 3:00 **135.1** Infancy Weight Gain Velocity and Obesity Risk in a Low-Income Pre-schoolers **E. Metallinos-Katsaras, E. Siu and R. Colchamiro.** Simmons Col. and Massachusetts Dept. of Publ. Hlth., Boston.
- 3:15 **135.2** Are Fathers' Feeding Practices Associated with Preschool Age Children's Diet Quality, Eating Behavior, or Weight? **R.L. Vollmer, K. Adamsons, J.S. Foster and A.R. Mobley.** Illinois State Univ. and Univ. of Connecticut.
- 3:30 **135.3** Family Meal Frequency, Practices, and BMI of Mothers of Preschoolers **J. Martin-Biggers, J. Worobey and C. Byrd-Bredbenner.** Rutgers Univ.
- 3:45 **135.4** Is Nutrition Assistance Program Participation or Food Security Status Associated with Parental Feeding Style or Child Body Mass Index? **J.S. Smith, K. Adamsons, R.L. Vollmer and A.R. Mobley.** Univ. of Connecticut and Illinois State Univ.
- 4:00 **135.5** Changes in Z-BMI and Dietary Intake in Children Participating in a Community-Based Weight Management Program **G.W. Greene, S. Marchand, J. Nobles and F. Xu.** Univ. of Rhode Island.
- 4:15 **135.6** WAVE Pilot Study: Feasibility of Using Emails and Short Message Service with High School Soccer Players to Reinforce Compliance in an Obesity Prevention Intervention **S.S. Wong, Y. Meng, B. Moissinac, C. Scaffidi and M.M. Manore.** Sch. of Biol. and Popul. Hlth. Sci., Oregon State Univ. and Sch. of Elect. Engin. and Comput. Sci., Oregon State Univ.
- 4:30 **135.7** Exploring Adolescent Involvement in Home Meal Preparation **T.M. Leak, T.A. Aasand, Z. Vickers and M. Reicks.** Univ. of Minnesota-Twin Cities.
- 4:45 **135.8** Physical Activity Is Associated with Lower Adiposity Independent of Diet Quality in Adolescent Girls **D. Vassallo, C. Thomson, J. Funk, E. Jacobs, R. Blew, V. Lee and S. Going.** Univ. of Arizona, Univ. of Arizona Col. of Publ. Hlth. and Univ. of Arizona Sch. of Med.

136. EXPERIMENTAL ANIMAL NUTRITION: COMPARATIVE ANIMAL NUTRITION AND PHYSIOLOGY

Minisymposium

(Sponsored by: Experimental Animal Nutrition RIS)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156C

CHAired: K. SHOVELLOR

COCHAired: K. AJUWON

- 3:00 **136.1** The Consumption of a Grape and Blueberry Polyphenol-Rich Mixture Is Safe in Dogs **A-S. Martineau, V. Leray, D. Gaudout, A. Lepoudère, K. Ouguerram and P. Nguyen.** Oniris, Vet Sch. and CRNH, Nantes, Activ'Inside, Libourne, SPF, Elven and Neurophenols® Consortium, France.
- 3:15 **136.2** Western Diet Affects Autonomic Nervous System Activity in Subordinate but not Dominant Monkeys **J.F. Thayer, J. Koenig and C.A. Shively.** The Ohio State Univ. and Wake Forest Sch. of Med.
- 3:30 **136.3** Effect of Age on Energy Expenditure Assessed by Doubly Labelled Water in 1 to 16-Year-Old Cats **P.G. Nguyen, V. Leray, S. Serisier, A. André and C. Amato.** Oniris – Vet Nantes.

- 3:45 **136.4** Dietary Glycemia Reversibly Contributes to Age-Related Macular Degeneration and Metabolic Disease in Aged C57Bl/6J Mice **S. Rowan, M-L. Chang, S. Jiang, C. Cassalman, C. McGuire, J.D. Baleja, B.A. Nagel, S.J. Fliesler, D. Smith and A. Taylor.** USDA at Tufts Univ., Tufts Univ. Sch. of Med., St. Louis Univ. and Univ. at Buffalo and SUNY Eye Inst.
- 4:00 **136.5** Changes in Growth and Feed Efficiency in Chickens Supplemented with Supernutritional and Excess Selenium Are Associated with Changes in Appetite **J. Li, C. Cao, L. Wang, X. Jiang, C. Zhang and J. Xu.** Col. of Vet. Med., Northeast Agr. Univ., China.
- 4:15 **136.6** Effect of Mouse Strain on Dietary CLA and Coconut Oil-Induced Lipolysis **K.M. Barnes, Q. Chen and V. Dartigue.** West Virginia Univ.
- 4:30 **136.7** Dietary Flax Oil Enriches Adipose Tissue Phospholipids in Long Chain n-3 PUFA and Reduces Adiposity **T.E. Torchon, S. Das and B.H. Voy.** Univ. of Tennessee, Knoxville.
- 4:45 **136.8** Enriching the Diet in n-3 Polyunsaturated Fatty Acids Reduces Adiposity and Adipocyte Size in a Broiler Chick Model for Childhood Obesity **T.E. Torchon, S. Das and B.H. Voy.** Univ. of Tennessee, Knoxville.

Pathology

137. ASMB LECTURE

Lecture

(Sponsored by: ASIP and the American Society for Matrix Biology)

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 161

Cell and Tissue Injury

Injury/Connective Tissue/Fibrosis

- 8:30 ADAMTS Proteases, Novel Regulators of the Cellular Microenvironment Implicated in Diverse Pathologies **S.S. Apte.** Cleveland Clin. Lerner Res. Inst.

138. HCS SYMPOSIUM: ADVANCED IMAGING TECHNIQUES AND SYSTEMS: SUPER RESOLUTION MICROSCOPY

Symposium

(Sponsored by: The Histochemical Society and ASIP Immunohistochemistry and Microscopy Scientific Interest Group)

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

Imaging, Immunohistochemistry and Microscopy

- 8:30 From Localization Microscopy to Structured Illumination Microscopy **A. McEvoy.** GE Healthcare.
- 9:10 Imaging Biological Structures with Stimulated Emission Depletion (STED) Microscopy **T. Gould.** Bates Col., ME.
- 9:50 Amorphous No More: Subdiffraction View of the Pericentriolar Material Architecture **L. Pelletier.** Mount Sinai Hosp., Lunenfeld-Tanenbaum Res. Inst., Toronto.

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139. JOURNAL OF HISTOCHEMISTRY & CYTOCHEMISTRY LECTURE

Lecture

(Sponsored by: The Histochemical Society and ASIP Immunohistochemistry and Microscopy Scientific Interest Group)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAired: J.R. COUCHMAN

Imaging, Immunohistochemistry and Microscopy

10:30 Computer Vision of Cell Dynamics **G. Danuser**. Univ. of Texas Southwestern Med. Ctr.

140. BLOOD VESSEL CLUB™: MACROPHAGES IN THE VESSEL WALL

Symposium

(Sponsored by: ASIP Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Group)

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

CHAired: J.W. HOMEISTER AND J.R. STONE

Vascular Biology

Epithelial Pathobiology

Transporters/Channels/Barriers

- 8:30 Macrophage Origin and Turnover in Atherosclerosis **F.K. Swirski**. Massachusetts Gen Hosp & Harvard Med Sch.
- 9:05 Mechanisms of Macrophage Retention in Atherosclerosis **K.J. Moore**. NYU. Med. Ctr.
- 9:40 Adventitial Macrophages and Vascular Activation **J.R. Stone**. Massachusetts Gen. Hosp.
- 10:15 CCR7-Dependent Reverse Transmigration of Myeloid Cells From the Intima Protects the Artery from Pathogens **M.I. Cybulsky**. Univ. of Toronto.
- 10:50 Systems Crosstalk in Atherosclerosis **M.P. Nahrendorf**. Massachusetts Gen. Hosp.

141. LIVER PATHOBIOLOGY WORKSHOP: CELLULAR AND MOLECULAR MECHANISMS OF LIVER INJURY: IMPLICATIONS IN DISEASE PATHOGENESIS

Workshop

(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162A

CHAired: K. NEJAK-BOWEN AND B.L. COPPLE

Liver Pathobiology

Injury/Connective Tissue/Fibrosis

- 8:30 Stellate Cell-Kupffer Cell Communication in Hepatic Inflammation and Injury **C.R. Gandhi**. Univ. of Cincinnati.
- 9:00 Understanding the Therapeutic Implication of Novel Nutrient Sensors in Non-Alcoholic Fatty Liver Disease **M. Zang**. Boston Univ. Sch. of Med.
- 9:30 Coagulation Protease Activity and NALFD/NASH Pathogenesis **J.P. Luyendyk**. Michigan State Univ.
- 10:00 Regulation of Hepatic Inflammation During Cholestasis **B.L. Copple**. Michigan State Univ.
- 10:30 Secretin Regulation of Biliary Damage **G. Alpini**. Texas A&M Hlth. Sci. Ctr.
- 11:00 Beta-catenin in Cholestatic Liver Disease **K. Nejak-Bowen**. Univ. of Pittsburgh.

142. MUCOSAL INFLAMMATION AND TISSUE REPAIR

Minisymposium

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162B

CHAired: S. KEELY AND J. BRAZIL

Epithelial Pathobiology

Inflammation/Immunity

Microbiome

- 8:30 **142.1** Pulmonary Retention of PMN Attracts Primed Intestinal Lymphocytes in a Mouse Model of Inflammatory Bowel Disease **S. Mateer, E. Marks, S. Maltby, B. Goggins, J. Horvat, P. Hansbro and S. Keely**. Sch. of Biomed. Sci. and Pharm., Univ. of Newcastle, Australia.
- 8:45 **142.2** CD36, Fibroblasts and Intestinal Inflammation **T.A. Reaves, A. Nillas and M. Anderson-Thomas**. Med. Univ. of South Carolina.

- 9:00 **142.3** PAR2 Activation Protects against Colitis but Inhibits Epithelial Wound Healing **E.H. Trusevych, V. Iablokov, M. Dicay, P.L. Beck and W.K. MacNaughton.** Univ. of Calgary.
- 9:15 **142.4** Cross-Reactivity of Gut Commensals and Autoantigen in Antiphospholipid Syndrome **C.A. Dehner, W.E. Ruff, S.M. Vieira, A. Goodman and M.A. Kriegel.** Yale Univ. and Ludwig Maximilian Univ., Munich.
- 9:30 **142.5** The Microenvironment of Injured Mucosa Stimulates a Local Pro-restitutive Microbiota **A. Alam, G. Leoni, M. Quiros, R. Jones, A. Nusrat and A. Neish.** Emory Univ. Sch. of Med.
- 9:45 **142.6** NADPH Oxidase 1-Mediated Reactive Oxygen Species Generation Stimulate Gut Homeostasis and Restitution **T.M. Darby and R.M. Jones.** Emory Univ.
- 10:00 **142.7** Targeting of PMN Expressed Lewis-X Blocks PMN Transepithelial Migration and Increases Phagocytosis and Surface Mobilization of Granule Contents **J.C. Brazil, R. Sumagin, R.D. Cummings, N.A. Louis and C.A. Parkos.** Emory Univ., Northwestern Univ. and Univ. of Michigan.
- 10:15 **142.8** TNF Modulates the Gut Microbiota and Drives Inflammation **A.J. Kozik, Y.L. Jones-Hall and C.H. Nakatsu.** Purdue Univ.
- 10:30 **142.9** **Withdrawn.**
- 10:45 **142.10** WNT1-Inducible Protein 1 Functions as a Pro-repair Molecule in the Intestine **M. Quiros, H. Nishio, P. Neumann, G. Leoni, G. Bernal, M. Feng, A. Keshavarzian, E. Mutlu, C. Parkos and A. Nusrat.** Emory Univ., Univ. of Muenster, Rush Univ. and Univ. of Michigan.
- 11:00 **142.11** Signaling through the Aryl Hydrocarbon Receptor Induces Expression of the IL-10 Receptor on Intestinal Epithelia **J.M. Lanis, S.P. Colgan and D.J. Kominsky.** Univ. of Colorado Anschutz Med. Campus.
- 11:15 **142.12** Desmoglein 3 Inhibits Keratinocyte Migration by Suppressing p38MAPK Activity **V. Spindler, E. Hartlieb, V. Rötzer and J. Waschke.** Ludwig Maximilians Univ. Munich.
- 9:45 Granzyme B Mediates Both Direct and Indirect Cleavage of Extracellular Matrix in Skin after Chronic Low-Dose Ultraviolet Light Irradiation **L.G. Parkinson, A. Toro, H. Zhao and D.J. Granville.** Univ. of British Columbia and St Paul's Hosp., Vancouver. **(925.5)**
- 10:00 Role of Heat Shock Proteins in Modulating ECM Deposition **J.M. Leavitt, R. Whalen, K.L. Veraldi, R.J. Binder and C. Yates.** Palomar Col. **(925.1)**
- 10:15 Adipose Tissue Extracellular Matrix Remodelling in Cancer Cachexia **M.J. Alves, E.M. Matos Neto, L. Maximiliano, P.S.M. Alcantara, J.P. Otoch, M.L. Batista and M.C.L. Seelaender.** Univ. of São Paulo and Interdisc. Ctr. of Biochem., UMC, São Paulo. **(925.7)**
- 10:30 Obesity-Associated Inflammation Contributes to Adipose Stromal Cells Pro-fibrotic Phenotype **N. Springer, M. van den Berg, B.R. Seo and C. Fischbach.** Cornell Univ. **(925.6)**
- 10:45 **143.1** Extracellular Matrix Differentially Regulates Endothelial Nitric Oxide Synthase Production in HUVECs and Human Blood Outgrowth Endothelial Progenitor Cells **Y. Yuan and D.W. Courtman.** Ottawa Hosp. Res. Inst.
- 11:00 **143.2** Epigenetic Modification of Von Willebrand Factor Leads to Its Expression in Cancer Cells with Increased Metastatic Activity **A. Mojiri, D. Eisenstat, J. Lewis, K. Stoletov, K.C. Simmen and N. Jahroudi.** Univ. of Alberta.

143. EXTRACELLULAR MATRIX IN PATHOBIOLOGY

Minisymposium

(Sponsored by: ASIP and the American Society for Matrix Biology)

SUN. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 161

CHAired: C.C. YATES AND S.S. APTE

Injury/Connective Tissue/Fibrosis

Obesity

- 8:30 **ASMB Lecture: ADAMTS Proteases, Novel Regulators of the Cellular Microenvironment Implicated in Diverse Pathologies** **S.S. Apte.** Cleveland Clin. Lerner Res. Inst.
- 9:30 Integrin Crosstalk Regulation of Human Neutrophils Adhered to Fibronectin and β -Glucan **C.M. Johnson, A. Byrd, X. O'Brien, V. Parisi and J. Reichner.** Brown Univ. and Rhode Island Hosp. **(925.2)**

144. XVTH ANNUAL ASIP/AAA CAREER DEVELOPMENT AND MENTORING PROGRAM AND LUNCH: FUNDAMENTALS OF SUCCESS: HOW TO GIVE AN AWARD WINNING PRESENTATION

Special Session

(Sponsored by: ASIP Committee for Career Development and Diversity and the American Association of Anatomists)

SUN. 11:45 AM—WESTIN BOSTON WATERFRONT, MARINA I

CHAired: J. REUBEN AND E.A. MEDINA

Career Development

Separate registration required to attend this event.

You are invited to attend this session to gain practical advice on giving the two most common methods of scientific delivery: oral and poster presentations. Dr. Cherie Butts will bring together her scientific expertise and experience in Academia, Government and Industry to help scientists at all levels communicate to a variety of audiences. After this session, you will leave with tools and strategies to successfully craft a scientific story, engage your audience and enhance your presentations. In addition, some trainees will have the opportunity to receive feedback during this highly interactive session. Please come prepared for an exciting and productive experience!

- 11:45 Registration and Lunch.
- 11:55 Announcements and Introduction **J.S. Reuben.** Univ. of South Carolina Sch. of Med.
- 12:00 Designing and Delivering Successful Oral and Poster Presentations **C. Butts.** Biogen Idec, Cambridge MA.
- 12:40 Critiques of Selected Presentations **Presenters, Volunteers and Audience.**
- 1:30 Question & Answer Session. **Audience.**
- 1:40 Wrap-up and Closing Remarks **E. Medina.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio

145. ENVIRONMENTAL AND TOXICOLOGIC PATHOLOGY SYMPOSIUM: AIR POLLUTION AND HEALTH EFFECTS: COGNITION, NEUROPATHOLOGY, CARDIOVASCULAR, AND METABOLIC DISEASE – WHAT YOU OUGHT TO KNOW BY NOW!

Symposium

(Sponsored by: ASIP Environmental and Toxicologic Pathology Scientific Interest Group and the Society of Toxicologic Pathology)

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAired: L.O. CALDERON-GARCIDENUAS AND E. GALBREATH

Environmental Pathology

- 2:00 Overview of Air Pollution and Detrimental Effects in Children **L.O. Calderon-Garciduenas**. Univ. of Montana.
- 2:40 Developmental Cognitive Neuroscience, Air Pollution and Social Inequality **A. D'Angiulli**. Carleton Univ.
- 3:20 Microglia as Central Nervous System Sentinels & the Detection of Air Pollution **M.L. Block**. Virginia Commonwealth Univ.
- 4:00 Inhaled Ozone and Particulate Matter and the Metabolic System Response: Diabetes and Obesity **J.R. Harkema**. Michigan State Univ.
- 4:30 Round Table Discussion.

146. SIGNALING THROUGH THE MATRIX IN INFLAMMATION, AUTOPHAGY AND ANGIOGENESIS

Symposium

(Supported by an unrestricted educational grant from Matrix Biology published by Elsevier)

(Sponsored by: ASIP Inflammation/Immunopathology Scientific Interest Group)

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

CHAired: R.V. IOZZO AND L. SCHAEFER

Inflammation

Pulmonary Pathobiology

Regenerative Medicine

- 2:00 Inflammasome **V.M. Dixit**. Genentech.
- 2:45 Autophagy and Ubiquitin Networks **I. Dikic**. Goethe Univ.
- 3:30 Hyaluronan Interactions with TLR4 Regulate Lung Epithelial Stem Cell Renewal and the Severity of Pulmonary Fibrosis **P.W. Noble**. Cedars-Sinai Med. Ctr.
- 4:15 Reciprocal Interactions Between Matrix and Angiogenic Factors in Health and Disease **B.R. Olsen**. Harvard Med. Sch.

147. CANCER PATHOGENESIS AND PROGRESSION

Minisymposium

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 161

CHAired: E. WHITLEY AND E. HOLTHOFF

Cell and Tissue Injury

Cancer Biology

Obesity

- 2:00 Introductory Remarks.
- 2:05 **147.1** Ceramide Mediated Lethal Mitophagy: A Novel Cell Death Mechanism in FLT3 Targeted Therapy for Acute Myeloid Leukemia **M. Dany and B. Ogretmen**. Med. Univ. of South Carolina.
- 2:20 **147.2** Loss of Slc26a9 Induces an Early Gastric Malignancy in Mice and Is Associated with Gastric Cancer in Humans **X. Liu, L. Ran, T. Li, U. Seidler and B. Tuo**. Affil. Hosp. of Zunyi Med. Col., China and Hannover Med. Sch.
- 2:35 **147.3** Nuclear Localization of β -Catenin Associates EMT with Aggressive Vulvar Squamous Cell Carcinoma **E.R. Holthoff, S. Jeffus, T. Kelly, C.M. Quick and S. Post**. Univ. of Arkansas for Med. Sci.
- 2:50 **147.4** A High Fat Diet Supplemented with Soy Prevents Diet-Induced Promotion of Liver Tumors in DEN-Treated Male Mice **K. Mercer, L. Hennings, K. Lai, E. Jones, R. Drake and M. Ronis**. Arkansas Children's Nutr. Ctr., Univ. of Arkansas for Med. Sci. and Med. Univ. of South Carolina.
- 3:05 **147.5** From GWAS to Therapy: Fatty Acid Synthase in Uterine Leiomyomata **Z. Ordulu, M. Hayden, S. Eggert, M. Shinohara, C.N. Serhan, B. Quade and C.C. Morton**. Brigham and Women's Hosp.
- 3:20 **147.6** Oxidized Lipids in Radiation Therapy Mediated Acquired Resistance of Melanoma **R.P. Sahu and J.B. Travers**. Indiana Univ. Sch. of Med.
- 3:35 **147.7** Myeloid-Derived Suppressor Cells as Mediator of PAF-R Dependent Systemic Immunosuppression and Melanoma Tumor Growth **A. Thyagarajan-Sahu, J.B. Travers and R.P. Sahu**. Indiana Univ. Sch. of Med.
- 4:05 **147.8** Stimulating the Resolution of Tumor Debris to Control Medulloblastoma **C.A. Barksdale, M.L. Sulciner, S. Ramon, R. Colas, P. Bandopadhyay, S. Huang, M.W. Kieran, C.N. Serhan and D. Panigrahy**. Beth Israel Deaconess Med. Ctr., Harvard Med. Sch., Brigham and Women's Hosp., Dana-Farber Cancer Inst. and Inst. for Sys. Biol., Seattle.
- 4:20 **147.9** PPAR α : A Novel Target in Pancreatic Cancer **A. Hua, J. Casper, D. Bielenberg, B. Schmidt, M. Kieran, D. Panigrahy and Y. Gus-Brautbar**. Beth Israel Deaconess Med. Ctr., Boston Children's Hosp. and Dana-Farber Cancer Inst.
- 4:35 **147.10** Mutations of *Nrf2* Are an Early and Frequent Event in the Development of Rat Hepatocellular Carcinoma **A. Columbano, S. Giordano, A. Perra, M.A. Kowalik, G.M. Ledda-Columbano, A. Petrelli, S. Menegon, L. Quagliata, L. Terracciano and P. Zavattari**. Univ. of Cagliari, Univ. of Turin and Univ. of Basel.

148. CELL DEATH: PATHWAYS AND MECHANISMS

Minisymposium

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 162A

CHAired: W-X. DING AND K. HAMILTON

Cell and Tissue Injury

Epithelial Pathobiology

Inflammation/Immunity

- 2:00 **148.1** Autophagy Triggered by p14.3.3z Induces Akt Full Activation in Intestinal Epithelial Cells **M. Gómez-Suárez, M. Hernandez, A. Candelario, M. Schnoor, V. Ortiz-Navarrete, N. Villegas-Sepulveda and P. Nava.** CINVESTAV, Mexico City.
- 2:15 **148.2** High MUC2 Production in Goblet Cells Induces ER Stress and Exhibit Increase Susceptibility to Apoptosis **A.A. Tawiah, F. Moreau and K. Chadee.** Univ. of Calgary, Canada.
- 2:30 **148.3** A Potential Role for Regulatory T Cells in Apoptotic Cell Clearance by Macrophages in a Murine Model of Acute Lung Injury **J.D. Proto, M. Subramanian, M.N. Islam, J. Hook, G. Gusarova, J. Bhattacharya and I. Tabas.** Columbia Univ.
- 2:45 **148.4** PGC1a Rescue Retinal Pigment Epithelial Cells from Oxidative Damage: Implication for Age-Related Macular Degeneration **A. Khadka, J. Iacovelli and M. Saint-Geniez.** Harvard Med. Sch., Schepens Eye Res. Inst.-Mass Eye and Ear Infirmary.
- 3:00 **148.5** *Staphylococcus aureus* Activation of NLRP3 Inflammasome and Necroptosis through MLKL Exacerbates Pneumonia **K. Kitur and A. Prince.** Columbia Univ.
- 3:15 **148.6** A High Throughput Image-Based Screening Reveals Novel Autophagy Inducers for Treating Drug-Induced Liver Injury **Y. Li, S. McGreal, J. Zhao, R. Huang, M. Xia and W-X. Ding.** Univ. of Kansas Med. Ctr. and NCATS, NIH.
- 3:30 **148.7** mRNA-Binding Protein IMP1 Is a Novel Regulator of Autophagy following Intestinal Irradiation Injury **K.E. Hamilton, P. Chatterji, S.F. Andres, E.T. Lundsmith, K.A. Whelan, V. Giroux, A.T. Mah, L. Van Landeghem, P.K. Lund and A.K. Rustgi.** Univ. of Pennsylvania and Univ. of North Carolina at Chapel Hill.
- 3:45 **148.8** Muscle-Specific Ubiquitin Ligase MuRF1 Regulates Myocardial Autophagic Flux In Vivo **T.L. Parry, M.T. Quintana, J.A. Hill and M.S. Willis.** Univ. of North Carolina at Chapel Hill and Univ. of Texas Southwestern Med. Ctr.
- 4:00 **148.9** Sumoylation Regulates Cytochrome. P450 2E1 (CYP2E1) Expression in Alcoholic Liver Disease **M.L. Tomasi, M. Ryoo and B. Gao.** Cedars Sinai Med. Ctr. and NIAAA, NIH.
- 4:15 **148.10** Mechanism of Liver Injury Caused by Autophagy Deficiency **B. Khambu, H. Zhang, Y. Li, X. Chen and X-M. Yin.** Indiana Univ.

149. NEUROPATHOLOGY

Minisymposium

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 162B

CHAired: W.G. TOURTELLOTTE AND C. KOLARCIC

Neuropathology

Neurobiology

- 2:00 **149.1** Expression of Carbonic Anhydrase Genes, CA3 and CA12, Transformed with ENO1, Relate to Copy Numbers of EGFR or RNF139 and XIAP, and Gender in Glioblastomas Using PCR Assays **M.E. Beckner, I.F. Pollack, M.L. Nordberg and R.L. Hamilton.** Kent State Univ., Univ. of Pittsburgh Sch. of Med. and Delta Pathol., Shreveport.
- 2:20 **149.2** AT101 Down-regulates CXCL12 mRNA and Secreted Protein in Malignant Peripheral Nerve Sheath Tumor cells **C.D. Graham, N. Kaza, B. Klocke and K. Roth.** Univ. of Alabama at Birmingham.
- 2:40 **149.3** The Pathogenesis of Familial Dysautonomia Is Explained by Abnormal Elp1-dependent Retrograde Nerve Growth Factor Signaling **W.G. Tourtellotte.** Northwestern Univ., Chicago.
- 3:00 **149.4** Subarachnoid Hemorrhage Triggers Arrest of Cerebral Spinal Fluid Circulation **R.G. Federley, E.V. Golanov, S.T. Wong and G. Britz.** Houston Methodist Hosp. and Houston Methodist Res. Inst.
- 3:20 **149.5** MR Microscopy for 3D Identification of Cortical Tubers, White Matter "Microtubers" and Radial Migration Lines in Ex Vivo Pediatric TSC with Epilepsy **J.M. Singh, J. Peters, J. Madsen, O. Afacan, B. Scherrer, M. Sahin, H. Lidov and S. Warfield.** Boston Children's Hosp.
- 3:40 **149.6** Differential Analysis of Prenatal Cocaine Exposure on Maternal and Pup Related Developmental Variables **M.L. Johnson, T. Jackson, T. Womble and C.B. Goodman.** Florida A&M Univ.
- 4:00 **149.7** Depressive Symptoms in Rats with Myocardial Infarction Associated with Local Brain Expression of Neutrophil Gelatinase-Associated Lipocalin **R.G. Schoemaker, L. Gouweleeuw, H. Liu and U.L.M. Eisel.** Univ. of Groningen and Univ. Med. Ctr. Groningen.

150. ASIP ROUS-WHIPPLE AWARD LECTURE

Award Lecture

SUN. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160A/B

- 5:00 Leukocyte-Epithelial Interactions: A Double-Edged Sword **C.A. Parkos.** The Univ. of Michigan.

151. THE HISTOCHEMICAL SOCIETY (HCS) MEMBER AWARDS PRESENTATION, BUSINESS MEETING AND RECEPTION

Business Meeting

SUN. 6:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
ATLANTIC 3

Pharmacology

152. ASPET PRESIDENTIAL SYMPOSIUM: NAVIGATING THE FUTURE OF BIOMEDICAL RESEARCH

Symposium

(Sponsored by: All Divisions)

SUN. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107AB

CHAired: A.E. FLECKENSTEIN

- 9:30 Stabilizing a Productive but Structurally Unstable Research System **M.S Teitelbaum**. Labor and Worklife Prog. at Harvard Law Sch.
- 10:00 Training Future Biomedical Researchers: Challenges and Opportunities **N.L Desmond**. NIMH, NIH.
- 10:30 Assuring a Bright Future for Biomedical Research **S. Silberberg**. NINDS, NIH.
- 11:00 Navigating the Future of Drug Development: Calm Seas or Stormy Weather? **P. Skolnick**. NIDA, NIH.
- 11:30 New Directions in Supporting Science **M.E Rogers**. NIGMS, NIH.

153. BILE ACIDS AND LIVER DISEASE IN PREGNANT WOMEN AND NEONATES

Symposium

(Sponsored by: The Divisions for Toxicology; Translational and Clinical Pharmacology; Drug Metabolism; and Molecular Pharmacology)

SUN. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 106

CHAired: L.M. ALEKSUNES AND G.L. GUO

Injury/Connective Tissue/Fibrosis

- 9:30 Introduction.
- 9:40 Neonatal Consequences of Maternal Intrahepatic Cholestasis **J.D. Schuetz**. St. Jude Children's Res. Hosp.
- 10:10 Maternal Enterohepatic Bile Acid Signaling: Priming for Cholestatic Disease **L.M. Aleksunes**. Rutgers Univ.
- 10:40 Perinatal Pharmacology of the FXR Nuclear Receptor **W. Xie**. Univ. of Pittsburgh.
- 11:10 FXR Signaling in Total Parenteral Nutrition-Associated Liver Disease **G.L. Guo**. Rutgers Univ.
- 11:40 Pregnancy-Related Hormones Modulate Protein Expression of Hepatic DMEs and Transporters in HepaRG Cells **M. Farooq**. Sch. of Pharm., Univ. of Washington. (939.11)

154. EMERGING REGENERATIVE THERAPIES IN PULMONARY DISEASE

Symposium

(Sponsored by: The Divisions for Translational and Clinical Pharmacology; Toxicology; Molecular Pharmacology; and Cardiovascular Pharmacology)

SUN. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 109A

CHAired: Y. LIU AND J. REHMAN

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

- 9:30 The Role of Endogenous Regenerative Epithelial Cells in Alveolar Repair **Y. Liu**. Univ. of Illinois at Chicago.
- 9:55 Modeling Human Lung Development Using Pluripotent Stem Cells **H-W. Snoeck**. Columbia Univ. Med. Ctr.
- 10:20 Regenerating the Vasculature in Lung Disease **J. Rehman**. Univ. of Illinois at Chicago.
- 10:45 Mesenchymal Stromal Cells: Biology and Therapeutic Potential for ARDS **M. Matthay**. UCSF Sch. of Med.
- 11:10 Translating Regenerative Therapies: Opportunities and Challenges **Panel Discussion**.

155. EMERGING ROLES OF TRACE AMINE ASSOCIATED RECEPTOR 1 (TAAR1) IN DRUG ABUSE AND MENTAL DISORDERS

Symposium

(Sponsored by: The Divisions for Behavioral Pharmacology; Molecular Pharmacology; Neuropharmacology; Drug Discovery and Development; and Translational and Clinical Pharmacology)

SUN. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 108

CHAired: J. LI AND G.M. MILLER

Neurobiology

Inflammation/Immunity

- 9:30 A Trace Amine-Associated Receptor Mechanism of Action Distinguishes Methamphetamine from Cocaine **D. Grandy**. Oregon Hlth. & Sci. Univ.
- 10:00 Trace Amine Associated Receptor 1 is Implicated in the Central and Immunological Effects of Drugs of Abuse **G.M. Miller**. Harvard Med. Sch., New England Primate Res. Ctr.
- 10:30 Frontostriatal Dysfunction in Mice Lacking TAAR1 **S. Espinoza**. Italian Inst. of Technol.
- 11:00 Selective TAAR1 Agonists as Potential Therapeutic Drugs for Psychiatric and Metabolic Disorders **M.C. Hoener**. F. Hoffmann-La Roche Ltd.
- 11:30 The TAAR 1 Agonist RO5263397 Attenuates the Abuse-Related Effects of Cocaine in Rats **J-X. Li**. Univ. at Buffalo, SUNY.

156. ION CHANNEL DRUG DISCOVERY- ADVANCEMENTS AND CURRENT CHALLENGES

Symposium

(Sponsored by: The Divisions for Drug Discovery and Development; Cardiovascular Pharmacology; Translational and Clinical Pharmacology; and Molecular Pharmacology)

SUN. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107C

CHAired: S.V. KHARADE AND M.F. JARVIS

Transporters/Channels/ Barriers

- 9:30 Introduction.
- 9:35 Ion Channel Drug Discovery: Challenges and Future Directions **D. Krafte**. Neusentis/Pfizer.
- 10:10 Ion Channel Screening Technologies **O.B. McManus**. Essen BioScience, Inc.
- 10:45 Antibody Therapeutics Targeting Ion Channels: Are We There Yet? **N.R. Gavva**. Amgen.
- 11:20 Targeting Inward Rectifier Potassium (Kir) Channels to Treat Cardiovascular/Metabolic Disorders **S. Kharade**. Vanderbilt Univ. Med. Ctr.
- 11:55 Concluding Remarks.

157. THE ROLE OF PROTEIN-PROTEIN AND PROTEIN-MEMBRANE INTERACTIONS ON P450 FUNCTION

Symposium

(Sponsored by: The Divisions for Drug Metabolism and Molecular Pharmacology)

SUN. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 109B

CHAired: W.L. BACKES AND J.P. JONES

- 9:30 Introduction **W.L. Backes**. LSU Hlth. Sci. Ctr.
- 9:40 Positioning of Microsomal CYPs and Drugs in Lipid Bilayers **M. Otyepka**. Palacký Univ. Olomouc.
- 10:10 The Role of the Endoplasmic Reticulum in Modulating P450 Function **J.R. Reed**. LSU Hlth. Sci. Ctr.
- 10:40 Human Cytochrome P450 Interactions with Catalytic Protein Partners **E.E. Scott**. Univ. of Kansas.
- 11:10 Role of NADPH-Cytochrome P450 Reductase and Cytochrome b5 as Electron Donors to Cytochrome P450 **C. R. Wolf**. Univ. of Dundee.
- 11:40 Deconvoluting the Dance: P450 Reaction Mapping via Super-Resolution Imaging **S.C. Humphreys**. Washington State Univ.

158. JULIUS AXELROD AWARD IN PHARMACOLOGY LECTURE

Lecture

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107AB

The Julius Axelrod Award is presented annually for significant contributions to understanding the biochemical mechanisms underlying the pharmacological actions of drugs and for contributions to mentoring other pharmacologists. The Award was established in 1991 to honor the memory of the eminent American pharmacologist who shaped the fields of neuroscience, drug metabolism, and biochemistry and who served as a mentor for numerous eminent pharmacologists around the world.

- 2:00 Introduction **D.R. Sibley**. NINDS, NIH.
- 2:05 Arresting Developments in Receptor Signaling **J.L. Benovic**. Thomas Jefferson Univ.

159. JULIUS AXELROD SYMPOSIUM: THE INS AND OUTS OF G PROTEIN-COUPLED RECEPTOR SIGNALING

Symposium

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107AB

CHAired: J.L. BENOVIC

- 3:00 Introduction **J.L. Benovic**. Thomas Jefferson Univ.
- 3:10 Structure, Function, and Inhibition of G Protein-Coupled Receptor Kinases **J.J. Tesmer**. Univ. of Michigan.
- 3:45 Arrestin-GPCR Interactions: Molecular Mechanisms and Targeted Re-Engineering **V. Gurevich**. Vanderbilt Univ. Med. Ctr.
- 4:20 Regulation of GPCR Trafficking and Signaling by Ubiquitin **A. Marchese**. Loyola Univ. Chicago.
- 4:55 Spatial and Temporal Specificity in Cellular GPCR Signaling **M. von Zastrow**. UCSF.

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Sunday – Tuesday

9:00 AM – 4:00 PM

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160. ACTIVE LEARNING: WHAT'S UP WITH THAT FLIPPING CLASSROOM**Division Symposium**

(Sponsored by: The Divisions for Pharmacology Education; Translational and Clinical Pharmacology; Cardiovascular Pharmacology; Molecular Pharmacology; Behavioral Pharmacology; and Neuropharmacology)

SUN. 3:00 PM—WESTIN BOSTON WATERFRONT, GRAND BALLROOM D

CHAired: J.L. SZAREK

Education**Career Development**

- 3:00 Doing is Better: The Concept of Active Learning and the Flipped Classroom **W.B. Jeffries**. Univ of Vermont Col. of Med.
- 3:25 The Continuum from a Single Active Learning Technique to the Flipped Classroom: Implementation along the Continuum **J.L. Szarek**. The Commonwealth Med. Col.
- 3:50 Does it Work: Evaluating your Flipped Classroom Experiences and Scholarship **K. Huggett**. Creighton Univ. Sch. of Med.
- 4:15 Facilitated Small Group Activities.
- 5:15 Taking it Back Home: Limitations, Myths and Misunderstandings about the Active Learning and the Flipped Classroom **Panel Discussion**.

161. ELUCIDATING THE MOLECULAR UNDERPINNINGS OF BEHAVIOR USING PHARMACOLOGICAL KNOCK-IN MOUSE MODELS**Symposium**

(Sponsored by: The Divisions for Neuropharmacology; Behavioral Pharmacology; Molecular Pharmacology; Translational and Clinical Pharmacology; and Drug Discovery and Development)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

CHAired: R.D. BLAKELY

Neurobiology**Transporters/Channels/ Barriers**

- 3:00 Introduction **R.D. Blakely**. Vanderbilt Univ. Sch. of Med.
- 3:05 Up in Smoke: Using a Gain-of-Function Gating Mutation in an Ion Channel to Study Nicotine Addiction **R.M. Drenan**. Purdue Univ.
- 3:35 Beyond Benzodiazepines: Novel Therapeutic Potential of GABA_A Receptor Subtypes Revealed by Knock-in Point Mutations Selectively Ablating Allosteric Modulation **U. Rudolph**. McLean Hosp./Harvard Med. Sch.
- 4:05 The Highs and Lows of Cocaine: Insights into Cocaine Actions in Reward Pathways Using a Knock-in Dopamine Transporter Mouse Model **H.H. Gu**. Ohio State Univ.

- 4:35 Cocaine Around the Clock: SERT Met172 Mice Elucidate the Serotonergic Basis of Cocaine Actions on Circadian Physiology and Behavior **R. Prosser**. Univ. of Tennessee.
- 5:05 Serotonin Transporter-Independent Actions of the Antidepressant Vortioxetine as Revealed Using the SERT M172 Mouse **A.G. Nackeroff**. Vanderbilt Univ. (932.5)

162. INTERINDIVIDUAL VARIABILITY IN CYP-MEDIATED DRUG METABOLISM**Symposium**

(Sponsored by: The Divisions for Drug Metabolism; Toxicology; Drug Discovery and Development; Molecular Pharmacology; and Translational and Clinical Pharmacology)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109B

CHAired: H. JEONG AND T.S. TRACY

- 3:00 Overview **T.S. Tracy**. Univ. of Kentucky.
- 3:10 Genetic Predictors of Human Liver CYP Expression & Activity **E.G. Schuetz**. St. Jude Children's Res. Hosp.
- 3:45 Impact of Neonatal Drug Exposure on Interindividual Variations of P450-Mediated Drug Metabolism **X. Zhong**. Univ. of Connecticut.
- 4:20 Interindividual Variability in CYP2D6-Mediated Drug Metabolism **H.Y. Jeong**. Univ. of Illinois at Chicago.
- 4:55 Biomarkers of CYP Activity Using Metabolomic Approaches **Y. Lin**. Univ. of Washington.

163. NANOTOXICOLOGY: SMALL PARTICLES, BIG CONCERN**Symposium**

(Sponsored by: The Divisions for Toxicology; Drug Metabolism; Cardiovascular Pharmacology; and Translational and Clinical Pharmacology)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 106

CHAired: J.S. FEDAN AND D.W. PORTER

- 3:00 Introduction **J.S. Fedan**. NIOSH, CDC.
- 3:05 From Micro- to Nano-Particles: Historical Perspectives and Concepts **G. Oberdörster**. Univ. of Rochester Sch. of Med. & Dent.
- 3:35 Nanoparticles: Structure, Biophysics, Chemistry and Reactions in Biological Tissues **A. Holian**. Univ. of Montana.
- 4:05 Multi-wall Carbon Nanotubes and Carbon Nanofibers: Toxicological Characterization in the Lungs **D.W. Porter**. NIOSH, CDC.
- 4:35 Vascular Consequences of Nanomaterial Exposure: From the Heart to the Fetus **P. Stapleton**. West Virginia Univ. Hlth. Sci. Ctr.
- 5:05 Evaluating the Safety Implications and Dermal Hazards Associated with Nanomaterials **N.A. Monteiro-Riviere**. Kansas State Univ.

164. VASCULAR STIFFNESS, A NOVEL THERAPEUTIC APPROACH FOR HYPERTENSION Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology; Drug Discovery and Development; Molecular Pharmacology; and Translational and Clinical Pharmacology)

SUN. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109A

CHAired: S.F. VATNER

- 3:00 Vascular Stiffness, a Novel Therapeutic Approach for Hypertension **E..L. Schiffrin**. Sir Mortimer B. Davis-Jewish General Hosp., McGill Univ.
- 3:25 Regional Vascular Stiffness in Aging and Hypertension **S.F. Vatner**. Rutgers Univ., New Jersey Med. Sch.
- 3:50 Increased Vascular Smooth Muscle Stiffness: A Novel Mechanism for Aortic Stiffness in Hypertension **G.A. Meininger**. Univ. of Missouri-Columbia.
- 4:15 Subcellular Targets for the Treatment of Aging-Induced Increases in Vascular Stiffness **K. Morgan**. Sargent Col., Boston Univ.
- 4:40 NIH Vascular Biology and Hypertension Branch Interest in Vascular Stiffness **Y.S. Oh**. NHLBI, NIH.
- 4:55 Future Directions and Controversies in the Field of Vascular Stiffness **Panel Discussion**.

Physiology

165. PRESIDENT'S SYMPOSIUM SERIES PHYSIOLOGY: ANSWERS TO BIG QUESTIONS THE FUTURE OF DIABETES RESEARCH

Symposium

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

CHAired: J. E. HALL

Translational Physiology

- 3:15 Micro RNAs and Insulin Production **A. Shaley**. Univ. of Alabama at Birmingham.
- 3:45 Omic Approaches to Determining the Mechanisms Underlying Insulin Resistance and the Risk for Type 2 Diabetes **B.B. Kahn**. Harvard Med. Sch. and Beth Israel Deaconess Med. Ctr.
- 4:15 The CNS and Glucose Regulation **M.W. Schwartz**. Univ. of Washington.
- 4:45 Bariatric Surgery and Diabetes **R. Seeley**. Univ. of Michigan.

166. CARDIOPULMONARY CONSEQUENCES OF PERINATAL EXPOSURES

Symposium

(Sponsored by: Cardiovascular Section)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: L.K. ROGERS AND M. VELTEN

- 8:00 Introduction to Perinatal Exposures and Consequences **L.K. Rogers**. The Res. Inst. at Nationwide Children's Hosp., The Ohio State Univ.
- 8:10 Maternal Obesity and Cardiovascular Disease in the Offspring: Epidemiological Evidence **R. Reynolds**. Univ. of Edinburgh.
- 8:35 Cardiac and Pulmonary Consequences of Maternal Exposure to Air Pollution **L.E. Wold**. The Ohio State Univ.

- 9:00 Maternal Arsenic Exposure and Cardio-Metabolic Disease in the Offspring **J.C. States**. Univ. of Louisville.
- 9:25 Cardiopulmonary Consequences of Perinatal Inflammation **M. Velten**. Rheinische Friedrich Wilhelms Univ., Bonn.
- 9:50 Conclusions.

167. CARDIOVASCULAR RESPONSES TO TRAUMA

Featured Topic

(Sponsored by: Cardiovascular Section)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: R.L. HESTER

- 8:00 Cerebral Blood Flow Responses Following Hemorrhage **C. Rickards**. Univ. of North Texas Hlth. Sci. Ctr.
- 8:30 Orthopedic Trauma and Acute Lung Injury **L. Xiang**. Univ. of Mississippi Med. Ctr.
- 9:00 Autonomic Dysreflexia Impairs Cerebrovascular Health and Cognition in Experimental Spinal Cord Injury **A.A. Phillips, N. Matin, C.R. West, A.M.Z. Zheng, L.A.M. Galea, A.M. Dorrance, I. Laher and A.V. Krassioukov**. Univ. of British Columbia and Michigan State Univ. (800.10)
- 9:15 Protective Function of Endothelial Glycocalyx during Hemorrhagic Shock in Skeletal Muscle: Integration of Systemic and Local Parameters In Vivo **L. Torres, C. Salgado, C. Valdez, J. Sondeen, M. Dubick and I. Torres Filho**. U.S. Army Inst. of Surg. Res., San Antonio. (800.9)
- 9:30 Comparison of Compensatory Reserve Index during Lower Body Negative Pressure and Hemorrhage **C. Hinojosa-Laborde, J. Mulligan, G.Z. Grudic and V.A. Convertino**. U.S. Army Inst. of Surg. Res., Fort Sam Houston and Flashback Technologies Inc., Boulder. (800.8)
- 9:45 Cerebrovascular Regulation Is Impaired Immediately Post Concussion and Associated with Increased Estimated ICP **J.M. Serrador, J. Tosto, L. Reyes, M. Blatt, B. Ghobreal and M. Falvo**. Rutgers Biomed. and Hlth. Sci. Campus, Newark and VA New Jersey Hlth. Care Syst., East Orange. (800.11)

168. CEREBROVASCULAR ABNORMALITIES IN HYPERTENSIVE DISEASE**Featured Topic***(Sponsored by: Cardiovascular Section)*

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: A. DORRANCE AND J. P. WARRINGTON

- 8:00 Protecting the Cerebrovasculature During Hypertension **F. Faraci**. Univ. of Iowa Carver Col. of Med.
- 8:30 Post-stroke Dementia **G. Rosenberg**. Univ. of New Mexico Hlth. Sci. Ctr.
- 9:00 Increased Cerebral Endothelial Transcytosis and Blood-Brain Barrier Permeability in “Slow Pressor” Angiotensin-II Hypertension **C. Iadecola, G. Faraco, D.A. Lane and J. Anrather**. Weill Cornell Med. Col. (646.5)
- 9:15 Cerebrovascular Abnormalities Supporting the Selfish Brain Hypothesis of Human Hypertension **E.C. Hart, J.C.L. Rodrigues, L.E.K. Ratcliffe, A.E. Burchell, N. Manghat, R.G. Wise, A.K. Nightingale and J.F.R. Paton**. Univ. of Bristol and Cardiff Univ. (646.6)
- 9:30 Activation of the Central Renin-Angiotensin System Causes Selective Cerebrovascular Dysfunction **T.M. De Silva, C.M. Lynch, J.L. Grobe and F.M. Faraci**. Univ. of Iowa and Iowa City VA Hlth. Care Syst. (646.4)
- 9:45 Placental Ischemia Impairs Cerebral Blood Flow Autoregulation and Increases Blood-Brain Barrier Permeability in Pregnant Rats **J.P. Warrington, F. Fan, S.R. Murphy, R.J. Roman, H.A. Drummond, J.P. Granger and M.J. Ryan**. Univ of Mississippi Med Ctr. (646.7)

169. INNOVATIONS IN CLASSROOM TEACHING**Featured Topic***(Sponsored by: Teaching of Physiology Section)*

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: C.J. MILLER AND L. GOLDEN

Education

- 8:30 Using Role-Playing Simulations to Teach Endocrine and Respiratory Physiology in Large Classes **K. Hull**. Bishop's Univ., Canada. (541.2)
- 8:50 Rapid Prototyping of a Skeletal Muscle – an Engineering Application in an Anatomy and Physiology Course **N. Stecher and S. Chomyszak**. Wentworth Inst. of Technol., Boston. (541.3)
- 9:10 Steps for Building a Learning Community in a Medical Physiology Course **H.I. Modell**. Bastyr Univ. and Physiol. Educ. Res. Consortium, Seattle. (541.4)
- 9:30 “Dialogical Story-Telling” Approach to Enhance Analytical Thinking and Student Engagement during Lecture-Based Classes **S.K. ElSayed and S. Loftus**. Oakland Univ. William Beaumont Sch. of Med. and Assiut Univ., Egypt. (541.5)
- 9:50 Open Discussion.

170. ION CHANNELS IN HEALTH AND DISEASE**Symposium***(Sponsored by: Cardiovascular Section)*

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

CHAired: J.H. JAGGAR AND M. NAVEDO

Transporters/Channels/ Barriers**Cell Signaling**

- 8:00 Vascular Control By Ion Channel Trafficking **J.H. Jaggar**. Univ. of Tennessee Hlth. Sci. Ctr.
- 8:30 Compartmentalized Kinase Signaling Controls Hyperglycemia Stimulation of Vascular L-Type Calcium Channels **M. Navedo**. Univ. of California, Davis.
- 9:00 Ca²⁺ Selective Orai Channels and Vascular Smooth Muscle Dysfunction **M. Trebak**. SUNY Col. of Nanoscale Sci. and Engin., Albany.
- 9:30 Channels Underlying Hyperpolarization-mediated Ca²⁺ Influx in Endothelial Cells **K. Dora**. Univ. of Oxford.

171. MOLECULAR OXYGEN: AT THE CROSSROADS OF INFLAMMATION AND METABOLISM**Symposium***(Sponsored by: Hypoxia Group)*

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: V.H. HAASE

Oxidative Stress

- 8:00 Inflammatory Hypoxia: Mechanisms and Therapeutic Opportunities **E. Campbell**. Univ. of Colorado Denver, Aurora.
- 8:30 Oxygen Sensing Pathway in T Cells Function and Neuro-Inflammation **A. Goldrath**. UCSD.
- 9:00 Oxygen Sensors and Bacterial Killing **S. Walmsley**. Univ. of Edinburgh.
- 9:30 Oxygen Sensors in the Regulation of Metabolism and Radiation-Induced Injury **A. Giaccia**. Stanford Univ.

172. NCAR TRAINEE FEATURED TOPIC

Featured Topic

(Sponsored by: Neural Control and Autonomic Regulation)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206A

CHAired: H. XIA AND A. SCHILLER

- 8:00 **NCAR New Investigator Award Lecture** Mechanisms of Cardiac Sympathetic Activation during Heart Failure **R. Ramchandra**. Univ. of Auckland.
- 8:30 **NCAR Michael Brody Award** Effect of Carotid Body Resection on Baroreflex Control of Blood Pressure during Hypoglycemia **J.K. Limberg, J.L. Taylor, S. Dube, A. Basu, R. Basu, T.B. Curry, M.J. Joyner and E.A. Wehrwein**. Mayo Clin. and Michigan State Univ. (652.3)
- 8:45 **NCAR Postdoc and Early Career Award** PSD95 Coupling of NMDA Receptor Activation and Nitric Oxide Activity in the Hypothalamic PVN **M.E. Bardgett, M. Andrade, A.S. Calderon and G.M. Toney**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (652.5)
- 9:00 **NCAR Postdoc and Early Career Award** Maternal Obesity and the Developmental Programming of Hypertension: The Role of Leptin in the Central Nervous System **J. Lim, S.L. Burke and G.A. Head**. Baker IDI Heart & Diabetes Inst., Melbourne and Monash Univ., Australia. (652.7)
- 9:15 **NCAR Postdoc and Early Career Award** P2X3 Receptor-Mediated Chemoreceptor Hypersensitivity in Young Spontaneous Hypertensive Rats **D.J.A. Moraes, B.H. Machado, A.P. Ford and J.F.R. Paton**. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo, Univ. of Bristol and Afferent Pharmaceut. Inc., San Mateo. (652.4)
- 9:30 **NCAR Postdoc and Early Career Award** Exogenous L-Arginine Restores Spontaneous Cardiac Baroreflex Sensitivity in Never-Treated Hypertensive Men **L.C. Vianna, I.A. Fernandes, T.C. Barbosa, L. Scharf, N.G. Rocha, N.H. Secher and A.C. Nóbrega**. Univ. of Brasília, Fluminense Fed. Univ., Brazil and Univ. of Copenhagen. (652.6)
- 9:45 **Data Sciences International Outstanding Graduate Student Award** Restoration of Oxytocin Neuron Activity Prefers Hypertension Caused by Chronic Intermittent Hypoxia/Hypercapnia **H. Jameson**. George Washington Univ.

173. NEW INSIGHTS INTO THE PHYSIOLOGY AND PATHOPHYSIOLOGY OF DIVING AND HYPERBARIC ENVIRONMENTS

Featured Topic

(Supported by ONR Undersea Medicine Program)

(Sponsored by: Environmental and Exercise Physiology Section)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206B

CHAired: J. FLORIAN

- 8:00 Decompression Stress During Field Dives **Z. Dujic**. Univ. of Split Sch. of Med., Croatia.
- 8:30 ROS Production from Endothelial Cells during In Vitro Simulated Dives: Effects of Hydrostatic and Gas Pressures **M. Theron, Q. Wang, K. Lambrechts, A. Mazur, P. Buzzacott and F. Guerrero**. Univ. of Western Brittany, Brest. (678.11)
- 8:45 Inhaled CO₂ and CO₂ Retention during Heavy Exercise Underwater **B.E. Shykoff and D.E. Warkander**. Navy Exptl. Diving Unit, Panama City, FL. (678.4)
- 9:00 Diving-Related Microparticle and Other Inflammatory Responses in Humans and Mice Are Inhibited by Ascorbic Acid **S.R. Thom, O. Barak, M. Yang, J. Bhullar, V.M. Bhopale, D. Madden and Z. Dujic**. Univ. of Maryland Sch. of Med. and Univ. of Split Sch. of Med., Croatia. (678.10)
- 9:15 Effect of Hyperoxia on Central Nervous System Intercellular Communication Mediated by Tunneling Nanotubes **R. Ray, D. Kernagis, G.G. de Ridder and S.V. Pizzo**. Duke Univ. (678.13)
- 9:30 Hyperbaric Oxygen: Friend Or Foe to Human Performance? **J. Florian**. U.S. Navy, Panama City Beach, FL.

174. REVOLUTIONARY SYSTEMS — MEDICINE APPROACHES TO UNDERSTAND DISEASE AND DRUG RESPONSE PHYSIOLOGY

Symposium

(Sponsored by: Physiological Genomics Group)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 207

CHAired: B. BLACKMAN

- 8:00 Systematic Drug Repositioning Through Transcriptomics, Genetics, and Phenotypic Data **P. Agarwal**. GlaxoSmithKline.
- 8:20 Library-Scale Gene-Expression Profiling **J. Lamb**. Genometry, Inc., Cambridge, MA.
- 8:40 Molecular Drug Response Profiles That Reliably Predict Risk of Clinical Side Effects **A. Mackey**. HemoShear, LLC, Charlottesville.
- 9:00 Protein Network Activation Mapping of Cellular Signaling for Personalized Therapy Applications **C. Petricoin**. George Mason Univ.

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Facebook  and Twitter. 

- 9:20 Genetics Helps Inform Drug-Induced Injury in Humans
P. Nioi. Amgen.
- 9:40 General Discussion.

175. THE HEART OF THE MATTER: MENOPAUSE, SEX STEROIDS, AND CARDIOVASCULAR DISEASE

Featured Topic

(Sponsored by: Water and Electrolyte Homeostasis Section)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 212

CHAired: J. RECKELHOFF AND M. WENNER

- 8:00 From Basic Science to Clinical Trials: An Integrated Approach to Actions of Steroid Hormones on Vascular Function **V.M. Miller**. Mayo Clin. Col. of Med.
- 8:30 In C57Bl/6N Female Mice 17 β -Estradiol Leads to Cardiac Mass and Function Loss via a β -Catenin Mechanism **G. Karargias, L.C. Zelarayan, K. Toischer, G. Hasenfuss, H. Jarry and V. Regitz-Zagrosek**. Charité Univ. Hosp., Berlin and Georg-August-Univ. Goettingen. (966.1)
- 8:45 Postmenopausal Hypertension Is Blunted following Chronic Flutamide Treatment in Intrauterine Growth Restricted Female Rat **J.H. Dasinger, S. Intapad, B.R. Rudenske, A.J. Carter and B.T. Alexander**. Univ. of Mississippi Med. Ctr. (966.2)
- 9:00 Coronary Ischemia Reperfusion Increases Degranulation of Cardiac Mast Cells Similarly in Male and Female Rats 8 Weeks after Ischemia **K. Scroggin, S. Tolia and A. Samarel**. Loyola Univ. Chicago, Stritch Sch. of Med. (966.3)
- 9:15 G Protein-Coupled Estrogen Receptor Activation Attenuates Rat Aortic Smooth Muscle Cell Proliferation **S.N. Kashyap and S.H. Lindsey**. Tulane Univ. (966.4)
- 9:30 Anti-hypertrophic Effect of Estradiol in Cardiomyocytes Is Mediated by GPER1 **G.N. Gonçalves, E. Nocchi, S.R. Scalzo, S.C. Guatimosim and A.M. Reis**. Fed. Univ. of de Minas Gerais, Brazil. (966.5)
- 9:45 Effect of Prior Use Menopausal Hormone Therapy on Blood Pressure Responses in Women **M.C. Johnson, S.M. Kruse, R.E. Harvey, M.J. Joyner, V.M. Miller and J.N. Barnes**. Mayo Clin. (966.6)

176. TRANSLATIONAL PHYSIOLOGY: FOCUS ON OBESITY, HYPERTENSION, AND DIABETES

Featured Topic

(Sponsored by: Translational Physiology Group)

SUN. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210BC

CHAired: B. ANDRESEN

Translational Physiology

Theme I: Translational Insights into the Pathophysiology and Treatment of Obesity

- 8:00 Resveratrol Alleviates Lipid-Induced Insulin Resistance in Lean, but Not Severely Obese, Myotubes **K. Turner, S. Park, T. Beasley, D. Zheng and J. Houmard**. East Carolina Univ. (997.9)
- 8:06 Intermittent Physical Activity Produces a Leaner but “Sedentary Obese” White Adipose Tissue Phenotype **K.S. Wainright, N.J. Flemming, J.L. Rowles, R.J. Welly, T.M. Zidon, Y-M. Park, R. Scroggins, E.K. Anderson-Bacum, A.M. Hasty, V.J. Vieira-Potter and J. Padilla**. Univ. of Missouri-Columbia, Indiana Univ., Indianapolis and Vanderbilt Univ. Sch. of Med. (1055.16)
- 8:12 Oxidized Low-Density Lipoprotein Decreases Endothelial Progenitor Cell Populations in Bone Marrow and Peripheral Circulation Independent of ROS Production **D.Z. Liu, Y. Cui, J.Z. Liu, C.A. Narasimhulu, G. He, P.J. Cowan, S. Parthasarathy and H. Zhu**. The Ohio State Univ. Wexner Med. Ctr. and Univ. of Central Florida Col. of Med. (1046.2)
- 8:18 Free Fatty Acid Receptor Activation Alters Mesenteric Lymphatic Flow and Fatty Acid Transport in Rats **K. Narimatsu, Y. Akiba, I. Kaji, H. Said and J.D. Kaunitz**. West LA VA Med. Ctr., UCLA and Brentwood Biomed. Res. Inst., CA. (850.4)
- 8:24 Progressive “Browning” and “Whitening” of Subcutaneous White Adipose Tissue in Humans **L. Sidossis, C. Porter, M. Saraf, R. Radhakrishnan, T. Chao, M. Chondronikola and D. Herndon**. Univ. of Texas Med. Branch. (995.10)
- 8:30 Roundtable Questions/Discussion.

Theme II: Translational Insights into the Role of Reactive Oxygen Species in Diabetes

- 8:40 A Translational Kinetic Analysis of Rodent and Human Hearts Shows Species-Specific Differences and Increases in Monoamine Oxidase Activity with Obesity/Diabetes **M. Nelson, L. Katunga, E.J. Anderson and A.P. Kypson**. East Carolina Univ. (977.7)
- 8:46 Associations between Plasma Antioxidant Capacity and Skeletal Muscle Antioxidant Gene Expression **J.L. Warren, H. Resuehr, S.T. Windham, B. Gower and G. Fisher**. Univ. of Alabama at Birmingham. (632.6)

- 8:52 Plasma from Type 2 Diabetes Patients Increase Monocyte-Derived Superoxide Production via ER Stress-NADPH Oxidase Pathway **S.H. Deo, J. Padilla and P.J. Fadel.** Univ. of Missouri-Columbia. (805.6)
- 8:58 Acute Reversal of High Fat Diet-Induced Insulin Resistance Is Accompanied by a Restoration of Redox Status in Skeletal Muscle **L.R. Reese, T.R. Ryan, M.J. Torres and P.D. Neuffer.** East Carolina Univ. (824.13)
- 9:04 Nox1 Deletion Rescues Microvascular Dysfunction in Obese db/db Mice **J.A. Thompson, J.D. Mintz, D.J. Fulton and D.W. Stepp.** Georgia Regents Univ. (794.3)
- 9:10 Roundtable Questions/Discussion.

Theme III: Translational Insights into Inflammation in the Pathogenesis of Hypertension

- 9:20 Spontaneous Hypertension and Cardiorenal Pathologies in the African Green Monkey **M.K. Rhoads, S.B. Goleva, A. Beierschmitt and J.L. Osborn.** Univ. of Kentucky and Behavioural Sci. Fndn., St. Kitts and Nevis. (960.16)
- 9:26 Apoptosis Signal-Regulating Kinase 1 and c-Jun N-terminal Kinase Affect Tumor Necrosis Factor Alpha Signaling by Independent Mechanisms in Vascular Smooth Muscle Cells **H. Choi, A. Dikalova and F.S. Lamb.** Vanderbilt Univ. Med. Ctr. (948.1)
- 9:32 sCD40L -CD40/VLA-5 Signaling Contributes to AngII-Induced Thrombosis and Inflammation **E.Y. Senchenkova, J. Russell, S. Vital, A. Yildirim and N. Granger.** LSU Hlth. Sci. Ctr., Shreveport. (637.5)
- 9:38 Angiotensin II-Dependent increase in the Bone Marrow Sympathetic Drive Initiates the Inflammatory and Endothelial Progenitor Cell Imbalance and Precedes Blood Pressure Increase **N. Ahmari, M.M. Santisteban, D.M. Baekey, M.K. Raizada and J. Zubcevic.** Univ. of Florida. (1059.1)
- 9:44 Effects of Telephone Intervention on Inflammatory Cytokines following Summer Lifestyle Intervention Program **L. Solis, L. Ponte, D. Martinez, D. Park and K-S. Park.** Texas A&M Intl. Univ. and J.B. Alexander H.S., Laredo. (677.3)
- 9:50 Roundtable Questions/Discussion.

177. ANGIOTENSIN TYPE 2 RECEPTORS IN THE BRAIN: A FUNCTIONAL COMING-OF-AGE IN CARDIOVASCULAR CONTROL

Symposium

(Sponsored by: Neural Control and Autonomic Regulation)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: C. SUMNERS AND E. BRUCE

- 10:30 The Angiotensin AT2-Receptor: from a Receptor of Academic Interest to a Novel Drug Target in Cardiovascular Medicine **U.M. Steckelings.** Univ. of Southern Denmark.
- 11:00 A New Look at Angiotensin Type 2 Receptor Localization in the Brain **A. de Kloet.** Univ. of Florida.
- 11:30 Angiotensin Type 2 Receptors and Sympathetic Outflow **L. Gao.** Univ. of Nebraska Med. Ctr.
- 12:00 Increased Expression of Angiotensin Type 2 Receptors within the NTS: Effects on Cardiovascular Control During Hypertension **D.S.A. Colombari.** São Paulo State Univ.

178. CLAUDE BERNARD DISTINGUISHED LECTURESHIP OF THE APS TEACHING OF PHYSIOLOGY SECTION

Lecture

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

Adventures in Education **A. Macknight.** ADInstruments.

179. FRONTIERS IN CELL ENGINEERING

Symposium

(Sponsored by: Biomedical Engineering Society)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: S. LI

- 10:30 Nuclear Envelope Engineering of Stem Cells: Lineage, Survival, and Trafficking **D. Discher.** Univ. of Pennsylvania.
- 11:00 Mechanotransduction at the Cell-Matrix Interface **C. Chen.** Boston Univ.
- 11:30 Engineering the Chemistry and Microarchitecture of Hydrogels for Tissue Regeneration **A. Kghademosseini.** Harvard Univ.
- 12:00 Patches for Pediatric Vascular Tissue Engineering **J. Wong.** Boston Univ.

180. IMMUNE CELLS, THE KIDNEY AND HYPERTENSION**Featured Topic***(Sponsored by: Renal Section)*

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: J. SULLIVAN AND D. BELL

- 10:30 **Renal Section Young Investigator Award Lecture** Sex Determines the Renal T Cell Profile in Hypertension **J. Sullivan**. Georgia Regents Univ.
- 11:00 N-Acetyl-Seryl-Aspartyl-Lysyl-Proline (Ac-SDKP) Delays the Development of Hypertension and Renal Damage in Systemic Lupus Erythematosus **P. Nakagawa, T-D. Liao, M.E. Worou, H. Basha, E.L. Peterson, B. Janic, X-P. Yang, N-E. Rhaleb and O.A. Carretero**. Henry Ford Hosp. (667.7)
- 11:15 5/6 Nephrectomy Induces Changes in Immune and Inflammatory Gene Expression in the Left Ventricle **A.J. Kriegel, M.C. Casati, P. Liu and M. Liang**. Med. Col. of Wisconsin. (667.9)
- 11:30 Time Course of Immune Cell Infiltration and Cytokine Production in the Kidneys of Dahl Salt-Sensitive Rats **G. Petrova and D. Mattson**. Med. Col. of Wisconsin. (667.8)
- 11:45 Placental Ischemia-Induced T_H17 Cells Mediate the Pathophysiology Associated with Preeclampsia **D.C. Cornelius, K. Wallace, L.M. Amaral, J.D. Scott, N. Campbell, A. Thomas, J. Moseley and B. LaMarca**. Univ. of Mississippi Med. Ctr. (667.6)
- 12:00 Activated JAK-STAT Pathway by IL-6 Mediates Macrophage-Induced Angiotensinogen Augmentation in Renal Proximal Tubular Cells **R. Satou, R. O'Leary, K. Miyata and L.G. Navar**. Tulane Univ. (667.4)
- 12:15 Female Sex Hormones Protect against Salt-Induced Increases in Immune System Activation in Dahl Salt-Sensitive Rats **C. Ebeledike, E. Ralph, J. Musall and J. Sullivan**. Georgia Regents Univ. (667.5)

181. MECHANOCHEMICAL BACKGROUND IN THE INTACT LUNG AND THE ROLE OF CONTEXTURAL CELL BIOLOGY FOR THE STUDY OF LUNG INJURY AND REPAIR**Symposium***(Sponsored by: Respiration Section)*

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: W.M. KUEBLER AND C. WATERS

- 10:30 Contextual Cell Biology: Introductory Remarks **W. Kuebler**. St. Michael's Hosp., Toronto.
- 10:42 Multistability in Endothelial Cell Biology: Robustness, Memory, and Plasticity **W. Aird**. Harvard Med. Sch.
- 11:09 Matrix Stiffness and Tissue Fibrosis **D. Tschumperlin**. Mayo Clin.

- 11:36 Cellular and Tissue Mechanics in Acute Lung Injury **E. Roan**. Univ. of Tennessee, Memphis.
- 12:03 Mechanical Stretch in Control of Lung Vascular Barrier and Inflammation **A. Birukova**. Univ. of Chicago.

182. MORPHOGEN SIGNALING PATHWAYS IN TISSUE PATTERNING AND DISEASE PROCESSES**Symposium***(Sponsored by: Cell and Molecular Physiology Section and AJP:Cell)*

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: J.C. ADAMS AND J.X. YUAN

Cell Signaling

- 10:30 Morphogen Interpretation: Insights from Zebrafish **A.F. Schier**. Harvard Univ.
- 11:00 Good Proteins Gone Bad in Cerebral Small Vessel Disease **M. Wang**. Univ. of Michigan.
- 11:30 Construction of a Vertebrate Embryo from Two Morphogen Gradients **C. Thisse**. Univ. of Virginia Sch. of Med.
- 12:00 Wnt Proteins, Extracellular Travel, and Exosomes **M. Boutros**. German Cancer Res. Ctr., Heidelberg.

183. NEW INSIGHTS INTO VASCULAR FUNCTION FROM IN VIVO VASCULAR IMAGING**Symposium***(Sponsored by: Cardiovascular Section)*

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: W.G. WIER AND J. ZHANG

- 10:30 Optogenetic and Biosensor Mice: New Tools for Vascular Biology **M. Kotlikoff**. Cornell Univ.
- 11:00 Ca²⁺ Dynamics of Contractile Pericytes **A. Gonzales**. Univ. of Maryland Baltimore.
- 11:30 Ca²⁺ in Arteries and Arterioles of Conscious Mice: Neurogenic Components **J. Zhang**. Univ. of Maryland Baltimore.
- 12:00 Correlative Imaging of Cgmp Signals and Bascular (Patho-)Physiology in Mice **R. Feil**. Univ. of Tübingen, Germany.

Visit the Exhibits**Sunday – Tuesday****9:00 AM – 4:00 PM**

184. OMICS OF BRAIN INJURY**Symposium**

(Sponsored by: American Federation for Medical Research)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: E.H. LO

- 10:30 The Vasculome of the Mouse Brain **E.H. Lo**. Massachusetts Gen. Hosp., Harvard Med. Sch.
- 11:00 Epigenetic Mediators of Neuroprotection in Ischemic Tolerance **A. Zhou**. Morehouse Sch. of Med.
- 11:30 State-Of-The-Art Mass Spectrometry Techniques and Applications for Proteomics: Development of a Multiplexed Mass Spectrometry-Based Apolipoprotein Panel Assay for Plasma and Serum **M. Lopez**. Thermo Fisher Biomarker Res. Initiatives in Mass Spectrometry Ctr., Cambridge, MA.
- 12:00 Pharmacogenetics of Neural Injury Recovery **S. Cramer**. Univ. of California, Irvine.

185. SPINAL PLASTICITY**Featured Topic**

(Sponsored by: Central Nervous System Section)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: E. DALE

Neurobiology

- 10:30 Diverse Cellular Mechanisms of Respiratory Motor Plasticity: Functional Implications **G.S. Mitchell**. Univ. of Wisconsin-Madison Sch. of Vet. Med.
- 11:00 Repetitive Acute Intermittent Hypoxia As a Plasticity-Promoting Primer of Motor Recovery in Persons With Spinal Cord Injury **R. Trumbower**. Emory Univ. Sch. of Med.
- 11:30 Cervical Epidural Stimulation Elicits Evoked Potentials and Modulates Diaphragm EMG **E.A. Dale, P. Gad, H. Zhong, R.R. Roy and V.R. Edgerton**. UCLA. (656.4)
- 11:45 Adaptive Plasticity in the Spinal Control of Left-Right Coordination during Locomotion **A. Frigon, C. Dambreville, Y. Thibaudier, M-F. Hurteau, V. Kuczynski and E. Rhodes**. Univ. of Sherbrooke, Quebec. (656.9)
- 12:00 Evaluation of the Nrf2-mediated anti-oxidative and anti-inflammatory responses in phrenic motoneurons following C2 hemisection in adult rat **T.B. Deramaudt, S. Vinit, L. Efthimiadi, E. Keomani, M. Petitjean and M. Bonay**. Univ. of Versailles. (656.3)
- 12:15 Differential Roles of Mammalian Target of Rapamycin in Phrenic Long-Term Facilitation **B. Dougherty, D. Fields and G. Mitchell**. Univ. of Wisconsin-Madison. (656.8)

186. TARGETING GUT MICROBIOME IN HUMAN DISEASES AND AS NOVEL THERAPEUTICS**Symposium**

(Sponsored by: Physiologists in Industry Committee)

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: C.P. MORENO QUINN AND S. INTAPAD

Microbiome**Translational Physiology**

- 10:30 Diet and the Intestinal Microbiome: Associations, Functions, and Implications for Health and Disease **G.D. Wu**. Perelman Sch. of Med., Univ. of Pennsylvania.
- 11:00 Role of the Microbiome in Energy Regulation and Insulin Resistance **M. Nieuwdorp**. Univ. of Amsterdam.
- 11:30 Control of Enteric Pathogen Colonization By Immunity and the Microbiota **G. Nuñez**. Univ. of Michigan.
- 12:00 Analysis of the Intestinal Bacterial Metagenome and Metatranscriptome in Pediatric NAFLD **N.H. Salzman**. Med. Col. of Wisconsin.

187. THE HOST-MICROBE INTERFACE AND CONTROL OF BARRIER FUNCTION: THE PATH FROM PATHOLOGY TO THERAPY**Symposium**

SUN. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

CHAired: B.A. McCORMICK

Microbiome**Regulation of Epithelial Function**

- 10:30 Streptococcus Pneumonia-Host Cell Interactions That Promote Tissue Invasion and Systemic Spread **J. Leong**. Tufts Univ. Med. Sch.
- 11:00 Communication Between Tight Junction Proteins and Immune Cells During Enteric Disease **K. Edelblum**. Univ. of Chicago.
- 11:30 Role of Endothelial Cells in Dengue Virus Infections **E. Mackow**. Stony Brook Univ.
- 12:00 Mechanisms By Which Bacteria Penetrate the Blood-Brain Barrier **K. Doran**. San Diego State Univ.

188. HUGH DAVSON DISTINGUISHED LECTURESHIP OF THE APS CELL AND MOLECULAR PHYSIOLOGY SECTION**Lecture**

SUN. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

Transporters/Channels/ Barriers

Identification of Na,K,ATPase as a Signal Transducer That Regulates Mitochondrial Function **A.C. Aperia**. Karolinska Inst., Solna.

189. BAROREFLEX AND CHEMOREFLEX CONTROLS OF THE HUMAN CEREBRAL CIRCULATION

Featured Topic

(Sponsored by: Neural Control and Autonomic Regulation)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: C. RICKARDS

- 3:15 Baroreflex, Autoregulation, and Brain Perfusion Stability: Implications for the Bench and the Bedside **Y-C. Tzeng**. Univ. of Otago, New Zealand.
- 3:45 Impact of Mild Orthostatic Stress on Aortic-Cerebral Pulsatile Flow Transmission: Insight from the Frequency Domain **J. Sugawara, T. Tomoto, T. Imai and S. Ogoh**. Natl. Inst. of Adv. Indust. Sci., Tsukuba, Univ. of Tsukuba and Toyo Univ., Japan. (833.2)
- 4:00 Reduced Cerebrovascular Response to CO₂ Rebreathing in Spinal Cord Injury **J.W.W. Hamner, J.A. Taylor and C.O. Tan**. Spaulding Rehab. Hosp. and Harvard Med. Sch. (833.4)
- 4:15 Acute Natural Cocoa Consumption Improves Cerebral Vasodilatory Capacity in Obese Individuals **C. Hurr, M.L. Harrison and R.M. Brothers**. Univ. of Texas at Austin. (833.5)
- 4:30 Inter-individual Relationships between Sympathetic Arterial Baroreflex Function and Cerebral Perfusion Control in Healthy Males **T.G. Witter, C. Taylor, T. O'Donnell, J. Kusel, P. Allan, M. Berry, B. Walker and Y.C. Tzeng**. Univ. of Otago and Univ. of Western Sydney. (833.6)
- 4:45 The Relationship between Cerebral Blood Flow and Carbon Dioxide **J. Duffin**. Univ. of Toronto.

190. CONTROL OF ELECTROLYTE BALANCE BY NOVEL PATHWAYS IN INTERCALATED CELLS

Symposium

(Sponsored by: Renal Section)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: S.C. SANSOM AND P.R. GRIMM

Regulation of Epithelial Function

Cell Signaling

- 3:15 Paracrine Regulation of Na Transport By Intercalated Cells **J. Peti-Peterdi**. Univ. of Southern California.
- 3:40 Beta-Intercalated Cells: Animal Cells Energized By a Proton Pump **D. Eladari**. PARCC-INSERM U970, Paris.
- 4:05 Regulation of ENaC by Pendrin **S. Wall**. Emory Univ. Sch. of Med.
- 4:30 Role of Intercalated Cell Bk Channels in Aldosterone-Dependent K Secretion **R.J. Cornelius**. Univ. of Nebraska Med. Ctr.
- 4:55 Ammonia and Ammonium Transport By Rh Glycoproteins **N. Nakhoul**. Tulane Univ.

191. ERNEST H. STARLING DISTINGUISHED LECTURESHIP OF THE APS WATER AND ELECTROLYTE HOMEOSTASIS SECTION

Lecture

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

Sex and Hypertension **J. Reckelhoff**. Univ. of Mississippi Med. Ctr.

192. GLIOTRANSMISSION AND BEHAVIOR

Symposium

(Sponsored by: Central Nervous System Section)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: V. PAPPAS

- 3:15 Exocytotic Release of Glutamate from Astroglia **V. Pappas**. Univ. of Alabama at Birmingham.
- 3:45 Astrocytic Vesicle Dynamics and Regulated Exocytosis in Health and Disease **R. Zorec**. Univ. of Ljubljana, Slovenia.
- 4:15 Astrocytic Control of Sleep and Cognition **P.G. Haydon**. Tufts Univ., Boston.
- 4:45 Stars of the Gut: Interactions between Enteric Glia and Neurons **B.D. Gulbransen**. Michigan State Univ.

193. MICROCIRCULATORY SOCIETY LANDIS AWARD LECTURE

Lecture

(Sponsored by: Microcirculatory Society)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

Targeting Tumor Microvasculature and Microenvironment **D. Fukumura**. Harvard Med. Sch.

194. PHYSIOLOGIC EFFECTS OF SEX CHROMOSOME COMPLEMENTATION AND CHROMOSOME Y GENETIC VARIANTS

Featured Topic

(Sponsored by: Physiological Genomics Group)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: C.F. DESCHEPPER

- 3:15 Chromosome Y Variants: Regulatory Effects via Chromatin Modifications and Circadian Regulation **C.F. Deschepper**. IRCM, Montreal.
- 3:45 Effect of Chromosome Y Variants on Immune Responses and Autoimmune Disease Susceptibility **C. Teuscher**. Univ. of Vermont.

- 4:00 Gene Duplication and Sequence Variants of the *Rattus norvegicus* Y-Chromosome Can Alter Kidney Function **J.W. Prokop, J. Lazar, A.C. Underwood and H.J. Jacob.** Med. Col. of Wisconsin and Walsh Univ., OH. (665.11)
- 4:15 Development of a Novel *Gper-1* Knockout Rat Model Using a Modified CRISPR/Cas9 Technology **H. Waghulde, S. Miller, W. Filipaik, B. Mell, T. Saunders and B. Joe.** Univ. of Toledo, Washington Univ. and Univ. of Michigan. (814.3)
- 4:30 Sensitization of Angiotensin II-Elicited Hypertension in Offspring of Hypertensive Pregnant Rats: Evidence of Sex Differences **B. Xue, F. Guo, T.G. Beltz, R.L. Thunhorst, M. Hay and A.K. Johnson.** Univ. of Iowa and Univ. of Arizona. (813.1)
- 4:45 6 β -Hydroxytestosterone, a Cytochrome P450B1-Derived Metabolite of Testosterone Plays an Important Role in Renal Dysfunction Associated with Angiotensin II-Induced Hypertension in Male Mice **A.K. Pingili, M. Kara, B.L. Jennings, A.M. Estes and K.U. Malik.** Univ. of Tennessee Hlth. Sci. Ctr. (962.1)
- 5:00 Circadian Regulation of lncRNAs Connects Per1, Endothelin-1, and GR **K. Solocinski, S.J. Barilovits, A.K. Welch, C.S. Wingo, B.D. Cain and M.L. Gumz.** Univ. of Florida and NF/SG Veterans Hlth. Syst. (814.10)

195. RESPIRATORY RELATED DISORDERS IN AGING AND NEURODEGENERATION

Featured Topic

(Sponsored by: Respiration Section)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: S.M. GREISING AND G.C. SIECK

- 3:15 Aging of the Respiratory System **S.M. Greising.** Mayo Clin.
- 3:45 Novel Strategies to Improve Respiratory Function in ALS **N.L. Nichols.** Univ. of Missouri-Columbia.
- 4:15 Respiratory Function in the Mdx Mouse Model of Duchenne Muscular Dystrophy: Role of Hypoxia, Stress and Immune Factors **D. Burns, J. Manning, D. O'Malley and K.D. O'Halloran.** Sch. of Med., University Col. Cork. (660.6)
- 4:30 Disordered Breathing in an Aged Model of Ischemic Stroke **D.K. Mulkey, A. Patrizz, X. Chen, A. Kolb and L.D. McCullough.** Univ. of Connecticut and Univ. of Connecticut Hlth. Ctr. (660.10)
- 4:45 Stretch Activation of Angiotensin II Type 1 Receptor Contributes to Ventilator-Induced Diaphragm Dysfunction **S. Hall, A.B. Morton, A.J. Smuder, M.P. Wiggs, K. Sollanek and S.K. Powers.** Univ. of Florida. (660.4)
- 5:00 Relationship of Age to Respiratory Muscle Strength and Mortality in Mechanically Ventilated MICU Patients HL113494, HL112085 **G.S. Supinski and L.A.P. Callahan.** Univ. of Kentucky. (660.1)

196. THE ROLE OF STORE-OPERATED CALCIUM ENTRY IN CARDIOVASCULAR PHYSIOLOGY AND DISEASE

Symposium

(Sponsored by: Cardiovascular Section)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: A-M. LOMPRÉ AND H.E. COLLINS

Transporters/Channels/ Barriers

Cell Signaling

- 3:15 Role of STIM1 in Regulation of Cardiomyocyte Function **J.C. Chatham.** Univ. of Alabama at Birmingham.
- 3:45 STIM/Orai Signaling Complexes in Vascular Smooth Muscle **X. Zhang.** SUNY Polytech. Inst., Albany.
- 4:15 Pathophysiological Role of STIM1 in Endothelial Dysfunction **A. Makino.** Univ. of Arizona.
- 4:45 STIM/Orai Ca²⁺ Signaling: a New Mechanism Regulating Cardiac Hypertrophy **J-S. Hulot.** Icahn Sch. of Med. at Mount Sinai.

197. THE YIN/YANG OF ESTROGEN SIGNALING IN THE CONTROL OF ENERGY HOMEOSTASIS

Symposium

(Sponsored by: Endocrinology and Metabolism Section)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: M.J. KELLY

- 3:15 Antidiabetic Effects of Estrogen Receptor β Antagonists **P. Alonso-Madadena.** Univ. Miguel Hernandez de Elche, Alicante, Spain.
- 3:45 Differential Effects of a Membrane Estrogen Receptor Agonist in POMC versus NPY/AgRP Neurons **O.K. Ronnekleiv.** Oregon Hlth. & Sci. Univ.
- 4:15 Organizational and Activational Effects of Estrogen in Energy Homeostasis **T.A. Roepke.** Rutgers Univ.
- 4:45 Non-Classical Estrogen Signaling in Hypothalamic Arcuate Nucleus in Mice and Monkeys **J. Levine.** Wisconsin Natl. Primate Res. Ctr., Madison.

198. VASCULAR ENDOTHELIAL CELL INSULIN RESISTANCE: A NEW TARGET FOR REDUCING VASCULAR RISK IN DIABETES?

Featured Topic

(Sponsored by: Cardiovascular Section)

SUN. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 205C

CHAired: G. PIERCE

- 3:15 Targeting AMP Kinase as a Novel Therapy for Insulin Resistance and Endothelial Dysfunction: Basic Science **M-H. Zou**. Oklahoma Univ. Hlth. Sci. Ctr.
- 3:45 Endothelial ARF6 Deletion Impairs Insulin-Induced Dilation of Adipose Arteries and Systemic Glucose Tolerance **S.R. Breevoort, G.D. Henson, C. Gibson, K.D. Reihl, D.Y. Li, A.J. Donato and L.A. Lesniewski**. Univ. of Utah and VA Med. Ctr. (802.1)
- 4:00 PTP1B Deletion Enhances Endothelial Cyclooxygenase 2 Expression and Protects Mice from Type 1 Diabetes-Induced Endothelial Dysfunction **J.B. Norman, D.J. Herren, R. Anderson, A-C. Huby and E.J. Belin de Chantemele**. Georgia Regents Univ. (802.2)
- 4:15 Therapeutic Strategies for Impaired Vascular Endothelial Cell Insulin Signaling in Human Type 2 Diabetes: Clinical/Translational Science **N. Hamburg**. Boston Univ.
- 4:45 Enhanced p47^{PHOX} NADPH Sub-unit Expression Impairs Conductance and Resistance Vascular Function in Obese Mice **K. Ait-Aissa, M. Kassan, M. Trebak, K. Matrougui and S. Belmadani**. Eastern Virginia Med. Sch. (802.3)
- 5:00 Hyperglycemia-Induced Alterations of the Vascular Endothelium in Type 2 Diabetes Mellitus **B.R. Hoffmann, A.R. Prisco, M.E. Widlansky and A.S. Greene**. Med. Col. of Wisconsin. (802.4)

199. APS UNDERGRADUATE POSTER SESSION AND BRUCE AWARDS

Poster Discussion

SUN. 4:00 PM—BOSTON CONVENTION & EXHIBITION CENTER –
EAST REGISTRATION, EXHIBIT LEVEL

200. WEH NEW INVESTIGATOR AWARD LECTURE

Lecture

(Sponsored by: Water and Electrolyte Homeostasis Section)

SUN. 4:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210A

Divergent Mechanisms of Cardiovascular and Metabolic Control By the Brain Renin-Angiotensin System **J.L. Grobe**. Univ. of Iowa.

201. HENRY PICKERING BOWDITCH AWARD LECTURE

Lecture

SUN. 5:45 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210BC

Role of Immune Mechanisms in the Pathophysiology of Hypertension in Preeclampsia **B.B. LaMarca**. Univ. of Mississippi Med. Ctr.

MONDAY, MARCH 30

Across Societies – Experimental Biology

203. CAREER DEVELOPMENT WORKSHOPS

Workshop

MON. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER –
EXHIBIT HALL B

Career Development

The following workshops will be held in the EB2015/FASEB Career Center. There is no fee or pre-registration associated with the workshops — just walk in and sit down!

Critiquing of CV/Resumes is by appointment and starts at 9:00 AM on Sunday and continues until 3:00 PM on Wednesday. Sign up on-site in the EB2015/FASEB Career Center, Hall B.

- 9:00 NIH K Awards **H. Khachaturian**. NIH
9:00 I Said What?!?!? **J. Blumenthal**. Montgomery Col.,
Rockville, MD.
9:00 Job Hunting in Biotech Part 1: Finding and Applying for
Scientist Position **B. Lindstaedt**. UCSF.
9:00 Beyond the Elevator Speech: Understanding the Power
of Networking **M. Sinche**. Harvard Law Sch.
10:30 Developing Your Core Message/"Elevator Pitch"
J. Lombardo. Med. Col. of Wisconsin and
Marquette Univ.
10:30 Goal Setting, Prioritizing, Time & Stress Management **H.**
Adams. H.G. Adams & Assocs. Inc., Norfolk, VA.

- 10:30 Identifying Your Options using ScienceCareers.org...
A. Green. Univ. of California, Berkeley.
11:00 Negotiation Strategies for Scientists **D. Behrens**. Univ.
of California, Berkeley.
1:00 Striving for EXCELLENCE **H. Adams**. H.G. Adams &
Assocs. Inc., Norfolk, VA
1:00 Networking: Is It Only Who You Know? **J. Blumenthal**.
Montgomery Col., Rockville, MD.
1:00 Building Your Skills, Networking & Informational
Interviews **A. Green**. Univ. of California, Berkeley.
1:00 Ten Ways to Get Lucky in the Job Search **J. Lombardo**
and P. Clifford. Med. Col. of Wisconsin, Marquette
Univ. and Univ. of Illinois at Chicago.
2:15 Translating Your Credentials on Paper **A. Green**. Univ.
of California, Berkeley.
2:30 Job Hunting in Biotech Part 2: Interviewing for Scientist
Positions **B. Lindstaedt**. UCSF.
2:30 Job Talk/Chalk Talk: Making the Grade **D. Behrens**.
Univ. of California, Berkeley.
3:00 Handshakes, Eye Contact, Small Talk: How to
Successfully Network at a Conference **N. Saul**. UCSF.
3:30 NIH F Awards. **H. Khachaturian**. NIH.
4:00 Attitudes & Behaviors: How are you Perceived? **J.**
Blumenthal. Montgomery Col., Rockville, MD.
4:00 Job Hunting in Biotech Part 3: Compensation Negotiation
for Scientist Positions **B. Lindstaedt**. UCSF.

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Anatomy

204. THE ANATOMY OF MEMORY AND NEURODEGENERATIVE DISEASE: PRIONS, A NOBEL IDEA

Plenary

MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: P. TRAINOR

Neurobiology

Part of the Neurobiology Mini-meeting

- 8:30 **204.1** Persistence of Memory and Prion Mechanisms:
A Perspective **E. Kandel**. Columbia Univ., HHMI.
9:15 **204.2** Prions Causing Alzheimer's and Parkinson's –
Quest for Effective Therapeutics **S. Prusiner**. UCSF.

205. ANATOMY EDUCATION PLATFORM 1

Platform

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

CHAired: H. BILLINGS & A. EDMONDSON

Education & Teaching

Education

Non-traditional Teaching and Pedagogy

- 10:30 **205.1** Impact of Different Small Student Group
Learning Approaches to Compressed Medical Anatomy
Education **C. Ramnanan, A. Whelan and J.J. Leddy**. Fac. of
Med., Univ. of Ottawa.
10:45 **205.2** Is Accreditation Driving Our Teaching in the
Right Direction? **R.S. Lufler**. Tufts Univ. Sch. of Med.
11:00 **205.3** Implementing a Cooperative Learning Model in
a Cadaver Anatomy Laboratory **W. Saltarelli, Y-k. Lee and C.**
Roseth. Central Michigan Univ. and Michigan State Univ.

- 11:15 **205.4** Team-Based Learning in Gross Anatomy Improves Academic Performance and Perceptions of Teamwork **A. Killins and T.W. Huitt**. Harding Univ. and Univ. of Central Arkansas.
- 11:30 **205.5** A New Twist on PBL: A Pilot Study of a Problem-Based Dissection Exercise **M. Schmidt-Bowman, K.J. Betts, J.A. Reed and V.T. Lyons**. Geisel Sch. of Med. at Dartmouth.
- 11:45 **205.6** Optimizing Communication in an Online Systemic Anatomy Course with a Laboratory **S.M. Attardi and K.A. Rogers**. Western Univ., Canada.

206. GENETIC FACTORS IN ABNORMAL BRAIN DEVELOPMENT

Mini-Meeting

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

CHAired: P. TRAINOR AND B. ALLMAN

Neurobiology

Part of the Neurobiology Mini-meeting

- 10:30 **206.1** Therapeutic Strategies for Restoring Neural Circuit Function in Rett Syndrome **D.M. Katz**. Case Western Reserve Univ. Sch. of Med.
- 11:00 **206.2** Mechanisms and Adult Treatments for Cognitive Deficits Associated with Neurodevelopmental Disorders **A.J. Silva**. UCLA.
- 11:30 Genetic Factors Regulating Human Cerebral Cortex Development **C. Walsh**. Harvard Med. Sch.

207. BEST PRACTICES FOR USING SOCIAL MEDIA AS IT RESHAPES ACADEMIA AND THE CLASSROOM

Symposium

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104C

CHAired: J. MUSSELL

Professional Development

Career Development

- 10:30 Twitter Goes to College: Student and Employee Rights on Social Media **F. LoMonte**. Student Press Law Center.
- 11:00 Expanding the Classroom with Social Media **K. Dougherty**. Baylor Univ.
- 11:30 Creating and Controlling Your Academic Brand **K. Brown**. George Washington Univ. Sch. of Med. & Hlth. Sci.
- 11:45 Current Trends in How Students use Technology and How Faculty Can Support Those in the Classroom (and Out) **A.F. Doubleday**. Univ. of Illinois at Chicago Col. of Dent.

208. CRANIOFACIAL TISSUES: DEVELOPMENT, REPAIR AND REGENERATION

Symposium

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 105

CHAired: X. LIU AND V. VARANASI

Joint Session with the Society for Craniofacial Genetics and Developmental Biology

- 10:30 **208.1** Using Nanotechnology and Picotechnology to Increase Tissue Growth and Reduce Bacterial Infections **T. Webster and P.M. Favi**. Northeastern Univ. and King Abdulaziz Univ., Saudi Arabia.
- 11:00 **208.2** Convergence and Extrusion Driven by Non-muscle Myosin II Are Required for Normal Fusion of the Mammalian Secondary Palate **J. Bush and S. Kim**. UCSF.
- 11:30 **208.3** A Genetic Model to Understand Integration during Skull Development and Etiology of Craniofacial Disorders **M. Harris and K. Henke**. Harvard Med. Sch.

209. DIDACTIC METHODS IN THE ANATOMICAL SCIENCES: HOW DOES TECHNOLOGY HELP OR HINDER?

Hybrid Symposium

MON. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 102AB

CHAired: M. HORTSCH

Education & Teaching

Education

- 2:30 **209.1** Facebook in Anatomy Education: Why and How? **A.A. Jaffar**. Univ. of Sharjah, UAR.
- 2:50 **209.2** The Effect of Image Quality and Image Presentation on the Recall of Anatomic Knowledge **B. Wainman, G. Norman, B. Fenesi, C. Mackinnon, L. Cheng and J. Kim**. McMaster Univ., Canada.
- 3:10 **209.3** "How We Learn May Not Always Be Good For Us" – Analytics of Students' Study Strategies, Educational Resource Choices, and Learning Success in a Medical Histology Course **M. Hortsch, L.W. Holaday, D. Selvig, J. Burk-Rafel, A. Zureick and J. Purkiss**. Univ. of Michigan Med. Sch.
- 3:30 **209.4** Technology and Innovation in Histology: Adapting to a Changing Landscape of Teaching in Medical Microanatomy **H.M. Goldman, J. Churchill and C.A. Hanau**. Drexel Univ. Col. of Med.
- 3:45 **209.5** Tablets in the Gross Anatomy and Neuroanatomy Labs: Quick and Dirty Can Work **R.E. Druzinsky and A.F. Doubleday**. Univ. of Illinois at Chicago.
- 4:00 **209.6** Shaping Neuroanatomy Education in Medicine: Implementing an iPad Friendly E-Booklet to Support Practical Based Learning **C. Smith, L. Slipper, T. Cecot and S. Border**. Univ. of Sussex Brighton and Sussex Med. Sch. and Univ. of Southampton.
- 4:15 E-Learning: Effective or Defective? The Impact of Commercial E-Learning Tools on Learner Cognitive Load and Anatomy Instruction **S. Van Nuland and K. Rogers**. Western Univ., Canada. (550.17)

210. SPINAL CORD INJURY AND REPAIR STRATEGIES

Mini-Meeting

MON. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: B. ALLMAN

Neurobiology

Part of the Neurobiology Mini-meeting

- 2:30 **210.1** Degeneration and Repair after Spinal Cord Injury in the Non-human Primate **J. Bresnahan**. UCSF.
- 3:00 **210.2** Degeneration, Repair, and Plasticity after SCI: A Central Role for Cytokines **M. Beattie, A. Ferguson and J. Bresnahan**. UCSF.
- 3:30 **210.3** Sox9 Knockdown in Mice Improves Locomotor Recovery after Spinal Cord Injury by Reducing CSPG Levels and Facilitating Reactive Sprouting **A. Brown, W.M. McKillop, E. York, K. Xu and T. Hryciw**. Univ. of Western Ontario.
- 4:00 **210.4** Mechanisms Underlying Macrophage Polarization in Spinal Cord Injury – Detrimental and Beneficial Influences on Recovery **S. David**. Res. Inst., McGill Univ. Hlth. Ctr.

211. EVOLUTION, DEVELOPMENT AND RELATIONSHIPS BETWEEN HEART AND HEAD MUSCLES: SURPRISING IMPLICATIONS FOR VERTEBRATE ORIGINS AND MEDICINE

Symposium

MON. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

CHAired: R. DIOGO

Cardiovascular

- 2:30 **211.1** Why Study Muscles: Bringing Together Anatomy, Evolution, Development, Genetics, Birth Defects and Medicine **R. Diogo, C.M. Smith and J.M. Ziermann**. Howard Univ. Col. Med.
- 3:00 **211.2** Cardiac and Craniofacial Development and Regeneration **E. Tzahor**. Weizmann Inst. of Sci.
- 3:30 **211.3** Connecting Heart and Head Muscle Development in a DiGeorge Syndrome Mouse Model **R. Kelly**. Aix-Marseilles Univ.
- 4:00 **211.4** Regulation of Cardiopharyngeal Fate Specification in a Simple Chordate **L. Christiaen, F. Razy-Krajka, W. Wang, N. Kaplan and K. Lam**. NYU.

212. UNDERSTANDING THE ZYGOMA: A KEY MORPHOFUNCTIONAL PARTITION IN THE CRANIOFACIAL SKELETON

Symposium

MON. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

CHAired: Q. WANG

- 2:30 **212.1** A Biomedical Synthesis of the Zygoma: Bone Elastic Properties, Morphology and Function, and Reconstructive Medicine **P.C. Dechow, Q. Wang and L.C. Pryor Smith**. Texas A&M Univ. Baylor Col. of Dent. and Mercer Univ. Sch. of Med.
- 3:00 **212.2** Zygomatic Arch Development in Mammals: Phenotypic Plasticity and Osteoblast Behavior **M. Ravosa**. Univ. of Notre Dame.
- 3:30 **212.3** Developmental and Evolutionary Significance of the Zygomatic Bone **J. Richtsmeier**. Penn State.
- 4:00 **212.4** Biomechanical Studies of the Zygoma: A Review of In Vivo and FEM Studies of the Lateral Orbital Wall and Zygomatic Arch **C. Ross, D. Strait, J.A. Ledogar, A.L. Smith, B. Villmoare, S. Benazzi, G. Weber, M. Spencer, P. Dechow, I.R. Grosse, B.G. Richmond, B. Wright, Q. Wang, C. Byron, D.E. Slice, K.J. Carlson, D. de Ruiter, L.R. Berger, K. Tamvada, L.C. Pryor Smith and A. Gundel**. Univ. of Chicago, Univ. at Albany, SUNY, Univ. of Nevada Las Vegas, Univ. of Bologna, Univ. of Vienna, South Mountain Community Col., AZ, Texas A&M Univ. Baylor Col. of Dent., Univ. of Massachusetts Amherst, Am. Museum of Natural History, Kansas City Univ. of Med. and Biosci., Mercer Univ. Sch. of Med., Mercer Univ., Univ. of the Witwatersrand and Univ. of Tennessee Knoxville.

213. AAA EDUCATIONAL RESEARCH PLATFORM AWARD SESSION

Award Competition



MON. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

Education & Teaching

Education

Students/Postdoc finalists present oral presentations to compete for Education Platform Award

- 5:00 The Influence of Spatial Ability on High and Low Order Anatomy Examination Questions **T.S. Phelps, N. Nguyen, A.C. Edmondson and C.M. Martin**. Med. Col. of Georgia at Georgia Regents Univ. and OhioHlth., Columbus. (689.3)
- 5:15 Quantification of Pattern Recognition Skills Acquisition in Histology Using an Eye-Tracking Device: First-Step toward Evidence-Based Histology Education **J.E. Kahl, P.M. Carry and L.M.J. Lee**. Univ. of Colorado Sch. of Med. and Colorado Sch. of Publ. Hlth., Univ. of Colorado. (689.4)
- 5:30 Improving Anatomical Knowledge through Interactive Modules on the OB/GYN Clinical Clerkship **A. Galoosian, J.M. Krapf, K. Brown, G. Butera, E. Goldman and R.A. Jurjus**. George Washington Univ. Sch. of Med. & Hlth. Sci. and George Washington Univ. (691.8)

**Are You Tweeting
About EB 2015?
To Tweet use #expbio
Be sure to follow EB on
Facebook  and Twitter. **

- 5:45 Using Generalizability Analysis to Establish Guidelines for Designing Horizontally Integrated Anatomy Assessments **J.N. Byram, J.A. McAteer, M.F. Seifert and A.B. Wilson.** Indiana Univ. Sch. of Med. (690.2)
- 6:00 Using the Brains We Have: Dissection of the Human Brain Assists the Medical Student in Learning and Retaining Neuroanatomy **G. Rae, R.J. Cork, A. Karpinski, H. Farris and W. Swartz.** LSU Hlth. Sci. Ctr., New Orleans. (548.6)
- 6:15 Benefits of Extracurricular Participation in Dissection in a Prosection-Based Medical Anatomy Program **A. Whelan, J.J. Leddy and C.J. Ramnanan.** Fac. of Med., Univ. of Ottawa. (548.3)

214. NEUROBIOLOGY AWARD HYBRID SYMPOSIUM

Hybrid Symposium

MON. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

Neurobiology

C.J. Herrick Award Lecture in Neuroanatomy featuring 2015 Young Investigator Award Recipient, Feng Zhang

- 5:00 **214.1** Development and Applications of CRISPR-Cas9 for Genome Manipulations **F. Zhang.** MIT.
- 5:30 **214.2** Cell-Type Specific Hippocampal Circuit Mapping by Genetically Modified Rabies Virus **X. Xu.** Univ. of California, Irvine.
- 5:45 **214.3** Dendritic Spine Ultrastructure in Fragile X Syndrome: Evidence for Narrower Neck Widths in Dentate Gyrus Granule Cell Neurons of the Hippocampus **P.C. Nahirney and S. Weiser-Novak.** Univ. of Victoria, Canada.
- 6:00 **214.4** Effects of Developmental Hyperserotonemia in the Rat Dentate Nucleus Neuronal Morphology **L. Hough and S. Segal.** Missouri State Univ. and St. Louis Univ.
- 6:15 e-Poster Slam.

215. CARDIOVASCULAR DEVELOPMENT AND DISEASE

Symposium

MON. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

CHAired: L.B. RUEST

Cardiovascular

Developmental Biology

- 5:00 **215.1** BMP Signaling and Congenital Heart Defects **S. Conway.** Indiana Univ. Sch. of Med.
- 5:30 **215.2** BMPER-Mediated BMP Signaling Promotes Cardiac Development **L. Dyer, Y. Wu, A. Saha, C. Cyr, M. Moser, X. Pi and C. Patterson.** Univ. of North Carolina at Chapel Hill, Middle Georgia State Col., Hart Ctr., Freiburg Univ., Germany and Baylor Col. of Med.
- 6:00 **215.3** Genetic Pathways in Congenital Heart Development **C. Seidman.** Brigham and Women's Hosp., Harvard Med. Sch.

216. MORPHOLOGICAL SCIENCES AWARD HYBRID SYMPOSIUM

Hybrid Symposium

MON. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

Morphological Sciences Award Lecture featuring 2015 Young Investigator Award Recipient, Richard Daneman

- 5:00 **216.1** Regulation of the Blood-Brain Barrier in Health and Disease **R. Daneman.** UCSD.
- 5:30 **216.3** Quantifying the Connectivity of the Language-Specific Cerebrobellar Network **I. George, D. Beversdorf and K. Aldridge.** Univ. of Missouri-Columbia.
- 5:50 **216.4** How and Why Embryonic Tissue Layers Move during Early Morphogenesis in Avian Embryos? **A. Czirok, Z. Akos, E. Kosa, M. Filla, D.G. Isai, C.D. Little, P. Dhar and B.J. Rongish.** Univ. of Kansas Med. Ctr.
- 6:10 **216.5** Understanding the Mechanisms Driving Ectopic Bone Formation in a Zebrafish FOP Model **M. LaBonty and P.C. Yelick.** Tufts Univ., Boston.

Biochemistry and Molecular Biology

217. ASBMB PLENARY LECTURE AND ASBMB-MERCK AWARD LECTURE

Plenary

(Supported by Merck & Co., Inc.)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM WEST

8:00 Plenary and Award Lecture Introduction and Award Presentation.

8:05 **217.1** Enemy Within – Immune and Autoimmune Responses to Cytosolic DNA and RNA **Z.J. Chen**. Univ. of Texas Southwestern Med. Ctr. and HHMI.

218. BERT AND NATALIE VALLEE AWARD IN BIOMEDICAL SCIENCE LECTURE

Award Lecture

MON. 8:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM WEST

8:45 Award lecturer introduction and award presentation.

8:50 **218.1** The Amyloid State of Proteins **D. Eisenberg, M. Sawaya, R. Nelson, A. Soragni, J. Rodriguez, L. Jiang, S. Sangwan, L. Johnson, A. Laganowsky, C. Liu, A. Soriaga, M. Landau, D. Cascio, S. Sievers, L. Saelices-Gomez, E. Guenther and M. Hughes**. UCLA and HHMI.

219. ALICE AND C. C. WANG AWARD IN MOLECULAR PARASITOLOGY SYMPOSIUM

Award

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 253A

9:45 Award Presentation.

9:55 Session Introduction.

10:00 **219.1** Moving In and Renovating: Invasion and Remodeling of the Human Erythrocyte by the Malaria Parasite **A.F. Cowman**. Walter and Eliza Hall Inst. of Med. Res., Melbourne.

10:40 **219.2** High-Throughput Decoding of Drug-Targets and Drug-Resistance Mechanisms in African Trypanosomes **D. Horn**. Univ. of Dundee.

11:10 **219.3** Understanding the Signaling Architecture of Calcium-Dependent Protein Kinases in Apicomplexan Parasites **S. Lourido and L.D. Tilley**. Whitehead Inst., Cambridge, MA.

11:30 **219.4** New Approaches to Finding Next-Generation Treatments for Malaria **E. Winzeler**. UCSD.

220. APPLYING PROTEOMICS AND METABOLOMICS TO UNDERSTAND PLANT FUNCTION

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 252AB

CHAired: G. BASSET

Follow the conversation: #plants

9:45 Chair's Introduction.

9:50 **220.1** Use of Mass Spectrometry-Based Phosphoproteomics to Characterize a Receptor Protein Kinase-Mediated Signaling Pathway that Negatively Regulates Plant Cell Growth **M.R. Sussman, M. Haruta, B.B. Minkoff, G. Sabat and K. Stecker**. Univ. of Wisconsin-Madison.

10:15 Target and Non-target Metabolomics Profiling of Different Barley Varieties Affected by Enhanced Ultraviolet Radiation and Various C:N Stoichiometry **M. Oravec, K. Novotná, P. Rajsnerová, B. Veselá, O. Urban, P. Holub and K. Klem**. Czechglobe, Brno and Mendel Univ., Czech Republic. (887.7)

10:30 **220.2** Comparative Proteomics of Seed Maturation in Oilseeds **J.J. Thelen, S. Stevenson, R. Wilson, M. Salie and S.P. Rao**. Univ. of Missouri-Columbia.

10:55 Early Changes in Host Response to *C. Liberibacter asiaticus* Infection in Citrus **E. Chin, D. Mishchuk, C. LeVesque, E. Foster, K. Godfrey and C. Slupsky**. Univ. of California, Davis and California Citrus Res. Bd., Riverside. (887.10)

11:10 **220.3** Using Lipidomics to Probe Lipid Metabolism **R. Welti, S. Shiva, H.S. Vu, M.R. Roth, P. Tamura, T. Samarakoon, M. Colter, S. Sarowar, M. Li, G. Gadbury, X. Wang and J. Shah**. Kansas State Univ., Univ. of North Texas and Univ. of Missouri-St. Louis.

11:25 **220.4** *CarbonQuest*: Unfolding the Map of Seed Metabolism **A.P. Alonso, J-C. Cocuron, M. Koubaa, Z. Ross and R. Kimmelfield**. The Ohio State Univ.

221. RNA: BEYOND MESSAGES AND TRANSLATION (MICRO AND LONG NONCODING RNA)

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAired: C. M. CROCE

Follow the conversation: #cancer

9:45 Chair's Introduction.

9:50 **221.1** Targeting the Untargetable! **C.M. Croce and A. Lugana**. The Ohio State Univ.

10:15 A MicroRNA Signature of Response to Erlotinib Is Impacted by the EMT-Inducing Cytokine TGF β 1 **M.J. Krentz, R. Astley and E.P. Black**. Univ. of Kentucky. (578.3)

10:30 **221.2** Role of Exosomal MicroRNAs in Cancer Cell Cross-Talk within the Tumor Microenvironment **M. Fabbri, P. Wise, M. Murtadha, P. Neviani and K. Challagundla**. Children's Hosp. Los Angeles, Univ. of So. California.

- 10:55 PKC δ and Bcl2 Increase Ovarian Cancer Survival via LncRNA NEAT1 Secreted by Obese Adipose-Derived Stem Cells **N.A. Patel, A. Morris, R.S. Patel, G. Carter, D.R. Cooper and M. Murr.** James A Haley Veterans Hosp., Tampa and Univ. of South Florida. (578.7)
- 11:10 Cancer Cell-Induced Suppression of Cytotoxic Alu RNA Biosynthesis in the Co-cultured Macrophages **A. Singhal, S. Mishra and G. Chaudhuri.** Meharry Med. Col. (578.10)
- 11:25 **221.3** The Non-coding Transcriptome as a Dynamic Regulator of Prostate Cancer Metastasis **C.D. Helgason, A. Parolia, R. Liu, H. Xu, Y. Wang and F. Crea.** British Columbia Cancer Agcy. Res. Ctr. and Vancouver Gen. Hosp.
- 11:50 Discussion.

222. MICROBIOME, METABOLIC SYNDROME, DIABETES AND CVD

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 255

- 9:45 Chair's Introduction.
- 9:50 **222.1** Early Life Microbiome, Obesity and Diabetes **M.J. Blaser.** NYU Langone Med. Ctr.
- 10:20 Radical Chemistry in the Human Gut: Discovery of Choline Trimethylamine-Lyase **S. Bodea and E.P. Balskus.** Harvard Univ. (575.15)
- 10:35 **222.2** Diet, the Gut Microbiome and Cardio-metabolic Risk **J. Lovegrove.** Univ. of Reading, U.K.
- 11:05 Preterm Infant Gut Microbiome and Weight at 36 Weeks Corrected Gestational Age **D.H. Taft, D.V. Ward, N.J. Ollberding, K.R. Schibler, N. Ambalavanan, Z.T. Yu, D.S. Newburg, B.S. Davidson and A.L. Morrow.** Cincinnati Children's Hosp., Univ. of Alabama at Birmingham and Boston Col.
- 11:20 **222.3** Microbiome/Metabolic Syndrome/Diabetes and CVD **A.J. Lusis, E. Org, B. Emert, J.W. Joo, M. Mehrabian, W. Schwartzman, B. Parks, R. Davis, Y. Blum, J. Furuta, M. Navab, A. Fogelman, T. Drake, R. Knight, R. Gunsalus, S. Hazen and E. Eskin.** UCLA, Cleveland Clin. and Univ. of Colorado Boulder.
- 11:50 Discussion.

223. ANTIGEN PRESENTATION AND RECOGNITION IN CELLULAR IMMUNITY

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 257AB

CHAired: E. SUNDBERG

Follow the conversation: #immunology

- 9:45 Chair's Introduction.
- 9:50 **223.1** T Cell Receptor Recognition and the Composite Peptide/MHC Surface **B. Baker.** Univ. of Notre Dame.
- 10:15 X-Ray Single Molecule Tracking Reveal Motions of Peptides in the Binding Groove of MHC II Regulated by DM **H. Kozono, T. Miyabe, Y. Kozono and Y.C. Sasaki.** Tokyo Univ. of Sci. and Univ. of Tokyo. (571.21)

- 10:30 **223.2** The Molecular Signals that Regulate Gamma Delta T Cells **E. Adams.** Univ. of Chicago.
- 10:55 A Novel Mouse Model to Study Chronic-Progressive Multiple Sclerosis **F. Gomez-Rivera, I. Raphael and T.G. Forsthuber.** Univ. of Puerto Rico at Ponce and Univ. of Texas at San Antonio. (888.20)
- 11:10 Conserved Residues in TCR CDR Loops and Their Role in Influencing Antigen Recognition **S.J. Blevins and B.M. Baker.** Univ. of Notre Dame. (571.32)
- 11:25 **223.3** Engineering T Cell Receptors for Optimal Affinities and Desired Specificities **D.M. Kranz, D.T. Harris, J.D. Stone, S.N. Smith and A.S. Chervin.** Univ. of Illinois, Urbana.
- 11:50 Discussion.

224. POSTTRANSLATIONAL MODIFICATIONS OF ARGININE: METHYLATION, CITRULLINATION, PHOSPHORYLATION

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258A

CHAired: P. COLE

Follow the conversation: #PTMs

- 9:45 Chair's Introduction.
- 9:50 **224.1** Picking the PADlock: Chemical Probes to Study the Protein Arginine Deiminases **P.R. Thompson.** UMass Med. Sch.
- 10:15 Targeting Citrullination in the Injured Retina **J.W. Wizeman, A.P. Nicholas and R. Mohan.** Univ. of Connecticut Hlth. Ctr. and Univ. of Alabama at Birmingham. (717.15)
- 10:30 **224.2** Positive Feedback Regulation in Histone Demethylases **D.G. Fujimori.** UCSF.
- 10:55 Redox Control of Protein Arginine Methyltransferase 1 Activity **J. Hevel, Y. Morales, D.V. Nitzel, O.M. Price and S. Gui.** Utah State Univ. (717.18)
- 11:10 Protein Arginine Methylation of Tubulin Beta Decreases Binding of Taxol in Neuro2a Cells **S.C. Piller, N.K. Jwad, L. Hejazi, R. Gamsjaeger and N.J. Sucher.** Univ. of Western Sydney and Roxbury Community Col., MA. (717.16)
- 11:25 **224.3** Structure and Function of the Protein Arginine Kinase McsB **T. Clausen, D. Broch Trentini and M.J. Suskiewicz.** Inst. of Molec. Pathol., Vienna.
- 11:50 Discussion.

225. SUPER-RESOLUTION REPLICATION STUDIES

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258B

CHAired: M. F. GOODMAN

Follow the conversation: #DNA

- 9:45 Chair's Introduction.
- 9:50 Stochastic Activation of a DNA Damage Response Causes Cell-to-Cell Variation in Mutation Rates **S. Uphoff.** Univ. of Oxford.

- 10:15 A Single-Molecule Reconstitution of Translesion Synthesis and Competition between DNA Polymerases **J.E. Kath, S. Jergic, J.M. Heltzel, D.T. Jacob, N.E. Dixon, M.D. Sutton, G.C. Walker and J.J. Loparo.** Harvard Med. Sch., MIT, Univ. at Buffalo and Univ. of Wollongong, Australia. (561.6)
- 10:30 **225.2** A Unified Picture of Nucleotide Selection by a High Fidelity DNA Polymerase I **L. Beese, W. Wang and H.W. Hellinga.** Duke Univ.
- 10:55 Checkpoint Regulation of Replication Forks at Sites of DNA Damage **D.R. Iyer and N.R. Rhind.** UMass Med. Sch. (560.13)
- 11:10 Multi-color, Live Cell CRISPR-Based 3-D Mapping of the Human Nuclear Genome **H. Ma, A. Neseri, P. Reyes-Gutierrez, S. Zhang, S.A. Wolfe and T. Pederson.** UMass Med. Sch. and Univ. of Central Florida. (710.3)
- 11:25 **225.3** In vivo Single-Molecule Studies of DNA Repair in *E. coli* **A.M. van Oijen.** Univ. of Wollongong, Australia.
- 11:50 Discussion.

226. REGULATING FUNCTIONAL INTERACTIONS BY DYSFUNCTIONAL PROTEINS

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: C. CAMACHO

Follow the conversation: #protein

- 9:45 Chair's Introduction.
- 9:50 **226.1** Functional Interactions of Disease-Linked Disordered Proteins: Alpha-Synuclein, Tau and Complexin **D. Eliezer.** Weill Cornell Med. Col.
- 10:15 Structure and Assembly of Functional Amyloids **S. Perrett.** Chinese Acad. of Sci., Beijing. (563.9)
- 10:30 **226.2** Determining a Functional Mechanism for a Dysfunctional Protein **E. Rhoades, G. Cobb, A. Melo, J. Coraor, S. Elbaum-Garfinkle and X-H. Li.** Yale Univ.
- 10:55 Transient Expression of Intrinsically Disordered Proteins Fuels the Emergence of Adaptive Protein-Based Heritable Traits **D. Jarosz.** Stanford Univ. Sch. of Med. (882.15)
- 11:10 Misfolded Proinsulin Presenting an Unpaired Thiol Is Recognized and Targeted for ERAD by Specific Luminal Components in the ER **A-M. Kelemen and P.J. Lin.** Grad. Col. of Biomed. Sci., Western Univ. of Hlth. Sci. (881.5)
- 11:25 **226.3** The Aggregation Mechanism of Amyloidogenic Proteins Involved in Neurodegenerative Disorders **C. Stultz.** MIT.
- 11:50 Discussion.

227. HELPING POSTDOCTORAL FELLOWS AND GRADUATE STUDENTS DEVELOP PROFESSIONALLY

Symposium

MON. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 256

CHAired: B. COUGHLIN

Follow the conversation: #training

- 9:45 Chair's Introduction.
- 9:50 **227.1** You Need a Game Plan **P.S. Clifford.** Univ. of Illinois at Chicago.
- 10:15 **227.2** A Holistic Approach to Training the Next Generation of Diverse Biomedical Researchers **S.E. Barbour, J.A. Lloyd and S. Wu-Pong.** Virginia Commonwealth Univ.
- 10:40 SUNY/NYAS STEM Mentoring After School Program Statewide Scale Up Project, Year Three **P. Ortiz, K. Breton, J. Duncan-Poitier, G. Elphick, M. Groome, J. Lansing and G. Moore.** Univ. at Albany, SUNY, New York Acad. of Sci. and Gaylen Moore Prog. Eval. Svcs., NY. (559.37)
- 10:55 Teen Meetings Outside the Box: Building Science Communication Skills through a Network of Graduate Level Trainees, Science Teachers, and High School Teens **T.M. Evans, N. Blake, L.M. McManus and M.J. Lichtenstein.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (559.9)
- 11:10 K-12 STEM Outreach: Ushering in the Next Generation of Scientists **K.X. Mulligan.** Vanderbilt Univ. (559.7)
- 11:25 **227.3** Building Better Career Development Programs **K. Micoli.** NYU Sch. of Med.
- 11:50 Discussion.

228. IMPROV FOR STEM PROFESSIONALS: CREATING ENGAGING CONVERSATIONS

Workshop

(Sponsored by: ASBMB Public Outreach Committee)

MON. 12:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 253B

CHAired: R. HOLMES

Follow the conversation: #scicomm

Join us for this unique session that's guaranteed to get you up and out of your seat! Core to science communication is the ability to be attentive to an audience, to let the audience's physical and audible responses inform how the talk is given. Yet the skills that make this possible (deep listening, flexibility, and spontaneous responses) are learned through practice that is rarely part of our scientific training. More than knowing what to do, scientists need opportunities to experience and practice what to do. Light refreshments provided.

229. BIOINFORMATICS AND MODELING TOOLS FOR DISCOVERING FUNCTIONS OF UNKNOWN ENZYMES

Workshop

(Sponsored by: Enzyme Function Initiative)

MON. 12:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 251

The Enzyme Function Initiative (EFI; enzymeFunction.org) is devising an integrated sequence/structure based strategy for predicting and assigning functions to “unknown” enzymes discovered in genome projects, a major challenge in genomic biology.

This workshop will feature background information, tutorials, and example uses for several publicly available tools developed by the EFI. This workshop will be of greatest interest to enzymologists, microbiologists, evolutionary biologists, bioinformaticians, and computational chemists.

Lunch hosted on a first come, first served basis.

230. DISEASE-ON-A-CHIP: NEW FRONTIERS IN BIOMEDICAL RESEARCH

Workshop

(Sponsored by: Physicians Committee for Responsible Medicine)

MON. 12:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 255

Learn about advanced technologies in pathobiological research which can be used to generate data from human cells and tissues. Light refreshments provided.

Presenters:

In Vitro Technologies in Hypothesis-Driven Basic Research, with Specific Examples from Various Fields such as Obesity, Diabetes, Cardiovascular Disease, etc. **C. Chandrasekera**. Physicians Cmte. for Responsible Med.

Demonstration of the Quasi-Vivo In Vitro Cell Culture Systems and Application of the Systems for Disease Modeling **M. Wilkinson**. Kirkstall Ltd, UK

Microfluidic Technology Organ-on-a-Chip **M.L. Yarmush**. Rutgers Univ.

231. ASBMB ACCREDITATION WORKSHOP

Workshop

MON. 12:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 256

Learn the characteristics of an ASBMB-accredited program, the benefits for students, faculty and your institution, and get your questions answered to help you achieve accreditation.

232. WILLIAM C. ROSE AWARD LECTURE

Award Lecture

MON. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM WEST

2:30 Award Lecturer Introduction and Award Presentation.

2:35 **232.1** A Tale of Two Proteins **K. Matthews, S.E. Bondos and L. Swint-Kruse**. Rice Univ., Texas A&M Hlth. Sci. Ctr. and Univ. of Kansas Med. Ctr.

233. AVANTI AWARD IN LIPIDS LECTURE

Award Lecture

(Supported by Avanti Polar Lipids, Inc.)

MON. 3:05 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM WEST

3:05 Award Lecturer Introduction and Award Presentation.

3:10 **233.1** The Lipin Protein Family, Cellular Lipid Storage, and Disease **K. Reue**. David Geffen Sch. of Med., UCLA.

234. LIPIDS MEET CHEMISTRY

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 252AB

CHAired: C. SCHULTZ

Follow the conversation: #lipids

3:55 Chair's Introduction.

4:00 **234.1** Chemical Approaches to the Identification and Characterization of Protein-Membrane Binding Interactions Using Synthetic Lipid Probes **M. Best, M.M. Rowland, T. Ricks, S. Alam, S. Eni Eni and S. Mattern-Schain**. Univ. of Tennessee, Knoxville.

4:25 Targeting *Plasmodium falciparum* Phosphethanolamine Methyltransferase for Malaria Therapy **C. Ben Mamoun and V. Kumar**. Yale Univ. (885.25)

4:40 **234.2** Membrane Lipids in Migrating Cells Illuminated by Molecular Sensors and Chemical Actuators **T. Inoue, Y. Miao and P. Devreotes**. Johns Hopkins Univ.

5:05 Specific Transient Interactions between a *Bacillus* Virulence Factor and Phosphatidylcholine in Membranes **A. Gershenson, B. Yang, T. He, H.M. Khan, C. Grauffel, N. Reuter and M.F. Roberts**. Univ. of Massachusetts Amherst, Boston Col. and Univ. of Bergen. (568.9)

5:20 Role of Macroautophagy in Anti-cancer Effects of the Novel Sphingolipid, Enigmol **S.G. Mays, A.S. Bushnev, M.T. Baillie, H. Yi, D.C. Liotta and J.A. Petros**. Emory Univ. and Atlanta VA Med. Ctr. (715.42)

5:35 **234.3** Compartmentalized PI3K/Akt/mTOR Signaling in Living Cells **J. Zhang**. Johns Hopkins Univ. Sch. of Med.

6:00 Discussion.

235. MICROBE HOST INTERACTION

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAired: G. DANTAS

Follow the conversation: #microbiome

- 3:55 Chair's Introduction.
- 4:00 **235.1** Microbiome Resilience during Inflammation
A. Goodman. Yale Univ.
- 4:30 Quantifying Dynamic Host-Microbiota
Signatures of Antibiotic-Associated GI Infection: What Can the
Host Proteome Tell Us? **J.E. Elias, J.S. Lichtman and J.L.
Sonnenburg.** Stanford Univ. (575.21)
- 4:45 **235.2** Circadian Regulation of Intestinal Host-Microbe
Interactions **L. Hooper, X. Yu, K. Ruhn, J. Stubblefield, C.
Green, M. Kashiwada, P. Rothman and J. Takahashi.** Univ. of
Texas Southwestern Med. Ctr. and Univ. of Iowa.
- 5:15 A Potential Role of *H. pylori* PPLase in the
Transformation of Gastric Epithelial Cell and the Development
of Gastric Cancer **J. Liu.** West Virginia Univ. (575.22)
- 5:30 **235.3** Sphingolipids of Commensals Modulate Host
Immunity through Regulation of iNKT Cells **D. Kasper.** Harvard
Med. Sch.
- 6:00 Discussion.

236. EFFECTS OF ENZYMATIC MODIFICATION OF
EXTRACELLULAR MATRIX PROTEINS

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

Follow the conversation: #ECM

- 3:55 Chair's Introduction.
- 4:00 **236.1** Wnt Modification by Tiki Proteins **X. He.** Boston
Children's Hosp. and Harvard Med. Sch.
- 4:25 DC-SIGN Binds 2-Fucosyl-Lactose at
Concentrations Available in Human Milk **R.D. Cummings,
Y. Yu, Y. Lasanajak, R. Buck, G. Duska-McEwen, P. Prieto
and D.F. Smith.** Emory Univ. Sch. of Med. and Abbott Nutr.,
Columbus. (890.10)
- 4:40 **236.2** The Proprotein Convertases: Cell Surface and
Extracellular Matrix Remodeling **N.G. Seidah, R. Essalmani,
W. Kim, I. Welsh and N.A. Kurpios.** IRCM, Clin. Res. Inst. of
Montreal and Cornell Univ.
- 5:05 Three-Dimensional Collagen IV and Hormone
Prolactin Regulate Breast Cancer Cell Invasion: Role of PAK1
and Matrix Metalloproteinases **M. Diakonova, P. Oladimeji
and L. Rider.** Univ. of Toledo. (719.1)
- 5:20 Fibroblast-Macrophage Interactions:
Regulation by Modification of Extracellular Matrix **A. Mazur, T.
Kelly and S.R. Post.** Univ. of Arkansas for Med. Sci. (719.6)
- 5:35 **236.3** MMPs as Regulators of Tumor
Microenvironment **Z. Werb.** UCSF.
- 6:00 Discussion.

237. DISCOVERING NEW ENZYMES

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258A

CHAired: H. LIN

Follow the conversation: #enzyme

- 3:55 Chair's Introduction.
- 4:00 **237.1** Specificity and Promiscuity in Enzyme
Superfamilies **K. Allen and D. Dunaway-Mariano.** Boston
Univ. and Univ. of New Mexico.
- 4:25 Functional Characterization of Structural
Genomics Proteins in the Crotonase Superfamily **C.L. Mills,
P. Yin, P.J. Beuning and M.J. Ondrechen.** Northeastern Univ.
(573.18)
- 4:40 **237.2** Pseudoenzymes as Activators of Enzyme
Function: The Prozyme Paradigm in Trypanosomatid Polyamine
Metabolism **M.A. Phillips.** Univ. of Texas Southwestern
Med Ctr.
- 5:05 Extending the Kynurenine Pathway to an
Aldehyde Disarming Enzyme: Mechanistic Study of Bacterial
AMSDH and Identification of the Correct Human Enzyme **I.
Davis, L. Huo, F. Liu, B. Andi, S. Esaki, H. Iwaki, Y. Hasegawa,
A.M. Orville and A. Liu.** Georgia State Univ., Brookhaven Natl.
Lab. and Kansai Univ., Japan. (573.3)
- 5:20 Protein Function Prediction Using ProMOL and
PyMOL **K.N. Hart, T.M. McKay, W. Tedla-Boyd, J.L. Mills, H.J.
Bernstein and P.A. Craig.** Rochester Inst. of Technol. and
Dowling Col., NY. (722.5)
- 5:35 **237.3** The Discovery of New Enzymes in the Human
Gut Microbiome **F.M. Raushel and M.E. Hobbs.** Texas
A&M Univ.
- 6:00 Discussion.

238. MAKING MATURE RNA

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258B

CHAired: J. T. LIS

Follow the conversation: #RNA

- 3:55 Chair's Introduction.
- 4:00 **238.1** Coupling of Transcription with mRNA
Processing in Time and Space **D. Bentley, N. Fong, H. Kim,
Y. Zhou and F. Xiang-dong.** Univ. of Colorado Sch. of Med.
and UCSD.
- 4:25 High Resolution Architecture of Human
Transcriptional Activity Revealed by Native Elongating
Transcript Sequencing **A. Mayer, J. di Iulio, S. Maleri,
U. Eser, A. Reynolds, J. Vierstra, R. Sandstrom, J.A.
Stamatoyannopoulos and L.S. Churchman.** Harvard Med.
Sch. and Univ. of Washington. (562.1)
- 4:40 **238.2** Mechanisms of microRNA-Mediated Gene
Silencing **I. Mac Rae, N.T. Schirle and J. Sheu-Gruttadauria.**
The Scripps Res. Inst.
- 5:05 Insights into Spliceosomal Activation from
Conformational Dynamics of the U4/U6 di-snRNA **A.A.
Hoskins, M. Rodgers and D. Brow.** Univ. of Wisconsin-
Madison. (711.3)

- 5:20 TGF-beta Regulates Alternative Splicing of CD44 by Inducing Smad3 Binding to CD44 pre-mRNA **Y.E. Zhang, V. Tripathi, K.M. Sixt and M. Heller.** NCI, NIH. (562.15)
- 5:35 **238.3** Role of microRNAs in Vascular Development **A. Hata, X. Jiang, D. Hart and G. Lagna.** UCSF.
- 6:00 Discussion.

239. MEMBRANE CHANNELS II – NEW CHANNELS AND NOVEL FUNCTIONS

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: M. L. MAYER

Follow the conversation: #protein

- 3:55 Chair's Introduction.
- 4:00 **239.1** Structure, Function, and Inhibitors of the Acid-Gated *Helicobacter pylori* Urea Channel, an Essential Component for Acid Survival and Chronic Infection **H. Luecke.** Univ. of California, Irvine.
- 4:25 Lysosomal ATP Transport Mechanism and Its Significance **X. Dong, M.X. Zhu, R. Murrell-Lagnado, Q. Cao, P. Huang, X.Z. Zhong and Y. Zou.** Dalhousie Univ., Canada, Univ. of Texas Hlth. Sci. Ctr. at Houston and Univ. of Cambridge. (566.14)
- 4:40 **239.2** TRPV Channel Structures in Health and Disease **R. Gaudet.** Harvard Univ.
- 5:05 Shear Stress Potentiates the Activation of TRPV4 by GSK1016790A **P. McIntyre, S. Baratchi, J. Almazi, F.J. Tovar-Lopez, W. Darby and A. Mitchell.** Sch. of Med. Sci., RMIT Univ. and Sch. of Elect. and Comp. Engin., RMIT Univ., Australia. (714.5)
- 5:20 Intracellular Zinc Dyshomeostasis Caused by a Disrupted TRPML1-TMEM163 Protein Interaction **J. Silva and M.P. Cuajungco.** California State Univ. Fullerton. (566.5)
- 5:35 **239.3** Weird Ion...Weird Ion Channels Mediating Resistance to Fluoride Toxicity **C. Miller and D.L. Turman.** Brandeis Univ.
- 6:00 Discussion.

240. CHANGES IN MEDICAL EDUCATION

Symposium

MON. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 256

CHAired: C. P. BAILEY

Follow the conversation: #training

- 3:55 Chair's Introduction.
- 4:00 **240.1** The Holistic Review Approach to Admissions **J.M. de la Rosa.** Texas Tech Univ. Hlth. Sci. Ctr. El Paso.
- 4:25 Eureka! Energizing the Next Generation of Clinical Researchers **K.E. Sawarynski, D. Baxa and M. Dereski.** Oakland Univ. William Beaumont Sch. of Med. (559.5)
- 4:40 **240.2** Testing Competencies with the New MCAT® Exam **M. Kroopnick.** Assn. of Amer. Med. Cols.

- 5:05 A Web Repository of Research Literature Assessment Questions to Promote Student Learning and Acquisition of Scientific Reasoning and Inquiry Skills Necessary for Both the MCAT2015 and ASBMB Certification **H. Jakubowski.** Col. of St. Benedict, St. John's Univ., MN. (559.6)
- 5:20 Transforming Undergraduate Education in the Molecular Life Sciences – A Special Summer Symposium **Q.C. Vega and M. Huff.** Montclair State Univ., NJ and Bellarmine Univ., KY. (559.38)
- 5:35 **240.3** MCAT 2015 and the Academy: Undergraduate, Graduate and Health Professional Ramifications **C. Brenner.** Univ. of Iowa.
- 6:00 Discussion.

241. CELEBRATE WITH THE JBC

Special Event

MON. 6:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, EAST, LEVEL 2, OUTSIDE ASBMB SESSION ROOMS

The JBC is hosting a celebration of Biochemistry and Molecular Biology scientists and their research. Following the afternoon sessions, join us for networking, refreshments and an opportunity to meet the JBC Associate Editors and learn what's happening at the journal. No matter what your research area, with 23 JBC Affinity Groups every BMB researcher will find a home at the JBC. All ASBMB members and biochemistry attendees welcome.

242. IMPROVSCIENCE PRESENTS LIVE: THE LIVING IMPROV EXPERIMENT

Special Event

(Sponsored by: ASBMB Public Outreach Committee)

MON. 6:30 PM—NED DEVINE'S, 1 FANEUIL HALL MARKETPLACE, BOSTON, 02109

What does improv offer science? Come find out by taking part in "Live: A Living Improv Experiment," a public event sponsored by the ASBMB Public Outreach Committee.

Scientists and STEM professionals are beginning to experiment with theater-based improvisational methods to improve communication in their outreach, research and management practices. At this unique interactive event, improvscience™ founder Dr. Raquell Holmes will lead participants through an exploration of this approach. Through a combination of dialogue, interaction and performance, scientists and non-scientists alike will take part in informative, experiential activities that will allow them to decide for themselves just how effective improv can be for communicating.

At Live, the living improvisational experiment in scientific culture takes center stage. Join us!

Nutrition

243. ASN SPONSORED SATELLITE PROGRAM: A HEALTHY APPROACH TO DIETARY FAT CONSUMPTION: UNDERSTANDING THE SCIENCE AND TAKING ACTION TO CLEAR UP CONSUMER CONFUSION

ASN Satellite

(Sponsored by: The Hass Avocado Board)

MON. 6:30 AM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM D

244. ASN SPONSORED SATELLITE PROGRAM: BREAKFAST BIOACTIVES

ASN Satellite

(Sponsored by: PepsiCo, Inc.)

MON. 6:30 AM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM E

245. DIETARY FIBER, GUT MICROBIOTA AND KIDNEY FUNCTION

Symposium

(Supported by *Ingredion, Inc.*)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: C.J. KETCHUM AND C.L. PELKMAN

Human Nutrition and Metabolism

- 8:00 Associations and Mechanisms: Dietary Fiber and Renal Health **R.J. Martin**. Univ. of California, Davis and Western Human Nutr. Res.
- 8:20 Role of Gut Microbiota in Chronic Kidney Disease **N.D. Vaziri**. Univ. of California, Irvine.
- 8:45 Kidney Function and Vitamin D Homeostasis in An Animal Model of Diabetes: Response to Resistant Starch **M. Rowling**. Iowa State Univ.
- 9:10 Nutritional Approaches to Control Toxic Uremic Solutes and Risk of End-stage Renal Disease **T.W. Meyer**. Stanford Univ.

246. INTEGRATED NUTRITION AND EARLY CHILD DEVELOPMENT INTERVENTIONS

Symposium

(Supported by *Mathile Institute for the Advancement of Human Nutrition and Mead Johnson Pediatric Nutrition Institute*)

(Sponsored by: Global Nutrition Council)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: K.M. HURLEY AND S. FERNANDEZ-RAO

Pediatric Nutrition and Early Development

- 8:00 Integrating Nutrition and Early Child Development Interventions: The Scientific Basis and Theoretical Framework **M.M. Black**. Univ. of Maryland Sch. of Med.
- 8:25 Critical versus Sensitive Periods for Integrated Nutrition and Child Development Interventions: Lessons Learned **R. Perez-Escamilla**. Yale Univ.
- 8:50 Findings and Lessons Learned from Integrated Nutrition and Early Child Development Interventions **A.K. Yousafzai**. Aga Khan Univ.
- 9:15 Financial, Programmatic, and Policy Issues: Scaling Up Integrated Nutrition and Early Child Development Interventions **F. Lopez Boo**. Inter-American Development Bank.

247. BEING “SOCIAL”: HOW SCIENTISTS CAN FIND THEIR WAY IN A 24-HOUR DIGITAL WORLD

Symposium

(Sponsored by: Public Information Committee and Young Professional Interest Group)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 151AB

CHAired: M.A. JOHNSON AND V. VIEIRA-POTTER

Education Track

- 8:00 Using Digital Strategies for Health Communication **L. Gualtieri**. Tufts Univ. Sch. of Med.
- 8:15 Can Industry Scientists Be Social? **M.I. McBurney**. DSM Nutr. Products, Inc.
- 8:30 Why and When Would Scientists Want to Be Social? **G.D. Miller**. Dairy Management, Inc.
- 8:45 Is There a Role for Social Media in Careers for New Faculty/Young Professionals? **M. Nestle**. New York Univ.

248. ENERGY AND MACRONUTRIENT METABOLISM: LIPID AND FATTY ACID METABOLISM AND TRANSPORT

Minisymposium

(Sponsored by: Energy & Macronutrient Metabolism RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 152

CHAired: C. LAMMI-KEEFE

COCHAired: J. M. ELLIS

- 8:00 **248.1** Genome-Wide Association Studies of Estimated Fatty Acid Desaturase Activity in Serum and Adipose Tissue: Relationships with Insulin Sensitivity **M. Marklund, S. Gustafsson, S. Keildson, A. Morris, E. Ingelsson, C.M. Lindgren and U. Risérus.** Uppsala Univ., The Wellcome Trust Ctr. for Human Genet., Oxford and Univ. of Liverpool.
- 8:30 **248.3** Inter-relationship between the In Vivo Metabolism of Apolipoprotein B₁₀₀-Containing Lipoproteins and LDL Particle Size and LDL Particle Number **M. Leclerc, E.M. Ooi, P. Couture, C. Richard, S. Desroches, J. Marin, A.J. Tremblay and B. Lamarche.** Laval Univ., Canada and Univ. of Western Australia.
- 8:45 **248.4** DHA-Enriched High Oleic Canola Oil Diet May Accelerate the Cholesterol Synthesis in Humans **P.J.H. Jones, S. Pu, C. Rodríguez-Pérez, V.R. Ramprasath, K. Khaloufi, A. Sabra and Segura-Carretero.** Univ. of Manitoba and Univ. of Granada.
- 9:00 **248.5** Correspondence between Effects of Dietary Cholesterol versus Plant Sterols on Plasma Cholesterol Responsiveness and Cholesterol Trafficking in Healthy Humans **P.A.S. Alphonse, V.R. Ramprasath and P.J.H. Jones.** Univ. of Manitoba.
- 9:15 **248.6** Piceatannol Inhibits Lipolysis in Adipocytes by Promoting Autophagy-Lysosome-Induced Degradation of Lipolytic Proteins **K-H. Kim, J.Y. Kwon, C-y. Chen, S. Komanetsky, Y. Zhu and J. Kershaw.** Purdue Univ.
- 9:30 **248.7** Role of Acyl-Coenzyme A:Cholesterol Acyltransferase 1 in Lipogenesis in Adipocytes **Y. Zhu, C-Y. Chen and K-H. Kim.** Purdue Univ.
- 9:45 **248.8** Effect of High Linoleic Acid Diet on Carbohydrate-Stimulated Expression of Lipogenic Genes **K.V. Axen, M.A. Harper, T. Edupghanti, J. Brown, K. Thomas and K. Axen.** Brooklyn Col.

249. DIETARY BIOACTIVE COMPONENTS: BIOAVAILABILITY, METABOLISM, AND BIOMARKERS OF DIETARY BIOACTIVE COMPONENTS

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153A

CHAired: C. KHOO

COCHAired: H. XIAO

- 8:00 **249.1** Food Metabolome in Clinical Nutrition Research: From Dietary Patterns to Discovering Disease Risk Biomarkers. Evidence from PREDIMED Study **C. Andres-Lacueva, R. Llorach, M. Urpi-Sardà, S. Tulipani, R. Vazquez-Fresno, O. Khymenets, A. Lupianez-Barbero and M. Garcia-Aloy.** Pharm. Sch., Univ. of Barcelona.
- 8:15 **249.2** Biochemical Profiling of Human Plasma and Urine from Cranberry Juice Consumption Identifies Potential Biomarkers of Consumption and Gut Flora Metabolites **C. Khoo, D.J. Baer and J.A. Novotny.** Ocean Spray Cranberries Inc., Lakeville, MA and USDA, Beltsville.
- 8:30 **249.3** A ¹H NMR-Based Approach to Investigate Metabolomic Differences in the Plasma and Urine of Young Women after Cranberry Juice or Apple Juice **H. Liu, F. Tayyari, C. Khoo and L. Gu.** Univ. of Florida, Univ. of Florida Col. of Med. and Ocean Spray Cranberries Inc.
- 8:45 **249.4** Differentiated Caco-2 Cell Monolayers Exhibit Differential Adaptation to Chronic Exposure of Green Tea and Grape Seed Extracts Rich in Flavan-3-ols **B.W. Redan and M.G. Ferruzzi.** Purdue Univ.
- 9:00 **249.5** Nanoemulsion-Based Delivery Systems for Nutraceuticals: Influence of Carrier Oil Type on Bioavailability of Pterostilbene **Y. Sun, Z. Xia, J. Zheng, P. Qiu, L. Zhang, D.J. McClements and H. Xiao.** Univ. of Massachusetts Amherst and Ocean Univ. of China, Qingdao.
- 9:15 **249.6** Controlling the Gastrointestinal Fate of Nutraceutical-Enriched Lipid Nanoparticles: From Mixed Micelles to Chylomicrons **M. Yao, D.J. McClements, F. Zhao, R.W. Craig and H. Xiao.** Univ. of Massachusetts Amherst and UMass Med. Sch.
- 9:30 **249.7** Bioavailability of Iron from Plant and Animal Ferritins **C. Lyu, B. Lönnnerdal and G. Zhao.** China Agr. Univ. and Univ. of California, Davis.
- 9:45 **249.8** Biomarkers of Fruit and Vegetable Intake in Men and Women **C. Couillard, M-C. Vohl, P. Couture, S. Lemieux and B. Lamarche.** Univ. Laval, Quebec.

Visit the Exhibits

Sunday – Tuesday

9:00 AM – 4:00 PM

250. NUTRITIONAL EPIDEMIOLOGY: RESEARCH WITH DIETARY SUPPLEMENTS AND BIOACTIVE COMPONENTS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153B

CHAired: N. AHLUWALIA

COCHAired: R. BAILEY

- 8:00 **250.1** Dietary Supplement Type Is Associated with Either Positive or Negative Self-Reported Mental Health Status in Armed Forces Personnel **K.G. Austin, S.M. McGraw, E.K. Farina, J.J. Knapik and H.R. Lieberman.** U.S. Army Res. Inst. of Envrn. Med., Natick, MA and Oak Ridge Inst. for Sci. and Educ.
- 8:15 **250.2** A Novel Combination of Sulforaphane and Maitake Extract Induces Phase II Enzymes **L.P. Slider, S.A. Erwin, S.L. Ownby and G.A. Cornblatt.** Nutramax Labs., Edgewood, MD.
- 8:30 **250.3** Association of Demographic, Lifestyle, Physiologic, and Intake Variables with Urine Caffeine and Caffeine Metabolites in the U.S. Population **M.E. Rybak, C-I. Pao, M.R. Sternberg, N. Ahluwalia and C.M. Pfeiffer.** Ctrs. for Dis. Control and Prevent.
- 8:45 **250.4** Lower Prevalence of Vitamin and Mineral Deficiencies among Adolescent Users of Full Spectrum Multivitamin/Multimineral Supplements **R.A. Murphy, E.D. Ciappio and J.K. Bird.** DSM Nutr. Products, NJ.
- 9:00 **250.5** Comparison of Labeled Composition and Strength of Prenatal Multivitamin/Mineral Prescription and Non-prescription Supplements **L.G. Saldanha, J.T. Dwyer, K.W. Andrews, R.A. Bailen, R.L. Bailey, J.M. Betz, R.B. Costello, P.T. Dang, J.J. Gahche, P.A. Gusev, F. Han, J. Palachuvattil, S. Savarala and P.R. Pehrsson.** ODS, NIH, USDA and NCHS, CDC, Hyattsville.
- 9:15 **250.6** Release 3 of the U.S. Dietary Supplement Ingredient Database: Omega-3 (n-3) Fatty Acid and Non-prescription Prenatal Multivitamin/Mineral Supplements **K.W. Andrews, J.M. Palachuvattil, P.A. Gusev, P.T. Dang, S. Savarala, F. Han, P.R. Pehrsson, L. Douglass, J.T. Dwyer, J.M. Betz, L.G. Saldanha, R.B. Costello, R.L. Bailey and J.J. Gahche.** USDA, Beltsville, ODS,NIH, Consultant, Longmont, CO and Natl. Ctr. for Hlth. Stats., CDC, Hyattsville.
- 9:30 **250.7** Flavonoid Intakes Are Predictive of Dietary Quality and Most Components of the Healthy Eating Index 2010 **R.S. Sebastian, C. Wilkinson Enns, J.D. Goldman and A.J. Moshfegh.** USDA, Beltsville, MD.
- 9:45 Conclusion.

251. COMMUNITY AND PUBLIC HEALTH NUTRITION: HEALTH DISPARITIES AND PROMOTING HEALTH IN DIVERSE POPULATIONS

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153C

CHAired: O. CHEN

COCHAired: L. AU

- 8:00 **251.1** Examining the Influence of Cultural Immersion on Willingness to Try Fruits and Vegetables among Children in Guam: The Traditions study **T.F. Aflague, R.T. Leon Guerrero and C.J. Boushey.** Univ. of Hawaii, Univ. of Guam and Univ. of Hawaii Cancer Ctr.
- 8:15 **251.2** Ultra-Processed and Ready-to-Eat Food and Beverage Purchases Differ by Race, Education, and Income in a Longitudinal U.S. Study **J. Poti, M. Mendez, S.W. Ng and B. Popkin.** Univ. of North Carolina at Chapel Hill.
- 8:30 **251.3** Corner Store Owners' Perspectives on Increasing Access to Healthy Foods **C. Ackerman, A. Rosales, E. Santiago, R. Fink and N. Fitzgerald.** Rutgers Univ.
- 8:45 **251.4** Eating Fried Foods: Negotiating Health, Taste and Tradition in the Spanish Caribbean **M. Fuster.** NYU.
- 9:00 **251.5** Acculturation, Dietary Behaviors, and Body Mass Index among Vietnamese American Adults **C. Lam and S. Jasti.** Queens Col., CUNY.
- 9:15 **251.6** Understanding the Co-existence Food Insecurity and Excess Weight in Costa Rican Women **T. Martinez-Jaikel and E.A. Frongillo.** Univ. of South Carolina and Univ. of Costa Rica Sch. of Nutr.
- 9:30 **251.7** Country and Region of Origin Predict Risk of Food Insecurity among Hispanic-Born in U.S. **A.C. McClain, K.L. Dickin, J. Dollahite and D.T. Gurak.** Cornell Univ.
- 9:45 **251.8** Exploring Fruit and Vegetable Intake of American Indian Children Using a Mixed Methods Approach **R.C. Sinley and J.A. Albrecht.** Univ. of Nebraska-Lincoln.

252. NUTRITIONAL IMMUNOLOGY: NUTRITION, IMMUNITY AND INFECTION

Minisymposium

(Sponsored by: Nutritional Immunology RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 154

CHAired: L. COLEMAN

COCHAired: E. A. KARLSSON

- 8:00 **252.1** Human Milk Oligosaccharides and Galactosyloligosaccharides Attenuate Inflammation in Human Intestine **D.S. Newburg, J.S. Ko, S. Leone and N.N. Nanthakumar.** Boston Col., Seoul Natl. Univ. Children's Hosp. and Virginia Tech and VA-MD Reg. Col. of Vet. Med.
- 8:15 **252.2** Dietary Supplementation with Naringenin Attenuates Experimental Autoimmune Encephalomyelitis in Mice **J. Wang, X. Niu, S.N. Meydani and D. Wu.** USDA at Tufts Univ.
- 8:30 **252.3** *Citrobacter rodentium* Infection Alters Murine Colonic microRNA Signature **B. Wen, J. Chen, A. Taibi and E.M. Comelli.** Univ. of Toronto.
- 8:45 **252.4** Feeding a Docosahexaenoic Acid Rich Diet during the Suckling and Weaning Period Modulates Immune Function in Offspring **C. Richard, S. Goruk and C. Field.** Univ. of Alberta.
- 9:00 **252.5** Vitamin D Status and Respiratory Tract Infections: A Systematic Review and Meta-Analysis of Observational Evidence **K. Furlong, J. Omand, M. Pitino, M. Science, D. O'Connor, J. Maguire and D. Tran.** Univ. of Toronto, The Hosp. for Sick Children and St. Michael's Hosp., Toronto.
- 9:15 **252.6** Cardiometabolic and Immunological Impacts of Extra Virgin Olive Oil Consumption in Overweight and Obese Older Adults: A Randomized Controlled Trial **M. Rozati, J. Barnett, D. Wu, G. Handelman, G. Dallal, E. Saltzman, T. Wilson, L. Li, J. Wang, A. Marcos, J.M. Ordovás, Y-C. Lee, M. Meydani and S.N. Meydani.** USDA at Tufts Univ., Univ. of Massachusetts Lowell and Inst. of Food Sci., Technol. and Nutr., Madrid.
- 9:30 **252.7** Effects of Early Life Pathogenic Exposures and Obesity on Childhood Inflammation Levels in Galápagos, Ecuador **K.M. Houck, A.L. Thompson and M. Sorensen.** Univ. of North Carolina at Chapel Hill.
- 9:45 **252.8** Leptin Receptor (*OBR*) Resistance on Immune Cells from People with Obesity **S. Funes, S. Santander, M. Grijalva, M. Fornasini and M.E. Baldeon.** Univ of the Americas and Univ of the Armed Forces, Ecuador.

253. VITAMINS AND MINERALS: WATER AND FAT SOLUBLE VITAMINS AND CHRONIC DISEASE

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: S. JAIN

COCHAired: M. TRABER

- 8:00 **253.1** Vitamin D Prevents Oxidative Stress via Regulating NOX4/Nrf2/Trx Signaling Cascade and Upregulates SIRT1-Mediated AMPK/IRS1/GLUT4 Pathway and Glucose Uptake in High Glucose-Treated 3T3L1 Adipocytes **P. Manna and S.K. Jain.** LSU Hlth. Sci. Ctr., Shreveport.
- 8:15 **253.2** Vitamin D Status Predicts Rates of Cognitive Decline in a Multi-ethnic Cohort of Older Adults **J.W. Miller, D.J. Harvey, R. Green, B.R. Reed, J.M. Olichney, D. Mungas and C.S. DeCarli.** Rutgers Univ. and Univ. of California Davis, Sacramento.
- 8:30 **253.3** Vitamin K Status Associated with MRI Measures of Memory-Related Brain Activity: A Pilot Study **G. Ferland, S. Mellah, S. Roy, B. Oulias and S. Belleville.** Inst. of Geriat., Univ. of Montreal and Sacred Heart Hosp. of Montreal.
- 8:45 **253.4** Investigation of the 3-Epimer of 25-Hydroxyvitamin D3 in Urban Schoolchildren **S.E. Berger, M. Van Rompay, C.M. Gordon, E. Goodman, C.D. Economos, M. Eliasziw, M.F. Holick and J. Sackeck.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ., Hasbro Children's Hosp., Providence, Massachusetts Gen. Hosp., Harvard Med. Sch., Tufts Univ., Boston and Sch. of Med., Boston Univ.
- 9:00 **253.5** Assessing Vitamin D₃ Stability in Dietary Supplements **S. Su and T.C. Chen.** Boston Univ. Sch. of Med.
- 9:15 **253.6** Vitamin D Supplementation and Quality of Life following Diagnosis in Stage II Colorectal Cancer Survivors **C.M. Lewis, P. Xun and K. He.** Indiana Univ.
- 9:30 **253.7** An Integrated Predictive Model of Population Serum 25(OH)D for Application in Strategy Development for Vitamin D Deficiency Prevention **K.D. Cashman, T. Singh and M. Kiely.** University Col. Cork.
- 9:45 **253.8** Vitamin D Inhibits ROS, ICAM-1, and Monocyte Adhesion in High Glucose and Acetoacetate Treated Endothelial Cells by Upregulating GSH **P. Kanikarla Marie and S. Jain.** LSU Hlth. Sci. Ctr., Shreveport.

254. OBESITY: CHRONIC DISEASES

Minisymposium

(Sponsored by: Obesity RIS)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156B

CHAired: F. GREENWAY

- 8:00 **254.1** Effect of 1 Year of Alternate Day Fasting versus Daily Calorie Restriction on Type 2 Diabetes Risk **C.M. Kroeger, J.F. Trapanowski, A. Barnosky, M.C. Klempel and K.A. Varady.** Univ. of Illinois at Chicago.
- 8:15 **254.2** Alternate-Day Fasting and Daily Calorie Restriction Similarly Affect Visceral Adiposity and Circulating Inflammatory Cytokine Concentrations **J.F. Trepanowski, C. Kroeger, A. Barnosky, K. Hoddy and K. Varady.** Univ. of Illinois at Chicago.
- 8:30 **254.3** Whole Wheat-supplemented Diet Prevents Risk Biomarkers of Cardiovascular Diseases in Obese Diabetic Mice **I.P. Mohanty, J. Yuan, G. Noratto, O. Balemba and C.F. Morris.** Washington State Univ., Univ. of Idaho and USDA, Pullman, WA.
- 8:45 **254.4** The Efficacy of the Mediterranean Diet on Obesity Outcomes: A Meta-Analysis **M. Garcia, J. Shook, J. Kerstetter, A. Kenny, J.D. Bihuniak and T.B. Huedo-Medina.** Univ. of Connecticut and Univ. of Connecticut Hlth. Ctr.
- 9:00 **254.5** Modeling of Hypertrophy and Hyperplasia in Porcine Adipose Tissue **E.D. Testroet, P.J. Sherman, A. Testroet, C.L. Yoder, S. Lei, C. Reynolds, M.R. O'Neil, T.J. Baas and D.C. Beitz.** Iowa State Univ.
- 9:15 **254.6** Low Calorie Sweetener and Macronutrient Intake in the U.S. Adult Population: NHANES 2007-2010 **K.J. Hunt, A.M. Malek, D.M. DellaValle, D. Greenberg, J.V. St. Peter and B.P. Marriott.** Med. Univ. of South Carolina and PepsiCo Inc., Purchase, NY.
- 9:30 **254.7** The Metabolic Response to a Standardized High Fat, High Calorie Meal in Healthy Obese Individuals Is Similar to that of Healthy Lean Individuals **D.M. Mutch, K.P. Lam, P. Britz-McKibbin and F. Badoud.** Univ. of Guelph and McMaster Univ., Canada.
- 9:45 **254.8** Micronutrient Status of Pre-bariatric Surgery Patients: The Prevalence of Rare and Poly-micronutrient Deficiencies and Relationships with Pre-surgery BMI? **N. Crowley, D. Petitpain and D.M. DellaValle.** Med. Univ. of South Carolina.

255. LOW-CALORIE SWEETENERS AND HEALTH: WHAT DOES THE SCIENCE TELL US?

Symposium

(Supported by International Life Sciences Institute, North America and PepsiCo, Inc.)

(Sponsored by: International Life Sciences Institute, North America and Nutrition Translation RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: D. GREENBERG AND J.D. FERNSTROM

Diet and Non-Communicable Diseases

- 10:30 Mapping out the Evidence on Low-calorie Sweeteners **M.C. Chung.** Tufts Med. Ctr.
- 11:00 What the Science Says Regarding Low-calorie Sweeteners and Body Weight **J. Zuehlke.** ILSI North America.
- 11:30 Relationships between Low-calorie Sweeteners & the Microbiome **N.A. Bokulich.** New York Univ. Med. Ctr.
- 12:00 Scientific Agreement: The Steps Needed to Get There **J.D. Fernstrom.** Univ. of Pittsburgh Sch. of Med.

256. RESEARCH REPORTING IN THE 21ST CENTURY: HOW HAS IT CHANGED AND WHAT ARE THE IMPLICATIONS FOR YOUR CAREER?

Symposium

(Sponsored by: Nutrition Education Committee)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: N.K. FUKAGAWA, B. Hennig and D.M. Bier

Education Track

- 10:30 Objectives of the Session **N.K. Fukagawa.** Univ. of Vermont.
- 10:35 Reporting Ethics in Evolution: A 200-year Perspective from the New England Journal of Medicine **J.M. Drazen.** New England Journal of Med.
- 11:10 The Good, The Bad, and The Ugly: What Retractions Say About Scientific Transparency **I. Oransky.** NYU Arthur L. Carter Journalism Inst.
- 11:45 Legal Implications of Misconduct in Research Reporting **D. Parrish.** Parrish Law Offices.
- 12:15 Panel Discussion with Speakers and Editors of Peer-reviewed Journals **N.K. Fukagawa.** Univ. of Vermont.

257. INTERNATIONAL FORUM – BRAZIL**International Forum**

(Sponsored by: International College for the Advancement of Nutrology (ICAN))

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER – ROOM 151AB

CHAired: S. GIORELLI

- 10:30 ICAN's President: Welcome and Opening of Symposium **P.C. Giorelli**. Assoc. Brasileira de Nutrol.
- 10:35 Epigenetics and Obesity **R.P. Raman**. Univ. of Oklahoma Hlth. Sci. Ctr.
- 10:55 Brazilian Superfoods **M. Garcez Duarte**.
- 11:15 Diabetes and Obesity **M. Carrera**.
- 11:35 Obesity and Insulin Resistance in Children and Adolescents **C.A. Nogueira-de-Almeida**. Univ. de Ribeirão Preto.
- 11:55 Panel Discussion.
- 12:15 Break.
- 1:30 What is New in Post-surgical Support for Bariatric Surgery **A. Ferreira**. Soc. Paraguaya de Nutr.
- 1:50 Pharmacotherapy of Obesity **P.C. Giorelli**. Assoc. Brasileira de Nutrol.
- 2:10 Agerasia: Nutrology Aspects **D. Ribas Filho**. Assoc. Brasileira de Nutrol.
- 2:30 Whey Protein in Medical Practice **G. Giorelli**. Assoc. Brasileira de Nutrol.
- 2:50 Nutrological Aspects of Endometriosis and Oxidative Stress **V. Ferreira do Amaral**. Univ. Fed. do Paran
- 3:10 Body Composition in Obesity: Changes with Physical Activity and Diet **C.A. Casavola**. Soc. Argentina de Nutr.
- 3:30 Dyslipidemia and Obesity **V. Suen**. Univ. do Estado de São Paulo-Ribeirão Preto.
- 3:50 Updates in the Management of Lactose Intolerance **E.D. Mello**.
- 4:10 Fat Mass, Fat-free Mass and Total Body Water Through Bioimpedanciometry **S. Sartoretto**. Assoc. Brasileira de Nutrol.
- 4:30 Calorie Restriction: Results from CALERIE a 2 Year Randomized Controlled Trial **S.K. Das**. Tufts Univ.
- 4:50 Discussion.

258. ENERGY AND MACRONUTRIENT METABOLISM: OBESITY AND THE METABOLIC SYNDROME**Minisymposium**

(Sponsored by: Energy & Macronutrient Metabolism RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER – ROOM 152

CHAired: R. GRANT

COCHAired: B. PICCOLO

- 10:30 **258.1** Effects of a Community Based Weight Loss Intervention in Rural New York: A Pilot Study **P. Chakraborty, J. Gran-Henriksen and J. Gleeson-Kreig**. No. Illinois Univ. and SUNY Plattsburgh.
- 10:45 **258.2** Early Childhood Malnutrition Increases Metabolic Syndrome in Adulthood **L. Fischer and J. Galler**. Harvard Med. Sch.

- 11:00 **258.3** Glucose Metabolism Influences MCP1 Expression in Adipocytes **R.W. Grant and J. Stephens**. Purdue Univ. and Pennington Biomed. Res. Ctr., Baton Rouge.
- 11:15 **258.4** Induction of Mitochondrial Tri-carboxylic Acid Cycle Is Sustained in Mice with Nonalcoholic Steatohepatitis **S. Kalavalapalli, R. Patterson, M. Nautiyal, J. Mathew, J. Martinez, T.J. Garrett, K. Cusi and N.E. Sunny**. Univ. of Florida.
- 11:30 **258.5** Higher Total Protein Intake during Exercise Training Improves Body Composition but Not Indices of Metabolic Syndrome **A.F. Amankwaah, J.E. Kim, E.M. Weinheimer-Haus, E.M. Janle and W.W. Campbell**. Purdue Univ.
- 11:45 **258.6** Enzyme-Treated Wheat Bran Alters Gut Microbiota and Liver Metabolome in Mice Fed a High Fat Diet **D.A. Kieffer, R.J. Martin, M.L. Marco, E.B. Kim, M.J. Keenan, K.E. Knudsen, T.N. Dunn, S.H. Adams and B.D. Piccolo**. USDA, Davis, Univ. of California, Davis, LSU, Baton Rouge and Aarhus Univ., Denmark.
- 12:00 **258.7** Plasma Zinc Correlations with Markers of Inflammation in Overweight and Obese Adult: A Cross-Sectional Phenotyping Study **L.R. Woodhouse, S.H. Adams, N.L. Keim, M. Van Loan and S.J. Zunino**. USDA, Davis.
- 12:15 **258.8** Pleiotropic Effects of *GCKR* and *ABCG2* on Serum Levels of Uric Acid and Triglycerides in Hispanic Children **V.S. Voruganti, G. Chittoor, S. Laston, K. Haack, S. Cole, A. Comuzzie and N. Butte**. Univ. of North Carolina at Chapel Hill, Texas Biomed. Res. Inst. and USDA, Baylor Col. of Med.

259. DIETARY BIOACTIVE COMPONENTS: DIETARY BIOACTIVE COMPONENTS AND MARKERS OF CHRONIC DISEASE: HUMAN INTERVENTION STUDIES**Minisymposium**

(Sponsored by: Dietary Bioactive Components RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER – ROOM 153A

CHAired: S. GEBAUER

- 10:30 **259.1** Effects of an Eicosapentaenoic Acid and Antioxidant-Containing Medical Food in Hypertriglyceridemia Management **K.C. Maki, J.G. Geohas, M.R. Dicklin, M. Huebner and J.K. Udani**. Midwest Ctr. for Metab. & Cardiovasc. Res., Evanston Premier Healthcare Res., ClinData Svcs.Inc. and Medicus Res. LLC.
- 10:45 **259.2** Potato (Poly)phenols on Postprandial Insulinemia and Platelet Aggregation in Premenopausal Overweight Women: A Pilot Study **Y. Huang, C. Qian, D. Xiao, L. Rudraiah, E. Park, I. Edirisinghe and B. Burton-Freeman**. Illinois Inst. of Technol.
- 11:00 **259.3** Strawberry Polyphenols and Insulin Resistance: A Dose-Response Study in Obese Individuals with Insulin Resistance **E. Park, I. Edirisinghe, H. Wei, L. Prabha Vijayakumar and B. Burton-Freeman**. Illinois Inst. of Technol.
- 11:15 **259.4** The Consumption of Acai Beverage (*Euterpe oleracea* Mart.) Improves Biomarkers for Inflammation in Individuals with the Metabolic Syndrome **H. Kim, S.Y. Simbo, J. Chown, L. McAlister, A. Roque, N. Banerjee, S.T. Talcott, R.B. Kreider and S.U. Mertens-Talcott**. Texas A&M Univ.

- 11:30 **259.5** Soy Flour Muffins Do Not Improve Risk Factors for Cardiovascular Disease in Adults with Hypercholesterolemia **E.M.T. Padhi, A. Hawke, H.J. Blewett, T.M.S. Wolever, A.M. Duncan and D.D. Ramdath.** Agr. and Agri-Food Canada, Guelph, Ont.; Univ. of Guelph; St. Boniface Hosp., Winnipeg, Man. and Glycemic Index Labs. Inc., Toronto.
- 11:45 **259.6** Acute Peanut Consumption Benefits Postprandial Endothelial Function in Overweight Healthy Males **X. Liu, A.M. Hill, S.G. West, R.M. Gabauer, C.E. McCrea, J.A. Fleming and P.M. Kris-Etherton.** Penn State and Univ. of South Australia.
- 12:00 **259.7** The Effects of Orange Polyphenols on Vascular and Cognitive Function **C. Saunders, L. Harkness and J. Spencer.** PepsiCo, U.K.; PepsiCo, U.S. and Univ. of Reading.
- 12:15 **259.8** The Effect of Vitamin D Supplementation on Glucose Homeostasis among African Americans and Hispanics with Type 2 Diabetes **J.C. Exebio, G.G. Zarini, J.A. Vaccaro, S. Ajabshir and F.G. Huffman.** Florida Intl. Univ.

260. NUTRITIONAL EPIDEMIOLOGY: NUTRITION AND CHRONIC DISEASE EPIDEMIOLOGY

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153B

CHAired: N. OLLBERDING

COCHAired: A. MILLEN

- 10:45 **260.2** Quantity and Variety in Fruit and Vegetable Intake and Cardiovascular Disease Risk: The Women's Health Initiative **S.N. Bhupathiraju, L.F. Tinker, T. Dubowitz, K.C. Johnson, R.A. Seguin, J.E. Manson and F.B. Hu.** Harvard Sch. of Publ. Hlth., Fred Hutchinson Cancer Res. Ctr., Seattle, RAND Grad. Sch., PA, Univ. of Tennessee Hlth. Sci. Ctr., Memphis, Cornell Univ and Brigham and Women's Hosp.
- 11:00 **260.3** Relations to Cognitive Change with Age of Micronutrients Found in Green Leafy Vegetables **M.C. Morris, S.L. Booth, B. Dawson-Hughes, L.L. Barnes, D.A. Bennett and Y. Wang.** Rush Univ. and USDA at Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy.
- 11:15 **260.4** Low Vitamin D Status Increases the Risk of Periodontal Disease in Puerto Rican Adults **C. Palacios, O. Abreu, D.N. Tatakis and A. Elias-Boneta.** Sch. of Publ. Hlth., Med. Sci. Campus, Univ. of Puerto Rico, Sch. of Hlth. Professionals and Sch. of Dent. Med., Med. Sci. Campus, Univ. of Puerto Rico, Col. of Dent., The Ohio State Univ. and Sch. of Dent., Med. Sci. Campus, Univ. of Puerto Rico.
- 11:30 **260.5** Association between Dietary Inflammatory Potential and Breast Cancer Incidence and Mortality: Results from the Women's Health Initiative **F. Tabung, S. Steck, A. Liese, J. Zhang, Y. Ma, B. Caan, R. Chlebowski, J. Freudenheim, L. Hou, Y. Mossavar-Rahmani, N. Shivappa, M. Vitolins, J. Wactawski-Wende, J. Ockene and J. Hebert.** Univ. of South Carolina, UMass Med. Sch, Kaiser Permanente, Oakland, UCLA Biomed. Res. Inst., Univ. at Buffalo, Feinberg Sch. of Med., Albert Einstein Col. of Med. and Wake Forest Sch. of Med.

- 11:45 **260.6** Dietary Patterns and Risk of Age-Related Macular Degeneration after More Than Two Decades of Follow-Up **J. Wu, D. Schaumberg, T. Fung, S. Sastry and W. Willett.** Harvard Sch. of Publ. Hlth., Univ. of Utah, Harvard Med. Sch., Simmons Col. and Bethesda Retina.
- 12:00 **260.7** The Association between Insomnia Symptoms and Diet Quality and Energy Intake **F.W. Cheng, Y. Li, J.W. Winkelman, F.B. Hu, E.B. Rimm and X. Gao.** Penn State, Harvard Sch. of Publ. Hlth. and Massachusetts Gen. Hosp.
- 12:15 **260.8** Low Sodium Intake Is Associated with Higher HDL Cholesterol in Premenopausal Filipino Women **N. Lee and P. Duazo.** Univ. of San Carlos, Philippines.

261. COMMUNITY AND PUBLIC HEALTH NUTRITION: FOOD SECURITY AND ITS CONNECTIONS TO NUTRITION AND HEALTH

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: L. CORDEIRO

COCHAired: L. SIBEKO

- 10:30 **261.1** Household Food Insecurity and Asthma in the 3rd Grade of the Early Childhood Longitudinal Study-Kindergarten Cohort **L.D. Mangini, Y.Q. Dong, M.D. Hayward and M.R. Forman.** Univ. of Texas at Austin.
- 10:45 **261.2** Natural Resources and Food Security: Fish-for-Sex Relationships around Lake Victoria, Kenya **K.J. Fiorella, C. Camlin, C. Salmen, R. Omond, M. Hickey, D. Omollo, E. Milner and J. Brashares.** Univ. of California, Berkeley and UCSF.
- 11:00 **261.3** Health Care Costs Associated with Household Food Insecurity in Ontario, Canada **V. Tarasuk, C. Gundersen, J. Cheng, C. DeOliveira and N. Dachner.** Univ. of Toronto, Univ. of Illinois, Urbana and Ctr. for Addiction and Ment. Hlth., Toronto.
- 11:15 **261.4** Low and Very Low Food Security Are Associated with Differences in Emotional and Behavioral Problems among Children and Adolescents in the U.S. **M.P. Burke, L.M. Martini, E. Cayir, H. Hartline-Grafton and R.L. Meade.** Food Res. & Action Ctr., Washington, DC, Univ. of South Carolina and Univ. of Tennessee, Knoxville.
- 11:30 **261.5** Remembering Childhood Food Insecurity: Measurement Challenges and Influences on Current Practices **K.L. Dickin, T.L. Rosa and S.E. Ortolano.** Cornell Univ.
- 11:45 **261.6** Shelter Expenditures Increase Vulnerability to Household Food Insecurity **A-A. Fafard and V. Tarasuk.** Univ. of Toronto.
- 12:00 **261.7** An Evaluation of the Meal Patterns among a Sample of Adult Emergency Food Pantry Users in Central Northwestern Indiana **A.G. Jacobs, B.A. Craig, R.L. Bailey, R.D. Mattes and H.A. Eicher-Miller.** Purdue Univ.
- 12:15 **261.8** Social Support Modifies Bidirectional Linkages between Food Insecurity and Prenatal Depressive Symptoms while Domestic Violence Alters the Unidirectional Impact of Food Insecurity on Prenatal Depressive Symptoms **B.K. Natamba, S. Mehta, S. Mou, S. Ghosh, R.J. Stoltzfus, J.K. Griffiths and S.L. Young.** Cornell Univ., Gulu Univ., Uganda and Tufts Univ.

262. MEDICAL NUTRITION COUNCIL: NUTRITION AND THE MICROBIOME

Minisymposium

(Sponsored by: Medical Nutrition Council)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

CHAired: K. TAPPENDEN

- 10:30 **262.1** Changes in Fecal Vitamin K Content Are Associated with the Gut Microbiota **J.P. Karl, X. Fu, X. Wang, Y. Zhao, J. Shen, C. Zhang, E. Saltzman, L. Zhao and S.L. Booth.** USDA at Tufts Univ. and Shanghai Jiao Tong Univ.
- 10:45 **262.2** Components of a Mediterranean Diet Are Associated with Gut Permeability in Obese Adults **O. Moss, A. Keshavarzian, C. Tangney, K. Shawron, K. Kester, K. Clifford, B. Piazza, M. Shaikh, M. Betz and H. Rasmussen.** Rush Univ.
- 11:00 **262.3** Impact of Gut Microbiome Modulation on Gut Inflammation **A. Ballou, R. Ali, J. Croom and M. Koci.** North Carolina State Univ.
- 11:15 **262.4** Effect of Iron Supplementation with or without Vitamin E on Gut Microbiome in Iron Deficient Infants and Toddlers **M. Tang, D.N. Frank, D. Ir and N.F. Krebs.** Univ. of Colorado Denver, Aurora.
- 11:30 **262.5** Artificial Sweetener Consumption and Microbiome Profiles in 31 Adults Living in the United States **C.L. Frankenfeld, E. Lamb, M. Sikaroodi, S. Shoemaker and P.M. Gillevet.** George Mason Univ.
- 11:45 **262.6** Perinatal bisphenol-A exposure causes colonic and liver inflammation in rabbit pups and alters gut bacterial and metabolite profiles **L. Reddivari, W.T. Walters, J. Palmer, V.D.N. Rao, R. Knight and J. Vanamala.** Penn State, Univ. of Colorado Boulder and Colorado State Univ.
- 12:00 **262.7** Goji Berry Improves Colitis in IL10^{-/-} Mice through Modulating Gut Microbiota **Y. Kang, M. Du, G. Yang and M. Zhu.** Washington State Univ.
- 12:15 Conclusion.

263. VITAMINS AND MINERALS: MICRONUTRIENT INTERVENTIONS

Minisymposium

(Sponsored by: Vitamins and Minerals RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156A

CHAired: A. GRIDER

STUDENT CHAIR: S. SCOTT

- 10:30 **263.1** Calcium and Vitamin D Supplementation Does Not Affect Iron Status during Initial Military Training: A Randomized, Double-Blind, Placebo-Controlled Trial **J.P. McClung, E. Gaffney-Stomberg, L.J. Lutz, J.C. Rood, S.J. Cable, S.M. Pasiakos and A.J. Young.** U.S. Army Res. Inst. of Environ. Med., Natick, MA, Pennington Biomed. Res. Ctr., Baton Rouge and Init. Mil. Trng. Ctr. of Excellence, Fort Eustis, VA.
- 10:45 **263.2** Tissue-Specific Proportions of Phylloquinone to Menaquinone-4 Concentrations Differ in Response to Dietary Phylloquinone Manipulation in Lean Male Zucker Rats **S.G. Harshman, D. Smith, A. Centi, J.P. Karl, X. Shen, M.K. Shea, X. Fu and S.L. Booth.** USDA at Tufts Univ.

- 11:00 **263.3** Selective Delivery of Copper Enhances Cytotoxicity of Millimolar Concentrations of Ascorbate towards Cancer Cells **A.J. Michels, D. Yu and B. Frei.** Oregon State Univ.
- 11:15 **263.4** Hemoglobin Is Positively Associated with Bone Strength in Young Adults Entering the Military **E. Gaffney-Stomberg, L.J. Lutz, J.C. Rood, S.J. Cable, J.M. Hughes, S.M. Pasiakos, A.J. Young and J.P. McClung.** U.S. Army Res. Inst. of Environ. Med., Natick, MA, Pennington Biomed. Res. Ctr., Baton Rouge and Init. Military Trng. Ctr. of Excellence, Fort Eustis, VA.
- 11:30 **263.5** ATP7a Silencing Impairs Iron Transport in Fully-Differentiated Rat Intestinal Epithelial (IEC-6) Cells **J-H. Ha, S. Gulec, C. Doguer, S. Flores, Y. Han, X. Wang and J.F. Collins.** Univ. of Florida.
- 11:45 **263.6** Serum Micronutrient Status during Pulmonary Exacerbation and following Recovery in Adults with Cystic Fibrosis **M.J. Lee, E.M. Smith, T.R. Ziegler, J.A. Alvarez and V. Tangpricha.** Emory Univ.
- 12:00 **263.7** TNF α Post-translationally Targets ZnT2 to Lysosomes to Activate Lysosomal-Mediated Cell Death and Mammary Gland Involution **S.R. Hennigar and S.L. Kelleher.** Penn State and Penn State Hershey Col. of Med.
- 12:15 **263.8** Novel Ferroxidases in Mammalian Intestinal Epithelial Cells **C. Doguer, J-H. Ha, S. Gulec, S. Flores, X. Wang and Y. Han.** Univ. of Florida and Izmir Inst. of Technol., Turkey.

264. NUTRITION EDUCATION: NUTRITION EDUCATION AND BEHAVIOR CHANGE

Minisymposium

(Sponsored by: Nutrition Education and Behavior Science RIS)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156B

CHAired: H. MUZAFFAR

COCHAired: G. TUURI

- 10:30 **264.1** Change in Knowledge of and Adherence to Dietary Sodium Restrictions in Heart Failure Patients after Education by a Registered Dietitian **C. Tan, S. Holland, C. Tangney, M. Betz, M. Mozer, K. Sarcinella and H. Rasmussen.** Rush Univ.
- 10:45 **264.2** Stakeholders' Perspectives on the Effect of a Multi-level, Multi-sector Intervention on Parent Engagement in and Awareness of Childhood Obesity Prevention and Control **C. Ganter, A. Aftosmes-Tobio, E. Chuang, T. Land and K.K. Davison.** Harvard Sch. of Publ. Hlth., UCLA and MA Dept. of Publ. Hlth., Boston.
- 11:00 **264.3** A Randomized Controlled Trial Evaluating Online to In-Person Education to Improve Breakfast Behaviors, Beliefs and Knowledge in WIC Participants **L.E. Au, S. Whaley, N.J. Rosen, M. Meza and L.D. Ritchie.** Univ. of California, Berkeley, Publ. Hlth. Fndn. Enterprises, Irwindale, CA and Univ. of California, Oakland.
- 11:15 **264.4** An Exploratory Study of High School Students' Intrinsic Motivation and Perceived Competence to Cook: Development of a Culinary Skills Curriculum and Survey Instrument **D. Miketinas, M. Cater, B. Zawodniak, H. Roy, A. Bailey and G. Tuuri.** LSU, Baton Rouge.

- 11:30 **264.5** Effectiveness of an Online Food Safety Education Program for Early Childcare Staff **C. Wickham and N.L. Cohen**. Univ. of Massachusetts Amherst.
- 11:45 **264.6** Nutrition and Physical Activity Education among SNAP-Ed Eligible Middle School Students Reveals Disconnect between Knowledge and Behavior **S. Misner, T. LeGros, V.A. Farrell, V. Hartz, L. Jacobs and T. Armstrong Florian**. Univ. of Arizona, Tucson and Univ. of Arizona Maricopa Cty. Coop. Ext., Phoenix.
- 12:00 **264.7** Parental Awareness of Calorie Recommendations for Children **V.M. Lynskey, S. Anzman-Frasca, K. Hubbard, L. Harellick, S. Sharma and C.D. Economos**. Tufts Univ., Boston.
- 12:15 **264.8** Is Brand Visibility on Snacks Affecting Their Consumption in Children? Results from an Experimental Ad-Libitum Study **D. Gregori, G. Lorenzoni, S. Ballali, M.G. Vecchio, E. Verduci and P. Berchialla**. Univ. of Padua, Zeta Res. Ltd., Trieste, Univ. of Milan and Univ. of Turin, Italy.
- 265. EXPERIMENTAL ANIMAL NUTRITION: ANIMAL MODELS OF NUTRITION AND INTESTINAL DISEASE**
- Minisymposium**
(Sponsored by: Experimental Animal Nutrition RIS)
MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156C
CHAired: E. GILBERT
COCHAired: K. BARNES
- 10:30 **265.1** Glucagon-Like Peptide 2 and Epidermal Growth Factor Promote Intestinal Adaptation in Two Neonatal Intestinal Failure Models **J. Koepke, D. Lim, P.W. Wales, P. Wizzard, D. Sigalet, J. Li, J.M. Turner and C. Levesque**. South Dakota State Univ., Univ. of Alberta, Univ. of Toronto, Univ. of Calgary, AB and Univ. of Guelph, ON, Canada.
- 10:45 **265.2** Moderately Fermentable Potato Fiber Attenuates Symptoms during Experimental Colitis **M.R. Panasevich, J.M. Allen, J.A. Woods and R.N. Dilger**. Univ. of Illinois at Urbana-Champaign.
- 11:00 **265.3** Combined Glucagon-Like Peptide-2 and Epidermal Growth Factor Therapy Maximally Stimulates Adaptation in Neonatal Intestinal Failure without Ileum **D. Lim, C. Lévesque, P. Wales, D. Vine, P. Brubaker, P. Nation, P. Wizzard, D. Sigalet, J. Li, D. Bigam and J. Turner**. Univ. of Alberta, South Dakota State Univ., Univ. of Toronto, Univ. of Calgary and Univ. of Guelph, Canada.
- 11:15 **265.4** A Dietary Prebiotic Blend of Polydextrose and Galactooligosaccharides with Bioactive Whey Protein Fractions Affects Piglet Intestinal Function and Brain Microstructure **L.S. Alexander, A.T. Mudd, K. Berding, R.V. Waworuntu, B.M. Berg, S.M. Donovan and R.N. Dilger**. Univ. of Illinois, Urbana and Mead Johnson Nutr., Evansville, IN.
- 11:30 **265.5** Disruption of Tight Junction Barrier Function and Upregulation of Inflammatory Signaling Pathway in a Necrotizing Enterocolitis Mouse Model **S. Ravisankar, R. Tatum, M. Herco and Y-H. Chen**. East Carolina Univ. Brody Sch. of Med.
- 11:45 **265.6** Milk Oligosaccharides Prevent Stressor-Induced Alterations in the Colonic Mucosa-Associated Microbiota and Animal Behavior: Evidence for Effects on the Gut-Brain Axis **A.J. Tarr, M. Chichlowski, B.M. Berg, J.D. Gailey and M.T. Bailey**. The Ohio State Univ., Mead Johnson Pediat. Nutr., Evansville, IN and Univ. of Illinois, Champaign.
- 12:00 **265.7** Metabolomic and Clinical Disturbances in Canine Inflammatory Bowel Disease **M.I. Jackson and D.E. Jewell**. Hill's Pet Nutr., Topeka.
- 12:15 **265.8** Interactive Effects of Protein Deficiency and Intestinal Nematode Infection during Pregnancy on Expression of Growth Genes in Placenta of Mice **L.M. Starr, M.E. Scott and K.G. Koski**. McGill Univ.
- 266. DIETARY BIOACTIVE COMPONENTS RIS: THE ROLE OF DIETARY BIOACTIVE COMPONENTS IN BONE HEALTH AND DEVELOPMENT**
- RIS Forum**
(Sponsored by: Dietary Bioactive Components RIS)
MON. 12:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM TBD
CHAired: T. WALLACE
- 267. GILBERT A. LEVEILLE AWARD LECTURE**
- Award Lecture**
(Supported by American Society for Nutrition (ASN) and the Institute of Food Technologists (IFT))
MON. 1:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST
1:45 Introduction.
2:00 Lecturer: **T.P. Labuza**. Univ. of Minnesota.
- 268. GUT MICROBES AND THE BRAIN: WHAT IS THE EFFECT ON HUMAN BEHAVIOR?**
- Symposium**
(Supported by Danone Nutricia Research and Yakult Honsha, Ltd.)
MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST
CHAired: E. MAYER AND W.A. WALKER
- Human Nutrition and Metabolism**
- 3:00 Gut Microbiome and Neurochemical-based Interactions between Host, Microbiota and Diet **M. Lyte**. Texas Tech Univ. Hlth. Sci. Ctr.
- 3:25 Gut Microbiome and Autism Spectrum Disorder **S.K. Mazmanian**. California Institute of Technol.
- 3:50 Gut Microbiome Influences on Brain and Behavior in Rodents **P. Bercik**. McMaster Univ.
- 4:15 Gut Microbiome Influences on Human Brain, Behavior and Disease – Facts and Fancy **E. Mayer**. UCLA.

269. APPROACHES TO ACCOUNT FOR THE EFFECTS OF INFLAMMATION ON NUTRIENT BIOMARKERS RESULTS FROM THE BIOMARKERS REFLECTING INFLAMMATION AND NUTRITION DETERMINANTS OF ANEMIA (BRINDA) PROJECT

Symposium

(Sponsored by: Global Nutrition Council and Nutritional Epidemiology RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 157ABC

CHAired: R. FLORES-AYALA AND D.J. RAITEN

Global and Public Health Nutrition

- 3:00 Overview of BRINDA Project **P.S. Suchdev**. Emory Univ., Ctrs. for Dis. Control and Prevent.
- 3:20 Approaches to Address the Influence of Inflammation on Iron Biomarkers **S. Namaste**. NICHD, NIH.
- 3:45 Risk Factors for Anemia in Different Settings: Implications for Programs **G.J. Aaron**. The Global Alliance for Improved Nutr. (GAIN)
- 4:10 Research, Policy and Programmatic Implications of BRINDA Findings **K.H. Brown**. Univ. of California, Davis.
- 4:25 Discussion.

270. ENERGY AND MACRONUTRIENT METABOLISM: PROTEIN INTAKE AND HEALTH IMPLICATIONS

Minisymposium

(Sponsored by: Energy & Macronutrient Metabolism RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 152

CHAired: J. BAUM

COCHAired: A. THALACKER-MERCER

- 3:00 **270.1** Breakfasts Higher in Protein Increase Postprandial Energy Metabolism in Overweight, Breakfast Skipping Women **A.C. Dunn, B.L. Neumann, D. Johnson, J.D. Adams and J.I. Baum**. Univ. of Arkansas.
- 3:15 **270.2** High-Protein Diet during Gestation Promotes Adiposity and Food Intake in Female Rat Pups in the Longer Term **C. Desclée de Maredsous, A. Oosting, C. Delteil, F. Blachier, P. Barbillon, T. Mary-Huard, D. Tomé, R. Oozeer and A-M. Davila**. AgroParisTech/INRA and Danone Nutricia Res., Utrecht.
- 3:30 **270.3** The Effects of Consuming Eggs on the Physical Development of Students Participating in a School Feeding Program in Uganda: A Pilot Study **J.I. Baum and J.D. Miller**. Univ. of Arkansas.
- 3:45 **270.4** Higher Protein Intake during a Mixed Meal Ingestion Increases Net Protein Accretion through a Reduction in Protein Breakdown **I-Y. Kim, S.E. Schutzler, J.M. Spore, R.H. Williams, A.A. Ferrando and R.R. Wolfe**. Univ. of Arkansas for Med. Sci.

4:00 **270.5** Dietary Protein Quantity and Source Impact Weight and Body Composition of Older Adults: Analysis of NHANES 2001-2006 Data **W.W. Campbell, J.E. Kim, N. Chen and V.L. Fulgoni III**. Purdue Univ. and Nutr. Impact LLC, Battle Creek.

4:15 **270.6** Effect of a High Protein, High Egg Diet on Muscle Composition, Metabolic Health and Systemic Inflammation in Overweight and Obese, Older Adults **C.S. Wright, J. Zhou, R.D. Sayer, J-E. Kim and W.W. Campbell**. Purdue Univ.

4:30 **270.7** Higher Total Protein Intake and Change in Total Protein Intake Impact Body Composition Changes in Adults Who Performed Exercise Training for 36 Weeks **J.E. Kim, T.B. Conley, E.M. Weinheimer-Haus and W.W. Campbell**. Purdue Univ.

4:45 **270.8** The Acute Effects of Protein Quantity and Distribution on Appetite Control, Satiety, and Food Intake in Overweight Young Women **H.J. Leidy, C.A. Roenfeldt, A.Y. Alwattar and R.S. Shafer**. Univ. of Missouri-Columbia.

271. DIETARY BIOACTIVE COMPONENTS: EFFECTS OF DIETARY BIOACTIVE COMPONENTS IN ANIMAL MODELS OF CHRONIC DISEASE RISK

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153A

CHAired: T. JALILI

COCHAired: D. SYMONS

- 3:00 **271.1** GojiBerry Attenuates Dextran Sulfate Sodium-Induced Colitis **Y. Kang, Y. Xue, M. Du and M. Zhu**. Sch. of Food Sci., Washington State Univ. and Sch. of Food Sci., Univ. of Idaho.
- 3:15 **271.2** Nobiletin and Atorvastatin Synergistically Inhibit Azoxymethane-Induced Colon Carcinogenesis in Rats **X. Wu, M. Song, Z. Gao, K. Rakariyatham, J. Zheng and H. Xiao**. Univ. of Massachusetts Amherst.
- 3:30 **271.3** Anti-atherogenic Effects of Lesion-Targeted Epigallocatechin Gallate – Loaded Nanoparticles **J. Zhang, S. Nie, M.N. Hossen, M. Sun, R. Martinez-Zaguilan, S. Sennoune and S. Wang**. Texas Tech and Texas Tech Hlth. Sci. Ctr.
- 3:45 **271.4** A *Ganoderma lucidum* Extract Derived from Mexican Genetic Resources and Its Effect on Lipid Metabolism Gene Expression and Liver Fatty Acid Composition **M.E. Meneses-Alvarez, D. Martinez-Carrera, P. Morales, M. Sobal, T. Bernabé, O. Granados-Portillo, N. Torres and A.R. Tovar**. Grad. College, Campus Puebla and Natl. Inst. of Med. Sci. and Nutr. (INNCMSZ), Mexico City.
- 4:00 **271.5** Co-administration of a Grape Seed Procyanidin Extract and the Bile Acid Sequestrant, Cholestyramine, Results in Beneficial Metabolic Alterations, Including Decreased Triglyceride Levels **R. Heidker, G. Caiozzi and M-L. Ricketts**. Univ. of Nevada, Reno.
- 4:15 **271.6** Hypolipidaemic Effects of Methanol Extract of *Vernonia amygdalina* Del in Male Wistar Albino Rats Fed High Fat Diet **I.I. Ijeh and A.C. Egedigwe**. Col. of Nat. and Appl. Sci., Michael Okpara Univ. of Agr., Nigeria.

- 4:30 **271.7** Dietary Cocoa Improves Hepatic Mitochondrial Function in Obese Mice **M. Sun, L. Tao, Y. Gu and J.D. Lambert.** Penn State.
- 4:45 **271.8** The In Vivo Effect of Oil Palm Phenolics in Atherogenic Diet-Induced Rat Model of Alzheimer's Disease **Y. Wu, V. Srirajavatsavai, K. Monplaisir, R. Sambanthamurthi and S. Gupta.** Wayne State Univ. and Malaysian Palm Oil Board, Selangor.

272. NUTRITIONAL EPIDEMIOLOGY: ADVANCING NUTRITIONAL EPIDEMIOLOGY WITH PUBLIC USE AND COMMERCIAL DATA SETS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153B

CHAired: P. M. GUENTHER

COCHAired: C. A. ZIZZA

- 3:00 **272.1** Examining the Impact of Walmart's Healthier Foods Initiative on the Nutrient Profile of U.S. Packaged Food Purchases **L.P. Smith, S.W. Ng and B. Popkin.** Univ. of North Carolina at Chapel Hill.
- 3:15 **272.2** From Shelf to Health: Product Reformulations in Cookies Impacts the Public Health Consumption Estimates of Saturated Fat and Sugar Intakes **N. Hooker, C.K. Spees, R. Watowicz and C.A. Taylor.** The Ohio State Univ.
- 3:30 **272.3** Iodized Salt Sales in the United States **J. Maalouf, J. Barron, J.P. Gunn, K. Yuan, C.G. Perrine and M.E. Cogswell.** Ctrs. for Dis. Control and Prevent. and IHRC Inc., Atlanta.
- 3:45 **272.4** Estimated Average 24-Hour Urine Sodium Excretion in U.S. Children **C.M. Pfeiffer, J.P. Hughes, D.A. Lacher, M.E. Cogswell, C-Y. Wang and C.L. Johnson.** Ctrs. for Dis. Control and Prevent., Atlanta and Hyattsville.
- 4:00 **272.5** Nutrient Intakes and Eating Patterns of U.S. Adults by Race/Ethnicity **D.G. Rhodes, J.C. Clemens and A.J. Moshfegh.** USDA, Beltsville.
- 4:15 **272.6** Race-Ethnic Patterns in Iron Intake and Status in U.S. Women: Findings from NHANES 2003-06 **N. Ahluwalia, M.R. Sternberg, R. Raghavan, A. Looker and C.M. Pfeiffer.** Natl. Ctr. for Hlth. Stats., CDC, Hyattsville and John Hopkins Univ.
- 4:30 **272.7** Prepregnancy Body Mass Index Is an Independent Risk Factor for Pregnancy Complications and Poor Birth Outcomes **D. Shin and W.O. Song.** Michigan State Univ.
- 4:45 **272.8** Combining Public Datasets to Explore Relationships between Dietary Change, Development and Health 1980-2009 **R. Green, J. Sutherland, A. Dangour and P. Webb.** London Sch. of Hyg. and Trop. Med. and Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy.

273. COMMUNITY AND PUBLIC HEALTH NUTRITION: POLICY AND SYSTEMS APPROACHES IN COMMUNITY AND PUBLIC HEALTH NUTRITION

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: J. NELSON-PETERMAN

COCHAired: M. SPENCE

- 3:00 **273.1** Comparability of Nutrition Study Volunteers to Participants of the Behavioral Risk Factor Surveillance System **M. Faherty, K. Dupiton, W. Flanagan and E. Saltzman.** USDA at Tufts Univ.
- 3:15 **273.2** High School Nutrition Policy: Case Study of Intended and Unintended Consequences **J.M. Metos, R.Y. Owen and R.L. Utz.** Univ. of Utah Col. of Hlth. and Univ. of Utah.
- 3:30 **273.3** Scope of National Chronic Disease Prevention Priorities in the United States **M. Arabi, A. Beaudreault, M. Mclean and J. Shlisky.** Sackler Inst. for Nutr. Sci., New York Acad. of Sci.
- 3:45 **273.4** Impact of School Lunch Period Length on Meal Consumption **J. Cohen, J. Jahn, S. Richardson, E. Parker and E. Rimm.** Harvard Sch. of Publ. Hlth. and Proj. Bread, Boston.
- 4:00 **273.5** Lunchroom Environmental Factors Related to Having School Salad Bars: Prevalence and Findings from a State-Wide Survey in Arizona **M. Bruening, M. Adams, P. Ohri-Vachaspati and J. Hurley.** Arizona State Univ.
- 4:15 **273.6** Understanding Why Potential Shoppers Do or Do Not Use Local Farmers Markets **M.L. Jensen, N.L. Alvarado-Molina and M. Zuniga.** Univ. of Costa Rica Sch. of Nutr.
- 4:30 **273.7** Protecting a Woman's Right to Breastfeed: The Extension of Maternity Leave in Vietnam **N. Hajeebhoy, T.T. Nguyen, P.H. Nguyen, P. Mannava, L.H. Phan, H.T.T. Vu, R. Mathisen and P.H. Do.** FHI 360, Intl. Food Policy Res. Inst. and UNICEF, Viet Nam.
- 4:45 **273.8** Novel Assessment of Built Environment Assets and Barriers to Healthy Eating and Active Living in Rural Communities **J.A. Messing, L. Connor, A.C. King, J.L. Sheats, S.J. Winter, M.P. Buman and R.A. Seguin.** Cornell Univ., Stanford Univ. Sch. of Med. and Arizona State Univ. Sch. of Nutr. and Hlth. Promotion.

274. MEDICAL NUTRITION: INTERVENTIONS FOR THE TREATMENT AND PREVENTION OF NUTRITION-RELATED DISEASES

Minisymposium

(Sponsored by: Medical Nutrition Council)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 154

CHAired: S. RAATZ

- 3:00 **274.1** Improvement of Metabolic Parameters in Mice Supplemented with Vitamin D throughout Life **C.R. Villa, J. Chen, B. Wen, A. Taibi, W.E. Ward and E.M. Comelli.** Univ. of Toronto and Brock Univ., Canada.
- 3:15 **274.2** Intake of 2 Eggs or Oatmeal for Breakfast Does Not Increase Biomarkers for Heart Disease while Eggs Improve Liver Enzymes and Raise HDL Cholesterol in Young Healthy Individuals **A. Missimer, D. DiMarco, M. Vergara-Jimenez, G. Murillo, B. Creighton, C.J. Andersen and M-L. Fernandez.** Univ. of Connecticut and Univ. of Sinaloa.
- 3:30 **274.3** Dietary Protein Source Impacts Bone, Acid Load and Calcium Excretion in Murine and Human Phenylketonuria **B.M. Stroup, E.A. Sawin, S.G. Murali and D.M. Ney.** Univ. of Wisconsin-Madison.
- 3:45 **274.4** Resistant Starch Alters Gut Microbiota and Reduces Uremic Retention Solutes in Rats with Adenine-Induced Chronic Kidney Disease **D. Kieffer, B. Piccolo, S. Liu, W. Lau, M. Khazaeli, S. Nazertehrani, N. Vaziri, R. Martin and S. Adams.** USDA, Univ. of California, Davis and Univ. of California, Irvine.
- 4:00 **274.5** Effect of a Low Glycemic Index Diet on Markers of Oxidative Damage in Type 2 Diabetes **A. Mirrahimi, L. Chiavaroli, E.G. Reiser, K. Srichaikul, S. Nishi, L.S.A. Augustin, J.L. Sievenpiper, C.W.C. Kendall, L.A. Leiter and D.J.A. Jenkins.** Sch. of Med., Queen's Univ., Canada, Univ. of Toronto, St. Michael's Hosp., Toronto and Col. of Pharm. and Nutr., Univ. of Saskatchewan.
- 4:15 **274.6** Effect of a Family Based Intervention on Biomarkers of Diet Quality/Endogenous Metabolism and Change in BMI Z-Score **N.R. Matthan, X. Xue, Q. Gao, J. Wylie-Rosett and A.H. Lichtenstein.** Tufts Univ., Boston and Albert Einstein Col. of Med.
- 4:30 **274.7** The Effect of a Low Glycemic Index Diet on Diabetic Nephropathy **K. Srichaikul, V. Hertzog, H. Dutton, C.W.C. Kendall, J. Sievenpiper and D.J.A. Jenkins.** St. Michael's Hosp., Univ. of Toronto and Queens' Univ., Canada.
- 4:45 **274.8** Effect of Low Glycemic Index Diet on Apolipoprotein B and LDL Particle Size **K. Srichaikul, C. Ireland, C.W.C. Kendall, J.L. Sievenpiper, B. Lamarche and D.J.A. Jenkins.** St. Michael's Hosp., Univ. of Toronto and Laval Univ., Canada.

275. NUTRIENT-GENE INTERACTIONS: GENOMICS, PROTEOMICS, AND METABOLOMICS

Minisymposium

(Sponsored by: Nutrient-Gene Interactions RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: J. ZEMPLENI

COCHAired: S. ROSS

- 3:00 **275.1** Plasma Metabolomic Profiles in Healthy Adults following Consumption of Broccoli Sprouts **L.L. Atwell, J.D. Clarke, A. Hsu, D. Bella, J. Choi, J.F. Stevens, C. Pereira, Y. Jiang, R.H. Dashwood, D.E. Williams and E. Ho.** Oregon State Univ. and Texas A&M Hlth. Sci. Ctr.
- 3:15 **275.2** Perceived Picky Eating Behaviors in Preschoolers Is Influenced by Polymorphisms in Chemosensory Genes **N.C. Cole, A. Wang, S-Y. Lee, S.M. Donovan and M. Teran-Garcia.** Univ. of Illinois at Urbana-Champaign.
- 3:30 **275.3** Effects of Gluten on the Plasma Proteome in Humans **J. Jamnik, B. Garcia-Bailo, C. Borchers and A. El-Sohemy.** Univ. of Toronto and Univ. of Victoria.
- 3:45 **275.4** Plasma Metabolomics Reveal Longitudinal Changes in Branched-Chain Amino Acids and other Metabolites during Diabetes Progression in the UCD-Type-2-Diabetes Rat Model **B.D. Piccolo, J.L. Graham, O. Fiehn, P.J. Havel and S.H. Adams.** USDA, Davis, Sch. of Vet. Med., Univ. of California, Davis, Univ. of California, Davis and Univ. of Arkansas for Med. Sci.
- 4:00 **275.5** Diet-Induced Weight Loss Changes in Gene Regulatory Networks in the Rectum: Network Analysis as a Compliment to Traditional Gene Expression Analysis **A.J. Vargas, J. Quackenbush and K. Glass.** Harvard Sch. of Publ. Hlth., NCI, NIH and Brigham and Women's Hosp.
- 4:15 **275.6** Intact β,β -Carotene -9',10'-Oxygenase 2 Is Essential to Integrity of Hepatic Mitochondrial Function in Mice **L. Wu, X. Guo, S. Hartson, S. Clarke, E. Lucas, B. Smith and D. Lin.** Oklahoma State Univ.
- 4:30 **275.7** Proteomic Analysis of Plasma in Adult Active Pulmonary Tuberculosis Patients with Diabetes Mellitus **X. Zhang, A. Ma, S. Sun and Y. Sun.** Med. Col. of Qingdao Univ. and Qingdao Ctr. for Dis. Control and Prevent., China.
- 4:45 **275.8** Evaluation of Seric Acyl-Carnitine and Amino Acid Profiles In Obese Pregnant Women with or without Gestational Diabetes **A.G. Aguilar-Lozano, A. Ceballos-Angeles, Y. Pruneda-Padilla, I. Ibarra-González, M. Vela-Amieva, F. Vadillo-Ortega and B. Palacios.** Natl. Inst. of Genet. Med., INMEGEN, Inst. of Biomed. Res., UNAM and Natl. Inst. of Pediat., Mexico City.

276. OBESITY: CHILDHOOD OBESITY MANAGEMENT

Minisymposium

(Sponsored by: Obesity RIS)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156B

CHAIRER: M. COPE

- 3:00 **276.1** Impact of a Nutrition and Health Education Program on Obese Children **A.J. Weekley, K. Calkin, J. Buffalo, S. Boekel, R. Mullis and A.K. Anderson.** Univ. of Georgia and Athens Reg. Hlth. Syst.
- 3:15 **276.2** A Metabolic Profile of Doctor-Diagnosed Overweight Children **J. Twarog, N. Patel and J. Zhang.** Jiann-Ping Hsu Col. of Publ. Hlth., Georgia Southern Univ.
- 3:30 **276.3** Double Trouble: Energy Density and Portion Size Combine to Increase Preschool Children's Lunch Intake **S.M.R. Kling, K.L. Keller, L.S. Roe and B.J. Rolls.** Penn State.
- 3:45 **276.4** Adiposity, Aerobic and Anaerobic Fitness in Middle School Aged Children **D.C. Nieman, D.A. Dew and P.G. Krasen.** Appalachian State Univ., Kannapolis, NC.
- 4:00 **276.5** Relationship between Health Status, Quality of Life, Sleep, and Academic Success in Undergraduates **K.M. Shaffer, A.M. Kuhlman, R.J. Leone, R.M. Tucker, A.L. Morgan and M-J. Ludy.** Bowling Green State Univ.
- 4:15 **276.6** Effect of Prebiotic Fiber-Induced Changes in Gut Microbiota on Adiposity in Obese and Overweight Children **A.C. Nicolucci, M.P. Hume and R.A. Reimer.** Univ. of Calgary, Canada.

- 4:30 **276.7** Apple Consumption Protects Sprague Dawley Rats against High Fat Diet-Induced Metabolic Disorders Associated with Obesity **J. Yuan, B. Chew and G. Noratto.** Washington State Univ. and Texas A&M Univ.
- 4:45 **276.8** Preference for Energy Dense Snack Foods in Healthy and Overweight Minority Preschool Children **A. Charvet, K. Brogan Hartlieb, Y. Yeh and K-L.C. Jen.** Florida Intl. Univ. and Wayne State Univ.

277. KELLOGG INTERNATIONAL PRIZE IN NUTRITION LECTURE

Award Lecture

(Supported by Kellogg)

(Sponsored by: Global Nutrition Council)

MON. 6:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Global and Public Health Nutrition

The Kellogg International Prize in Nutrition Lecture is held during the Global Nutrition Council's Business Meeting. Please see <http://scientificsessions.nutrition.org/> for more details.

- 6:30 Introduction.
- 7:00 Lecturer: **G.H. Peltó.** Cornell Univ.

Pathology

278. ACVP SYMPOSIUM: INTESTINAL MICROBIOME: LESSONS FROM COMPARATIVE MEDICINE

Symposium

(Sponsored by: American College of Veterinary Pathologists and ASIP Veterinary Pathology Scientific Interest Group)

MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160C

CHAIRER: M.M. SCHUTTEN AND R. SULLIVAN

Veterinary Pathology

Microbiome

- 8:30 Comparative Microbiomes in Nature: People, Primates and Domestic Animals **T.L. Goldberg.** Univ. of Wisconsin-Madison.
- 9:15 Microbiome and Metabolome Changes in Dogs with IBD **J.S. Suchodolski.** Texas A&M Univ.
- 10:00 Microbial Endocrinology and the Interactions Between the Microbiome and the Neuroendocrine System **M. Lyte.** Texas Tech Univ. Hlth. Sci. Ctr.
- 10:45 Predicting and Manipulating Cardiac Drug Inactivation by the Human Gut Microbes **E. Balskus.** Harvard Univ.

279. MOLECULAR AND CELLULAR BASIS OF DISEASE: NEUROPATHOLOGY AS A PARADIGM FOR DISEASE PROCESSES: ADVANCES IN THE UNDERSTANDING OF NEURAL DEVELOPMENT AND DISEASE: CELLS AND CIRCUITS

Symposium

(Sponsored by: ASIP Neuropathology Scientific Interest Group)

MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160A/B

CHAIRER: J.J. OTERO AND A.F. BUCKLEY

Neuropathology

Neurobiology

- 8:30 Dopaminergic Neurons and Brain Reward Pathways: From Neurogenesis to Circuit Dysfunction **E.J. Huang.** UCSF.
- 9:15 Daam2-PIP5K is a Novel Regulatory Pathway for Wnt Signaling and Therapeutic Target for Remyelination in the CNS **B. Deneen.** Baylor Col. of Med.
- 10:00 Reprogramming Neuronal Diversity in the Central Nervous System **P. Arlotta.** Harvard Univ.
- 10:45 Developmental Transcription Factors in Gliomas **K.L. Ligon.** Dana-Farber Cancer Inst.

280. PROGRAMMED NON-APOPTOTIC CELL DEATH IN TISSUE INJURY**Symposium***(Sponsored by: ASIP Cell Injury Scientific Interest Group)*MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 161*CHAired: W-X. DING AND W-X. ZONG***Cell and Tissue Injury****Liver Pathobiology****Injury/Connective Tissue/Fibrosis**

- 8:30 Programmed Necrosis in Virus-Induced Inflammation **F. Chan**. Univ. of Massachusetts Med. Sch.
- 9:00 Role of Rip3 in Acetaminophen-Induced Necrosis and Liver Injury **H. Jaeschke**. Univ. of Arkansas for Med. Sci.
- 9:30 Small Molecule Inhibitors to Suppress Rip1-Mediated Necroptosis **A. Degterev**. Tufts Univ.
- 10:00 Programmed Necrosis in Cancer Therapy **W-X. Zong**. Stony Brook Univ.
- 10:30 Caspase 1 Activation and Inflammasome in Hypoxia and Hemorrhagic Shock **M.J. Scott**. Univ. of Pittsburgh.
- 11:00 Blocking Caspase Activation Switched TNF α -induced Apoptosis to Programmed Necrosis in Hepatocytes **W-X. Ding**. Univ. of Kansas Med. Ctr.

281. WORKSHOP: LESSONS FROM TCGA**Workshop***(Sponsored by: ASIP Neoplasia/Growth Regulation Scientific Interest Group)*MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 162A*CHAired: T.J. GIORDANO AND M. MEYERSON***Neoplasia****Cancer Biology****Neurobiology**

- 8:30 Lessons From TCGA: Gliomas **D.J. Brat**. Emory Univ. Hosp.
- 9:15 Lessons From TCGA: Endocrine Tumors **T.J. Giordano**. Univ. of Michigan.
- 10:00 Genome Alterations and Targeted Therapies in Lung Cancer **M.L. Meyerson**. Dana-Farber Cancer Inst.
- 10:45 Lessons from TCGA **G. Getz**. Massachusetts Gen. Hosp. Cancer Ctr.

282. INTERCELLULAR JUNCTIONS AND REGULATION OF TISSUE BARRIERS**Minisymposium**MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 162B*CHAired: W. MACNAUGHTON AND V. SPINDLER***Epithelial Pathobiology****Microbiome****Transporters/Channels/Barriers**

- 8:30 **282.1** Loss of Cortactin Is Associated with Intestinal Epithelial Barrier Dysfunction and Development of Colitis **A.F. Citalán-Madrid, A. García, H. Vargas, A. Betanzos, P. Nava, K. Rottner, R. Menningen and M. Schnoor**. CINVESTAV-IPN, Mexico City, Helmholtz Ctr. for Infect. Res., Braunschweig and Univ. Hosp. Münster.
- 8:45 **282.2** The Ability of Serine Proteases to Induce an Increase in Barrier Function Is Dependent on the Tight Junction Protein Occludin **N.J. Ronaghan, J. Shang, V. Iablokov and W.K. MacNaughton**. Univ. of Calgary, Canada.
- 9:00 **282.3** p38MAPK Signaling but not Direct Inhibition of Desmoglein Binding Is Crucial for Loss of Cell Cohesion in Pemphigus Vulgaris **F. Vielmuth, J. Waschke and V. Spindler**. Ludwig Maximilians Univ. Munich.
- 9:15 **282.4** cAMP Signaling Strengthens Cardiomyocyte Cohesion **C. Schinner, A. Schlipp, F. Vielmuth, V. Rötzer, E. Hartlieb, V. Spindler and J. Waschke**. Ludwig Maximilians Univ. Munich.
- 9:30 **282.5** Regulation of Tight Junction and Adherent Junction Disassembly by Connexin43 Hemichannels **J. Yao, Y. Chi, K. Gao, X. Zhang and R. Yoda**. Univ. of Yamanashi, Japan.
- 9:45 **282.6** Microbe-Host Crosstalk between Short-Chain Fatty Acids and Intestinal Epithelial HIF Provides a New Mechanism to Augment Tissue Barrier Function **L. Zheng, C. Kelly, E. Campbell, B. Saeedi, C. Scholz, A. Bayless, K. Wilson, L. Glover, D. Kominsky, A. Magnuson, T. Weir, S. Ehrentraut, V. Nguyen, C. Taylor and S. Colgan**. Univ. of Colorado, Aurora and Colorado State Univ.
- 10:00 **282.7** F-Actin Binding Protein, Anillin, Regulates Integrity of Intercellular Junctions in Human Epithelial Cells **D. Wang, G.K. Chadha, A. Feygin and A. Ivanov**. Virginia Commonwealth Univ.
- 10:15 **282.8** AKAP9, a Regulator of Microtubule Dynamics, Is Essential for Remodeling of the Blood-Testis Barrier **D. Venkatesh, D. Mruk, J. Herter, X. Cullere, Y. Cheng and T. Mayadas**. Brigham and Women's Hosp. and Harvard Med. Sch. and Popul. Council, NYC.
- 10:30 **282.9** CLMP Expression Is Increased in the Intestinal Epithelium under Inflammatory Conditions and Regulates Intercellular Adhesion, Proliferation and Migration **A-C. Luissint, L. Xiaoming, A. Bennett, H. Nishio, R. Hilgarth, I. McCall, A. Nusrat and C.A. Parkos**. Emory Univ. and Univ. of Michigan.
- 10:45 **282.10** Critical Role of Protein Kinase D in VEGF-Induced Vascular Permeability and Angiogenesis **Z.G. Jin, J. Zhao, M. Yin, I-S. Kwon and M. Mastrangelo**. Univ. of Rochester Med. Ctr.

283. MOLECULAR AND CELLULAR BASIS OF DISEASE: NEUROPATHOLOGY AS A PARADIGM FOR DISEASE PROCESSES: PRESIDENT'S SYMPOSIUM: ADVANCES IN INVESTIGATIVE NEUROPATHOLOGY

Symposium

(Sponsored by: ASIP Neuropathology Scientific Interest Group)

MON. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

CHAired: K.A. ROTH

Neuropathology

Cancer Biology

Neurobiology

- 2:00 To Eat or Not to Eat? Fine-tuning Mitochondrial Homeostasis in Parkinson's Disease **C.T. Chu**. Univ. of Pittsburgh.
- 2:45 Precision Medicine for Diseases that Cause Dementia **T.J. Montine**. Harborview Med. Ctr., Univ. of Washington.
- 3:30 Good Things in a Small Package: Cancer Genomics and Therapeutics in Mouse Models of Nervous System Neoplasia **S.L. Carroll**. Med. Univ. of South Carolina.
- 4:15 WHO's Next: An Update on the Incorporation of Molecular Diagnostics into Brain Tumor Classification **D.N. Louis**. Massachusetts Gen.Hosp.

284. BREAST AND PROSTATE CANCER

Minisymposium

MON. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAired: A. KAJDACSZY-BALLA AND S. CATALANO

Neoplasia

Cancer Biology

- 2:00 Introductory Remarks.
- 2:05 **284.1** Discrete Functions of GSK3 α and GSK3 β Isoforms in Prostate Tumor Growth and Micrometastasis **F. Gao, A. Al-Azayzih and S.P.R. Shenoy**. Col. of Pharm., Univ. of Georgia.
- 2:20 **284.2** Anti-compression and Anti-angiogenic Therapy for Breast Cancer **A. Jiang, T. Mammoto, E. Jiang, D. Ingber and A. Mammoto**. Boston Children's Hosp.
- 2:35 **284.3** Isolation and Characterization of Human Breast Epithelial Cells **S. Hoynowski, J.W. Ludlow and B. Buehrer**. Zen Bio Inc., Research Triangle Park.
- 2:50 **284.4** miR-186 Inhibition Alters Cell Proliferation and Colony Formation in Prostate Cancer **D.Z. Jones, K.R. Hobbing, M.L. Schmidt, G.J. Clark and L.R. Kidd**. Univ. of Louisville.
- 3:05 **284.5** Leptin as a Mediator of Tumor-Stromal Interactions Promotes Breast Cancer Stem Cell Activity **S. Catalano, C. Giordano, S. Panza, F.C. Chemi, I. Barone, D. Bonofiglio, A. Cordella, A. Hashim, B. Simoes, R. Clarke, A. Weisz and S. Andò**. Univ. of Calabria, Fndn. IRCCS, Naples, Univ. of Salerno, Italy and Univ. of Manchester.

- 3:20 **284.6** Caveolin-1 Loss in Human Breast Cancer Is Associated with Increased Tumor Aggressiveness and Mortality **P.C. Hart, R.D. Minshall and M.G. Bonini**. Univ. of Illinois at Chicago.
- 3:35 **284.7** Differential Responses to Hormone Therapy among ER+/PR+/HER2- Breast Cancers That Differentially Express the Estrogen Response Signature **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman**. Univ. of North Carolina at Chapel Hill Sch. of Med.
- 3:50 **284.8** Atp6v1c1 Facilitates Breast Cancer Growth and Bone Metastasis through the mTORC1 Pathway **M. McConnell, S. Feng, W. Chen, G. Zhu, L. Deng and Y-P. Li**. Univ. of Alabama at Birmingham and Ruijin Hosp., Jiao Tong Univ. Sch. of Med., Shanghai.
- 4:05 **284.9** Iron Metabolism and Prostate Cancer Aggressiveness: A Meta-analysis of Gene Expression Microarray Datasets **A. Kajdacszy-Balla, W. Ali, J. Shah, V. Macias, A. Hall, W. Walden and Y. Dai**. Univ. of Illinois at Chicago.
- 4:20 **284.10** Molecular Classification Predicts Outcome among Patients with ER+/PR+/HER2- Breast Cancers **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman**. Univ. of North Carolina Sch. of Med. and Lineberger Comprehen. Cancer Ctr.

285. INFLAMMATION, RESOLUTION OF INFLAMMATION AND LEUKOCYTE TRAFFICKING

Minisymposium

MON. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 161

CHAired: M.B. FURIE AND C. LEFORT

Inflammation

Cardiac Pathobiology

Inflammation/Immunity

- 2:00 **285.1** **Withdrawn.**
- 2:15 **285.2** CD43 Functions as an E-Selectin Ligand for Th17 Cells In Vitro and Is Required for Th17 Cell Recruitment In Vivo **F.E. Velázquez, A. Grodecki, A. Knapp, A.M. Salvador, T. Nevers and P. Alcaide**. Tufts Med. Ctr. and Tufts Sackler Grad. Sch. of Biomed. Sci.
- 2:30 **285.3** Role of CD47 in CD4⁺ T Cell Proliferation after TCR Stimulation **V. Azcutia, G. Newton, R. Bassil, S.J. Khoury, W. Elyaman and F.W. Luscinskas**. Brigham and Women's Hosp.
- 2:45 **285.4** RvD1 Activates Resolution of Inflammation following Myocardial Infarction Leading to Improved Ventricular Function **V. Kain, K.A. Ingle, S.D. Prabhu, C.N. Serhan, M. Joshi and G.V. Halade**. Univ. of Alabama at Birmingham, Harvard Med. Sch. and Midwestern Univ., IL.
- 3:00 **285.5** Novel Peptide-Conjugated Maresins Stimulate Tissue Regeneration and Clearance of Infections in Planaria and Inflammatory Exudates **J. Dalli, N. Chiang and C.N. Serhan**. Brigham and Women's Hosp. and Harvard Med. Sch.
- 3:15 **285.6** Inflammatory Leukocytes Exhibit Distinct Rhythms in Their Recruitment to Arteries and Veins **A. de Juan, D. Druzd, K. Kraus and C. Scheiermann**. Ludwig Maximilians Univ., Munich.

- 3:30 **285.7** Critical Roles for the IQ-Motif and Actin-Binding Domain of Endothelial Cell IQGAP1 during Leukocyte Transendothelial Migration **D.P. Sullivan, P. Dalal and W.A. Muller.** Northwestern Feinberg Sch. of Med.
- 3:45 **285.8** Regulatory Role of Endothelial CD47 during Leukocyte Transmigration **M. Leick, V. Azcutia, G. Newton and F.W. Lusinskas.** Brigham and Women's Hosp. and Harvard Med. Sch.
- 4:00 **285.9** Plg-R_{KT} Deficient Mice Exhibit Defective Macrophage Migration and Plasminogen Binding **L.A. Miles, N. Baik, S. Khaldoyanidi, H. Bai and R.J. Parmer.** The Scripps Res. Inst., Spectrum Pharmaceut., Irvine, UCSD and San Diego VA Healthcare Syst.
- 4:15 **285.10** Resolvin D4 Potent Antiinflammatory Proresolving Actions Confirmed via Total Synthesis **J.W. Winkler, S.K. Orr, J. Dalli, N. Chiang, N.A. Petasis and C.N. Serhan.** Brigham and Women's Hosp. and Harvard Med. Sch. and Univ. of So. California.

- 4:30 **285.11** Neutrophil-Derived Microvesicles Migrate into Cell-Impenetrable Cartilage to Protect the Joint during Inflammatory Arthritis **S.E. Headland, L.V. Norling, A. Kim, H.R. Jones, L.Y. Jan and M. Perretti.** Queen Mary Univ. of London and UCSF.

286. ASIP MEMBERSHIP BUSINESS MEETING AND AWARDS PRESENTATION

Business Meeting

MON. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

CHAired: K.A. ROTH

287. ASIP AWARDS RECEPTION

Special Event

MON. 6:00 PM—BOSTON CONVENTION & EXHIBITION CENTER – SOUTHEAST LOBBY C

Pharmacology

288. JOHN J. ABEL AWARD IN PHARMACOLOGY LECTURE

Lecture

MON. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

The John J. Abel Award in Pharmacology, named after the founder of ASPET, was established in 1946 to stimulate fundamental research in pharmacology and experimental therapeutics by young investigators.

- 8:30 Introduction **A.E. Fleckenstein.** Univ. of Utah.
- 8:35 Creating the Facebook for Molecular Analysis **P.C. Dorrestein.** UCSD Skaggs Sch. of Pharm. and Pharmaceut. Sci.

289. MEMBRANE TRANSPORTERS AT THE INTERFACE OF DRUG INTERACTIONS, BIOMARKER MONITORING, AND TOXICITY

Symposium

(Sponsored by: The Divisions for Toxicology; Drug Metabolism; Molecular Pharmacology; Cardiovascular Pharmacology; Translational and Clinical Pharmacology; and Drug Discovery and Development)

MON. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109A

CHAired: L.M. ALEKSUNES AND Y. LAI

Transporters/Channels/ Barriers

- 9:30 Introduction **L.M. Aleksunes.** Rutgers Univ.
- 9:40 Predicting Drug-Drug Interactions at Renal Organic Anion Transporters **R.M. Pelis.** Dalhousie Univ., Canada.

- 10:10 Endogenous Probes for Evaluation of Drug-Drug Interactions Involving Renal Transporters **H. Kusuvara.** Univ. of Tokyo.
- 10:40 Alterations in Transporter Expression and Function in In Vitro and In Vivo Models of Kidney Disease **M. Joy.** Univ. of Colorado.
- 11:10 Bio-synthesis and Disposition of Bile Acids in Cultured Hepatocyte: In Vitro Predictive Models for Drug-Induced Liver Injury **Y. Lai.** Bristol-Myers Squibb Co.
- 11:40 Pharmacological Activation of Fxr Attenuates Pregnancy-Induced Repression of Hepatic and Ileal Bile Acid Transporters in Mice **J.E. Moscovitz.** Rutgers Univ. Ernest Mario Sch. of Pharm. (937.2)

290. MONOAMINES AND NEUROTROPHINS IN INFLAMMATORY BOWEL DISEASE/IRRITABLE BOWEL SYNDROME

Symposium

(Sponsored by: The Divisions for Translational and Clinical Pharmacology; Toxicology; and Molecular Pharmacology)

MON. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109B

CHAired: H.I. AKBARALI AND S. SZABO

Inflammation/Immunity

- 9:30 Serotonin Signaling in the Gastrointestinal Tract **G. Mawe.** Univ. of Vermont.
- 10:05 Neurotrophin Signaling in the Gastrointestinal Tract **J.R. Grider.** Virginia Commonwealth Univ.
- 10:40 The Unexpected Role of Central & Peripheral Dopamine in the Pathogenesis of Gastrointestinal Ulceration **S. Szabo.** Univ. of California, Irvine, VA Med. Ctr.

11:15 The Role of Dopamine Receptors in Vascular Permeability & Angiogenesis in IBD **G. Tolstanova**. Taras Shevchenko Natl. Univ. of Kiev.

291. NEW THERAPIES FOR AN OLD PROBLEM: THE NINDS-SPONSORED ANTICONVULSANT SCREENING PROGRAM

Symposium

(Sponsored by: The Divisions for Drug Discovery and Development; Neuropharmacology; Translational and Clinical Pharmacology; and Molecular Pharmacology)

MON. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107C

CHAired: J.H. KEHNE AND K.S. WILCOX

Neurobiology

- 9:30 The NINDS Anticonvulsant Screening Program – Background and Overview **J.H. Kehne**. NINDS, NIH.
- 10:00 Implementation of Novel Models to Address the Unmet Medical Needs in Epilepsy Treatment **K.S. Wilcox**. Univ. of Utah.
- 10:30 Preclinical Evaluation of Cannabidiol in the Anticonvulsant Screening Program as a Potential Treatment for Epilepsy **C. Jacobson**. Epilepsy Fndn.
- 11:00 Development of Extended Neuroamides and the Role of the NINDS Anticonvulsant Screening Program **H.L. Kohn**. Univ. of North Carolina.
- 11:30 A Medicinal Chemical Approach to Design of A1 Adenosine Receptor Agonists for Seizure Treatment **K.A. Jacobson**. NIDDK, NIH.

292. PHARMACOLOGY OF NEURONAL REGENERATION AND REPAIR

Symposium

(Sponsored by: The Divisions for Neuropharmacology; Molecular Pharmacology; Translational and Clinical Pharmacology; and Drug Discovery and Development)

MON. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 106

CHAired: J.S. MARCHANT AND B. GRILL

Neurobiology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

- 9:30 From Yeast to Patient Neurons and Back Again: Powerful New Discovery Platforms **D. Tardiff**. Yumanity Therapeut.
- 10:00 The RPM-1/FSN-1 Ubiquitin Ligase Complex: Structure-Function Analysis Leads to a Peptide with Potential Implications for Neurodegeneration **B. Grill**. The Scripps Res. Inst.
- 10:30 Imaging-Based Chemical Screening Reveals Activity-Dependent Neural Differentiation of Pluripotent Stem Cells **S. Guo**. UCSF.
- 11:00 Pharmacological Biasing of Stem Cell Differentiation in Vivo: A Worm's Eye View **J.S. Marchant**. Univ. of Minnesota.

11:30 Neural-Circuit Modulation of Stem-Cell Function **P. Paez-Gonzalez**. Duke Univ.

293. PROTEIN TRAFFICKING AND DRUG DEVELOPMENT

Symposium

(Sponsored by: The Divisions for Molecular Pharmacology; Translational and Clinical Pharmacology; Drug Discovery and Development; Toxicology; and Neuropharmacology)

MON. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

CHAired: P.M. CONN

Neurobiology

- 9:30 Introduction.
- 9:35 Rescue of GPCR Mutants In Vivo **P.M. Conn**. Texas Tech Univ. Hlth. Sci. Ctr.
- 10:15 Genetic Modification of Pituitary Gonadotropic Hormone Trafficking and Secretion **T.R. Kumar**. Kansas Univ. Med. Ctr.
- 10:55 Trafficking of Calcium Sensing Receptors as a Viable Target to Modulate Signaling **G.E. Breitwieser**. Geisinger Clin.
- 11:35 The GGA Family Proteins Modulate the Cell Surface Transport of α_{2B} -Adrenergic Receptor through Specific Interactions **M. Zhang**. Med. Col. of Georgia, Georgia Regents Univ. (935.9)
- 11:50 Wrap-Up.

294. PSYCHOMOTOR STIMULANT ADDICTION: LESSONS FROM METHAMPHETAMINE

Symposium

(Sponsored by: The Divisions for Behavioral Pharmacology and Neuropharmacology)

MON. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

CHAired: R.I. DESAI AND M.A. NADER

Transporters/Channels/ Barriers

- 9:30 Drug History Alters Methamphetamine Effects at the Dopamine Transporter **E..S. Calipari**. Icahn Sch. of Med., Mount Sinai Sch. of Med.
- 10:00 Methamphetamine in Rodents and Primates: Physiology and Effects on Cognitive Performance **M.A. Taffe**. The Scripps Res. Inst.
- 10:30 Modification of Discriminative-Stimulus Effects of Dopaminergic Drugs During Chronic Methamphetamine Exposure **J. Bergman**. Harvard Med. Sch., McLean Hosp.
- 11:00 The Behavioral and Neuropharmacological Effects of Methamphetamine and Cocaine Self-Administration **M.A. Nader**. Wake Forest Sch. of Med.
- 11:30 Subjective, Reinforcing and Cognitive Effects of Methamphetamine in Humans **R. De La Garza II**. Baylor Col. of Med.

295. DRUG METABOLISM EARLY CAREER ACHIEVEMENT AWARD LECTURE

Lecture

(Sponsored by: The Division for Drug Metabolism)

MON. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 109A

The ASPET Division for Drug Metabolism Early Career Achievement Award has been established to recognize excellent original research by early career investigators in the area of drug metabolism and disposition.

- 2:00 Introduction.
2:05 Drug Metabolism Considerations in HIV Treatment and Prevention **N.N. Bumpus**. Johns Hopkins Univ. Sch. of Med.

296. DIVISION FOR DRUG METABOLISM JAMES GILLETTE AWARD AND PLATFORM SESSION: BIOTRANSFORMATION AND DRUG TRANSPORT

Division Oral Session

(Sponsored by: The Division for Drug Metabolism)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 109A

CHAired: E.E. SCOTT AND L.C. WIENKERS

- 3:00 Very High Accuracy Prediction of UDP-Glucuronosyltransferase Sites of Metabolism **S.J. Swamidass**. Washington Univ. in Saint Louis. (622.1)
3:15 Protein-Protein Interactions between Organic Anion Transporting Polypeptide 1B3 and Organic Cation Transporter 1 **J. Shoop**. Univ. of Kansas Med. Ctr. (939.6)
3:30 Pharmacogenetic Analysis of Nucleotide Kinases that Metabolize the Antiviral Drug Tenofovir **J.M. Lade**. Johns Hopkins Univ. (940.4)
3:45 Genistein Reduces Glyburide Efflux by the Human Placental BCRP Transporter: Transcriptional Regulation and Direct Inhibition **K.M. Bircsak**. Rutgers Univ., Piscataway. (939.7)
4:00 Identification of MicroRNAs Involved in the Regulation of Human UGT1A, UGT2B7 and UGT2B15 Gene Expression **I. Papageorgiou**. Washington State Univ. Col. of Vet. Med. (622.2)
4:15 Identifying the Structure-Function Activity of Human Cytosolic Sulfotransferase 1C4 **A.L. Guidry**. Univ. of Alabama at Birmingham. (622.6)
4:30 Human Small Intestinal Epithelial Cells Differentiated from Adult Intestinal Stem Cells as a Novel System for Predicting Oral Drug Absorption in Humans **T. Takenaka**. Pharmacokinet. Res. Labs.
5:00 Generation and Characterization of a Novel CYP2A13-Transgenic Mouse Model **K. Jia**.

297. ASPET JOURNAL SYMPOSIUM: REPRODUCIBILITY IN THE PHARMACOLOGICAL SCIENCES: MOVING THE DISCUSSION FORWARD

Symposium

(Sponsored by: The Board of Publications Trustees and all Divisions)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107AB

CHAired: D.R. ABERNETHY

- 3:00 The Necessity of Publishing Replication and Failure to Replicate Studies: Criteria and Venues **D.R. Abernethy**. FDA.
3:35 Replication in Pharmacological Studies: What are the Specific Issues? **M. Williams**. Feinberg Sch. of Med./Northwestern Univ.
4:10 Tracking Replicability: An Approach to Assess Reproducibility Following Publication **A. Schachner**. Boston Univ.
4:45 The Urgent Need for Standards in Life Science Research **L.P. Freedman**. Global Biol. Stds. Inst.
5:20 Question & Answer Period.

298. DRUG DISCOVERY AND DEVELOPMENT DIVISION SYMPOSIUM: DRUG DEVELOPMENT IN ACADEMIC CENTERS

Division Symposium

(Sponsored by: The Division for Drug Discovery and Development)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107C

CHAired: R.J. LEADLEY AND R.W. CALDWELL

- 3:00 Anatomy of the 5-HT_{2C} Receptor: Probing for Therapeutic Gain in Addictive Disorders **K.A. Cunningham**. Univ. of Texas Med. Branch.
3:30 Development of "Multifunctional" Compounds for the Treatment of Neuropsychiatric Disorders **A.V. Terry, Jr.** Georgia Regents Univ.
4:00 Developing Novel Therapeutics for Parkinson's Disease **C.K. Jones**. Vanderbilt Univ. Med. Ctr.
4:30 Selective Antagonism of mGlu₅ Alters Sleep-Wake and Spectral EEG and Ameliorates Behavioral Abnormalities in a Rodent Model of Traumatic Stress **M. Nedelcovych**. Vanderbilt Univ. (615.8)
4:45 Ligand-Based Pharmacophore Modeling of 5-HT_{2A} Receptor Biased Agonism **K.S. Murnane**. Mercer Univ., GA. (768.12)
5:00 Allosteric Ligands of Metabotropic Glutamate Receptor 5 Have Biased Agonism and Cooperativity **K.J. Gregory**. Monash Inst. of Pharmaceut. Sci., Australia. (772.17)
5:15 Wrap-Up.

299. NEW ROLES OF MITOCHONDRIA IN VASCULAR FUNCTION

Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology; Molecular Pharmacology; and Toxicology)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109B

CHAIR: D.W. BUSIJA AND P. KATAKAM

- 3:00 Mitochondrial Control of Ca²⁺ Signaling in Vascular Smooth Muscle **J.G. McCarron**. Univ. of Strathclyde.
- 3:30 Resilient Mitochondrial Mechanisms in Endothelium Following Ischemia **D.W. Busija**. Tulane Univ. Sch. of Med.
- 4:00 Connecting Metabolism to Flow: The Role of Mitochondrial Generated Reactive Oxygen Species **W. Chilian**. Northeast Ohio Med. Univ.
- 4:30 Mechanisms of Control of Mitochondrial Structure and Function by Ovarian Hormones **D.N. Krause**. Univ. of California, Irvine.
- 5:00 Sex-Differences in Mitochondrial Respiration in Rat Cerebral Arteries **I. Rutkai**. Tulane Univ. (780.3)
- 5:15 Curcumin-Encapsulated Stem Cell Exosomes Mitigates Neuro-vascular Mitochondrial Dysfunction after Stroke in T1DM Mice **A. Kalani**. Univ. of Louisville. (773.15)

300. MOLECULAR PHARMACOLOGY DIVISION POSTDOCTORAL SCIENTIST AWARD FINALISTS

Division Oral Session

(Sponsored by: The Division for Molecular Pharmacology)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

- 3:00 Targeting the Transient Receptor Potential-Melastatin-Like 7 Kinase Domain with the First Inhibitor, Inhibited Breast Cancer Cell Migration, Invasion and Tumor Metastasis **T.S. Kaoud**. Col. of Pharm., Univ. of Texas at Austin and Fac. of Pharm., Minia Univ., Egypt. (1021.9)
- 3:30 High-Throughput Screening for Identification of Novel Allosteric Modulators of the D₃ Dopamine Receptor **A.E. Moritz**. NINDS, NIH. (772.4)
- 4:00 Nuclear Receptor PXR, a Novel Glucose Sensor that Regulates Hepatic Gluconeogenesis **S. Gotoh**. NIEHS, NIH, Research Triangle Park. (934.8)
- 4:30 **Keynote Speaker:** A History of G Protein-Coupled Receptor Signaling **J.L. Benovic**. Thomas Jefferson Univ.

301. NEUROPHARMACOLOGY DIVISION POSTDOCTORAL SCIENTIST AWARD FINALISTS



Division Oral Session

(Sponsored by: The Division for Neuropharmacology)

MON. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 106

Neurobiology

- 3:00 Inhibition of Poly(ADP-Ribose) Polymerase Activity Modulates Autophagy Induced by Experimental Spinal Cord Trauma **I. Paterniti**. Univ. of Messina.
- 3:20 Differential Activity of Decynium-22 Analogs: Novel Targets for Probing Low-Affinity/High Capacity Biogenic Amine Transporters **R. Fraser**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- 3:40 Characterization of Real Time Adenosine Effluxes in the Brain of Anesthetized Rats Using Fast-Scan Cyclic Voltammetry **E. Adamah-Biassi**. Wake Forest Sch. of Med.
- 4:00 Effects of Extrasynaptic GABA-A Signaling in the PAG on Morphine Antinociception **K. Tonsfeldt**. Oregon Hlth. & Sci. Univ.
- 4:20 GPR171, a Newly Deorphanized Hypothalamic G Protein-Coupled Receptor Is Involved in the Regulation of Reward-Related Behaviors **E. Bobeck**. Mount Sinai Sch. of Med.
- 4:40 Selected Correction of Vigabatrin-Related Toxicity in Mice with Adjuvant Rapalog Intervention **K. Vogel**. Washington State Univ.
- 5:00 **Keynote Speaker:** The Brain and Opioids **B. Kieffer**. McGill Univ.

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Physiology

302. PRESIDENT'S SYMPOSIUM SERIES PHYSIOLOGY: ANSWERS TO BIG QUESTIONS THE FUTURE OF OBESITY RESEARCH

Symposium

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210BC

CHAired: A. HASTY

Translational Physiology

- 3:15 mTOR Signaling in Brown Fat **D. Guertin**. Univ. of Massachusetts Med. Sch.
- 3:40 Energy Balance Control by LHA **G. Lenninger**. Michigan State Univ.
- 4:05 Physiology of Low-Fit and High-Fit Rats **V. Viera-Potter**. Univ. of Missouri-Columbia.
- 4:30 Can We Make Obesity Healthy? CETP and Insulin Sensitivity in the Setting of Obesity **J. Stafford**. Vanderbilt Univ. Med. Ctr.
- 4:55 MicroRNA and Adipose Tissue Inflammation **B. Zhou**. Texas A&M Univ.

303. CARL LUDWIG DISTINGUISHED LECTURESHIP OF THE APS NEURAL CONTROL AND AUTONOMIC REGULATION SECTION

Lecture

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210A

Abnormal Cardiovascular Response to Exercise in Hypertension: Contributing Neural Factors **J.H. Mitchell**. Univ. of Texas Southwestern Med. Ctr.

304. CELLULAR MEMBRANE REPAIR IN CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

Featured Topic

(Sponsored by: Cardiovascular Section and The American Journal of Physiology: Heart and Circulatory Physiology)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 208

CHAired: N. WEISLEDER

- 8:00 Synthetic Membrane Stabilizers for the Failing and Dystrophic Heart **J. Metzger**. Univ. of Minnesota, St. Paul.
- 8:30 Repairing the Plasma Membrane to Save the Heart During Stress **R. Han**. Loyola Univ. Med. Ctr.
- 9:00 The Role of Sarcospan in Cardiac Sarcolemma Organization and Function **V.A. Richardson, M.S. Parvatiyar, J.L. Marshall, R.T. Nguyen, M.C. Jordan, K.P. Roos and R.H. Crosbie-Watson**. UCLA and UCLA David Geffen Sch. of Med. (801.3)

- 9:15 Neutrophil Polarization following Myocardial Infarction in Mice **Y. Ma, A. DeCoux, A. Yabluchanskiy, R. Clark, Y-F. Jin and M.L. Lindsey**. Univ. of Mississippi Med. Ctr. and Univ. of Texas at San Antonio. (801.4)
- 9:30 Differential Effects of Hydrophilic versus Lipophilic Statins on RhoA Kinase Inhibition and Membrane Stability in Cardiac Myocytes **J.C. Godoy, J.M. Schilling, A. Schwarz, E.K. Asfaw, E.A. Alvarez, N.D. Dalton, H.H. Patel and A.E. Zemljic-Harpf**. Veterans Med. Res. Fndn., San Diego and UCSD. (801.5)
- 9:45 Chronic High Fat Diet Decreases CD34/CD133 Cell Population in Bone Marrow and Peripheral Circulation in Association with Decreased Level of Serum MG53 **J.Z. Liu, H. Ma, D.Z. Liu, Y. Cui, S. Parthasarathy and H. Zhu**. The Ohio State Univ. Wexner Med. Ctr. and Burnett Sch. of Biomed. Sci., Univ. of Central Florida Col. of Med. (801.6)

305. CELLULAR QUALITY CONTROL IN THE LUNG: ROLE OF ERAD, AUTOPHAGY, AND MITOPHAGY IN HEALTH AND DISEASE

Featured Topic

(Sponsored by: Respiration Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 212

CHAired: M.F. BEERS AND C. PRIOLO

- 8:00 Chair's Introduction **M. Beers**. Univ. of Pennsylvania Sch. of Med.
- 8:05 Effects of Endoplasmic Reticulum Stress on Epithelial Injury and Fibrosis in Alveolar Epithelial Type II Cell (AT2)-Specific Grp78 Knockout Mice **B. Zhou, P. Flodby, H. Wang, Y. Liu, P. Minoo, E. Crandall, A. Lee and Z. Borok**. Univ. of So. California. (1015.4)
- 8:20 The Lung Macroautophagy Substrate Proteome: A Systems Biology Analysis **J. Haspel, S. Chettimada, B. Lane and A. Choi**. Washington Univ. Sch. of Med., Dana-Farber Cancer Ctr. and Harvard Univ. (1015.7)
- 8:35 Understanding the Biology of Diseases Associated With Protein Misfolding and Aggregation **D. Rubinsztein**. Cambridge Inst. for Med. Res.
- 9:15 Protein Quality Control in Alveolar Type 2 Cells: The Proteasome Is Essential for Control of Aggregation-Prone SP-C Mutations **A. Hawkins, L.W. Gonzales, S.H. Guttentag, S. Mulugeta and M.F. Beers**. Univ. of Pennsylvania and Vanderbilt Univ. (1015.5)
- 9:30 Mitochondria Homeostasis Plays a Key Role in the Age-Related Susceptibility to Lung Epithelial Injury and Fibrosis **M. Bueno, Y-C. Lai, Y. Romero, J. Brands, C. St. Croix, M. Rojas, S. Shiva, C.T. Chu and A.L. Mora**. Univ. of Pittsburgh and UNAM, Mexico City. (1015.3)
- 9:45 Akt-Mediated Mitochondrial Oxidative Stress Induces Mitophagy and Development of Pulmonary Fibrosis **J.L. Casey, A.J. Ryan, S. Murthy and A.B. Carter**. Univ. of Iowa and Iowa City VA Ctr. (1015.6)

306. GASTRO-RENAL COMMUNICATION**Symposium**

(Sponsored by: Water and Electrolyte Homeostasis Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: P. JOSE

- 8:00 The Stomach and Kidney Can Smell **J. Pluznick**. Johns Hopkins Med. Sch.
- 8:30 Gastro-Renal Reflex **P. Jose**. Univ. of Maryland Baltimore.
- 9:00 Gut Microbiota and the Kidney **D. Raj**. George Washington Univ.
- 9:30 Sodium Transporters in GI and Kidney **P. Soares da Silva**. Univ. of Porto, Portugal.

307. ION CHANNELS AND TRANSPORTERS IN HEALTH AND DISEASE**Featured Topic**

(Sponsored by: Cell and Molecular Physiology Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: S.M. O'GRADY AND J. SARATHY

Transporters/Channels/ Barriers

- 8:00 *Pseudomonas Aeruginosa* Toxins Enhance the Degradation of wt-CFTR and del508-CFTR Cl Channels **B.A. Stanton**. Dartmouth Univ.
- 8:30 WNK3-SPAK/OSR1-NKCC1 Signaling Pathway in Ischemic Brain Injury **G. Begum, S. Wang, K.T. Kahle, L. Li, H. Yuan, Y. Shi, B.E. Shmukler, S-S. Yang, S-H. Lin, S.L. Alper and D. Sun**. Univ. of Pittsburgh, Children's Hosp. Boston and Harvard Med. Sch., Harvard Univ., Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. and Tri-Svc. Gen. Hosp., Natl. Def. Med. Ctr., Taipei. (844.1)
- 8:45 Ca²⁺ and pH – Activated Channels in Pancreatic Ductal Adenocarcinoma **D.R.P. Sauter, B. Bonito, M. Rapedius, A. Brüggemann, M. Djamgoz, E.K. Hoffmann and I. Novak**. Univ. of Copenhagen, Imperial Col. London and Technol. GmbH, Munich. (844.2)
- 9:00 ENaC Regulation by [Ca²⁺]_i Is Determined by Mitochondrial Ca²⁺ Uptake **T.L. Thai, L.I. Galarza-Paez, L. Yu, H.F. Bao, J.D. Klein, J.M. Sands and D.C. Eaton**. Emory Univ. (844.3)
- 9:15 Systematic Characterization of SLC2A9 (Glut9) Variants Associated with Serum Uric Acid Levels **A. Ruiz and O. Bonny**. Univ. of Lausanne. (844.4)

- 9:30 Functional and Transport Analysis of CLCN5 Mutations Found in Dent Disease Patients **M. Chang, M. Brown, X. Tang, J. Lieske and M. Romero**. Mayo Clin. and Wayne State Univ. (844.5)
- 9:45 New Strategies for an Old Problem: Calcium Regulation in the Apicomplexan parasite, *Toxoplasma gondii* **D.A. Pace and S.N.J. Moreno**. California State Univ., Long Beach and Univ. of Georgia. (844.6)

308. LIMITATIONS TO AND POTENTIAL OF EXERCISE FOR THE SPINAL CORD INJURED**Symposium**

(Supported by Univ. of California, Irvine Exercise Medicine and Sport Sciences Initiative)

(Sponsored by: Environmental and Exercise Physiology Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: J.A. TAYLOR

- 8:00 Harnessing the Mechano-adaptive Response of Bone: the Potential to Rescue Osteoporotic Bone in SCI Patients **S. Shefelbine**. Northeastern Univ.
- 8:30 Obesity and SCI: Fat Gone Wild! **D. Gater**. Penn State Hershey Col. of Med.
- 9:00 Cardiac Autonomic Neuroplasticity Following T5 Spinal Cord Transection Increases the Susceptibility to Ischemia-Induced Sustained Ventricular Tachycardia **S. DiCarlo**. Wayne State Univ. Sch. of Med.
- 10:00 Mechanisms of Activity-Dependent Mediated Recovery of Motor and Autonomic Function after SCI **V.R. Edgerton**. UCLA.

309. PUBLISHING 101: HOW TO GET YOUR WORK PUBLISHED AND AVOID ETHICAL MINEFIELDS**Symposium**

(Sponsored by: Publications Committee)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: C. SIGMUND AND R. SCHEMAN

Career Development

- 8:00 Choosing a Journal, Authorship and Peer Review **C. Sigmund**. Univ. of Iowa.
- 8:30 Ethical Minefields I: Plagiarism and Data Duplication **K. Barrett**. UCSD.
- 9:00 Ethical Minefields II: Image Manipulation **C. Bennett**. APS.
- 9:30 Meet the Editors Panel **B. Yates and J. Adams** Univ. of Pittsburgh and Univ. of Bristol.

310. RECENT ADVANCES IN OBESITY RESEARCH

Featured Topic

(Sponsored by: APS Trainee Advisory Committee)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210BC

CHAired: K. HAACK, L. Gilliam, and J. Bradley

Obesity

Translational Physiology

- 8:00 Rapid Change in Afterload after Gastric By-Pass Surgery
E. DeVallance, K. Lee, K. Grogg, K. LeMaster, A. Brader, L. Tabone, K. Rosati, R. Quinlin, J.C. Frisbee and P.D. Chantler. West Virginia Univ. Sch. of Med. (952.5)
- 8:15 A Role for Hydrogen Sulfide in Obesity-Dependent Microvascular Remodeling
J. Candela, G.V. Velmurugan, V.S. Lin, C.J. Chang and C. White. Rosalind Franklin Univ. of Med. and Sci. and Univ. of California, Berkeley. (636.1)
- 8:30 Effects of Acute and Chronic Hyperglycemia on Lung Capillary Permeability
J.S. Clemmer, L. Xiang, S. Lu, P.N. Mittwede and R.L. Hester. Univ. of Mississippi Med. Ctr. (863.22)
- 8:45 MnTBAP Ameliorates Obesity and Metabolic Dysfunction and Limits the TF-PAR2 Pro-inflammatory Pathway in White Adipose Tissue
A.Z. Sosinsky, J.R. Brestoff, T. Brodsky, R. McLoughlin, E. Stansky, L. Fussell, A. Sheppard, M. DiSanto-Rose, L. Cai, E.E. Kershaw and T.H. Reynolds. Skidmore Col., NY and Univ. of Pittsburgh. (818.5)
- 9:00 Intestinal Insulin Receptor Contributes to Elevated Cholesterol and Stem, Enteroendocrine, and Paneth Cell Adaptations to Obesity
S.F. Andres, M.A. Santoro, A.T. Mah, J.A. Keku, A.E. Bortvedt, R.E. Blue and P.K. Lund. Univ. of North Carolina at Chapel Hill. (851.2)
- 9:15 Loss of Ulk1 in Skeletal Muscle and Heart Prevents Exercise Protection against Diet-Induced Insulin Resistance
V.A. Lira, J.A. Call, R.C. Laker, A.K. Lira, M. Zhang and Z. Yan. Univ. of Iowa, Univ. of Georgia and Univ. of Virginia. (821.6)
- 9:30 Sympathetic Overactivity to the Liver: A Possible Contributor to Hepatosteatosis in Diet-Induced Obesity?
C.N. Young, D.A. Morgan, K. Rahmouni, A.L. Mark and R.L. Davisson. Cornell Univ., Univ. of Iowa and Weill Cornell Med. Col. (652.11)
- 9:45 Melanocortin-4 Receptor Deficiency Promotes Increases in High-Fat Diet-Induced Body Weight Gain and Visceral Fat, but Not Hypertension, during Pregnancy
F.T. Spradley, A.C. Palei and J.P. Granger. Univ. of Mississippi Med. Ctr. (811.22)

311. RECENT ADVANCES IN RENAL PHYSIOLOGY AND KIDNEY DISEASE I

Featured Topic

(Sponsored by: APS Renal Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206B

CHAired: P. ORTIZ AND X. LI

- 8:00 P2X7R Antagonism Improves Renal Medullary Blood Flow and Oxygenation in Angiotensin II-Dependent Hypertension
M.A. Bailey, R.I. Menzies and J.J. Mullins. Univ. of Edinburgh. (960.23)
- 8:15 Human Mannose-Binding Lectin (MBL2) Inhibitor Prevents Renal Injury in a Novel Animal Model of Endemic Hemolytic Uremic Syndrome
M. Ozaki, B. Liu, R.I. Kushak, I.A. Rosales, Y. Kang, V.I. Pavlov, E.F. Grabowski and G.L. Stahl. Brigham and Women's Hosp. and Massachusetts Gen. Hosp. (664.1)
- 8:30 Aquaporin-1 Retards Renal Cyst Development in Polycystic Kidney Disease by Inhibition of Wnt Signaling
W. Wang, F. Li, H. Zhou, A. Verkman and B. Yang. Peking Univ. and UCSF. (663.2)
- 8:45 Flow-Stimulated NO Production Is Altered in Thick Ascending Limbs of Dahl Salt-Sensitive Rats Fed Either Normal or High Salt Diets
A. Gonzalez-Vicente, N.J. Hong and J.L. Garvin. Case Western Reserve Univ. (960.2)
- 9:00 Expression/Phosphorylation of the Renal NaCl Cotransporter (NCC) in Transplant Patients with Hypertension
L. Rojas-Vega, A.R. Jimenez, R. Gomez-Ocadiz, J. Alberú, L.M. Morales-Buenrostro and G. Gamba. Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., UNAM and Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City. (960.22)
- 9:15 Natriuretic Peptides Exert Marked Renoprotective Effects via Activation of the Natriuretic Peptide Receptor GC-A in Podocytes
J. Staffel, D. Valletta, A. Federlein, M. Kuhn and F. Schweda. Univ. of Regensburg and Univ. of Würzburg. (808.6)
- 9:30 Mechanism of Angiotensin II-Mediated Changes in Glomeruli Permeability and Calcium Influx in Podocytes
D. Ilatovskaya, O. Palygin, B. Endres, V. Levchenko and A. Staruschenko. Med. Col. of Wisconsin. (808.22)
- 9:45 The Succinate Receptor Contributes to Obesity-Induced Diabetes Type-II and Chronic Kidney Disease
C. Carmone, J.H. Robben, J. van Diepen, A.C. Ariza, O. Devuyst, R. Stienstra and P.M. Deen. Radboud Univ. Nijmegen Med. Ctr. and Univ. of Zurich. (961.3)

312. RESOURCES AND EXPERIENCES IN DEVELOPING FLIPPED CLASSROOMS FOR GRADUATE AND MEDICAL PHYSIOLOGY

Symposium

(Sponsored by: Teaching of Physiology Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: T. WILSON

Education

- 8:00 Using a Flipped Classroom Model to Improve Graduate Student Learning in Cardiovascular, Respiratory, and Renal Physiology **J. Tune**. Indiana Univ. Sch. of Med.
- 8:30 Web-Based Resources to Engage Students Outside of Class to Improve In-Class Learning of Medical Cardiovascular Physiology **R. Klabunde**. Marian Univ. Col. Osteo. Med., Indianapolis.
- 9:00 Actively Learning About Pressure-Volume Loops and Valvular Disease: Flip the Classroom **R. Augustyniak**. Edward Via Col. Osteo. Med., Carolinas Campus.
- 9:30 Incorporating Recorded Lectures and Podcasts in Respiratory and Renal Medical Physiology Flipped Classrooms **T. Wilson**. Marian Univ. Col. Osteo. Med., Indianapolis.

313. THE PHYSICAL BIOLOGY OF THROMBUS FORMATION

Symposium

(Sponsored by: Cardiovascular Section)

MON. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: O. McCARTY AND K. NEEVES

- 8:00 Shear-Dependent Regulation of Adhesion Receptors in the Vasculature **E. Gardiner**. Monash Univ., Australia.
- 8:30 Shear-Dependent Regulation of Coagulation **K. Neeves**. Colorado Sch. of Mines, Golden.
- 9:00 Platelets Engineered to Target Tumor Cell-Associated Microthrombi **M. King**. Cornell Univ.
- 9:30 Propagation of Coagulation Downstream of Thrombus Formation **O. McCarty**. Oregon Hlth. & Sci. Univ.

314. NEURAL CONTROL OF THE CIRCULATION DURING EXERCISE IN NORMAL AND DISEASE STATES

Minisymposium

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

MON. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

CHAired: J.H. MITCHELL AND S. SMITH

- 9:00 Intrathecal Fentanyl Abolishes the Exaggerated Pressor Response to Cycling Exercise in Never-Treated Hypertensive Men **L.C. Vianna, T.C. Barbosa, I.A. Fernandes, E. Prodel, N.H. Secher and A.C. Nóbrega**. Univ. of Brasília, Fluminense Fed. Univ., Brazil and Univ. of Copenhagen. (827.5)
- 9:15 Potassium Channel Dysfunction in Dorsal Root Ganglia Contributes to the Exaggerated Exercise Pressor Reflex in Heart Failure **H. Wang, G.J. Rozanski and I.H. Zucker**. Univ. of Nebraska Med. Ctr. (827.1)
- 9:30 Role of NaV 1.7 Channels on Skeletal Muscle Afferents in Evoking the Exercise Pressor Reflex **A.J. Stone, S.W. Copp and M.P. Kaufman**. Penn State Col. of Med. (1054.6)
- 9:45 Augmented Skeletal Muscle Metaboreflex Activation in Patients with Type 2 Diabetes Mellitus **S.W. Holwerda, R.M. Restaino, J.P. Fisher and P.J. Fadel**. Univ. of Missouri-Columbia and Univ. of Birmingham Sch. of Sport, Exer. and Rehab. Sci. (827.7)

315. BRAINSTEM MECHANISMS UNDERLYING CARDIORESPIRATORY SIGNALING: FROM SYNAPSES TO CIRCUITS

Symposium

(Sponsored by: Central Nervous System Section)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: A.V. DERBENEV AND M.C. ANDRESEN

- 10:30 Intimate Discretion ? Selective Targeting of Endocannabinoids at Cranial Visceral Afferent Transmission in the Solitary Tract Nucleus **M.C. Andresen**. Oregon Hlth. & Sci. Univ.
- 11:00 Synaptic and Extrasynaptic Regulation of RvIm Neurons: What is Behind the Scenes? **A.V. Derbenev**. Tulane Univ.
- 11:30 Use of Channel-Rhodopsin-Assisted Circuit Mapping to Study Brainstem Cardiorespiratory Pathways **P.G. Guyenet**. Univ. of Virginia.
- 12:00 Rhythmic and Non-rhythmic RVLM Neuronal Discharge: What Are Their Relative Contributions to Sympathetic Drive? **G.M. Toney**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

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316. CELLULAR, MOLECULAR AND SYSTEMS INTEGRATION UNDERLYING ADAPTATION AND MALADAPTATION TO HYPOXIA

Featured Topic

(Sponsored by: Hypoxia Group)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: J-M. RAMIREZ AND S. SINGH

- 10:30 **Inaugural Lahiri-Cherniack Lecture:** What is Oxygen Sensing and Why Is it Important? **N. Prabhakar.** Univ. of Chicago.
- 11:00 Ca_v 3.2 T-Type Ca^{2+} Channels in H_2S -Mediated Hypoxic Response of the Carotid Body **V.V. Makarenko, Y-J. Peng, G. Yuan, A.P. Fox, G.K. Kumar, J. Nanduri and N.R. Prabhakar.** Univ. of Chicago. (859.10)
- 11:15 Hydrogen Peroxide Augments Intracellular Ca^{++} via Voltage-Gated Ca^{++} Channels in Isolated Nucleus Tractus Solitarii Neurons **T.D. Ostrowski, L. Polo-Parada and D.D. Kline.** Univ. of Missouri-Columbia. (859.9)
- 11:30 Electrophysiological Properties of Ventral Medullary Respiratory Neurons in Rats Submitted to Chronic Intermittent Hypoxia **D.J. Moraes, M.P. da Silva, A.S. Mecawi, J. Antunes-Rodrigues, W.A. Varanda and B.H. Machado.** Sch. of Med. of Ribeirão Preto, Univ. of São Paulo. (859.5)
- 11:45 Arousal from Sleep by Optogenetic Stimulation of C1 Neurons Is Reduced following Sleep Deprivation or Hypoxia, but Restored with Systemic Adenosine 1A Antagonism **P.G. Burke, R.L. Stornetta and P.G. Guyenet.** Univ. of Virginia. (859.6)
- 12:00 Redox Remodelling in Diaphragm Muscle Adaptation to Chronic Sustained Hypoxia **K.D. O'Halloran, D. Sheehan and P. Lewis.** University Col. Cork. (859.8)
- 12:15 Chronic Intermittent Hypoxia Promotes Epigenetic Regulation of Inflammatory Gene Promoters in Microglia **E.A. Kiernan, S.M.C. Smith and J.J. Watters.** Univ. of Wisconsin-Madison. (859.4)

317. COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION ABSTRACT-DRIVEN TRAINEE FEATURED TOPIC

Featured Topic

(Sponsored by: APS Comparative and Evolutionary Physiology Section)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: B. MARTINEZ AND S. KIRKTON

- 10:30 Temperature Enhanced Extremity Lengthening Is Growth Rate Dependent **J. Kerby, M. Gray, H. Tamski, A. Heaberlin, N. Crow, G. Ion and M.A. Serrat.** Marshall Univ. Joan C. Edwards Sch. of Med. (686.5)

- 10:45 Effects of Thyroid Hormone Manipulations on Growth and Metabolism of American Alligator Hatchlings **T.S. Sirsat, S.K. Sirsat, J. Crossley and E.M. Dzialowski.** Univ. of North Texas. (686.8)
- 11:00 Central Ang 1-7 Modulates Lipolysis and Thermogenesis in Adipose Tissue **F.S. Evangelista and T.J. Bartness.** Univ. of São Paulo and Georgia State Univ. (981.1)
- 11:15 Investigating the Adaptive Role of Brain Mitochondria in a Mammalian Hibernator **M. Ballinger, C. Schwartz, J.A. Bjork and M.T. Andrews.** Univ. of Minnesota Duluth. (686.1)
- 11:30 Huff and Puff or Shut'er Down: Hypoxia-Tolerant Mammals Respond Differently to Low Oxygen **Y.A. Dzal, M.E. Pamerter, P.A. Faure and W.K. Milsom.** Univ. of British Columbia and McMaster Univ., Canada. (686.3)
- 11:45 Cold-Acclimation Reduces CO_2 Sensitivity of Chemosensory Locus Coeruleus Neurons of American Bullfrogs, *Lithobates catesbeianus* **J.M. Santin and L.K. Hartzler.** Wright State Univ. (686.7)
- 12:00 Changes in Grasshopper Jumping Muscle during Intermolt Development **M.W. Olson and S.D. Kirkton.** Union Col., NY. (686.14)
- 12:15 Adult Nephrogenesis and Persistence of Six2 Expressing Progenitor Cells in the Reptilian Kidney **T. Camarata and A. Vasilyev.** NYIT Col. of Osteo. Med. (980.6)

318. HYPERTENSION: DEVELOPING CONCEPTS

Featured Topic

(Sponsored by: Water and Electrolyte Homeostasis Section)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: J. SULLIVAN AND M. RYAN

- 10:30 Salt: An Interesting Regulator of Immune Cell Function **D.N. Mueller.** Charité.
- 11:00 Short Chain Fatty Acid Metabolites Lower Blood Pressure via Endothelial Gpr41 **N. Natarajan and J.L. Pluznick.** Johns Hopkins Univ. Sch. of Med. (811.5)
- 11:15 Renal Denervation Does Not Affect Blood Pressure in Mice with Renal-Specific Downregulation of Dopamine D2 Receptors **A. Crusan, L. Asico, P. Konkalmatt, C. Escano, Y. Yang, D. Louis, P. Jose and I. Armando.** Univ. of Maryland Sch. of Med. (811.26)
- 11:30 FKBP12 Kidney-Specific Knockout Mice are Protected from Tacrolimus-Induced Hypertension **R.A. Lazelle, B.H. McCully, C-L. Yang and D.H. Ellison.** Oregon Hlth. & Sci. Univ. and Trauma Res. Inst. of Oregon. (811.1)
- 11:45 Sodium-Independent Dietary Effects on Renal Immune Cell Infiltration in Salt-Sensitive Hypertension **J.M. Abais, A. Mattson, B. Wade, H. Lund, N. Rudemiller, G. Petrova and D.L. Mattson.** Med. Col. of Wisconsin. (811.11)
- 12:00 Early-Life Stress Induces Dysregulated Heme Homeostasis and Pro-inflammatory Phenotype in Adult Male Mice **D.H. Ho, Y. Pettway, M.L. Burch and J.S. Pollock.** Univ. of Alabama at Birmingham. (811.12)

12:15 Effect of Klotho Gene Delivery on Hypertension and Arterial Stiffness in Senescence Accelerated Mice P1 **J. Fan, X. Wang and Z. Sun.** Univ. of Oklahoma Hlth. Sci. Ctr. (811.8)

319. HYPOTHALAMIC AUTONOMIC CONTROL OF METABOLISM

Featured Topic

(Sponsored by: Neural Control and Autonomic Regulation)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: Y. JIANG AND A. ZSOMBOK

Nutrition Physiology

- 10:30 Central TRPV1 and Regulation of Glucose Metabolism **A. Zsombok.** Tulane Univ.
- 11:00 Bidirectional Communication Between the Brain and Adipose Tissue **V. Ryu.** Georgia State Univ.
- 11:30 Differential Involvement of POMC and AgRP Neurons in the Regional Sympathetic Responses to Leptin **B.B. Bell, S.M. Harlan, D.A. Morgan and K. Rahmouni.** Univ. of Iowa. (828.5)
- 11:45 Specific Control of Resting Metabolism by Angiotensin AT_{1A} Receptors in Leptin-Sensitive Cells **K.E. Claflin and J.L. Grobe.** Univ. of Iowa. (828.1)
- 12:00 Central Action of Insulin on the Modulation of Autonomic Balance to Control Hepatic Glucose of Wistar and SHR: Any Interaction between Hypothalamic Paraventricular Nucleus and Dorsal Vagal Complex? **I.M.R. Ribeiro, H.C. Ferreira-Neto, N.S. Canteras and V.R. Antunes.** Inst. of Biomed. Sci., Univ. of São Paulo. (828.7)
- 12:15 Activation of Medulla-Projecting Perifornical Neurons Modulates the Adrenal Sympathetic Response to Hypoglycemia: Involvement of Orexin Type 2 (OX₂-R) Receptors **W.S. Korim and A.J.M. Verberne.** Univ. of Melbourne. (828.2)

320. KALEY LECTURE AND COMPLEMENTARY PRESENTATIONS

Featured Topic

(Sponsored by: Cardiovascular Section and the Microcirculatory Society)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: M. NELSON

Transporters/Channels/ Barriers

Cell Signaling

- 10:30 Ion Channel Cross-Talk in the Microcirculation **M.T. Nelson.** Univ. of Vermont.
- 11:00 Ca²⁺ Influx through Vascular Smooth Muscle Cell Voltage-Gated Ca²⁺ Channels Increases Endothelial Cell Ca²⁺ to Evoke Vasodilation **P. Bagher, C.J. Garland and K.A. Dora.** Univ. of Oxford. (795.4)

- 11:15 TRPV3 Sparklets Mediate Endothelium-Dependent Dilation of Cerebral Parenchymal Arterioles **M.N. Sullivan, P.W. Pires, J.J. Robinson, E.A. Ko and S. Earley.** Univ. of Nevada Sch. of Med. and Colorado State Univ. (795.2)
- 11:30 TRPV1 Residues Vital to Protection against 4-HNE Modification, Preservation of Channel Activity and Microvascular Function **D.J. DelloStritto, P. Connel, W. Geldenhuys and I.N. Bratz.** Northeast Ohio Med. Univ. (795.8)
- 11:45 Identification and Functional Characterization of Neuronal Nitric Oxide Synthase in Primary Brain Microvascular Endothelial Cells **N.R. Peterson, A.O. Gordon, V.N. Sure, G. Rajaprabakaran, D. Liu, S. Dutta, I. Rutkai, D.W. Busija and P.V. Katakam.** Tulane Univ. Sch. of Med. (795.6)
- 12:00 Microtubules Couple Sarcoplasmic Reticulum Calcium Release to TRPM4 and BK Channel Activation in Cerebral Artery Myocytes **A.L. Gonzales, P.W. Pires, B.T. Drumm, E.A. Ko, K.M. Sanders and S. Earley.** Univ. of Vermont and Univ. of Nevada Sch. of Med. (795.9)
- 12:15 Loss of Hydrogen Sulfide-Stimulated Ca²⁺ Spark Activity in Arteries from Rats with Intermittent Hypoxia-Induced Hypertension **N.L. Kanagy, J.M. Osmond and V.S. Naik.** Univ. of New Mexico. (795.10)

321. LUNG EPITHELIUM AND ENDOTHELIUM: INJURY, REPAIR, AND REMODELING

Featured Topic

(Sponsored by: Respiration Section)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: Y. ZHAO AND I. PETRACHE

Regulation of Epithelial Function

Injury/Connective Tissue/Fibrosis

- 10:30 Signaling Pathways in the Regulation of Pulmonary Endothelial Barrier Integrity **K. Birukov.** Univ. of Chicago.
- 11:00 Syndecan-1 Regulation of Lung Injury from Influenza **P. Chen.** Cedars-Sinai Med. Ctr.
- 11:30 Histone Deacetylase 6 Mediates Cigarette Smoke-Induced Increase in Lung Endothelial Permeability and Susceptibility to Acute Lung Injury **D. Borgas, P. Sakhatskyy, J. Newton, E. Chambers, M. Xi, S. Rivera, S. Rounds and Q. Lu.** Providence VA Med. Ctr. and Alpert Med. Sch. of Brown Univ. (863.5)
- 11:45 Redox Regulation of EGFR Signaling in Innate Airway Epithelial Responses to Injury **D.E. Heppner, M. Hristrova, A. Habibovic and A. van der Vliet.** Univ. of Vermont. (863.4)
- 12:00 Abl Family Kinases Differentially Regulate LPS-Induced Endothelial Barrier Dysfunction **A.N. Rizzo, E. Letsiou, M. Brown, J.G.N. Garcia and S.M. Dudek.** Univ. of Illinois at Chicago and Univ. of Arizona. (863.11)

12:15 HIF1 α Dependent CXCR4/SDF1 Signaling Promotes Alveolar Type II Cell Spreading and the Restitution of Epithelial Barrier Integrity after Lung Injury **R.L. Zemans, J. McClendon, N. Jansing, Y. Ito, E. Redente, R.J. Mason, R. Tuder and P.M. Henson.** Natl. Jewish Hlth. and Univ. of Colorado Denver. (863.14)

322. NEUROHORMONAL MECHANISMS IN BLOOD PRESSURE CONTROL

Symposium

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

CHAired: J.R. HAYWOOD AND A. COWLEY

10:30 Cardiac Sympathetic Afferent Denervation in Heart Failure: Impact on SNA and Cardiac Remodeling **I.H. Zucker.** Univ. of Nebraska Med. Ctr.
 10:55 Sympathetic Nervous System Overactivity and Its Role in the Development of Cardiovascular Disease **S. Malpas.** Univ. of Auckland.
 11:20 Sympathetic Regulation of the Splanchnic Circulation in Arterial Pressure Regulation **G. Fink.** Michigan State Univ.
 11:45 Baroreceptors versus Renin-Angiotensin System in Blood Pressure Control **P. Persson.** Charité.
 12:10 Neural Mechanisms in Models of Hypertension **J.T. Cunningham.** Univ. of North Texas Hlth. Sci. Ctr.

323. NOVEL MECHANISMS IN RENAL FUNCTION AND BLOOD PRESSURE REGULATION

Symposium

(Sponsored by: Renal Section)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: O. WEISZ AND P. CACERES

10:30 Olfactory Receptors in Renal Function and Blood Pressure Control **B. Shepard.** Johns Hopkins Univ. Sch. of Med.
 11:00 Cilia in Renal Function **B. Yoder.** Univ. of Alabama at Birmingham.
 11:30 SNARES in Renin Release and Blood Pressure Regulation **M. Mendez.** Henry Ford Hosp.
 12:00 BBSome Proteins in Hypertension **V.C. Sheffield.** Univ. of Iowa.

324. SOLOMON A. BERSON DISTINGUISHED LECTURESHIP OF THE APS ENDOCRINOLOGY AND METABOLISM SECTION

Lecture

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

AMP-Activated Protein Kinase: Promoting Energy Homeostasis at the Cellular and the Whole-Body Levels **G. Hardie.** Univ. of Dundee Col. of Life Sci.

325. TARGETING COLONIC CONTENTS FOR TREATMENT OF DISEASE

Featured Topic

(Sponsored by: Gastrointestinal and Liver Physiology Section)

MON. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: S.J. KELLY

Microbiome

10:30 Therapeutic Targeting of Bile Acids **M. Camileri.** Mayo Clin.
 11:00 Fecal Microbial Transplant in Treatment of Disease **M. Sadowsky.** Univ. of Minnesota, Minneapolis.
 11:30 VSL#3 Probiotic Stimulates T-Cell Protein Tyrosine Phosphatase-Mediated Protection of Intestinal Epithelial Barrier Function **M. Krishnan, N. Shah, H. Penrose, R.R. Marchelletta and D.F. McCole.** Univ. of California Riverside and UCSD. (857.1)
 11:45 Transfer of Obesity via the Gut Microbiome Is Mediated Specifically through Suppression of Non-aerobic Resting Metabolism **J.L. Grobe, S.M. Bahr, B.J. Weidemann, C.M.L. Burnett, N.A. Pearson, O. DeLeon, D.J. Murry and J.R. Kirby.** Univ. of Iowa. (857.2)
 12:00 Bile Acids Regulate Colonic Epithelial Defensin Secretion: Implications for Pathogenesis and Therapy of Inflammatory Bowel Disease **N.K. Lajczak, V. Saint-Criq and S.J. Keely.** Royal Col. of Surgeons in Ireland. (857.3)
 12:15 Nod1/Nod2 Receptors Modulate the Microbiota-Gut-Brain Axis **M.A. Schneider, Y. Zhang, K.E. Barrett and M.G. Gareau.** UCSD Sch. of Med. and Univ. of California, Davis, Sch. of Vet. Med. (857.4)

326. EDWARD F. ADOLPH DISTINGUISHED LECTURESHIP OF THE APS ENVIRONMENTAL AND EXERCISE PHYSIOLOGY SECTION

Lecture

MON. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

Importance of Physical Activity-Induced Remodeling of Striated Muscle Vasculature in Treatment of T2D **H. Laughlin.** Univ. of Missouri-Columbia.

327. CARL W. GOTTSCHALK DISTINGUISHED LECTURESHIP OF THE APS RENAL SECTION

Lecture

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

Epithelial Sodium Channels Are Also Sodium Sensors **T.R. Kleyman** Univ. of Pittsburgh.

328. COMPARATIVE BIOLOGY OF MITOCHONDRIA: FROM PHYSIOLOGY TO MOLECULES AND BACK

Symposium

(Supported by Seahorse Bioscience)

(Sponsored by: Comparative and Evolutionary Physiology Section)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAIRER: M. JASTROCH AND F. PEROCCHI

- 3:15 Mitochondrial Adaptations to High-altitude Hypoxia **G. Scott**. McMaster Univ., Canada.
- 3:45 Mitochondrial Adaptation during Torpor and Hibernation **J. Staples**. Univ. of Western Ontario.
- 4:15 The Pleiotropic Role of Mitochondrial Uncoupling in Comparative Physiology **S. Keipert**. Helmholtz Zentrum Munchen.
- 4:45 Systems-level Understanding of Mitochondrial Signaling by Comparative Biology **F. Perocchi**. Ludwig Maximilians Univ. of Munich.

329. JOSEPH ERLANGER DISTINGUISHED LECTURESHIP OF THE APS CENTRAL NERVOUS SYSTEM SECTION

Lecture

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

Optical Tools for Probing Intact Biological Systems **K. Deisseroth**. HHMI, Stanford Univ.

330. ORGANOID AND PHYSIOLOGY – THE WAY OF THE FUTURE AND BEYOND?

Symposium

(Sponsored by: Cell and Molecular Physiology Section)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAIRER: K.L. HAMILTON AND E. RODRIGUES

Regulation of Epithelial Function

- 3:15 Organoids – The Way of the Future for the Study of Gastric Physiology and disease **Y. Zavros**. Univ. of Cincinnati Col. of Med.
- 3:55 Colonic Enteroids – A Model for the Investigation of Epithelial Homeostasis in the Intestine **G. Butt**. Univ. of Otago, New Zealand.
- 4:35 Kidney Organoids for Kidney Cure **B. Dekel**. Tel Aviv Univ. Sackler Fac. of Med., Safra Children's Hosp., Ramat Aviv.

331. PATHOGENESIS OF SUDDEN INFANT DEATH SYNDROME: IS IT JUST A BREATHING DISORDER?

Symposium

(Sponsored by: Respiration Section)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

CHAIRER: E. NATTIE AND D.S. PATERSON

- 3:15 Brainstem and Hippocampal Pathology of SIDS Cases **H. Kinney**. Children's Hosp. Boston, Harvard Med. Sch.
- 3:45 Altered 5-HT Function in Rodent Models Relevant to SIDS **K. Cummings**. Univ. of Missouri Sch. of Vet. Med.
- 4:15 Transgenic Approaches to Study SIDS Pathophysiology **S. Dymecki**. Harvard Med. Sch.
- 4:45 Animal Models with Altered 5-HT Function and the Pathophysiology of SIDS **E. Nattie**. Geisel Sch. of Med. at Dartmouth.

332. PROTECTING AND RESTORING FUNCTIONAL BETA CELL MASS IN TYPE 1 DIABETES: RESEARCH FROM BENCH TO BEDSIDE

Symposium

(Sponsored by: American Federation for Medical Research)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAIRER: C. EVANS-MOLINA AND P. FUEGER

- 3:15 Immune Interventions to Preserve Beta Cell Function in Type 1 Diabetes **M. Ehlers**. Immune Tolerance Network, Bethesda.
- 3:45 Significance of Beta Cell Regeneration in Type 1 Diabetes **R. Kulkarni**. Joslin Diabetes Ctr.
- 4:15 Endoplasmic Reticulum Stress and the Development of Type 1 Diabetes **F. Engin**. Univ. of Wisconsin-Madison.
- 4:45 Extending the Honeymoon: Harvesting the Beta Cell's Endogenous Ability to Regenerate **P. Fueger**. Indiana Univ.

333. TREATING CARDIOVASCULAR DISEASE WITH EXERCISE: MECHANISTIC INSIGHT TRANSLATED FROM ANIMAL MODELS

Symposium

(Sponsored by: Cardiovascular Section)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAIRER: C.A. EMTER AND J. LIBONATI

- 3:15 Promoting Physiological Growth in a Setting of Pathology **L. Leinwand**. Univ. of Colorado Boulder.
- 3:40 Cardiovascular Limits to Exercise Performance in Heart Failure Patients with Preserved or Reduced Ejection Fraction **M.J. Haykowsky**. Univ. of Alberta.

- 4:05 The Coronary Vascular Response to Acute Exercise in a Swine MI Model **D.J. Duncker**. Erasmus MC, Univ. Med. Ctr. Rotterdam.
- 4:30 Exercise Training and Stem Cell Therapy **J. Libonati**. Univ. of Pennsylvania Sch. of Nursing.
- 4:55 Insights from a Large Animal Model of Heart Failure with Preserved Ejection Fraction: Is Exercise Our Best Treatment? **C.A. Emter**. Univ. of Missouri-Columbia.

334. WATER, ELECTROLYTE, AND BLOOD PRESSURE HOMEOSTASIS: NEURAL AND HUMORAL REGULATORS AND STRESSORS

Featured Topic

(Sponsored by: Water and Electrolyte Homeostasis Section)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: J. GAO AND R. VEELKEN

- 3:15 Radiofrequency Ablation of the Renal Nerves: Unraveling the Mechanisms of Neurogenic Hypertension **D.R. Kapusta**. LSU Hlth. Sci. Ctr., New Orleans.
- 3:45 Renal Sympathetic Nerve Activity – Controlled by Renal Afferent Sympathoexcitatory or Inhibitory Nerves? **T. Ditting, K. Rodionova, S. Heinlein, K.F. Hilgers, C. Ott, R.E. Schmieder and R.A. Veelken**. Univ. of Erlangen-Nuremberg. (968.20)
- 4:00 Sex Differences in the Diurnal Natriuretic Response to a Salt Load in Rats Lacking a Functional ET_B Receptor **J.G. Johnston, J.A. Mason, C. Jin, J.S. Speed and D.M. Pollock**. Univ. of Alabama at Birmingham. (968.24)
- 4:15 The Succinate Receptor 1 Is a Physiological Regulator of the Renin-Angiotensin Aldosterone System **C. Carmone, J.H. Robben, A.C. Ariza, M. Bekkenkamp, S. Kurstjens, O. Devuyst and P.M. Deen**. Radboud Univ. Nijmegen Med. Ctr. and Univ. of Zurich. (968.7)
- 4:30 Differential Effects of Endoplasmic Reticulum Stress on Dipsogenic and Blood Pressure Responses to DOCA-Salt **C.D. Sigmund, F. Jo, H. Jo, A.M. Hilzendege, M.D. Cassell, T. Rutkowski, R.L. Davisson and J.L. Grobe**. Univ. of Iowa and Cornell Univ. (968.5)
- 4:45 The Effects of Sepsis on Osmosensory Neurons Mediating Thirst **J. Stare, S. Siami, E. Trudel, M. Prager-Khoutorsky, T. Sharshar and C.W. Bourque**. McGill Univ., McGill Univ. Hlth. Ctr., Ctr. Hosp. d'Étampes, France and Hosp. Raymond Poincaré, France. (968.17)
- 5:00 Glucocorticoids and the Diurnal Rhythm of the Thiazide-Sensitive NaCl Cotransporter **J.R. Ivy, E. Aldujaili, P.W. Flatman and M.A. Bailey**. Univ. of Edinburgh. (968.1)

335. WHAT'S YOUR MAJOR? THE RISE OF THE UNDERGRADUATE PHYSIOLOGY DEGREE

Symposium

(Sponsored by: Teaching of Physiology Section)

MON. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: J.R. HALLIWILL AND E. WEHRWEIN

Education

- 3:15 What's Your Major? The Rise of the Undergraduate Physiology Degree **J.R. Halliwill**. Univ. of Oregon.
- 3:20 Undergraduate Degrees in Physiology – Is This a Rebirth of the Field or Something Different? **E.J. Henriksen**. Univ. of Arizona.
- 3:45 Physiology Curriculum – What Should Be in at the Undergraduate Level, and What Should Be Out? **D.J. McCann**. Gonzaga Univ.
- 4:10 What Methods Are Used to Teach Large and Small Physiology Courses? **S. Dawson**. Univ. of Oregon.
- 4:35 Physiology Career Advising – What Will All those Physiology Graduates Do? **E.A. Wehrwein**. Michigan State Univ.
- 5:00 Where Do We Go From Here? **J.R. Halliwill**. Univ. of Oregon.

336. MODERN METHODS TO UNDERSTAND BRAIN CONNECTIONS AND NEURAL FUNCTION

Minisymposium

(Sponsored by: Journal of Neurophysiology and APS Central Nervous System Section)

MON. 4:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: K. DEISSEROTH

- 4:15 Genetically Encoded Optical Voltage Indicators **V. Peribone**. Yale Univ. and J.B. Pierce Fndn. Lab.
- 4:45 DREADD 2.0: An Enhanced Chemogenetic Toolkit **B. Roth**. Univ. of North Carolina at Chapel Hill.

337. A CONVERSATION WITH DENIS NOBLE AND MICHAEL JOYNER ON THE INTEGRATION OF EVOLUTIONARY BIOLOGY WITH PHYSIOLOGICAL SCIENCE

Special Session

(Sponsored by: APS and The Physiological Society (UK))

MON. 5:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: D.J. PATERSON

Discussants **D. Noble and M. Joyner** Oxford Univ. and Mayo Clin.

TUESDAY, MARCH 31

Across Societies – Experimental Biology

339. CAREER DEVELOPMENT WORKSHOPS

Workshop

TUES. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER –
EXHIBIT HALL B

Career Development

The following workshops will be held in the EB2015/FASEB Career Center. There is no fee or pre-registration associated with the workshops — just walk in and sit down!

Critiquing of CV/Resumes is by appointment and starts at 9:00 AM on Sunday and continues until 3:00 PM on Wednesday. Sign up on-site in the EB2015/FASEB Career Center, Hall B.

- 9:00 NIH K Awards. **H. Khachaturian**. NIH.
9:00 Talking about Yourself: How to Interview **N. Saul**. UCSF.
9:30 Developing your Core Message/"Elevator Pitch"
J. Lombardo. Med. Col. of Wisconsin and
Marquette Univ.
9:30 Negotiation Strategies for Scientists **D. Behrens**. Univ.
of California, Berkeley.
11:00 Making the Case for Graduate School **H. Adams**. H.G.
Adams & Assocs. Inc., Norfolk, VA.
11:00 Successful Behaviors for Winning an Interview **J.**
Blumenthal. Montgomery Col., Rockville, MD.
1:00 Creating Effective CV's Cover Letters, Research
& Teaching Statements **A. Green**. Univ. of
California, Berkeley.

- 1:00 Job Search in Academia & Industry **D. Behrens**. Univ. of
California, Berkeley.
1:00 Job Hunting in Biotech Part 1: Finding & Applying for
Scientist Positions **B. Lindstaedt**. UCSF.
1:30 Making the Connection: The Relationship between the
Resume, the Interview and the Job **J. Blumenthal**.
Montgomery Col., Rockville, MD.
2:15 NIH F Awards. **H. Khachaturian**. NIH.
2:30 Navigating the Protocol, Milestones & Graduate Degree
Requirements **H. Adams**. H.G. Adams & Assocs. Inc.,
Norfolk, VA.
2:30 Handshakes, Eye Contact, Small Talk: How to
Successfully Network at a Conference **N. Saul**. UCSF.
3:00 But I Have No Skills! **J. Lombardo**. Med. Col. of
Wisconsin and Marquette Univ.

340. 2014 TANG PRIZE IN BIOPHARMACEUTICAL SCIENCE

Lecture

(Sponsored by: Tang Prize Foundation)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156BC

CHAired: SHU CHIEN

Immune Checkpoint Blockade in Cancer Therapy: New
Insights and Opportunities. **J.P. Allison**. M.D. Anderson
Cancer Ctr., Univ. of Texas, Houston.

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Anatomy

341. LET'S GET EDUCATED! HOW ANATOMISTS CAN HELP WITH ACCREDITATION REQUIREMENTS

Symposium

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

CHAired: A. POZNANSKI

Education & Teaching

Education

- 8:00 **341.1** Your Role in Meeting LCME Accreditation
Standards **B. Barzansky**. American Med. Assn., Chicago.
8:30 **341.2** Competencies 101: The knowledge, Skills,
Behaviors and Attitudes of a Top Notch Anatomy Educator
V. Lyons. Geisel Sch. of Med. at Dartmouth.
9:00 **341.3** Wide and Deep Preparation for Any Residency?
Really? **K. Topp**. UCSF.
9:30 **341.4** Curriculum Content Review: A Guided
Collaborative Process in Continuous Quality Improvement
A. Poznanski. California Northstate Univ. Col. of Med.

342. THE EVOLUTIONARY TAPESTRY OF VERTEBRATE MORPHOLOGY AND FUNCTION

Symposium

(Cosponsored by: International Society of Vertebrate
Morphologists and The Anatomical Record)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: L. WITMER

Evolution/Anthropology

- 8:00 **342.1** Evolution of Vertebrate Lung Morphology and
Function **C. Farmer**. Univ. of Utah.
8:24 **342.2** Convergent Evolution towards a Permanently
Descended and Mobile Larynx in Some Species of Mammals
R. Frey, B.D. Charlton, D. Reby, E.V. Volodina, I.A. Volodin and
M.T. Wyman. Inst. for Zoo and Wildlife Res., Berlin, University
Col. Dublin, Univ. of Sussex Sch. of Psychol., Moscow Zoo,
Moscow State Univ. and Univ. of California, Davis.

- 8:48 **342.3** Computer Modelling and Biomimetics for Understanding the Evolution of Tail Grasping in Seahorses **D. Adriaens, T. Praet, C. Neutens, M. Porter, M. De Beule, J. McKittrick and B. Verhegge**. Ghent Univ., Clemson Univ. and UCSD.
- 9:12 **342.4** Towards a Whole Animal, Whole Lineage Perspective on the Evolution of Tetrapod Locomotion **S. Pierce and J. Hutchinson**. Harvard Univ. and Royal Vet. Col., London.
- 9:36 **342.5** Biomechanics of Mammalian Feet during Locomotion: An Integrative 3D Analysis **O. Panagiotopoulou, J.W. Rankin, S.M. Gatesy and J.R. Hutchinson**. Royal Vet. Col., London, Sch. of Biomed. Sci., Univ. of Queensland and Brown Univ.

343. ANATOMY AND GENETICS: HOW PHENOMICS INFORMS OUR UNDERSTANDING OF GENOMES

Hybrid Symposium

(Cosponsored by: AAA's Advisory Committee for Young Anatomists (ACYA))

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104C

CHAired: B. AUERBACH

Evolution/Anthropology

- 8:00 **343.1** Developmental Context and the Genotype-Phenotype Map **J. Richtsmeier**. Penn State.
- 8:30 **343.2** From Genotype to Phenotype in the Drosophila Wing **D. Houle**. Florida State Univ.
- 9:00 **343.3** Morphological and Population Genomic Analysis Demonstrates that Natural Selection and Neutral Evolutionary Processes Contributed to the Evolution of the Human Skeleton **C.C. Roseman**. Univ. of Illinois at Urbana-Champaign.
- 9:15 **343.4** Selection Gradients and Ecogeographic Variance in the Human Post-crania **K.R.R. Savell, C.C. Roseman and B.M. Auerbach**. Univ. of Tennessee, Knoxville and Univ. of Illinois at Urbana-Champaign.
- 9:30 **343.5** The End of an Old Dogma with Crucial Implications for Medical and Biology Students and for Medicine: Regenerative, Developmental, Paleontological and Evolutionary Studies Contradict the Fore-Hindlimb Serial Homology **R. Diogo and J.M. Ziermann**. Howard Univ. Col. of Med.
- 9:45 Discussion.

344. ANATOMY EDUCATION PLATFORM 2

Platform

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 102AB

CHAired: V. LYONS & T. WILSON

Education & Teaching

Education

Observational Learning and Assessment

- 10:30 **344.1** Are Spot Test Multiple Choice Questions Easier to Answer than Short Answer Questions? **T. Wilkinson and H.M. Shaw**. Univ. of Dundee and Cardiff Univ.
- 10:45 Evaluation of the Impact of Peer Teaching within the Gross Anatomy Laboratory on Student Academic Performance **K.L. Wheeler, C.M. Martin and A.C. Edmondson**. Med. Col. of Georgia at Georgia Regents Univ. (690.14)
- 11:00 **344.2** The Hidden Learning Environment: Effect of Informal Student Networks on Team Performance in a Gross Anatomy Course **S. Chawla, W. Pawlina, F. Hafferty and N. Lachman**. Med. Sch., Mayo Clin.
- 11:15 **344.3** **Withdrawn**.
- 11:30 Use of Gaze Tracking and EEG to Measure Short- and Long-Term Learning by Medical Gross Anatomy Students **A.A. El-Shaar, C. Nagle, M. Tat, A.C. Zumwalt and A. Budson**. Boston Univ. Sch. of Med. (689.12)
- 11:45 **344.4** Vision-Based Spatial Abilities and Pictures of Objects Recognized from Haptic Perception **J. Langlois, Y. Dagenais, M. Martin, R. Lemieux, M. Lecourtois, E. Yetisir, C. Bellemare, G. Bergeron, S.J. Hamstra and G.A. Wells**. CHUS, Sherbrooke, QC, Univ. of Sherbrooke, QC and Univ. of Ottawa.

345. EVOLUTION AND COMPARATIVE ANATOMY PLATFORM

Platform

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

CHAired: T. FRANZ-ODENDAAL

Evolution/Anthropology

- 10:30 **345.1** Genetic and Environmental Control on Mandibular Form and Function in Mice **E.J. Rayfield**. Univ. of Bristol Sch. of Earth Sci.
- 10:45 **345.2** Changes in Vertebral Morphology with Increasing Aquatic Adaptation in Crocodylomorphs **J.L. Molnar, S.E. Pierce and J.R. Hutchinson**. Coastal Carolina Univ., Harvard Univ. and Royal Vet. Col., Hatfield, U.K.
- 11:00 **345.3** Mechanisms of Mammalian Middle Ear Ossicle Transition from the Reptilian Jaw Joint **D.J. Urban and K. Sears**. Univ. of Illinois at Urbana-Champaign.
- 11:15 **345.4** Cephalic Muscle Evolution in Chordates **J.M. Ziermann and R. Diogo**. Howard Univ. Col. of Med.
- 11:30 **345.5** Using Geometric Morphometrics to Examine Cranial Disparity in Extinct and Extant Marsupial and Placental Carnivores **M.R. Borths and K. Corbin**. Stony Brook Univ.
- 11:45 **345.6** The Evolution and Development of the Mandibular Coronoid Process in Mammals **N. Anthwal and A.S. Tucker**. Kings Col. London.

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About EB 2015?**

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Facebook  and Twitter. 

346. STEM CELLS, TISSUE ENGINEERING AND REGENERATION PLATFORM**Platform**

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104C

CHAired: M. DUNNWALD

Regeneration/Tissue Engineering**Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)**

10:30 **346.1** Enhancing Engineered Ligament Strength Using a Multi-strand Approach **J.Z. Paxton and L.M. Grover**. Univ. of Edinburgh Sch. of Biomed. Sci. and Univ. of Birmingham Sch. of Chem. Engin.

10:45 **346.2** Neural Stem/Progenitor Cells of the Spinal Cord are Activated in Response to Tail Loss in the Leopard Gecko **E.A.B. Gilbert and M.K. Vickaryous**. Univ. of Guelph, Canada.

11:00 **346.3** Integrated Transcriptomic, Proteomic, and MicroRNA Data Identify Key Regulators of Developmental and Repair Processes during Tail Regeneration in the Green Anole Lizard **E.D. Hutchins, W.L. Eckalbar, K. Pendarvis, F.M. McCarthy, D.F. Lake and K. Kusumi**. Sch. of Life Sci., Arizona State Univ. and Sch. of Animal and Comp. Biomed. Sci., Univ. of Arizona.

11:15 **346.4** Impaired Vascular Oxygen Sensing Affects the Maintenance and Regeneration of the Bone Marrow **D. Ramirez-Bergeron, J. Tao, Y. Han and A. Gomer**. Case Western Sch. of Med.

11:30 **346.5** Roles of Podoplanin Positive Cells in Wound Healing of the Mouse Tongue **K. Shimizu, Y. Arimura and T. Ezaki**. Tokyo Women's Med. Univ. and Nippon Vet. and Life Sci. Univ.

347. BONES, CARTILAGE AND TEETH PLATFORM**Platform**

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 105

CHAired: R. MARCUCIO

10:30 **347.1** The Role of the Eda Pathway in the Morphogenesis of Molar Roots **H.A. Star and A.S. Tucker**. Dent. Inst., King's Col. London.

10:45 **347.2** Activation of RANKL and MMP Production by Endothelin Signaling in Cultured Periodontal Fibroblasts **L.B. Ruest, H. Ranjbaran, E.J. Tong, S.M. San Miguel and K.K. Svoboda**. Texas A&M Univ. Baylor Col. of Dent.

11:00 **347.3** FGF and TGF β Signaling Are Required during Secondary Chondrogenesis in the Jaw Skeleton **K.C. Woronowicz, D.Z. Jaul, S.T. Herfat, A.J. Fields, J.C. Lotz and R.A. Schneider**. UCSF.

11:15 **347.4** The Temporal and Spatial Development of Vasculature in a Healing Displaced Fracture **N.A. Mignemi, M. Yuasa, J.V. Barnett, J.M.M. Cates, J.S. Nyman, W.T. Obremskey, A. Okawa, H.S. Schwartz, C.M. Stutz and J.G. Schoenecker**. Vanderbilt Univ. and Tokyo Med. and Dent. Univ.

11:30 **347.5** Development of a Serum-Free, Three Dimensional Cell Culture Model for Primary Human Articular Chondrocytes to Test Potential Therapeutics **G. Bundens, L. Miller, R. Lackman, E. Cho, S. Chmielewski, L. Milton, A. Selim, M. George-Weinstein and M. D'Angelo**. Cooper Med. Sch. of Rowan Univ., Cooper Univ. Hosp. and Philadelphia Col. of Osteo. Med.

11:45 **347.6** Fibrinogen Regulates MMP-9 Processing of VEGF-Induced Angiogenesis and Tumor Growth in Osteosarcoma **S.N. Moore, T. Ohba, J.M. Cates, H. Cole, N.A. Mignemi, J. Ichikawa, H. Hirotaka, H.S. Schwartz and J.G. Schoenecker**. Vanderbilt Univ. and Univ. of Yamanashi, Japan.

348. KEEP CALM AND CARRY ON EDUCATING**Symposium**

(Sponsored by: The Anatomical Society)

TUES. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 102AB

CHAired: C. SMITH

Education & Teaching**Education**

2:30 **348.1** Discourse Perspectives on Learning Anatomy by Whole-Body Dissection **P. Bazira**. Hull York Med. Sch., U.K.

3:00 **348.2** Students' Personality and Learning Anatomy **G. Finn, M. Carter and C.F. Smith**. Hull York Med. Sch., Durham Univ. and Brighton and Sussex Med. Sch., Univ. of Sussex., U.K.

3:30 **348.3** The Anatomy Schema Network **Nyamse and Parker**. Glasgow Caledonian Univ., U.K.

4:00 **348.4** Spatial Ability and Learning Anatomy **C. Smith**. Brighton and Sussex Med. Sch., Univ. of Sussex., U.K.

349. THE DEVELOPMENT AND CONTROL OF VERTEBRATE MORPHOLOGY**Symposium**

(Cosponsored by: International Society of Vertebrate Morphologists and The Anatomical Record)

TUES. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 104AB

CHAired: D. ADRIAENS

Evolution/Anthropology

2:30 **349.1** Timing the Developmental Origins of Mammalian Limb Diversity **K. Sears, J. Maier, R. Behringer, C. Cretekos, J. Rasweiler, S. Zhong and Z. Rapti**. Univ. of Illinois at Urbana-Champaign, UCSD, Univ. of Texas MD Anderson Cancer Ctr., Idaho State Univ. and SUNY Downstate Med. Ctr.

3:00 **349.2** Origin, Development, Function, and Evolution of Cypriniform Trophic Novelty **L.P. Hernandez**. George Washington Univ.

3:30 **349.3** Sensorimotor Integration in Anatomy and Function during Feeding **R. German**. Northeast Ohio Med. Univ.

350. BREAKING THE BARRIER: THE GASTROINTESTINAL TRACT IN HEALTH AND IN INFLAMMATORY BOWEL DISEASE

Symposium

TUES. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104C

CHAired: A. JURJUS AND I.H. HUSSEIN

Regeneration/Tissue Engineering

Inflammation/Immunity

- 2:30 **350.1** Inflammation in Colorectal Cancer Inflammatory Bowel Disease, and Diabetes Mellitus: The Link **A.R. Jurjus, M-N. Zeenny, A. Eid, S. Chams and R.A. Jurjus.** American Univ. of Beirut and George Washington Univ.
- 3:00 **350.2** Role of Chaperones in Healthy Bowel and IBD **F. Cappello, G. Tomasello, F. Rappa, F. Farina, G. Zummo, E. Conway de Macario and A.J.L. Macario.** IEMEST, Palermo, Univ. of Palermo and Univ. of Maryland Baltimore.
- 3:30 **350.3** New Insight in Inflammatory Bowel Disease Pathophysiology: Current and Future Therapeutic Applications **J.M. Reimund, J-N. Freund and B. Duclos.** Hosp. of Hautepierre, Strasbourg and Univ. of Strasbourg Fac. of Med.
- 4:00 **350.4** Integrating Histology, Gross Anatomy and Histopathology in a Case Based Approach to Inflammatory Bowel Disease **I. Hajj Hussein, M. Barremkala, B. Thompson, D. Gould, M. Hankin, W. Forbes, A.M. Blenc, M. Amin and J. Venuti.** Oakland Univ. William Beaumont Sch. of Med.

351. MAKING CONNECTIONS: COMPARATIVE BIOMECHANICS AND EVOLUTION OF JOINTS

Symposium

TUES. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 105

CHAired: C. HOLLIDAY

Evolution/Anthropology

- 2:30 **351.1** Costo-vertebral Joints in Amniotes: To What Extent Does Joint Shape Determine Rib Motion during Breathing? **E. Brainerd.** Brown Univ.
- 3:00 **351.2** PMJs and TMJs: Convergence in the Craniomandibular Joints of Crocodylians and Mammals **C. Holliday, K.C. Sellers, L.B. Porro, C.F. Ross, L.M. Witmer and M.K. Vickaryous.** Univ. of Missouri-Columbia, Univ. of Bristol Sch. of Earth Sci., Univ. of Chicago, Ohio Univ. and Univ. of Guelph, Canada.

3:30 **351.3** Skeletal Kinematics Reveal the Complex Interactions of Degrees of Freedom at Joints **Kambic.** Harvard Univ.

4:00 **351.4** Solutions for Gigantism: Evolutionary and Biomechanical Implications of Dinosaur Hip Joint Soft Tissues **H. Tsai, K.M. Middleton and C.M. Holliday.** Univ. of Missouri-Columbia.

352. HENRY GRAY SCIENTIFIC AWARD SYMPOSIA

Award Lecture

TUES. 5:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

5:00 **352.1** How Anatomical Artifacts Are Leading to Novel Treatments for Osteoporosis **D. Burr.** Indiana Univ. Sch. of Med.

353. HENRY GRAY DISTINGUISHED EDUCATOR AWARD SYMPOSIA

Award Lecture

TUES. 5:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

5:30 **353.1** Through a Camera Lucida, Darkly: The State and Future of Anatomical Education **A. Dalley.** Vanderbilt Univ. Sch. of Med.

354. LADMAN AWARD SYMPOSIA

Award Lecture

TUES. 6:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 104AB

6:00 **354.1** Service and Mentoring: The Joy in Academics **K. Jones.** Indiana Univ. Sch. of Med.

Biochemistry and Molecular Biology

355. ASBMB PLENARY LECTURE AND FRITZ LIPMANN LECTURESHIP

Plenary

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 253 ABC

8:30 Plenary and Award Lecture Introduction and Award Presentation.

8:35 **355.1** Structural, Functional, and Mechanistic Diversity in Protein Ubiquitination **R.E. Klevit**. Univ. of Washington.

356. DELANO AWARD FOR COMPUTATIONAL BIOSCIENCES LECTURE

Award Lecture

TUES. 8:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 253 ABC

9:05 Award Lecturer Introduction and Award Presentation.

9:10 **356.1** Understanding Protein Folding Yields Important Insights into Protein Conformational Change: New Insights into Kinases and GPCRs **V. Pande**. Stanford Univ.

357. LIPIDS CAUGHT IN ACTION

Symposium

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 252AB

CHAired: A. SALIC

Follow the conversation: #lipids

9:45 Chair's Introduction.

9:50 **357.1** Following Lipid Signaling in Intact Cells **C. Schultz**. European Molec. Biol. Lab., Heidelberg.

10:15 Phosphatidylinositol 4-Phosphate Dynamics during Phagocytosis **R. Levin, G.R.V. Hammond, T. Balla, G.D. Fairn and S. Grinstein**. Hosp. for Sick Children, NICHHD, NIH and St. Michael's Hosp., Toronto. (568.17)

10:30 **357.2** Imaging Cellular Protein Fatty Acylation **R. Hannoush**. Genentech.

10:55 Does PtdIns(4,5) P_2 Concentrate So It Can Multitask? **G. Hammond and T. Balla**. NICHHD, NIH and Univ. of Pittsburgh Sch. of Med. (568.22)

11:10 Perilipin 5 Mediated Lipid Droplet Remodelling Revealed by Coherent Raman Imaging **N. Billecke, M. Bosma, W.T. Rock, P. Schrauwen, M. Bonn, M.K.C. Hesselink and S.H. Parekh**. Max Planck Inst. for Polymer Res., Mainz, Maastricht Univ. Med. Ctr. and Karolinska Inst. (568.19)

11:25 **357.3** A Cholesterol Story Never Told Before **W. Cho, R. Sheng and S-L. Liu**. Univ. of Illinois at Chicago.

11:50 Discussion.

358. CHEMISTRY OF COMMENSAL BIOLOGY

Symposium

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAired: M. REDINBO

Follow the conversation: #microbiome

9:45 Chair's Introduction.

9:50 **358.1** Expanding the Language of Bacterial Quorum Sensing Using Synthetic Ligands **H. Blackwell**. Univ. of Wisconsin-Madison.

10:20 Functional Association Profiling of Metabolic Landscape and Microbiome in Chronic Pressure Ulcer Wounds **M.C.B. Ammons and V. Copie**. Montana State Univ. (575.19)

10:35 **358.2** How Gut *Bacteroides* Eat Your Veggies **N. Koropatkin**. Univ. of Michigan Med. Sch.

11:05 **358.3** Chemical Tools for Studying the Activation of the Intracellular Innate Immune Protein Nod2 **C.L. Grimes and J. Melnyk**. University of Delaware.

11:20 **358.4** A Milk-Oriented Microbiota (MOM) in Infants: Lessons from your Other MOM **D. Mills**. Univ. of California, Davis.

11:50 Discussion.

359. REGULATION OF STEM CELL NICHES BY THE EXTRACELLULAR MATRIX

Symposium

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

Follow the conversation: #ECM

9:45 Chair's Introduction.

9:50 **359.1** ECM Remodeling Events during EC-Pericyte Tube Co-assembly in 3D Matrices **G.E. Davis**. Univ. of Missouri Sch. of Med.

10:15 Deletion of Integrin-Associated CD151 Impairs Branching Morphogenesis and Activity of Progenitor Cells in the Mammary Gland **X. Yang and L.A. Baldwin**. Univ. of Kentucky. (890.15)

10:30 **359.2** Mesenchymal Stem Cells: Diseases and Cure **S. Shi**. Univ. of Pennsylvania Sch. of Dent. Med.

10:55 Investigating Laminin- $\alpha3\beta3\gamma2$'s Potential Role in Epithelial-to-Mesenchymal Transition in Pulmonary Epithelia **J.A. David, B.A. Blakeney and R.L. Heise**. Virginia Commonwealth Univ. (719.17)

11:10 How do Consumers Perceive Single Serve Frozen Meals Compared to Commercial Weight Loss Program Meals? **K. Reimers, D. Blake and M. Jacobson**. ConAgra Foods, Omaha. (739.2)

11:25 **359.3** Proteolytic Remodeling of the 3D Extracellular Matrix Controls the Nuclear Regulation of Mesenchymal Stem Cell Fate and Function **S.J. Weiss**. Univ. of Michigan.

11:50 Discussion.

360. ENZYME MODULES AND COMPLEXES**Symposium**

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258A

CHAired: K. ALLEN

Follow the conversation: #enzyme

- 9:45 Chair's Introduction.
- 9:50 **360.1** Quaternary Structure and Activity Modulation in Human Ribonucleotide Reductase **F.J. Asturias, E.J. Brignole, K-L. Tsai, C.L. Drennan and J. Stubbe.** The Scripps Res. Inst. and MIT.
- 10:15 Substrate Specificity and Quaternary Structure of a Novel Class of Tryptophan Synthases **F. Busch and R. Sterner.** Univ. of Regensburg. (573.5)
- 10:30 **360.2** Quaternary Structure Dynamics in Allostery – Application to Mammalian Phenylalanine Hydroxylase **E.K. Jaffe.** Fox Chase Cancer Ctr., Temple Univ. Hlth. Syst.
- 10:55 Dramatic Conformational Flexibility of Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase Revealed by Electron Microscopy **E.J. Brignole, E.C. Wittenborn, S.M. Thompson, S.W. Ragsdale and C.L. Drennan.** MIT and Univ. of Michigan. (573.37)
- 11:10 Dynamic Regulation of p97 ATPase Activity by p37 and p47 Is Impaired in Pathogenic p97 IBMPFD/ALS Mutants **X. Zhang, L. Gui, T-F. Chou, D. Wong and D. Moen.** Harbor-UCLA and LABioMed, Torrance. (891.2)
- 11:25 **360.3** Mass Spectrometry in Structural Biology: Surface-Induced Dissociation/Ion Mobility of Protein Complexes **V.H. Wysocki, R. Quintyn, S. Harvey, Y. Song, J. Yan, Y. Ju, A. Tanimoto and A. Sahasrabudde.** The Ohio State Univ.
- 11:50 Discussion.

361. CROSSTALK BETWEEN RNA, TRANSCRIPTION AND CHROMATIN**Symposium**

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258B

CHAired: D. BENTLEY

Follow the conversation: #RNA

- 9:45 Chair's Introduction.
- 9:50 **361.1** Biogenesis and Mechanism of Action of Enhancer RNAs **R. Shiekhattar.** Univ. of Miami.
- 10:15 Regulation of Chromatin Accessibility by GPS2-Mediated Inhibition of Ubiquitin Signaling on Selected Promoters **M.D. Cardamone, B. Tanasa, J. Huang, C. Cederquist, M.G. Rosenfeld and V. Perissi.** Boston Univ. Sch. of Med. and UCSD. (880.28)

- 10:30 **361.2** Signals that Distinguish Noncoding RNA Scaffolds from mRNAs **D. Moazed, N. Iglesias, A. Sevilimedu, R. Yu, G. Jih, R. Kruger and S. Gygi.** HHMI, Harvard Med. Sch.
- 10:55 An Epigenetic Switch of let-7 Targeted Oncofetal Genes **C. Jnbaptiste, A. Gurtan, V. Lu, A. Bhutkar and P. Sharp.** MIT. (562.24)
- 11:10 The Brahma Chromatin Remodeling Complex and its Multiple Roles in Regulating Circadian Transcription **R.S. Kwok, Y.H. Li and J.C. Chiu.** Univ. of California, Davis. (877.15)
- 11:25 **361.3** ATRX Promotes Binding of PRC2 to Xist RNA and Polycomb Targets **J.T. Lee, K. Sarma, C. Cifuentes-Rojas, A. Ergun, A. del Rosario, Y. Jeon, F. White and R. Sadreyev.** HHMI, Massachusetts Gen. Hosp., Harvard Med. Sch. and MIT.
- 11:50 Discussion.

362. TRANSPORTERS I – CRYSTALLOGRAPHIC INSIGHT INTO TRANSPORTER MECHANISMS**Symposium**

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258C

CHAired: S. C. BLANCHARD

Follow the conversation: #protein

- 9:45 Chair's Introduction.
- 9:50 **362.1** Mechanism of Ion-Coupled Transport in Glutamate Transporters **O. Boudker.** Weill Cornell Med. Col.
- 10:15 Structure of an H⁺-Coupled, Substrate-Bound MATE Transporter Yields Mechanistic Insights into Multidrug Extrusion **M. Lu, M. Radchenko, J. Symersky, R. Nie and Y. Guo.** Rosalind Franklin Univ. of Med. and Sci. (574.2)
- 10:30 **362.2** Wiggle Wiggle Not a Trickle: How Do Membrane Transporters Work (to Concentrate Ions 1000 Fold)? **R. Stroud.** UCSF.
- 10:55 Molecular Basis for Substrate and Inhibitor Interactions with the Glycine Transporter, GlyT2 **R.J. Vandenberg, J.E. Carland, A. Edington and R.M. Ryan.** Univ. of Sydney. (566.6)
- 11:10 Construction of a Tryptophan-less P-Glycoprotein by Directed Evolution for Mapping Drug Binding Sites **D.J. Swartz and I.L. Urbatsch.** Texas Tech Univ. Hlth. Sci. Ctr. (714.14)
- 11:25 **362.3** Structural Basis of Bile Acid Transport **M. Zhou.** Baylor Col. of Med.
- 11:50 Discussion.

Visit the Exhibits
Sunday – Tuesday
9:00 AM – 4:00 PM

363. INTEGRATING EVOLUTION AND HOMEOSTASIS WITH THE CORE CONCEPTS OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

Symposium

TUES. 9:45 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 256

CHAired: E. BELL

9:45 RCN-UBE: Integrating Evolution and Homeostasis with the Core Concepts of Biochemistry and Molecular Biology **J.E. Bell, A. Aguanno, P. Mertz, M. Johnson and K.M. Fox.** Univ. of Richmond, Union Col., NY, Univ. of Alabama, St Mary's Col. of Maryland and Marymount Manhattan. (559.2)

Presenters:

Small Group Work: Integrating Evolution and Homeostasis into the Core Concepts **E. Bell**, Univ. of Richmond **A. Aguanno**, Marymount Manhattan Col.

Group Discussion on Core Concept integration with Homeostasis **A. Aguanno**, Marymount Manhattan Col.

Small Group Work: Question Development Involving Evolution and Homeostasis **M. Johnson**, Univ. of Alabama

Group Presentations and Discussion on Question Implementation **K. Fox**. Union Col.

364. CHEMICAL AND OPTOGENETIC MANIPULATION OF LIPID SIGNALING WORKSHOP

Workshop

(Supported by *Avanti Polar Lipids*)

TUES. 12:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 251

Refreshments will be enjoyed on a first come, first served basis.

12:30 **364.1** Optogenetic Manipulation of Phosphoinositides **O. Idevall-Hagren.** Uppsala Univ.

1:15 **364.2** Recent Technological Advancement in Chemical Switching of Lipid Signaling Pathways **T. Inoue and S. Phua.** Johns Hopkins Univ.

365. ASBMB PLENARY LECTURE

Plenary

TUES. 2:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 253 ABC

2:45 Plenary Lecturer Introduction.

2:50 **365.1** Varying the Terrain of Epigenetic Landscapes: Implications for Human Cancer **C.D. Allis.** The Rockefeller Univ.

366. PLANT LIPID METABOLISM

Symposium

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 252AB

CHAired: J. M. DYER

Follow the conversation: #plants

3:55 Chair's Introduction.

4:00 **366.1** Lipid Transport Involving Chloroplast Envelope Membranes in Plants and Algae **C. Benning, A.K. Hurlock and J. Warakanont.** Michigan State Univ.

4:25 Systems Analysis of Soybean Seed Development: Lipid Body Ontogeny **J.A. Miernyk, R.S. Wilson, M.L. Johnston and J.J. Thelen.** USDA, Columbia, Univ. of Missouri-Columbia and Univ. of Missouri-Columbia. (887.9)

4:40 **366.2** To Grow or Die: Regulation of Plant Sphingolipid Metabolism **E. Cahoon, A.N. Kimberlin, G. Han and T. Dunn.** Univ. of Nebraska-Lincoln and Uniformed Svcs. Univ. of Hlth. Sci.

5:05 Lipid Reservoir Remodeling during Plant Germination **S. Parekh, G. Waschatko, N. Billecke, S. Schwendy, H. Jaurich, M. Bonn and T. Vilgis.** Max Planck Inst. for Polymer Res. Mainz. (887.21)

5:20 **366.3** New Insights into Biosynthesis of Cuticular Wax **L. Kunst.** Univ. of British Columbia.

5:35 **366.4** Metabolism and Actions of N-Acylethanolamines in Seedling Development **K.D. Chapman, J. Keereetaweep and E.B. Blancaflor.** Univ. of North Texas and Samuel Roberts Noble Fdn., OK.

367. METABOLISM: WARBURG AT 90

Symposium

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 254AB

CHAired: E. A. MAHER

Follow the conversation: #cancer

3:55 Chair's Introduction.

4:00 **367.1** Metabolism, Metabolomics and Cancer **D.L. Wishart.** Univ. of Alberta.

4:25 Targeting 6-Phosphofructo-2-Kinase/Fructose-2,6-Bisphosphatase-4 in Cancer **S. Telang, J. Trent, J. Chesney and J. Clark.** Univ. of Louisville. (725.29)

4:40 **367.2** Using Comparative Metabolomics to Target Cancer **J.L. Griffin.** Univ. of Cambridge and MRC Human Nutr. Res.

5:05 GTP Metabolism Regulates Cancer Cell Invasion **M.A. Nikiforov and A. Bianchi-Smiraglia.** Roswell Park Cancer Inst. (725.12)

5:35 **367.3** Metabolic Complexity of Aggressive Primary and Metastatic Brain Tumors beyond the Warburg Effect: What Substrates Are Fueling the Citric Acid Cycle? **E.A. Maher.** Univ. of Texas Southwestern Med. Ctr.

6:00 Discussion.

368. MICROBIOME AND MUCOSAL HOMEOSTASIS

Symposium

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 255

- 3:55 Chair's Introduction.
 4:00 **368.1** Vaginal Microbiota, Racial/Ethnic Groups, and Risk of Preterm Birth **B. Foxman**. Univ. of Michigan Sch. of Publ. Hlth.
 4:30 Proinflammatory Environmental Exposures in Asthma **C. Cheah, M. Daines and W. Morgan**. Univ. of Arizona. (571.8)
 4:45 **368.2** Gut Microbiota, Low-Grade Inflammation, and Metabolic Syndrome **A. Gewirtz**. Georgia State Univ.
 5:15 Symbiotic Bacterial Metabolites Regulate Gastrointestinal Barrier Function via the Xenobiotic Sensor PXR and Toll-Like Receptor 4 **S. Mani and H. Li**. Albert Einstein Col. of Med. (575.17)
 5:30 **368.3** Microbiome in Inner-City Asthma **S. Lynch**. UCSF.
 6:00 Discussion.

369. BIOCHEMISTRY AND SYSTEMS BIOLOGY OF HOST-PATHOGEN INTERACTIONS

Symposium

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

CHAired: D. M. KRANZ

Follow the conversation: #immunology

- 3:55 Chair's Introduction.
 4:00 **369.1** Metabolomics by Mass Spectrometry-Based Molecular Networking and Spatial Mapping **N. Garg, D. Conrad and P.C. Dorrestein**. UCSD.
 4:25 Rescuing Nod2, an Innate Immune Receptor of Bacterial Cell Wall Fragments, in Crohn Disease **C.L. Grimes and V. Mohanan**. Univ. of Delaware. (571.19)
 4:40 **369.2** Genetic Control of Immune Variation across the Human Population **N. Hacohen**. Massachusetts Gen. Hosp., Broad Inst. and Harvard Med. Sch.
 5:05 Mapping the DNA and RNA Binding Domains of the HIV Restriction Factor APOBEC3G **H.C. Smith, W. McDougall, B. Polevoda, A. Friedman, R. Bennett and R. Stewart**. Univ. of Rochester and OyaGen Inc., Rochester. (718.9)
 5:20 Validation of Recombinant Antibodies against Human Transcription Factors **C. Griffin, S. Miersch, E. Marcon, S. Banerjee, J. Wells, M. Hornsby, A. Kossiakoff, S. Koide, M. Paduch, S. Sidhu and J. Moffat**. Univ. of Toronto, UCSF and Univ. of Chicago. (571.13)
 5:35 **369.3** A Systems Approach to Dissecting Immunity **A. Aderem**. Seattle Biomed. Res. Inst.
 6:00 Discussion.

370. POSTTRANSLATIONAL MODIFICATIONS OF CYSTEINE: LIPIDATION AND OXIDATION

Symposium

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258A

CHAired: G. W. HART

Follow the conversation: #PTMs

- 3:55 Chair's Introduction.
 4:00 **370.1** A Chemical-Proteomic Platform to Investigate Cysteine S-Nitrosation **E. Weerapana**. Boston Col.
 4:25 Cysteinylation of the ALS-Associated Protein SOD1 Confers Resistance to Oxidation **J. Auclair, D. Ringe, G. Petsko and J. Agar**. Brandeis Univ. and Northeastern Univ. (717.1)
 4:40 **370.2** Rescuing Cell Polarity with Small Molecule Inhibitors of De-palmitoylation **B. Martin**. Univ. of Michigan.
 5:05 Meta-proteomic Analysis of PTMs in G Protein Signaling Systems – New Tools and Unsuspected Discoveries **M. Torres, H. Dewhurst and S. Choudhury**. Georgia Inst. of Technol. (728.41)
 5:20 Substoichiometric Hydroxynonylation of a Single Protein Recapitulates Whole-Cell-Stimulated Antioxidant Response **Y. Aye, S. Parvez and Y. Fu**. Cornell Univ. and Weill Cornell Med. Col. (570.1)
 5:35 **370.3** Mechanism and Function of DHHC Palmitoyltransferases **M. Linder, C. Gottlieb, M. Malgapo and W. Greentree**. Cornell Univ.
 6:00 Discussion.

371. DNA TOPOLOGY AND REPAIR

Symposium

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258B

CHAired: L. LINDSEY-BOLTZ

Follow the conversation: #DNA

- 3:55 Chair's Introduction.
 4:00 **371.1** Visualizing Replication and Recombination on Single Molecules of DNA **S. Kowalczykowski**. Univ. of California, Davis.
 4:25 CTCF Protein Recruits Centromeric Protein CENP-E to the Centromeric Regions through Unusual CTCF Binding Sites **T. Xiao, P. Wongtrakoongate, C. Trainor and G. Felsenfeld**. NIDDK, NIH. (709.6)
 4:40 **371.2** Tying Up the Ends: Recognition of ssDNA at Telomeres **D.S. Wuttke and T.H. Dickey**. Univ. of Colorado Boulder.
 5:05 Base Flipping in Lesion Search and Recognition by the Human Thymine DNA Glycosylase Revealed by Single Molecule Imaging **I. Tessmer, C.N. Buechner, A. Maiti and A. Drohat**. Univ. of Wuerzburg and Univ. of Maryland Baltimore. (879.11)

- 5:20 Nucleosome Dynamics around a DNA Double Stranded Break during Repair by Gene Conversion **M. Tsabar, W.M. Hicks and J.E. Haber.** Brandeis Univ. and Harvard Med. Sch. (709.8)
- 5:35 **371.3** Topoisomerase-Induced DNA Cleavage at Ribonucleotide Misincorporation Sites **Y. Pommier, S-Y. Huang, J.S. Williams and T.A. Kunkel.** NCI, NIH and NIEHS, NIH.
- 6:00 Discussion.

372. DEFINING PROTEIN DISORDER**Symposium**

TUES. 3:55 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: S. METALLO

Follow the conversation: #protein

- 3:55 Chair's Introduction.
- 4:00 **372.1** Fuzziness – Disorder in Protein Complexes – Imparts Versatility on Signalling **M. Fuxreiter.** Univ. of Debrecen, Hungary.
- 4:25 An Intrinsically Disordered Region of MBD2 Both Recruits the Histone Deacetylase Core Complex of NuRD and Modifies Kinetics of DNA Binding **D.C. Williams, M. Desai and G.D. Ginder.** Univ. of North Carolina at Chapel Hill and Virginia Commonwealth Univ. (712.14)
- 4:40 **372.2** Assessing Intrinsically Disordered Protein Structure and Function through Carbon Detected NMR **S. Showalter, D. Sahu, M. Bastidas and C.W. Lawrence.** Penn State.

- 5:05 Intrinsic Structural Disorder Observed in the Cell Cycle Regulatory GTPase Nucleostemin **T.H. Daman and V.L. Robinson.** Univ. of Connecticut. (712.4)
- 5:20 Order-to-Disorder Transitions in BECN1 Regulate Autophagy **S. Sinha, Y. Mei, K. Glover, M. Su, A. Ramanathan and C. Colbert.** North Dakota State Univ. and Oak Ridge Natl. Lab. (712.16)
- 5:35 **372.3** Disorder in Protein Switches **J. Gsponer.** Univ. of British Columbia.
- 6:00 Discussion.

373. ASBMB WOMEN BMB SCIENTISTS PANEL AND NETWORKING EVENT**Special Event**

TUES. 6:30 PM—WESTIN BOSTON WATERFRONT, MARINA BALLROOM III

CHAired: K. ALLEN

Each year, the ASBMB sponsors a session where women scientists reflect on some aspect of their careers or general issues surrounding women's participation in science. Networking, mentoring, refreshments and fun. ASBMB members and biochemistry attendees welcome.

Nutrition**374. ASN SPONSORED SATELLITE PROGRAM: PAIRING NUTS AND DRIED FRUIT FOR CARDIOMETABOLIC HEALTH****ASN Satellite**

(Sponsored by: The Sun-Maid Growers of California and American Pistachio Growers)

TUES. 6:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 52A

375. ASN SPONSORED SATELLITE PROGRAM: SMART SNACKING: WHEN SCIENCE MEETS NUTRITION**ASN Satellite**

(Sponsored by: PepsiCo, Inc.)

TUES. 6:30 AM—RENAISSANCE BOSTON WATERFRONT HOTEL, ATLANTIC BALLROOM 123

376. DIET AND IMMUNOMETABOLISM**Symposium**

(Sponsored by: Nutritional Immunology RIS and Obesity RIS)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST

CHAired: S.R. SHAIKH AND L. COLEMAN

Biochemical, Molecular and Genetic Mechanisms

- 8:00 How Might 'Metabolic Health' Reduce Diabetes and Cancer Risks in Obesity? **G.V. Denis.** Boston Univ. Sch. of Med.
- 8:25 Role for Resident Macrophages in Adipose Tissue Iron Homeostasis. **A. Hasty.** Vanderbilt Univ. Sch. of Med.
- 8:50 Metabolite Mediated Regulation of Inflammasome Activation. **W.Z. Mehal.** Yale Univ. Sch. of Med.
- 9:15 Lymphocyte Function in Human Type 2 Diabetes. **B.S. Nikolajczyk.** Boston Univ. Sch. of Med.
- 9:40 Adipose Tissue Inflammation and Insulin Sensitivity. **A.S. Greenberg.** JM-USDA HNRCA at Tufts Univ.

377. IS “WHEN” WE EAT AS IMPORTANT AS “WHAT” WE EAT? – CHRONOBIOLOGICAL ASPECTS OF FOOD INTAKE

Symposium

(Supported by Kellogg Company and PepsiCo, Inc.)

(Sponsored by: Energy and Macronutrient Metabolism RIS and Nutrition Translation RIS)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 157ABC

CHAired: L.M. SANDERS AND C.E. O’NEIL

Human Nutrition and Metabolism

- 8:00 The Human Circadian Timing System and its Influence on Metabolic Processes. **F. Scheer**. Brigham and Women’s Hosp.
- 8:30 Eat Breakfast Like a King? Meal Timing, Frequency and Composition as a Regulator of Body Clocks. **J. Johnston**. Univ. of Surrey.
- 9:00 Impact of Circadian Dysregulation on Food Intake, Gastrointestinal Function and Metabolism – What We’ve Learned from Animal Models. **F. Turek**. Northwestern Univ.
- 9:30 Circadian Disruptions in Humans – Impact on Metabolism, Energy Balance and Obesity **J.M. Ordovás**. USDA at Tufts Univ.

378. INTERNATIONAL FORUM – CHINA

International Forum

(Sponsored by: Chinese Nutrition Society)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAired: Y. YUExIN

379. ENERGY AND MACRONUTRIENT METABOLISM: CARBOHYDRATE METABOLISM

Minisymposium

(Sponsored by: Energy & Macronutrient Metabolism RIS)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 152

CHAired: A. H-M. LIN

COCHAired: S. LEE

- 8:00 **379.1** High-Carbohydrate Liquid Diet Induced Greater Severity in Hepatic Steatosis and Inflammatory Responses than High-Fat Liquid Diet in Mice **X. LI, F. Lian, C. Liu, K. Hu and X-D. Wang**. USDA at Tufts Univ., Sch. of Publ. Hlth., Med. Col. of Soochow Univ. and Hangzhou Normal Univ. Sch. of Med., China.
- 8:15 **379.2** Glycemic and Insulinemic Responses Are Blunted by the Consumption of a Smoothie-Type Beverage Containing a Whole-Grain Fiber Composite Ingredient **L.E. O’Connor and W.W. Campbell**. Purdue Univ.

- 8:30 **379.3** Difference in Postprandial GLP-1 Response Despite Similar Glucose Kinetics after Consumption of Wheat Breads with Different Particle Size in Healthy Men **R.J. Vonk, C. Eelderink, M.W.J. Noort, M. Koehorst, J.J. Holst, C.F. Deacon, L. Oudhuis and M.G. Priebe**. Univ. Med. Ctr. Groningen, TNO, Zeist, Netherlands and Univ. of Copenhagen.
- 8:45 **379.4** Metabolic Fate of a Fructose Load Ingested Before or After Exercise **L. Egli, V. Lecoultre, R. Rosset, J. Cros and L. Tappy**. Univ. of Lausanne.
- 9:00 **379.5** Effect of Fermentable Carbohydrate Intake on Body Fat and Metabolic Criteria in U.S. College Students **B.M. Navrkal, E.R. Nelson, I.E. Lofgren and K.J. Melanson**. Univ. of Rhode Island.
- 9:15 **379.6** Sugar Consumption and Cardiovascular Risk Factors in College Students **E.R. Nelson, B.M. Navrkal, I.E. Lofgren and K.J. Melanson**. Univ. of Rhode Island.
- 9:30 **379.7** Effect of the Intake of High-SDS Product on Metabolic and Inflammatory Markers in Healthy Subjects with High Metabolic Risk **A. Meynier, S. Lambert-Porcheron, S. Normand, H. Roth, M. Laville and S. Vinoy**. Mondelez France R&D, Saclay and CRNH Rhône-Alpes, Lyon.
- 9:45 **379.8** Inter- and Intra-laboratory Variability of Glycemic and Insulinemic Indexes **A. Meynier, T. Wolever, J. Brand-Miller, M. Cazaubiel, A. Jenkins, F. Atkinson, D. Gendre and S. Vinoy**. Mondelez France R&D, GI Labs Inc., Toronto, Univ. of Sydney and Biofortis, France.

380. DIETARY BIOACTIVE COMPONENTS: DIETARY BIOACTIVE COMPOUNDS OF MEDICINAL, FUNCTIONAL, AND FERMENTED FOODS

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153A

CHAired: J.Y. LEE

COCHAired: Y.S. CHA

- 8:00 **380.1** Grape Seed Extract Enhances Jejunum Epithelial Differentiation Likely through Suppressing Inflammation in *IL10*^{-/-} Mice **S. Bibi, Y. Kang, M. Du and M-J. Zhu**. Sch. of Food Sci., Washington State Univ., Washington State Univ. and Sch. of Food Sci., Univ. of Idaho.
- 8:15 **380.2** Chemopreventive Effects of North American Cranberry (*Vaccinium macrocarpon*) on Colitis-Associated Colon Carcinogenesis in Mice **X. Wu, M. Song, X. Cai, C. Neto and H. Xiao**. Univ. of Massachusetts Amherst and Univ. of Massachusetts Dartmouth.
- 8:30 **380.3** 6-Gingerol Inhibits Lipid Accumulation and Obesity-Induced Inflammatory Responses in 3T3-L1 Adipocytes and RAW264.7 Macrophages **J. Choi, M.J. Seo, S. Ryu, J. Hwang, J. Jeon, Y. Lee, E. Koh and B. Lee**. CHA Univ., South Korea.
- 8:45 **380.4** Acute Effect of Cinnamon Extract and Ground Cinnamon on Blood Glycemic Response in Overweight Healthy Volunteers **T.A. Jiang, T. Moss-Pierce and Q. Li**. McCormick and Co. Inc., Hunt Valley, MD.

- 9:00 **380.5** A Comparison of Diets Enriched with Purified Resistant Starch or Resistant Starch in the Form of Whole-Grain Flour in Goto-Kakizaki Rats **D. Carvajal-Aldaz, J. Guice, R. Page, A.M. Raggio, D. Coulon, R.J. Martin, R. Stout, H. Durham, J. Geaghan, C. Pelkman, J. Ye and M.J. Keenan.** LSU AgCtr., USDA, Davis, LSU A&M, Pennington Biomed. Res. Ctr., Baton Rouge and Ingredient, Bridgewater, NJ.
- 9:15 **380.6** A Comparison of Moderate Fat and High Fat Diets Enriched with Purified Resistant Starch or Resistant Starch in the Form of Whole Grain Flour in Rats **J. Guice, D. Carvajal-Aldaz, R. Page, A. Raggio, M. Marco, H. Durham, J. Geaghan, C. Pelkman, R. Martin, D. Coulon and M. Keenan.** LSU AgCtr., Univ. of California, Davis, Pennington Biomed. Res.Ctr., Ingredient, Bridgewater, NJ and USDA, Davis.
- 9:30 **380.7** The Efficacy of the Probiotic *Bifidobacterium animalis* subsp. *lactis* bb-12 on Regional Gut Transit Times in a Healthy Population **Y. Lee, R.F. Roberts, C.J. Rogers, H. Meng, Z. Ba, J.A. Fleming, E.J. Furumoto and P.M. Kris-Etherton.** Penn State.
- 9:45 **380.8** The Safety of Green Tea Extract Supplementation in Postmenopausal Women at Risk for Breast Cancer: Results of the Minnesota Green Tea Trial **A. Dostal, H. Samavat, S. Bedell, C. Torkelson, R. Wang, J.M. Yuan and M. Kurzer.** Univ. of Minnesota, Univ. of Minnesota Med. Ctr. and Univ. of Pittsburgh Cancer Inst.

381. NUTRITIONAL EPIDEMIOLOGY: EPIDEMIOLOGIC METHODS IN EXAMINING HEALTH OUTCOMES IN DIVERSE POPULATIONS

Minisymposium

(Sponsored by: Nutritional Epidemiology RIS and Minority and Diversity Affairs Committee)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153B

CHAired: L. M. TROY

COCHAired: M. TERAN-GARCIA

- 8:00 **381.1** Intakes of Key Dietary Indicators among Children 2-8 Years Participating in the Children's Healthy Living Program **C. Boushey, K. Yonemori, R. Novotny, M. Fialkowski, L. Wilkens, C. Nigg, R. Leon Guerrero, A. Bersamin, J. Kim and K. Johnson.** Univ. of Hawaii, Univ. of Guam, Univ. of Alaska Fairbanks and Northern Marianas Col.
- 8:15 **381.2** Waist Size in 9-11 Year-Old Black and White Girls Predicts Development of Cardiometabolic Risk over Ten Years **S.E. Ferreira, M.M. Mott, M.R. Singer, M.L. Bradlee, S.R. Daniels and L.L. Moore.** Boston Univ. Sch. of Med. and Univ. of Colorado CO Sch. of Med.
- 8:30 **381.3** Level of Dietary Adherence to WCRF/AICR Recommendations among 81,079 Adventist Health Study-2 Participants **L.T. Le, R. Sirirat and K. Jaceldo-Siegl.** Loma Linda Univ. Sch. of Publ. Hlth.
- 8:45 **381.4** Trends in Legume Consumption among Ethnically Diverse Adults in a Longitudinal Cohort Study in Australia **V.M. Flood, J. Russell and S. Radd.** Fac. of Hlth. Sci., Univ. of Sydney, St Vincent's Hosp., Sydney and Sch. of Hlth. and Soc., Univ. of Wollongong, Australia.

- 9:00 **381.5** Comparing Growth Assessments Using CDC and WHO Reference Data in Native Hawaiian Pacific Islander Children: Baseline Data from the Children's Healthy Living Program in Hawai'i **M.K. Esquivel, F. Li and R. Novotny.** Univ. of Hawaii Manoa.
- 9:15 **381.6** Development of a Formal Protocol to Map the Community Food Environment Using Direct Observation: A Case Study in Urban Guatemala **R. Garcia, R. Kanter, D. Fuentes, L. Burgunder, L. Scieszka, E. Diaz Ruiz, S. Andringa, L. Browne, A. Polanco and N.W. Solomons.** CeSSIAM, Guatemala.
- 9:30 **381.7** The Validity of Digital-Camera Photography for Estimating Birth-Length in Guatemalan Newborns **M.N. Orozco, S. Andringa and N.W. Solomons.** CeSSIAM, Guatemala City.
- 9:45 **381.8** Self-Reported Pre-Pregnancy Weight versus Weight Measured in the First Trimester among Participants of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) **M. Koleilat, N. Vargas, S.T. Bell and S.E. Whaley.** California State Univ. Fullerton and Publ. Hlth. Fndn. Enterprises-WIC, Irwindale, CA.

382. COMMUNITY AND PUBLIC HEALTH NUTRITION: FOOD ENVIRONMENT II

Minisymposium

(Sponsored by: Community and Public Health Nutrition RIS)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: S. COLBY

COCHAired: N. FITZGERALD

- 8:00 **382.1** Added Sugar Levels in Kids' Meals from Chain Restaurants **M.J. Scourboutakos, Z. Semnani-Azad and M.R. L'Abbe.** Univ. of Toronto.
- 8:15 **382.2** Changes in Front-of-Pack Food Labeling from 2007-2014 **A. Hoffmann, S. Colby and L. Jahns.** Univ. of Tennessee Knoxville and USDA, Grand Forks.
- 8:30 **382.3** Changes in Sodium Levels in Canadian Packaged Foods: 2010 to 2013 **J. Arcand, K. Jefferson, A. Schermel and M.R. L'Abbe.** Univ. of Toronto and Univ. of Ontario Inst. of Technol.
- 8:45 **382.4** A Nutrient Profiling System for the (Re) Formulation of a Global Food and Beverage Portfolio **A. Vlassopoulos, G. Masset, F. Leroy and A. Drewnowski.** Nestle Res. Ctr., Lausanne and Univ. of Washington.
- 9:00 **382.5** A Novel Nutrient Profiling Score to Drive Food Reformulation **G. Masset, A. Vlassopoulos, M. Potter and F. Leroy.** Nestec SA, Switzerland.
- 9:15 **382.6** The Amount and Sources of Sugar Intake in Canadian Adults **M. Ahmed, J. Arcand, M. Scourboutakos, A. Schermel and M. L'Abbe.** Univ. of Toronto.
- 9:30 **382.7** The Pacific Retail Food Store Environment: Findings from the Children's Healthy Living Program **M.K. Fialkowski, F. Li, A. Bersamin, R. Leon Guerrero, J.H. Kim and R. Novotny.** Univ. of Hawaii at Manoa, Univ. of Alaska Fairbanks, Univ. of Guam and Northern Marianas Col., US Commonwealth.
- 9:45 **382.8** Prevalence and Characteristics of Written Nutrition Standards for Foods Served or Sold in Municipal Government Buildings or Worksites in the United States, 2014 **S.J. Onufrak, L. Moore, S. Carlson and D. Galuska.** Ctrs. for Dis. Control and Prevent.

383. AGING: RISK FACTOR MODIFICATION FOR HEALTHY AGING

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 154

CHAired: B. H. ARJMANDI

COCHAired: E. REVERRI

- 8:00 **383.1** Tree Nuts Improve Glycemic Control: A Systematic Review and Meta-analysis of Randomized Controlled Dietary Trials **E. Viguiouk, C. Kendall, S. Blanco Mejia, A. Cozma, V. Ha, A. Mirrahimi, V. Jayalath, L. Augustin, L. Chiavaroli, L. Leiter, R. de Souza, D. Jenkins and J. Sievenpiper.** Univ. of Toronto, St. Michael's Hosp. and McMaster Univ., Canada.
- 8:15 **383.2** Glycemic Index and Glycemic Load and Liver Enzyme Activity **L. Chiavaroli, L.S.A. Augustin, C. Ireland, A. Mirrahimi, J.L. Sievenpiper, C.W.C. Kendall and D.J.A. Jenkins.** Univ. of Toronto and St. Michael's Hosp.
- 8:30 **383.3** Eating Behaviors, Mental Health, and Food Intake Are Associated with Obesity in Older Congregate Meal Participants **K.N. Porter Starr, J.G. Fischer and M.A. Johnson.** Duke Univ. Med. Ctr., Durham VA Med. Ctr. and Univ. of Georgia.
- 8:45 **383.4** Physical Activity between Menarche and First Pregnancy and Risk of Breast Cancer **V.S. Malik, Y. Liu, B. Rosner, E. Cespedes, K. Sturgeon, A.D. Joshi and D.K. Tobias.** Harvard Sch. of Publ. Hlth., Washington Univ. Sch. of Med. in St. Louis, Harvard Med. Sch., Univ. of Pennsylvania and Brigham and Women's Hosp.
- 9:00 **383.5** Creatine Supplementation Increases Muscle Branched-Chain Amino Acids in an Alzheimer Mouse Model **F. Farshidfar, M. Suh, W.M. Snow, B.C. Albeni and S.B. Myrie.** Univ. of Manitoba.
- 9:15 **383.6** Do Changes in Body Composition Contribute to Decline in Muscle Strength? The BACH/Bone Study **B. Bartali, N. Dagincourt, T. Curto and A. Araujo.** New England Res. Insts., Watertown, MA.
- 9:30 **383.7** Protective Association of Serum Uric Acid on Hip Fracture Risk among Older Men but Not Women **S. Sahni, K.M. Mangano, K.L. Tucker, C. Fox, D.P. Kiel, A.B. Dufour, X. Zhang and M.T. Hannan.** BIDMC, Harvard Med. Sch., Univ. of Massachusetts Lowell and NHLBI, Harvard Med. Sch., Framingham.
- 9:45 **383.8** "I Try to Keep That Sugar Down" Homebound Older Adults with Type 2 Diabetes Mellitus: Barriers to Self-Management **B.D. Bustillos and J.R. Sharkey.** Texas A&M Univ., Sch. of Publ. Hlth.

384. PUBLIC POLICY: NUTRITION POLICIES, PROGRAMS, AND PUBLIC-PRIVATE PARTNERSHIPS

Minisymposium

(Sponsored by: Public Policy Committee)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: A. LICHTENSTEIN

COCHAired: S. OHLHORST

- 8:00 **384.1** Effect of Meeting the Healthy People 2020 Objectives on Diet Quality Relative to Current Trends **M.M. Wilson, J. Reedy and S.M. Krebs-Smith.** NCI, NIH.
- 8:15 **384.2** An Updated Analysis of Trans Fatty Acids in Canadian Packaged Foods **A. Schermel, J. Arcand, D. Kutlesa, K. Jefferson and M.R. L'Abbe.** Univ. of Toronto.
- 8:30 **384.3** Plan for the Registered Dietitian Identification and Documentation of Adult In Patients **M. Browning, B. Roberts, J. Kingery, K. Carter, C. Hines, I. Gardus-Pizlo and S. Roberts.** Indiana Univ. Hlth.
- 8:45 **384.4** Measuring Children's Milk Acceptance under New School Nutrition Regulations **B. Yon and R. Johnson.** Univ. of Vermont.
- 9:00 **384.5** Sustainability of Food and Nutrition Security Policy during Presidential Transitions **J.L. Escobar Alegria, E.A. Frongillo, C.E. Blake, L.D. Walker and G.A. McDermott.** Univ. of South Carolina and Natl. Sci. Fndn.
- 9:15 **384.6** Neutrality in Nutrition Science: Perspectives for Effective Public-Private Partnerships **J. Shlisky, A.R. Beaudreault, L. Wilkinson, M. Mclean and M. Arabi.** NY Acad. of Sci. and Cornell Univ.
- 9:30 **384.7** Principles and a Decision-Making Process for Accountable Partnership Engagement to Create Healthy Food and Active Living Environments in the United States **V.I. Kraak and M. Story.** Virginia Tech and Duke Univ.
- 9:45 **384.8** A Framework for the Predictive Modeling of Public Health Nutrition Strategies **S. Pigat and C. O' Mahony.** Crème Global, Dublin.

385. OBESITY: GUT MICROBIOME AND OBESITY**Minisymposium***(Sponsored by: Obesity RIS)*TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156B

CHAired: D. ALLISON

- 8:00 **385.1** Prebiotics Impact Fecal Microbiota and Gut Physiology in Diet-Induced Obese Mice **T-W. Liu, H.D. Holscher, K.D. Cephas, K.R. Kerr, H.F. Mangian, K.A. Tappenden and K.S. Swanson.** Univ. of Illinois at Urbana-Champaign.
- 8:15 **385.2** Effects of Elevating Colonic Propionate on Liver Fat Content in Adults with Non-alcoholic Fatty Liver Disease **E.S. Chambers, A. Viardot, A. Psichas, D.J. Morrison, K.G. Murphy, S.E.K. Zac-Varghese, T. Preston, C. Tedford, J.D. Bell, L. Thomas, W.S. Dhillo, S.R. Bloom and G.S. Frost.** Imperial Col. London, Univ. of Glasgow and Univ. of West of Scotland.
- 8:30 **385.3** Human Gut Microbes Associated with Infant Weight-for-Length Growth **N.J. Oilberding, D.V. Ward, A. Cline, D.H. Taft, B.S. Davidson, Z. Yu, C.J. Valentine, D.S. Newburg and A.L. Morrow.** Cincinnati Children's Hosp., Univ. of Cincinnati, Boston Col. and Mead Johnson.
- 8:45 **385.4** High Fat Diet-Induced Obesity Is Associated with Increased Abundance of Pro-inflammatory *Lactobacillus* In Peyer's Patches of Small Intestine **J. Sun, C. Qi, Y. Qiao, W. Jiang and H. Xiao.** Sch. of Food Sci. and Technol., Jiangnan Univ., China and Univ. of Massachusetts Amherst.
- 9:00 **385.5** Whole-Wheat Supplemented Diet Changed Fecal Microbial Ecology of Obese Diabetic Mice **E. García-Pérez, I.V. Ivanov, D.A. Mills and G. Noratto.** Sch. of Food Sci., Washington State Univ., Texas A&M Univ. and Univ. of California, Davis.
- 9:15 **385.6** Lingonberries Have Anti-obesity Effects and Modulate the Gut Microbiota in High-Fat Fed C57BL/6J Mice **L. Heyman-Lindén, D. Kotowska, E. Sand, C. Holm, F. Fåk and K. Berger.** Lund Univ., Sweden.
- 9:30 **385.7** Delivery Mode and Neonate Gut Microbiota **N.T. Mueller, A. Pizoni, H.A. Goldani, I. Werlang, U. Matte, M. Goldani, H. Shin and M.G. Dominguez-Bello.** Columbia Univ., Fac. of Med., Hosp. Clin. of Porto Alegre, Brazil and Sch. of Med., New York Univ.
- 9:45 **385.8** Increased Colonic Propionate Reduces Anticipatory Food Reward Responses in the Human Striatum **C. Byrne, E. Chambers, H. Alhabeeb, T. Preston, N. Chhina, A. Busza, J. Fitzpatrick, C. Irani, D. Morrison, A. Goldstone and G. Frost.** Fac. of Med., Imperial Col. London and Univ. of Glasgow.

386. AN INTERDISCIPLINARY EXAMINATION OF POTENTIAL EFFECTS OF MATERNAL OBESITY ON LACTATION PHYSIOLOGY AND THE HUMAN MILK MICROBIOME**Symposium***(Supported by Mead Johnson Pediatric Nutrition Institute)**(Sponsored by: Lactation RIS)*TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: C. LOVELADY AND L.A. NOMMSEN-RIVERS

Pediatric Nutrition and Early Development

- 10:30 Lactation Insufficiency and Maternal Obesity: Introduction to the Symposium. **C. Lovelady.** Univ. of North Carolina at Greensboro.
- 10:35 Does Impaired Insulin Action Underlie the Observed Association between Obesity and Shortened Breastfeeding Duration? **L.A. Nommsen-Rivers.** Cincinnati Children's Hosp. Med. Ctr.
- 11:05 Diet-induced Obesity Compromises Lactation by Redistributing Zn Pools and Promoting Premature Involution. **S.L. Kelleher.** Penn State Hershey Col. of Med.
- 11:35 The Human Milk Microbiome May Be Influenced By Maternal Obesity. **M.C. Collado.** Inst. of Agrochemistry and Food Tech., Spanish Nat'l Res Council (IATA-CSIC)
- 12:05 Differences in Bioactive Components in Milk between Lean and Overweight Women and Their Relationship to Infant Body Composition. **B.V. Young.** Univ. of Colorado.

387. FOOD AND NUTRITION BOARD UPDATE: NEW DIRECTIONS IN FOOD, NUTRITION, AND POPULATION HEALTH**Symposium**TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: A.L. YAKTINE AND S.P. MURPHY

Global and Public Health Nutrition

- 10:30 FNB Update: Exploring New Frontiers in Food and Nutrition. **S.P. Murphy.** Univ. of Hawaii Cancer Ctr.
- 10:50 A Framework for Assessing the Health, Environmental, Social and Economic Effects of the Food Systems. **M.C. Nesheim.** Cornell Univ.
- 11:10 Examining a Developmental Approach to Childhood Obesity: The Fetal and Early Childhood Years. **S. Barkin.** Vanderbilt Children's Hosp.
- 11:30 White Potatoes and WIC – Controversies and Consequences. **K.M. Rasmussen.** Cornell Univ.

388. ESTABLISHING YOURSELF AS AN EXPERT**Symposium***(Supported by DuPont Nutrition and Health)**(Sponsored by: The Young Professional Interest Group)*TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 151AB

CHAired: E.D. CIAPPIO AND M.N. HENDERSON

Education Track

- 10:30 Publishing Do's and Don'ts – Best Practices to Advance Your Career. **K. Tucker.** Univ. of Massachusetts Lowell.
- 10:50 Using Social Media to Establish Your Brand as a Nutrition Expert. **G.D. Miller.** Dairy Management, Inc.
- 11:10 Navigating Group Dynamics to Come to Consensus Scientific Opinions. **J.C. King.** CHORI – Univ. of California at Berkeley and Davis.
- 11:30 Managing Working Relationships with Colleagues. **S.H. Zeisel.** Univ. of North Carolina, Chapel Hill.

389. ENERGY AND MACRONUTRIENT METABOLISM: METABOLIC PHENOTYPING, METABOLOMICS AND BIOMARKERS**Minisymposium***(Sponsored by: Energy & Macronutrient Metabolism RIS)*TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 152

CHAired: G. CLINE

COCHAired: M. PUCHOWICZ

- 10:30 **389.1** Obesity Is Associated with Changes in Plasma Oxylipids **C.A. Pickens, L. Sordillo, S.S. Comstock and J.I. Fenton.** Michigan State Univ.
- 10:45 **389.2** Hepatic Oxylipin Profiles in Obese Rats: Effect of Antioxidant Supplementation **M. Picklo and J.W. Newman.** USDA, Grand Forks and USDA, Davis.
- 11:00 **389.3** Serum Triglyceride Composition Is Affected Qualitatively and Quantitatively by Interactions of Dietary Fat and Carbohydrate **B.S. Kristal, I.G. Stavrovskaya, S.S. Bird, V.R. Marur and C.L. Porter.** Brigham and Womens Hosp., Harvard Med. Sch.
- 11:15 **389.4** Low Serum Sphingolipids in Attention Deficit Hyperactivity Disorder **M. Henríquez-Henríquez, S. Solari, F. Allende, T. Quiroga, B. Kim, R.J. Deckelbaum and T.S. Worgall.** Col. of P&S, Columbia Univ., Pontifical Catholic Univ. of Chile, Santiago and Columbia Univ.
- 11:30 **389.5** Serum Metabolomic Response to Vitamin E Supplementation in a Controlled Cancer Prevention Trial **D. Albanes, S. Moore, S. Weinstein and A. Mondul.** NCI, NIH.
- 11:45 **389.6** Tracer-Based Estimates of Carbohydrate Homeostasis: Plasma and Tissue-Specific Flux Glucose Indexing **S-p. Wang, M. Wu, D. Zhou, G. Dai, C. Nunes, A. Burton, X. Shen, J. Shang, W. Yin, J. Liu, J. Castro-Perez, K. Herath, S. Previs and D. Kelley.** Merck, Kenilworth, NJ.

12:00 **389.7** Simultaneous Quantitation of Lipid and Apo-Protein Synthesis: Diet-Mediated Reduction in De Novo Lipogenesis Is Associated with a Stimulation of ApoB and A1 Production in Vivo **S. Previs, H. Zhou, K. Herath, D. Xie, J. Castro-Perez, D.A. Wagner and D.E. Kelley.** Merck and Metab. Solutions.

12:15 **389.8** Metabolite Profiling in Plasma and Tissues of *ob/ob^{-/-}* and *db/db^{-/-}* Mice Identifies Novel Markers of Obesity and Type 2 Diabetes **P.J. Giesbertz, B. Spanier, D. Rein and H. Daniel.** ZIEL Res. Ctr. for Nutr. and Food Sci., Freising and Metanomics Hlth. GmbH, Berlin.

390. DIETARY BIOACTIVE COMPONENTS: ANTIOXIDANT AND ANTI-INFLAMMATORY EFFECTS OF DIETARY BIOACTIVE COMPONENTS**Minisymposium***(Sponsored by: Dietary Bioactive Components RIS)*TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153A

CHAired: J. JOHNSON

COCHAired: M. JOHNSON

- 10:30 **390.1** Oat Avenanthramides Induce Heme Oxygengase-1 Expression via Nrf2-Mediated Signaling in HK-2 Cells **S. Sang, J. Fu, Y. Zhu, A. Yerke, M. Wise, J. Johnson and Y. Chu.** North Carolina A&T State Univ., USDA, Madison and PepsiCo R&D Nutr., Barrington, IL.
- 10:45 **390.2** Polyphenolic Compounds of Purple Sweet Potatoes (*Ipomoea batatas*) Show Anti-inflammatory Effects in Colon Myofibroblast CCD-18Co Cells **P.D. Cipriano, H. Kim, S.U. Mertens-Talcott and S.T. Talcott.** Texas A&M Univ.
- 11:00 **390.3** Organic Extract of an Edible Blue-Green Algae *Spirulina platensis* Exerts Anti-inflammatory Effects in C57BL/6J Mice Fed a High Fat/High Sucrose Diet **T.X. Pham, B. Kim, M. Bae, E.M. Harness, C. Caceres, C. Farruggia, Y-K. Park and J-Y. Lee.** Univ. of Connecticut.
- 11:15 **390.4** Green Tea Extract Attenuates Oxidative Stress, Inflammation, and Lipogenesis through Nrf2-Dependent and -Independent Mechanisms in Diet-Induced Obese Mice with Nonalcoholic Steatohepatitis **J. Li, T.N. Sapper, K.E. Schill, C. Chitchumroonchokchai, M.V. Moller, P.R. Rohrer, S. Rudraiah, J.E. Manautou and R.S. Bruno.** The Ohio State Univ. and Univ. of Connecticut.
- 11:30 **390.5** Phytochemical Characterization, Anti-inflammatory and Lipolytic Activities of Pistachio Hulls, Skins, and Kernels **M.H. Grace, D. Esposito, M. Timmers and M.A. Lila.** North Carolina State Univ., Kannapolis.
- 11:45 **390.6** Structure-Function Analysis of Ursolic Acid and its Analogs to Identify Their Anti-inflammatory Mechanism of Action **H.N. Nguyen, H.S. Kim, S. Ullevig and R. Asmis.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Univ. of Texas at San Antonio.
- 12:00 **390.7** Anti-inflammatory Effect of Allyl Isothiocyanate and Curcumin in Combination **K. Rakariyatham and H. Xiao.** Univ. of Massachusetts Amherst.
- 12:15 **390.8** Identification and Characterization of Tocotrienols in Muscadine Grape Seed Oil and their Inhibitory Effects on Adipogenesis and Inflammation **L. Zhao, Y. Yagiz, C. Xu, L. Jiang, S. Chung and M. Marshall.** Univ. of Florida, China Agr. Univ. and Univ. of Nebraska-Lincoln.

391. GLOBAL NUTRITION: UNDERSTANDING PATHWAYS TO INTERVENTION IMPACT

Minisymposium

(Sponsored by: Global Nutrition Council)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153B

CHAired: B. ROGERS

COCHAired: E. MONTERROSA

- 10:30 **391.1** Conducting Formative Research to Understand Patterns and Determinants of Small-Quantity LNS Utilization in Rural Malawi and Mozambique **S. Kodish, N.J. Aburto, M. Nseluke Hambayi, F. Dibari, V. Buanausse and J. Gittelsohn.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and World Food Prog. Rome.
- 10:45 **391.2** Nutrient Sources in the Diets of Rural Tanzanian Children 9-24 Months and Local Pathways to Nutrient Adequacy **A. Bauck, C. Patil, E.R. Mduma, E. Svensen and L.E. Caulfield.** Johns Hopkins Sch. of Publ. Hlth., Univ. of Illinois at Chicago, Haydom Lutheran Hosp., Tanzania and Univ. of Bergen, Norway.
- 11:00 **391.3** Availability and Intake of Foods with Naturally Occurring or Added Vitamin D in a Setting of High Vitamin D Deficiency **M.B. Cooper, S.S. Shanta, A.A. Mahmud, D.E. Roth and A.D. Gernand.** Penn State, ICDDR, Bangladesh and Univ. of Toronto & Hosp. for Sick Children.
- 11:15 **391.4** Civil Conflict and Child Health in Africa: An Instrumental Variables Approach **A.F. Darrouzet-Nardi.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ.
- 11:30 **391.5** Frontline Worker Knowledge and Motivation Influence Maternal Exposure to Complementary Feeding Counseling at Home **R. Avula, S.S. Kim, P. Tyagi, S. Chakrabarti and P. Menon.** Intl. Food Policy Res. Inst., New Delhi and Intl. Food Policy Res. Inst., Washington, DC.
- 11:45 **391.6** Sale of Micronutrient Powders by Frontline Workers Enables High Reach, but Low Uptake Limits Impact on Anemia and Iron Status: A Cluster Randomized Study in Bangladesh **R. Rawat, K.K. Saha, A.L. Kennedy, M.T. Ruel and P. Menon.** Intl. Food Policy Res. Inst., Washington, DC.
- 12:00 **391.7** How Does Homestead Food Production Improve Child Nutrition? Path Analysis of the AAMA Project in Nepal **J.L. Self, R. Haardörfer, A.D. Stein, P. Pandey, R. Martorell and A. Webb Girard.** Emory Univ. and Helen Keller Intl., Kathmandu.
- 12:15 **391.8** An Integrated Agriculture-Nutrition-Health Program Increased Maternal Knowledge on Health and Nutrition in Western Kenya **A. Webb Girard, R. Wanjala, H. Okuku, C. Levin, D. Cole and J. Low.** Rollins Sch. of Publ. Hlth., Emory Univ., Intl. Potato Ctr., Kenya, Univ. of Washington and Dalla Lana Sch. of Publ. Hlth., Univ. of Toronto.

392. NUTRITION ACROSS THE LIFESPAN

Minisymposium

(Sponsored by: Aging and Chronic Disease RIS)

(Cosponsored by: Obesity RIS and Nutrition Translation RIS)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 153C

CHAired: C. SCEPPA AND C. TANGNEY

- 10:30 **392.1** Intake of Caffeine from All Sources Including Energy Drinks and Reasons for Use in U.S. College Students **H.R. Lieberman, B.P. Marriott, D.A. Judelson, E.L. Glickman, P.J. Geiselman, G.E. Giles and C.R. Mahoney.** U.S. Army Res. Inst. of Envrn. Med., Natick, MA, Med. Univ. of South Carolina, California State Univ. Fullerton, Kent State Univ, Pennington Biomed. Res. Ctr., LSU, Baton Rouge and U.S. Army Natick Soldier RD&E Ctr., Natick, MA.
- 10:45 **392.2** High Fat Diet-Induced Maternal Obesity Programs Senescence Signaling and Glucose Metabolism in Rat Embryonic Osteoblastic Cells **J-R. Chen, O.P. Lazarenko, T.M. Badger and K. Shankar.** Univ. of Arkansas for Med. Sci.
- 11:00 **392.3** Differential Effects of Carbohydrates on Changes in Acute Childhood Cognitive Control **N.A. Khan, L.B. Raine, A.J. Winter, N.J. Cohen, A.F. Kramer and C.H. Hillman.** Univ. of Illinois at Urbana-Champaign.
- 11:15 **392.4** A Diet Containing EGCG and Beta-Alanine Decreases Mortality and Improves Balance in Aged Mice, but Does Not Affect Cognitive Function **B.D. Pence, T.K. Bhattacharya, P. Park, Y. Sun, J.L. Rytch, J.M. Allen, R.H. McCusker, K.W. Kelley, R.W. Johnson, J.S. Rhodes and J.A. Woods.** Univ. of Illinois at Urbana-Champaign.
- 11:30 **392.5** Relationship between Infant Breast Milk Exposure and Impulse Control during Adolescence **V.L. Darcey, B.W. Stevens, J.W. VanMeter, E.J. Rose and D.H. Fishbein.** Georgetown Univ., Georgetown Univ. Med. Ctr. and Univ. of Maryland Sch. of Med.
- 11:45 **392.6** EEG Measures of Brain Function during a Memory Task Successfully Assesses Memory in 4-6 Month Old Infants and May Reveal Associations between Early Iron Status and Memory Development **J.E.H. Nevins, S.M. Stoyell, S.S. Robertson, R.L. Canfield and J.D. Haas.** Cornell Univ.
- 12:00 **392.7** Association between Anemia Subtypes and Insomnia Symptoms in Community-Dwelling Older Adults **L.P. Chen-Edinboro, L.E. Murray-Kolb, E.M. Simonsick, L. Ferrucci, R.P. Allen, M.E. Payne and A.P. Spira.** Johns Hopkins Bloomberg Sch. of Publ. Hlth., Penn State, NIA, NIH, Baltimore, Johns Hopkins Sch. of Med. and Duke Univ.
- 12:15 **392.8** Caffeine, Coffee and Tea in Relation to Risk of Hip Fracture in the Singapore Chinese Health Study **Z. Dai, J-M. Yuan and W.P. Koh.** Natl. Univ. of Singapore, Grad. Sch. of Publ. Hlth., Univ. of Pittsburgh and Duke-NUS Grad. Med. Sch., Singapore.

393. MEDICAL NUTRITION: NUTRITION AND INFLAMMATION**Minisymposium***(Sponsored by: Medical Nutrition Council)*

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

CHAired: P. KRIS-ETHERTON

- 10:30 **393.1** Higher Intakes of Fruits and Vegetables, α -Linolenic Acid, Vitamin E and β -carotene are Associated with Improved Periodontal Healing after Periodontal Therapy **W.E. Ward, D.W. Dodington, P.C. Fritz and P.J. Sullivan.** Brock Univ., Canada and Reconstructive Periodont & Implant Surg. Clin., Fonthill, ON.
- 10:45 **393.2** A Healthy Lifestyle Score Is Associated with Inflammation Markers among Puerto Rican Adults **M. Sotos-Prieto, S.N. Bhupathiraju, L.M. Falcon, X. Gao, K.L. Tucker and J. Mattei.** Harvard Sch. of Publ. Hlth., Univ. of Massachusetts and Penn State.
- 11:15 **393.4** Relationship between Transferrin Receptor and Two Acute Phase Proteins in Women of Reproductive Age **O.Y. Addo, F. Ashour, S. Namaste, K. Sullivan, P. Suchdev, Z. Mei, F. Rohner, C. Northrop-Clewes, R. Flores-Ayala and D. Raiten.** Emory Univ., NICHD, NIH, Ctrs. for Dis. Control and Prevent., SPRING, HKI, Washington, DC, GroundWork, Switzerland and Consultant, Cambridge, U.K.
- 11:30 **393.5** Postprandial Endotoxemia Increases with Fat Amount in Obese Men: Inflammatory Impact of LPS Handling **M-C. Michalski, C. Vors, G. Pineau, J. Drai, C. Malpuech-Brugère and H. Vidal.** INSERM U1060, Univ. Lyon 1 and INRA, Clermont Ferrand, France.
- 11:45 **393.6** Accounting for the Influence of Inflammation on Retinol Binding Protein in a Population Survey of Liberian Preschool-Aged Children **L. Larson, O.Y. Addo, F. Sandalinas, K. Baawo, K. Faigao, R. Kupka, R. Flores-Ayala and P. Suchdev.** Emory Univ., UNICEF, Senegal, Ministry of Hlth. and Soc. Welfare, Liberia, UNICEF, Liberia and Ctrs. for Dis. Control and Prevent.
- 12:00 **393.7** The cAMP Responsive Element Binding Protein H Links Metabolic Inflammation with Hyperlipidemia in Hepatic Insulin Resistance **M. Zhao, X. Tong and Q. Su.** Univ. of Nebraska -Lincoln.
- 12:15 **393.8** Thymoquinone Inhibits TNF- α -Induced Pro-inflammatory Mediators in Rheumatoid Arthritis Synovial Fibroblasts In Vitro **S. Umar, O. Hedaya, S. Agere and S. Ahmed.** Col. of Pharm., Washington State Univ. and Fac. of Pharm., Kuwait Univ.

394. DIET AND CANCER: FAT VERSUS FIBER IN COLON CANCER: OPPOSITE IN THE END?**Minisymposium***(Sponsored by: Diet and Cancer RIS)*

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156A

CHAired: J. FENTON

COCHAired: D.R. DONOHOE

- 10:30 **394.1** Thrombospondin-1 Regulates Hepatic Lipid and Energy Metabolism to Increase Carcinogenesis in an In Vivo Model of Colorectal Cancer **N.J. Emenaker, D.R. Soto Pantoja, M. Snipes, N. Morris and D.D. Roberts.** NCI, NIH and Leidos Biomed. Res. Inc., Frederick, MD.
- 10:45 **394.2** Epigenetic Regulation of the FXR by High Fat Diet and APC in Colon Cells **A. Lyon, O. Selmin, C. Fang, J.W. Smith, T. Doetschman, P. Thompson, J. Martinez, P. Lance and D. Romagnolo.** Univ. of Arizona and Sanford-Burnham Med. Res. Inst.
- 11:00 **394.3** Epigenetic Mechanisms by Which Chemoprotective Natural Compounds Promote RXR/FXR Signaling and Reduce Colon Cancer Progression **K. Triff, J. Knight, I. Ivanov, B. Zhou and R. Chapkin.** Texas A&M Univ.
- 11:15 **394.4** Synergistic Effects of Fiber and Phytochemicals in Wheat Bran on Colon Cancer **J. McBride, Y. Zhu, P. Wang and S. Sang.** North Carolina A&T State Univ.
- 11:30 **394.5** Pro-inflammatory Cytokine, IL-1B, Diminishes Butyrate Oxidation in Colorectal Cancer Cells **M. Johnstone and D.D. Donohoe.** Univ. of Tennessee, Knoxville.
- 11:45 **394.6** Carnitine Is a Pivotal Contributor for Butyrate Oxidation in Colon Cancer Cells **A. Han and D.R. Donohoe.** Univ. of Tennessee, Knoxville.
- 12:00 **394.7** Dried Plums Modify Colon Microbiota Composition and Spatial Distribution, and Protect against Chemically-Induced Carcinogenesis **D.V. Seidel, K.K. Hicks, S.S. Taddeo, M.A. Azcarate-Peril, R.J. Carroll and N.D. Turner.** Texas A&M Univ. and Univ. of North Carolina at Chapel Hill.
- 12:15 **394.8** Impact of Diet and Genetic-Induced Obesity on the Stool Metabolome of Tumor Prone Mice **P-D. Nesbeth, A. Pflazer, L. Iyer, L. Parnell, Z. Liu, J. Mason and J.W. Crott.** USDA at Tufts Univ., Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ., Tufts Univ. Sch. of Med. and Univ. of Massachusetts Amherst.

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395. NUTRITION EDUCATION AND BEHAVIOR SCIENCE: DEVELOPING HEALTHY EATING AND PHYSICAL ACTIVITY BEHAVIORS ACROSS THE LIFESPAN

Minisymposium

(Sponsored by: Nutrition Education and Behavior Science RIS)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 156B

CHAired: J. BANNA

COCHAired: K. OYELOLA

- 10:30 **395.1** Parental Feeding Practices Are Associated with Weight and Eating Styles of Preschoolers **J. Martin-Biggers, J. Worobey and C. Byrd-Bredbenner.** Rutgers Univ.
- 10:45 **395.2** Relationships between Fathers' Feeding Practices and Preschool Children's Beverage Intake **K. Lora, L. Hubbs-Tait, A. Ferris and M. Anderson.** Univ. of Oklahoma Hlth. Sci. Ctr., Oklahoma State Univ. and Univ. of Connecticut Hlth. Ctr.
- 11:00 **395.3** Reliability and Validity of an Online Questionnaire to Measure Food Literacy in Primary School Children **S.A. Skeaff and T.G. O'Sullivan.** Univ. of Otago, New Zealand.
- 11:15 **395.4** Bouts of Sedentary Time and Cardiovascular Risk Factors in Children **A.J. Cantoral, E. Oken, J. Thompson, A. Baccarelli, K. Svensson, M.M. Tellez-Rojo and R.O. Wright.** Natl. Inst. of Publ. Hlth., Cuernavaca, Icahn Sch. of Med. at Mount Sinai and Harvard Univ.
- 11:30 **395.5** Beliefs Regarding Weight Gain during Pregnancy among Participants of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) **M. Koleilat, N. Vargas, A.V. Pelina, S.T. Bell and S.E. Whaley.** California State Univ. Fullerton and Publ. Hlth. Fndn. Enterprises-WIC, Irwindale, CA.
- 11:45 **395.6** A Comparison of Nutrition Knowledge and Behaviors of Low Income Pregnant Adolescents and Adults **M.E. Ellis, K.O. O'Brien, E.M. Cooper, E.K. Pressman and C.M. Whisner.** Sch. of Nutr. and Hlth. Promotion, Arizona State Univ., Cornell Univ. and Univ. of Rochester Sch. of Med. and Dent.
- 12:00 **395.7** Social Support and Sabotage: The Influence of Relationships on Health Eating and Physical Activity Behaviors in Rural Adults **U. Sriram, E.H. Morgan, M.L. Graham, S.C. Folta, M.E. Nelson, L.A. Paul, D.S. Kenkel and R.A. Seguin.** Cornell Univ., Tufts Univ. and Montana State Univ.
- 12:15 **395.8** Use of a Systematic 3-Pronged Evaluation to Measure, Monitor, and Test Fidelity of the 5-State iCook 4-H Program **D. Mathews, L. Franzen-Castle, K. Kattelmann, S. Colby, M. Olfert and A. White.** Univ. of Maine, Univ. of Nebraska-Lincoln, South Dakota State Univ., Univ. of Tennessee, Knoxville and West Virginia Univ.

396. W.O. ATWATER MEMORIAL LECTURE

Award Lecture

(Supported by USDA ARS, Beltsville)

TUES. 12:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST

- 12:45 Introduction.
- 1:00 Food Is Not a Talisman: Reflections on the Science and Practice of Nutrition **J.L. Slavin.** Univ. of Minnesota.

397. INTERNATIONAL FORUM – TAIWAN

International Forum

(Sponsored by: Nutrition Society of Taiwan)

TUES. 12:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAired: H.C. LO AND F.Y. TANG

- 12:45 Activities of the Nutrition Society of Taiwan in the Past 40 years **G-S.W. Hsu.** Fu Jen Catholic Univ.
- 1:00 Nutrition Policy of Government in Taiwan **TBD.**
- 1:15 Nutrition and Health Survey in Taiwan (NAHSIT) for Nutrition and Health Monitoring, Evidence-Based Guidelines, and Public Policy **W-H. Pan.** Inst. of Biomed. Sci., Acad. Sinica, Taipei
- 1:30 Nutritional Economics – Taiwanese Experiences **M-S. Lee.** Natl. Def. Med. Ctr., Taipei.
- 1:45 The Current Status of Nutrition Research in Taiwan **E.I. Chiang.** Natl. Chung Hsing Univ., Taiwan.
- 2:00 Panel Discussion.

398. PEDIATRIC NEUROCOGNITIVE DEVELOPMENT: EMERGING INSIGHTS AND APPLICATIONS IN NUTRITION

Symposium

(Supported by University of Illinois at Urbana-Champaign's Center for Nutrition, Learning and Memory, which is sponsored by Abbott Nutrition)

(Sponsored by: Nutrition Translation RIS and Endorsed by Global Nutrition Council, Nutritional Sciences Council and Lactation RIS)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST

CHAired: M. ALONSO-ALONSO AND E.C. RADLOWSKI

Pediatric Nutrition and Early Development

- 3:00 Diet and Cognition: Overview of Influences and Current Directions **N.J. Cohen and N.A. Khan.** Univ. of Illinois at Urbana-Champaign.
- 3:25 The Developing Brain: Insights from Neuroimaging Studies **S. Carnell.** Johns Hopkins Sch. of Med.

- 3:50 Can Early Nutrition Influence Long-term Neurocognition? The Case of Breast Milk **A. Lucas**. University Col. London.
- 4:15 Novel Neurotechnologies to Evaluate Neurocognitive Function and Nutrition: The Global fNIRS Initiative **C.E. Elwell**. University Col. London.

399. IMPROVING CARDIO-SKELETAL HEALTH BY EXPLORING THE HEART - BONE CONNECTION

Symposium

(Supported by National Dairy Council)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 157ABC

CHAired: C.M. WEAVER

Diet and Non-Communicable Diseases

- 3:00 The Impact of Dietary Calcium and Vitamin D on the Heart and Bone **C.M. Weaver**. Purdue Univ.
- 3:25 Racial Differences and the Impact of Nutrition in Osteoporosis, CVD and Chronic Kidney Disease **R. Bailey**. NIH.
- 3:50 The Role of Dietary Phosphorus in Kidney, Cardiovascular, and Bone Health **K. Hill Gallant**. Purdue Univ.
- 4:15 Interrelationships of Disorders of the Kidney, Heart and Bone **D.A. Towler**. Sanford Burnham Med. Res. Inst.
- 4:40 Panel Discussion.

400. HISTORY OF NUTRITION: THE LONG ROAD LEADING TO THE DIETARY REFERENCE INTAKES

Symposium

(Sponsored by: History of Nutrition Committee)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

CHAired: F.H. NIELSEN AND A.L. YAKTINE

Education Track

- 3:00 The Advent of the DRI Paradigm: Why it Improved on the RDAs **A.A. Yates**.
- 3:20 Conventions and Controversies in Setting the DRIs **S.A. Atkinson**. McMaster Univ., Canada.
- 3:40 The Expanded Uses of the DRIs **S.I. Barr**. Univ. of British Columbia.
- 4:00 How the DRIs Have Changed Nutrition Policies **J.T. Dwyer**. NIH.
- 4:20 Current and Projected Development of the DRIs **S.P. Murphy**. Univ. of Hawaii Cancer Ctr.

401. ENERGY AND MACRONUTRIENT METABOLISM: DIETARY FATTY ACIDS AND HEALTH

Minisymposium

(Sponsored by: Energy & Macronutrient Metabolism RIS)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 152

CHAired: E. PARKS

- 3:00 **401.1** Omega-3 Fatty Acids Modify Treatment Effect of High-Dose B Vitamins in Cognitively Impaired Elderly **F. Jernerén, A.K. Elshorbagy, A. Oulhaj, S.M. Smith, H. Refsum and D. Smith**. Univ. of Oxford, Univ. of Alexandria, United Arab Emirates Univ. and Univ. of Oslo.
- 3:15 **401.2** Raising Omega-3 and Lowering Omega-6 in Military Diet Recipes: Effects on Blood Fatty Acids **J.R. Hibbeln, C.M. Champagne, S.J. Montain, M. Hawes, K. Berry and B.P. Marriott**. NIAAA, NIH, LSU, Baton Rouge, U.S. Army Res. Inst. of Exptl. Med., Natick, MA, BELOVO, Pinehurst, NC, Samuelli Inst., Alexandria, VA and Med. Univ. of South Carolina.
- 3:30 **401.3** Change of Plasma Metabolites in Response to Omega-3 Fatty Acids in Chinese Patients with Type 2 Diabetes: A Double-Blinded Randomized Controlled Trial **D. Li, J-S. Zheng, M. Lin and L. Wang**. Zhejiang Univ., Wuhan Puai Hosp., Tongji Med. Col. and Huazhong Agr. Univ., China.
- 3:45 **401.4** Docosahexaenoic Acid Status of Pregnant and Lactating Women in Coastland, Lakeland and Inland of China **Y-b. Zhou, L. Wang, H. Ge, Y. Li, H-t. Li and J-m. Liu**. Sch. of Publ. Hlth., Peking Univ. and The First Affiliated Hosp. of Baotou Med. Sch., China.
- 4:00 **401.5** The Effects of Hypogonadism and Conjugated Linoleic Acid on Regional Adipose Tissue and Fatty Acid Composition in Male Guinea Pigs **S. Santosa, S. Yang, H. Weiler, J. DeGuire and S. Agellon**. Concordia Univ., Montreal and Sch. of Dietetics and Human Nutr., McGill Univ.
- 4:15 **401.6** Eicosapenaenoic Acid Supplementation Regulates Hepatic Lipid Metabolism and Inflammation in Diet-Induced Obese Mice **K.D. Albracht-Schulte, L. Ramalingam, N.S. Kalupahana, C. Brocard and N. Moustaid-Moussa**. Texas Tech Univ. and Univ. of Peradeniya, Sri Lanka.
- 4:30 **401.7** Consumption of Ahiflower Oil Is Safe and Increases Tissue EPA Levels Compared to Flaxseed Oil – Results of a Phase I Clinical Trial **N. Lefort, R. LeBlanc, M-A. Giroux and M.E. Surette**. Univ. of Moncton, Dr. G.L. Dumont Hosp., Moncton, Canada and Univ. of Quebec at Rimouski.
- 4:45 **401.8** Omega-3 Polyunsaturated Fatty Acids Have Sex-Specific Effects on the Phospholipid Fatty Acid Composition and Neurotrophin Expression in the Brain of C57BL/6 Mice **B.A. Feltham, K.A. Balogun and S.K. Cheema**. Mem. Univ. of Newfoundland.

402. DIETARY BIOACTIVE COMPONENTS: EFFECTS OF DIETARY BIOACTIVE COMPONENTS IN ANIMAL MODELS OF OBESITY AND CARDIOMETABOLIC RISK

Minisymposium

(Sponsored by: Dietary Bioactive Components RIS)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153A

CHAired: O. CHEN

COCHAired: S. WANG

- 3:00 **402.1** Anthocyanin-Rich Black Elderberry Extract Improves Inflammatory Markers and Insulin Resistance in a High-Fat Diet-Induced Obesity Model of Mice **N.J. Farrell, G.H. Norris, J. Ryan and C. Blesso**. Univ. of Connecticut.
- 3:15 **402.2** Effect of Whole Wheat on the Development of Metabolic Syndrome in Rats Fed Snack Foods **C.O. Chen, D.E. Smith, L. Lucio, M. Braz and J.B. Blumberg**. USDA at Tufts Univ. and Botucatu Med. Sch., São Paulo State Univ.
- 3:30 **402.3** Carnosic Acid as the Major Bioactive Component in Rosemary Extract Ameliorates High-Fat Diet-Induced Obesity and Metabolic Syndrome in Mice **Y. Zhao, R. Sedighi, P. Wang, H. Chen, Y. Zhu and S. Sang**. North Carolina A&T State Univ.
- 3:45 **402.4** Metabolic Syndrome and Hepatic Steatosis Is Reduced in C57BL/6J Mice Fed High-Fat Diets Supplemented with Soy Isoflavones **T. Luo, S.M. Smith, B.S. Zhao, J.M. Hamiton-Reeves, D.K. Sullivan and N.F. Shay**. Oregon State Univ. and Univ. of Kansas Med. Ctr.
- 4:00 **402.5** The Effect of EGCG and EGCG Nanoparticles on Body Weight and Body Composition in LDL Receptor Null Mice **Y. Zu, J. Zhang, S. Nie and S. Wang**. Texas Tech Univ.
- 4:15 **402.6** Ellagic Acid Supplementation Attenuates Sucrose-Induced Obesity and Metabolic Complication in C57BL/6 Mice **I. Kang, T.P. Carr and S. Chung**. Univ. of Nebraska-Lincoln.
- 4:30 **402.7** Effects of Oral Aged Garlic Extract on Indicators of Diabetes and Oxidative Stress in Streptozotocin-Induced Diabetic Rats **M. Thomson, K.K. Al-Qattan, D. J.S. and M. Ali**. Kuwait Univ. Fac. of Sci.
- 4:45 **402.8** Oxyresveratrol Normalized Body Weight Gain and Feed Efficiency of Mice Fed High-Fat Diet **E.T.S. Li, H.Y. Tan and M.F. Wang**. Sch. of Biol. Sci., The Univ. of Hong Kong.

403. GLOBAL NUTRITION: RECENT ADVANCES IN BIOMARKER DEVELOPMENT AND USE

Minisymposium

(Sponsored by: Global Nutrition Council)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153B

CHAired: A. PRENTICE

COCHAired: G. AARON

- 3:00 **403.1** An Evaluation of Two Methods to Measure Hemoglobin Concentration among Women with Genetic Hemoglobin Disorders in Cambodia: A Method-Comparison Study **C. Karakochuk, A. Janmohamed, K. Whitfield, S. Barr, S. Vercauteren, H. Kroeun, A. Talukder, J. McLean and T. Green**. Univ. of British Columbia, Children's and Women's Hlth. Ctr. of British Columbia and Helen Keller Intl., Phnom Penh.
- 3:15 **403.2** Elevated Umbilical Cord Cytokines are Related to Birth Size in HIV-Exposed and Unexposed Infants **A.L. Wilkinson, S.H. Pedersen, M. Urassa, D.M. Michael, A. Andreasen, J. Todd, S. Kinung'hi, J. Changalucha and J.M. McDermid**. Cornell Univ., London Sch. of Hyg. and Trop. Med. and Natl. Inst. for Med. Res., Tanzania.
- 3:30 **403.3** Fatty Acid Desaturase Single Nucleotide Polymorphisms Modify the Effect of Prenatal Supplementation with Docosahexaenoic Acid on Birth Weight **I. Gonzalez-Casanova, P. Rzehak, W. Hao, S.D. Aryeh, A. Barraza-Villarreal, R. Garcia-Feregrino, J. Rivera, I. Romieu, S. Villalpando, B. Koletzko and U. Ramakrishnan**. Emory Univ., Univ. of Munich, Natl. Inst. of Publ. Hlth., Cuernavaca and Intl. Agcy. for Res. on Cancer, Lyon.
- 3:45 **403.4** Elevations in Serum Anti-flagellin and Anti-lipopolysaccharide Immunoglobulins Are Related to Underweight in Young Tanzanian Children **C. McDonald, H. Tran, K. Gosselin, K. Manji, A. Gewirtz, R. Kisenge, S. Aboud, W. Fawzi and C. Duggan**. Boston Children's Hosp., Univ. of Georgia, Muhimbili Univ. of Hlth. and Allied Sci., Tanzania and Harvard Sch. of Publ. Hlth.
- 4:00 **403.5** Serum Citrulline Does Not Predict Stunting or Environmental Enteric Dysfunction in Tanzanian and Malawian Infants **K. Gosselin, C. McDonald, M. Kellogg, K. Manji, R. Kisenge, S. Aboud, K. Maleta, N. Benzoni, W. Fawzi, M. Manary and C. Duggan**. Boston Children's Hosp., Muhimbili Univ. of Hlth. and Allied Sci., Tanzania, Univ. of Malawi, Washington Univ. in St. Louis and Harvard Sch. of Publ. Hlth.
- 4:15 **403.6** Prevalence of Inflammation Varies among Preschool Aged Children across 12 Countries **R.D. Merrill, K. Sullivan, C. Northrop-Clewes, R. Flores-Ayala, S. Namaste, M. Serdula and P.S. Suchdev**. Ctrs. for Dis. Control and Prevent., Emory Univ., Cambridge Univ., NICHD, NIH and SPRING, Washington, DC.
- 4:30 **403.7** A Plasma Proteome Associated with Inflammation in Nepalese School-Aged Children **S.E. Lee, K. West, R. Cole, K. Schulze, J. Yager, J. Groopman and P. Christian**. Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Johns Hopkins Sch. of Med.
- 4:45 **403.8** Sensitivity and Specificity of Serum Retinol in Determining Vitamin A Deficiency **D. Suri, J. Tanumihardjo, B. Gannon and S. Tanumihardjo**. Univ. of Wisconsin-Madison.

404. NUTRITION ACROSS THE LIFESPAN: EARLY CHILDHOOD NUTRITION

Minisymposium

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 153C

CHAired: D. RAITEN

- 3:00 Chair's Introduction.
- 3:15 **404.1** Cereal-in-the-Bottle Associated with Increased Time between Feeds Among a Sample of Low-Income Women **K.M. Bower, J.C. Nicklas, J.L. Burney, B.P. Greer, Z. Lou and K.F. Kavanagh.** Univ. of Tennessee and WIC, City and County of Broomfield.
- 3:30 **404.2** Complementary Feeding Pattern Reduces the Impact of Diarrhea on Relative Weight: A Longitudinal Analysis of the Interaction of Diet and Diarrhea on Weight-for-Length in Cebu Infants **M. Wright and L. Adair.** Univ. of North Carolina at Chapel Hill.
- 3:45 **404.3** Lyophilization of Infant-Formula Samples Collected from Low-Income Mothers at ~2 Months of Infant Age **K.F. Kavanagh, Z. Lou, J.L. Burney, B.P. Greer, K.M. Bower and J.C. Nicklas.** Univ. of Tennessee, Knoxville and WIC, City and County of Broomfield, CO.
- 4:00 **404.4** Feeding Practices Associated with Toddler Dietary Intake **L.R. Edelson, C. Mokdad and N. Martin.** Nestlé Res. Ctr., Lausanne.
- 4:15 **404.5** Food, Beverage, and Nutrient Intakes of U.S. Children Age 1-2 Years **A.B. Jarvis, J.C. Clemens, D.G. Rhodes and A.J. Moshfegh.** USDA, Beltsville.
- 4:30 **404.6** Early Introduction of Complementary Foods Is Associated with Higher BMI-for-Age but Not % Body Fat at 3 Years in Breast Fed Infants **S. Gallo, J.A. Abell, F. Alice, C.A. Vanstone and H.A. Weiler.** George Mason Univ. and Sch. of Dietetics and Human Nutr., McGill Univ.
- 4:45 **404.7** "Your Child Ate What?" Frequently Consumed Foods among Young Children in the U.S. Affiliated Pacific: The Children's Healthy Living Program **R. Ettienne, C. Boushey, K. Yonemori, M. Fialkowski, R. Leon Guerrero, A. Bersamin, P. Coleman, T. Fleming and R. Novotny.** Univ. of Hawaii at Manoa, Univ. of Guam, Univ. of Alaska Fairbanks, Northern Marianas Col. and American Samoa Community Col.

405. NUTRIENT-GENE INTERACTIONS: OBESITY AND INFLAMMATION

Minisymposium

(Sponsored by: Nutrient-Gene Interactions RIS)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 154

CHAired: M. HAMADEH

COCHAired: J. BAUM

- 3:00 **405.1** Macronutrients Differentially Regulate PFKFB3 Expression and Increase Inflammation in Intestinal Epithelial Cells **R. Botchlett, X. Hu, T. Qi, J. Zhao, H. Li and C. Wu.** Texas A&M Univ.
- 3:15 **405.2** Tocotrienol Attenuates Insulin Resistance through Inhibition of Nlrp3 Inflammasome Activation in Diabetic Leptin Receptor Knockout Mice **S. Chung and W. Wang.** Univ. of Nebraska-Lincoln.
- 3:30 **405.3** Pulsatile Delivery of Cortisol Regulates Lipid Storage in Adipocytes In Vitro and Human Adipose Gene Expression In Vivo **K. Karastergiou, P. Pramyothin, A. Port, C.M. Apovian, M-J. Lee and S.K. Fried.** Boston Univ. Sch. of Med., Mahidol Univ., Bangkok and Univ. of Maryland Sch. of Med.
- 3:45 **405.4** Inflammation Attenuates Adaptive Thermogenesis via Autophagy and ER Stress-Associated Mechanism **M. Okla, W. Wang, I. Kang and S. Chung.** Univ. of Nebraska-Lincoln.
- 4:00 **405.5** Diverse Classes of Bitter Phytochemicals Modulate Carbohydrate Metabolism and Immune Responses through Gastrointestinal Bitter Taste Receptors **K. Palatini, M. Wilson, J. Alley, D. Esposito and S. Komarnytsky.** North Carolina State Univ., Kannapolis and Raleigh and Appalachian State Univ.
- 4:15 **405.6** Obesity-Induced Inflammation in Human Mammary Tissues: A Microenvironment Favorable for the Development of Postmenopausal Breast Cancer **A.A. Roubert, L. Lyu, A.C. Pfalzer, K. Gauger, W. Choi, S.S. Schneider and Z. Liu.** Sch. of Publ. Hlth. and Hlth. Sci., Univ. of Massachusetts Amherst, Baystate Med. Ctr., Springfield, MA and USDA at Tufts Univ.
- 4:30 **405.7** Chronic Activation of Pattern Recognition Receptors Suppresses Brown Adipogenesis of Multipotent Mesodermal Stem Cells and Brown Preadipocytes **L. Zhao, J. Bae and J. Chen.** Univ. of Tennessee, Knoxville.
- 4:45 **405.8** Effect of a New Dietary SIRT1 Activator on High Fat Diet-Induced Obesity and the Involvement of microRNAs **J. Ahn, H. Lee, C.H. Jung, T.Y. Ha and Y.J. Jang.** Korea Food Res. Inst., Seongnam.

406. DIET AND CANCER: UNCOVERING THE ROLE OF DIET IN CANCER PREVENTION: POPULATION BASED STUDIES

Minisymposium

(Sponsored by: Diet and Cancer RIS)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 156A

CHAired: Z. DJURIC AND E. CHO

COCHAired: STUDENT CHAIR: E. SIDAHMED

- 3:00 **406.1** The Presence of Colon Polyps Is Associated with Specific Plasma Oxylipids in Obese Men **A. Pickens, L. Sordillo, S. Comstock and J. Fenton.** Michigan State Univ.
- 3:15 **406.2** Serum Carotenoid Concentrations and Prostate Cancer Risk: Results from the Prostate Cancer Prevention Trial **S.H. Nash, C. Till, X. Song, E.A. Platz and J.M. Schenk.** NCI, NIH, Fred Hutchinson Cancer Res. Ctr. and Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- 3:30 **406.3** Meeting Dietary Goals for Cancer Prevention by Age, Gender and Food Insecurity: Is Anyone Listening? **C.K. Spees, N. Hooker, S.K. Clinton and C.A. Taylor.** The Ohio State Univ.
- 3:45 **406.4** Prospective Study of Vitamin B2 Intake and Colorectal Cancer **E. Cho, Y. Yoon, S. Jung, X. Zhang and E. Giovannucci.** Warren Alpert Med. Sch. of Brown Univ., Harvard Sch. of Publ. Hlth. and Brigham and Women's Hosp.

- 4:00 **406.5** Intake of Soy Isoflavones Reduces Breast Cancer Incidence among Women in North America **K. Jaceldo-Siegl, N. Gatto, L. Beeson and G.E. Fraser.** Loma Linda Univ. Sch. of Publ. Hlth. and Loma Linda Univ. Sch. of Med.
- 4:15 **406.6** Interactions between Calcium Intake and Polymorphisms in Genes Essential for Calcium Reabsorption and Risk of Colorectal Neoplasia in a Two-Phase Study **J. Zhao, M.J. Shrubsole, R.M. Ness, X. Zhu, E.A. Hibler, Q. Cai, J. Long, M. Jiang, E.K. Kabagambe, B. Zhang, L. Hou, W.E. Smalley, T.L. Edwards, E.L. Giovannucci, W. Zheng and Q. Dai.** Vanderbilt Univ., Northwestern Univ. and Harvard Univ.
- 4:30 **406.7** Excess Body Weight Is Not Associated with Colorectal Cancer Survival: The Multiethnic Cohort **G. Maskarinec, B.E. Harmon, N.J. Ollberding, L.R. Wilkens, B.E. Henderson, L.N. Kolonel and L. Le Marchand.** Univ. of Hawaii, Univ. of Memphis Sch. of Publ. Hlth., Cincinnati Children's Hosp. Med. Ctr. and Univ. of So. California.
- 4:45 **406.8** The Association between Serum Prostate-Specific Antigen and Glycemic Index, Glycemic Load, and Metformin in Individuals with Diabetes: A Cross-sectional Analysis **V.H. Jayalath, C. Ireland, L. Augustin, S. Nishi, A. Mirrahimi, R. De Souza, C. Kendall and D. Jenkins.** St. Michael's Hosp., Toronto, McMaster Univ., Canada and Univ. of Toronto.

Pathology

407. LIVER PATHOBIOLOGY SYMPOSIUM: HEPATIC REGENERATIVE MEDICINE: DE-LIVER-ING THE PROMETHEAN PROMISE!

Symposium

(Sponsored by: ASIP Liver Pathobiology and Regenerative Medicine Scientific Interest Groups)

TUES. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 161

CHAired: S.P.S. MONGA

Liver Pathobiology

Regenerative Medicine

- 8:30 Liver Regeneration: Adult Liver Cells as Facultative Progenitors **G.K. Michalopoulos.** Univ. of Pittsburgh.
- 9:00 Role of Non-parenchymal Cells in Hepatic Homeostasis and Regeneration: Wnt/ β -Catenin Perspective **S.P.S. Monga.** Univ. of Pittsburgh.
- 9:30 Systems Biology Approach to Liver Regeneration **U. Klingmuller.** German Cancer Res. Ctr., Heidelberg.
- 10:00 Liver Regeneration in Zebrafish: A Model Delivering Novel Discoveries **W. Goessling.** Harvard Stem Cell Inst.

- 10:30 iPS Cells to Hepatocytes: Novel Innovations in Stem Cell Differentiation and Tissue Engineering **S.N. Bhatia.** MIT.
- 11:00 Humanized Spheroid Reservoir Bioartificial Liver **S.L. Nyberg.** Mayo Clin.

408. MODULATORS OF ENDOTHELIAL CELL INFLAMMATION AND ANGIOGENESIS

Symposium

(Sponsored by: ASIP Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Group)

TUES. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160A/B

CHAired: T.N. MAYADAS AND P. ALCAIDE

Inflammation

Vascular Biology

Inflammation/Immunity

- 8:30 Introduction.
- 8:35 The Endothelium as a Target of Controlling Inflammation and Immunity **J.S. Pober.** Yale Univ. Sch. of Med.
- 9:05 miRNA Regulation of NF- κ B and Insulin Signaling in Endothelial Inflammation **M.W. Feinberg.** Brigham and Women's Hosp.

- 10:30 Mechanisms of miR-mediated Endothelial KLF4 and NFκB Regulation by Hemodynamics in vivo and in vitro **P.F. Davies**. Univ. of Pennsylvania.
- 11:00 Regulation of Angiogenic Functions of Endothelial Cells by microRNAs **Y. Suarez**. Yale Univ. Sch. of Med.

409. MOLECULAR AND CELLULAR BASIS OF DISEASE: NEOPLASIA MORNINGS: CROSSROADS OF CANCER GENETICS AND EPIGENETICS

Symposium

(Sponsored by: ASIP Neoplasia/Growth Regulation Scientific Interest Group)

TUES. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162A

CHAired: J. POLLACK AND W.M. PUSZYK

Neoplasia

Cancer Biology

- 8:30 Introduction. **J. Pollack**. Stanford Univ. and **W.M. Puszyk**. Univ. of Florida.
- 8:40 Disrupted Cytosine Methylation in Leukemogenesis: Linking Metabolism to Epigenetics **M.E. Figueroa**. Univ. of Michigan.
- 9:20 Histone Mutations as Cancer Drivers **P.W. Lewis**. Univ. of Wisconsin.
- 10:00 Targeting Histone Methylation in Cancer **S.A. Armstrong**. Mem. Sloan Kettering Cancer Ctr.
- 10:40 Altered SWI/SNF Chromatin Remodeling Complexes in Cancer **J. Pollack**. Stanford Univ.

410. CELL INJURY WORKSHOP: SCARS AND SOUVENIRS: INFLAMMATION AND FIBROSIS IN THE HEART, LUNG, AND SKIN

Workshop

(Sponsored by: ASIP Cell Injury Scientific Interest Group)

TUES. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162B

CHAired: C.C. YATES AND M.S. WILLIS

Cell and Tissue Injury

Cardiac Pathobiology

Injury/Connective Tissue/Fibrosis

- 8:30 Introduction: Fibrosis – The State of the Science **C.C. Yates**. Univ. of Illinois Pittsburgh.
- 9:15 Skin and Scars: Discovery, Disappointment, and the Pursuit of Perfect Epithelial Repair **L.A. DiPietro**. Univ. of Illinois at Chicago Col. of Dent.
- 10:45 Pulmonary Fibrosis – It's Personal **D. Kass** Univ. of Pittsburgh.
- 10:00 Scars on my Heart: Understanding the Molecular Pathogenesis of Cardiac Fibrosis as a Therapeutic Target **M.S. Willis**. Univ. of North Carolina at Chapel Hill Sch. of Med.

411. MECHANISMS OF OXIDANT-INDUCED LUNG INJURY AND DISEASE

Minisymposium

TUES. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAired: J. DYE AND J. CHAO

Pulmonary Pathobiology

Injury/Connective Tissue/Fibrosis

- 8:30 **411.1** Acute Ozone (O₃) Exposure Enhances Aortic Contraction in Healthy Rats while Exacerbating Pulmonary Injury in Diabetics **S.J. Snow, L. Thompson, V. Bass, M. Schladweiler, A. Ledbetter, J. Richards, C. Gordon and U. Kodavanti**. EPA, Research Triangle Park.
- 8:45 **411.2** Ambient Fine Particulate Matter Induces Endothelial Progenitor Cells Apoptosis via Reactive Oxygen Species Formation **Y. Cui, X. Xie, F. Jia, J. He, Z. Li, M. Fu, H. Hao, Y. Liu, J.Z. Liu, P.J. Cowan, H. Zhu, Q. Sun and Z. Liu**. The Ohio State Univ. and Univ. of Melbourne.
- 9:00 **411.3** Early Life Lung Antioxidant Levels and Response to Ozone: Influence of Sex and Maturation in Wistar Rats **J. Dye, E. Gibbs-Flournoy, J. Richards, E. Hines, K. Kraft, J. Norwood and G. Hatch**. EPA, Research Triangle Park and Chevron Co., Houston.
- 9:15 **411.4** Combination Treatment with Histone Deacetylase 3 and 6 Selective Inhibitors Attenuates Lipopolysaccharide-Induced Acute Lung Injury in Mice. **C.D. Birmpas, A.D. Joshi, N. Barabutis, G. Thangjam, B.W. Gregory and J.D. Catravas**. Old Dominion Univ.
- 9:30 **411.5** Early Radiation-Induced Secretion of Gastrin-Releasing Peptide Mediates Late Pulmonary Fibrosis **M.E. Sunday, K.L. Heck, M. Komforti, R. Tighe, C. Toomey and S. Zhou**. Duke Univ. Med. Ctr.
- 9:45 **411.6** Matrix Metalloproteinase-12 Inhibits Myofibroblast Differentiation and Lung Fibrosis **B. Hu, Z. Wu, D. Bai, R. Tang and S.H. Phan**. Univ. of Michigan.
- 10:00 **411.7** Effects of Aging and Respiratory Syncytial Virus Infection on the uPA/Plasmin System in Pulmonary Fibrosis **M. Gharaee-Kermani, M.R. Gyetko and J.A. Macoska**. Univ. of Massachusetts and Ann Arbor VA Hosp. and Univ. of Michigan.
- 10:15 **411.8** Incidence of Pulmonary Fibrosis in Lungs of CUX-1 Transgenic Mice **S. Helgeson, E. Harris, B. Herndon, G. Vanden Heuvel, R. Baybutt and A. Molteni**. Sch. of Med., Univ. of Missouri-Kansas City, Wheaton Col., IL and Sch. of Med., Western Michigan Univ.
- 10:30 **411.9** MCP-1-Induced Protein Promotes Human Pulmonary Fibroblast Migration Induced by SiO₂ via MAPKs and PI3K Signaling **J. Chao, H. Liu, X. Dai, X. Wang, T. Yun, X. Liu, Q. Yin and H. Yao**. Med. Sch., Southeast Univ., Nanjing, China.

Visit the Exhibits

Sunday – Tuesday

9:00 AM – 4:00 PM

412. HIGH SCHOOL TEACHER SESSION: SCIENTIFIC SLEUTHING OF HUMAN DISEASE FOR HIGH SCHOOL TEACHERS

Special Session

(Sponsored by: ASIP Education Committee and Intersociety Council for Pathology Information)

TUES. 9:30 AM—WESTIN BOSTON WATERFRONT, MARINA I

CHAired: K. NEJAK-BOWEN AND M.B. FURIE

Pulmonary Pathobiology

Regenerative Medicine

Inflammation/Immunity

- 9:30 Check In and Light Snack.
 10:00 Welcome and Introductions **K. Nejak-Bowen**. Univ. of Pittsburgh.
 10:20 Menacing Microbes: Emerging Infectious Diseases **M.B. Furie**. Stony Brook Univ.
 11:20 Smoking-Related Lung Disease in 3D: Not Your Standard Lecture **D.S. Zander**. Penn State Col. of Med.
 12:15 Stem Cells: A Case of Dr. Jekyll and Mr. Hyde **S.P.S. Monga**. Univ. of Pittsburgh.
 1:15 Tour the Exhibits at the Boston Convention and Exhibition Center.

413. LUNCH AND LEARN: THE ETHICS OF PERSONALIZED MEDICINE: QUANDARIES AMONG THE POSSIBILITIES

Special Session

(Supported by an unrestricted educational grant from Elsevier)

(Sponsored by: ASIP Education Committee)

TUES. 11:45 AM—WESTIN BOSTON WATERFRONT, MARINA IV

CHAired: W. MARS, D.A. Milner and R.N. Mitchell

Education

- 11:45 Introduction.
 12:00 Personalized Medicine: Can We Distinguish the Hope and the Hype? **D.S. Jones**. Harvard Med. Sch.
 12:25 Identity Crisis—Helping Trainees Manage the Tension Between Patient Privacy and the Promise of Personalized Medicine **J.P. Horn**. Univ. of Pittsburgh.
 12:50 Legal and Ethical Considerations with Personalized Medicine **I.G. Cohen**. Harvard Law Sch.
 1:15 Round Table Discussion.

414. EPITHELIAL JUNCTIONS, POLARITY AND CANCER

Symposium

(Sponsored by: ASIP Vascular and Mucosal Pathobiology (VAMP) Scientific Interest Group)

TUES. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160A/B

CHAired: A.I. IVANOV AND A. NUSRAT

Epithelial Pathobiology

Neoplasia

Cancer Biology

- 2:00 Tumor Suppressor Function of Alpha-Catenin in Squamous Cell Carcinoma **V. Vasioukhin**. Fred Hutchinson Cancer Res. Ctr.
 2:45 Unexpected Crosstalk Between Adhesion Complexes and the RNAi Machinery in Polarized Epithelial Cells and Cancer **P.Z. Anastasiadis**. Mayo Clin.
 3:30 Polarity Proteins Suppress Tumorigenesis Through Spatial Restriction of Signaling **I.G. Macara**. Univ. of Virginia Sch. of Med.
 4:15 Control of Malignant Behavior By Claudins **S.B. Howell**. UCSD.

415. SCVP SYMPOSIUM: PROTEIN MISFOLDING IN THE HEART: CONFORMATION CARDIOMYOPATHIES

Symposium

(Supported by an unrestricted educational grant from Elsevier)

(Sponsored by: The Society for Cardiovascular Pathology)

TUES. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162A

CHAired: J.R. STONE AND M.S. WILLIS

Cardiac Pathobiology

- 2:00 The Translational Science of Transthyretin-Associated Cardiomyopathies **L.H. Connors**. Boston Univ. Sch. of Med.
 2:35 Tafamidis, A Pharmacological Chaperone Therapy for Transthyretin Amyloidosis **C. Bulawa**. Pfizer.
 3:10 From Heart to Brain – Chemical and Genetic Modifiers of Protein Aggregation **I.A. Graef**. Stanford Sch. of Med.
 3:45 Cardiac Disease: An Unfolding Story **J. Robbins**. Cincinnati Childrens Hosp. Med. Ctr.
 4:20 Novel Mechanisms of Cardioprotection: Discovery and Clinical Translation **J.A. Hill**. Univ. of Texas Southwestern Med. Ctr. at Dallas.

416. CELLULAR AND MOLECULAR MECHANISMS OF LIVER REPAIR

Minisymposium

TUES. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 161

CHAired: U. APTE AND G.K. MICHALOPOULOS

Liver Pathobiology

- 2:00 **416.1** Cell-Specific Wnts Regulate Liver Zonation and Regeneration after Partial Hepatectomy **M. Preziosi, J. Yang, H. Okabe, C. Diegel, B.O. Williams and S.P. Monga.** Univ. of Pittsburgh and Van Andel Inst., Grand Rapids, MI.
- 2:15 **416.2** Proteomic Profiling of Histone Posttranslational Modifications in Late Gestation Fetal Hepatocytes Capable of Liver Repopulation **H. Francois-Vaughan, E. Doud, P.M. Thomas, N. Kelleher, P. Gruppuso and J.A. Sanders.** Rhode Island Hosp. and Brown Univ. and Feinberg Sch. of Med., Northwestern Univ.
- 2:30 **416.3** Attenuation of the Inflammatory Response after Acetaminophen-Induced Injury by Human Mesenchymal Stem Cell-Derived Hepatocytes in Mice **P. Stock, S. Brückner, S. Winkler, M. Dollinger and B. Christ.** Univ. of Leipzig and Univ. Hosp. Ulm, Germany.
- 2:45 **416.4** A Cytochrome P450-Independent Mechanism of Acetaminophen-Induced Hepatocellular Injury **K. Miyakawa, R. Albee, L.G. Letzig, A.F. Lehner, M. Scott, J.P. Buchweitz, L.P. James, P.E. Ganey and R.A. Roth.** Michigan State Univ. and Univ. of Arkansas, Little Rock.
- 3:00 **416.5** Global Genomic Analysis Reveals Regeneration-Associated Signaling Network after Acetaminophen Overdose **B. Bhushan, P. Borude, S. Gunewardena and U. Apte.** Univ. of Kansas Med. Ctr.
- 3:15 **416.6** Reprogramming Factor OCT4 Is Crucial for Transdifferentiation of Hepatocytes to Biliary Epithelial Cells **V. Bhave, M. Doffou, G. Adams, W.C. Bowen, S. Donthamsetty and G. Michalopoulos.** PCOM Sch. of Pharm., Univ. of Pittsburgh Sch. of Med. and Georgia State Univ.
- 3:30 **416.7** Wnt/Beta-Catenin Cooperates with Yap Signaling to Promote Hepatobiliary Repair in a Model of Chronic Liver Injury **K. Nejak-Bowen, H. Okabe and S.P. Monga.** Univ. of Pittsburgh.
- 3:45 **416.8** Liver Regeneration Deficit in Mice following EGFR and Met Elimination **S. Paranjpe, W.C. Bowen, M.M. Haynes, W.M. Mars, A. Orr, T.S. Paranjpe, J. Luo, A.W. Michalopoulos and G.K. Michalopoulos.** Univ. of Pittsburgh.

417. EXPLORING AND DEFINING BIOMARKERS IN CANCER

Minisymposium

TUES. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 162B

CHAired: T. GIORDANO

Cancer Biology

- 2:00 Introductory Remarks.
- 2:05 **417.1** Trefoil Factor Family 1 Inhibit the Invasion of Tumor Cells of the Pancreas **J. Yamaguchi, T. Kokuryo, Y. Yokoyama and M. Nagino.** Nagoya Univ. Grad. Sch. of Med.
- 2:20 **417.2** Morphological Subsets of Circulating Tumor Cells in Advanced Prostate Cancers: A Potential Biomarker for Patients with Visceral Metastases **J-F. Chen, J. Huang, L.W.K. Chung, H-R. Tseng and E.M. Posadas.** Cedars-Sinai Med. Ctr. and UCLA.
- 2:35 **417.3** Intraductal Papillary Mucinous Neoplasms: Can Mesothelin Expression Help Us to Classify Them Better? **V. Avadhani, D.V. Ahrens, V. Kapur, S. Brower, M. Wayne, V. Ghali and G. Levi.** Mount Sinai Beth Israel.
- 2:50 **417.4** MiR-376c Inhibits Metastasis by Controlling RUNX2-INHBA Axis in Oral Squamous Cell Carcinoma **W-M. Chang, S-G. Shiah and M. Hsiao.** Natl. Hlth. Res. Insts., Natl. Defense Med. Ctr. and Genomics Res. Ctr., Acad. Sinica, Taiwan.
- 3:05 **417.5** Expression of Wnt5a in Urothelial Carcinoma as Potential Prognostic Marker **M. Saling, J.K. Duckett, S. Jenkinson and R. Malgor.** Heritage Col. of Osteo. Med. and Ohio Univ.
- 3:20 **417.6** Survivin Is a Therapeutic Target in Ewing Sarcoma **N. Dioufa and M. Tsokos.** Beth Israel Deaconess Med. Ctr.
- 3:35 **417.7** A Multi-omics Approach to Identify Biomarkers of Clinically Advanced Retinoblastoma for Diagnostics and Therapeutic Applications **N. Guha, D. SA, S. Lateef, A. Padmanabhan, S. Gundimeda, A. Ghosh, A. Mallipatna and V. Suresh Babu.** Agilent Technol. and Narayana Nethralaya, India.
- 3:50 **417.8** Using Protein Chips to Develop a Highly Specific HER2 Antibody for HER2 Amplification Testing **L. Zhou, K. Yuan, L. Qi, Z. Li, G. Wu, X. Huang, Y. Shen, M. Zhao, W. Fu, H. Liu, B. Chu, G. Wang, Y. Shu, D. Ma, W. He and J. Chen.** Origene Tech Inc., Rockville, MD, Beijing Cancer Hosp. and Soochow Univ., China.
- 4:05 **417.9** Using Protein Microarray Technology to Screen Anti-PD-1 Monoclonal Antibodies for Specificity and Applications in Anatomic Pathology **C. Chen, H. Wei, K. Yuan, G. Wu, J. Chen, B. Chu, G. Wang, Y. Shu, W. He and D. Ma.** Origene Tech Inc., Rockville, MD and Soochow Univ., China.

- 4:20 **417.10** Evaluating Anti- β -Catenin Monoclonal Antibodies for Cancer Diagnosis and Prognosis **H.E. Lu, W. Fu, K. Yuan, B. Chu, G. Wang, Y. Shu, W. He and D. Ma.** Origene Tech Inc., Rockville, MD.
- 4:35 **417.11** Development of a Highly Sensitive Mouse Monoclonal Antibody for Screening ALK-Rearrangements in Lung Cancers **Y. Shen, M. Jin, Y. Wu, Y. Zhang, K. Yuan, B. Chu, L. Qi, H. Liu, C. Wang, G. Wang, Y. Shu, J. McDowell, H. Wei, C. Chen, D. Ma, W. He and J. Chen.** Origene Tech Inc., Rockville, MD, Beijing Chaoyang Hosp. and Soochow Univ., China.
- 4:50 **417.12** A Metric of RNA Quality for RNA Isolated from Formalin Fixed, Paraffin Embedded Tissue **S.M. Hewitt, J-Y. Chung, C.D. Perry and K. Ylaja.** NCI, NIH.
- 3:30 **418.7** Vascular Smooth Muscle Sirtuin-1 Protects against Aortic Dissection during Angiotensin II Infusion **J.L. Fry, Y. Shiraishi, Y.Z. Gao, R. Weisbrod, B. Maziuk, X. Weng, K.G. Morgan, R.A. Cohen and F. Seta.** Boston Univ.
- 3:45 **418.8** Heterogeneity in the Proliferative Capacity of Smooth Muscle Cells **M.E. Sandison and J.G. McCarron.** Univ. of Strathclyde.
- 4:00 **418.9** Modulating Neutrophil-Derived MPO-Endothelial Surface Binding with CORMs **E.K. Patterson, D.D. Fraser, K. Inoue and G. Cepinskas.** Lawson Hlth. Res. Inst., London, Ont. and Western Univ., Canada.
- 4:15 **418.10** The Role of Talin-1 and Kindlin-3 in Neutrophilic Mac-1 Activation **L.M. Watts and C.T. Lefort.** Brown Univ. and Rhode Island Hosp.

418. VASCULAR CELL BIOLOGY AND MOLECULAR MECHANISMS OF DISEASE

Minisymposium

TUES. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 160C

CHAIRER: P.A. D'AMORE AND D. SULLIVAN

Vascular Biology

Cardiac Pathobiology

- 2:00 **418.1** Endomucin Plays a Role in Retinal Vascular Development and in VEGF-Induced Endothelial Cell Migration, Growth, and Morphogenesis **C. Park-Windhol, J. Yang, V. Primo, Y-S. Ng, M. Saint-Geniez and P.A. D'Amore.** Schepens Eye Res. Inst., Massachusetts Eye and Ear and Harvard Med. Sch.
- 2:15 **418.2** Prevention of Angiotensin II- Induced Aortic Aneurysm and Associated Pathogenesis by Inhibiting CYP1B1 or Its Gene Disruption (*ApoE^{-/-}/Cyp1b1^{-/-}* Mice) **S. Thirunavukkarasu, N.S. Khan, B.L. Jennings and K.U. Malik.** Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- 2:30 **418.3** Blockade of Tim-4 Aggravates Atherosclerosis **A. Foks, D. Engelbertsen, N. Alberts-Grill, F. Kuperwaser, R. DeKruyff, G.J. Freeman and A. Lichtman.** Harvard Med. Sch., Brigham and Women's Hosp., Dana-Farber Cancer Inst. and Stanford Univ.
- 2:45 **418.4** KRIT1 Depletion Modifies Endothelial Cell Behavior through Increased VEGF Signaling **P.V. DiStefano, J.M. Kuebel, I.H. Sarelius and A.J. Glading.** Univ. of Rochester Med. Ctr.
- 3:00 **418.5** The Mechanosensitive MicroRNA-712, Induced by Disturbed Blood Flow in Endothelium, Plays a Key Role in Atherosclerosis **S. Kumar, D.J. Son, C. Kim and H. Jo.** Emory Univ.
- 3:15 **418.6** Destabilization of Endothelial Cell-Cell Contacts Modifies Inflammatory Responses **A.J. Glading, M. Corr, I. Lerman, I.H. Sarelius and J. Kuebel.** Univ. of Rochester and UCSD.

419. MOLECULAR DIAGNOSTIC SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Molecular Diagnostic Pathology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Neoplasia

Cancer Biology

- P1 CRISPLD2 in Hepatic Fibrogenesis and Cholangiocellular Carcinoma Progression **C. Saravanan, C. Spence, J. Trevaskis, X. Wang, J-R. Galarneau, W. Chutkow and K. Mansfield.** Novartis Insts. for Biomed. Res., Cambridge, MA. (45.6)
- P2 Caveolin-1 Loss in Human Breast Cancer Is Associated with Increased Tumor Aggressiveness and Mortality **P.C. Hart, R.D. Minshall and M.G. Bonini.** Univ. of Illinois at Chicago. (284.6)
- P3 Development of a Highly Sensitive Mouse Monoclonal Antibody for Screening ALK-Rearrangements in Lung Cancers **Y. Shen, M. Jin, Y. Wu, Y. Zhang, K. Yuan, B. Chu, L. Qi, H. Liu, C. Wang, G. Wang, Y. Shu, J. McDowell, H. Wei, C. Chen, D. Ma, W. He and J. Chen.** Origene Tech Inc., Rockville, MD, Beijing Chaoyang Hosp. and Soochow Univ., China. (417.11)
- P4 Morphological Subsets of Circulating Tumor Cells in Advanced Prostate Cancers: A Potential Biomarker for Patients with Visceral Metastases **J-F. Chen, J. Huang, L.W.K. Chung, H-R. Tseng and E.M. Posadas.** Cedars-Sinai Med. Ctr. and UCLA. (417.2)
- P5 A Multi-omics Approach to Identify Biomarkers of Clinically Advanced Retinoblastoma for Diagnostics and Therapeutic Applications **N. Guha, D. SA, S. Lateef, A. Padmanabhan, S. Gundimeda, A. Ghosh, A. Mallipatna and V. Suresh Babu.** Agilent Technol. and Narayana Nethralaya, India. (417.7)
- P6 Nuclear Localization of β -Catenin Associates EMT with Aggressive Vulvar Squamous Cell Carcinoma **E.R. Holthoff, S. Jeffus, T. Kelly, C.M. Quick and S. Post.** Univ. of Arkansas for Med. Sci. (147.3)

420. GENE EXPRESSION SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Gene Expression Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Neoplasia

Cancer Biology

- P7 Functional Role of MicroRNA-200 Family in Human Gall Bladder Cancer Stem Cells **F. Meng, H. Francis, Y. Han, S. Glaser and G. Alpini.** Texas A&M Hlth. Sci. Ctr. Col. of Med. and Central Texas Veterans Hlth. Care Syst., Temple. (45.7)
- P8 CTBP-BRCA1 Modulates Epithelial Cell Fate in Breast Cancer **J.S. Byun and K. Gardner.** NCI, NIH. (926.5)
- P9 Epigenetic Modification of Von Willebrand Factor Leads to Its Expression in Cancer Cells with Increased Metastatic Activity **A. Mojiri, D. Eisenstat, J. Lewis, K. Stoletov, K.C. Simmen and N. Jahroudi.** Univ. of Alberta. (143.3)
- P10 The Role of TarA in Regulating Gene Expression and Physiological Processes in *Vibrio cholerae* **V.Y. Vargas-Zapata, M.E. Taveirne and V.J. DiRita.** Univ. of Puerto Rico Ponce and Univ. of Michigan. (766.14)
- P11 MiR-376c Inhibits Metastasis by Controlling RUNX2-INHBA Axis in Oral Squamous Cell Carcinoma **W-M. Chang, S-G. Shiah and M. Hsiao.** Natl. Hlth. Res. Insts., Natl. Defense Med. Ctr. and Genomics Res. Ctr., Academia Sinica, Taiwan. (417.4)
- P12 Δ Np63 Regulates HTRA4 Expression during Extravillous Trophoblast Differentiation **Y. Li, M. Parast, M. Moretto Zita and F. Soncin.** UCSD. (927.3)
- P13 The Mechanosensitive MicroRNA-712, Induced by Disturbed Blood Flow in Endothelium, Plays a Key Role in Atherosclerosis **S. Kumar, D.J. Son, C. Kim and H. Jo.** Emory Univ. (418.5)

421. BIOBANKING SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Biobanking Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Biomarkers and Biobanking

Imaging, Immunohistochemistry and Microscopy

Injury/Connective Tissue/Fibrosis

- P14 A Metric of RNA Quality for RNA Isolated from Formalin Fixed, Paraffin Embedded Tissue **S.M. Hewitt, J-Y. Chung, C.D. Perry and K. Ylaya.** NCI, NIH. (417.12)
- P15 Urinary Biomarkers of Oxidative Stress and Insulin Resistance in Childhood Obesity **N. Ramachandra, L. Rodriguez and S. Devaraj.** Baylor Col. of Med. and Univ. of Houston. (927.2)
- P16 Adipose Tissue Extracellular Matrix Remodelling in Cancer Cachexia **M.J. Alves, E.M. Matos Neto, L. Maximiliano, P.S.M. Alcantara, J.P. Otoch, M.L. Batista and M.C.L. Seelaender.** Univ. of São Paulo and Interdisc. Ctr. of Biochem., UMC, São Paulo. (925.7)
- P17 Cryosectioning Method for Microdissection of Murine Colonic Mucosa **C.T. Capaldo, A.E. Farkas and A. Nusrat.** Emory Univ. (765.3)
- P18 Immunohistochemical Analysis of LGR5 Expression in Pediatric Liver Disease **Z. Khan, A. Orr, G.K. Michalopoulos and S. Ranganathan.** Children's Hosp. of Pittsburgh and Univ. of Pittsburgh Sch. of Med. (45.1)
- P19 Human Precision-Cut Tissue Slices as a Tool to Study Fibrosis and the Efficacy of Antifibrotic Compounds **H.A. Mutsaers, I. Westra, I. Stribos, D. Oosterhuis and P. Olinga.** Univ. of Groningen, Netherlands. (53.10)
- P20 Expression of Wnt5a in Urothelial Carcinoma as Potential Prognostic Marker **M. Saling, J.K. Duckett, S. Jenkinson and R. Malgor.** Heritage Col. of Osteo. Med. and Ohio Univ. (417.5)
- P21 Using Protein Microarray Technology to Screen Anti-PD-1 Monoclonal Antibodies for Specificity and Applications in Anatomic Pathology **C. Chen, H. Wei, K. Yuan, G. Wu, J. Chen, B. Chu, G. Wang, Y. Shu, W. He and D. Ma.** Origene Tech Inc., Rockville, MD and Soochow Univ., China. (417.9)
- P22 Mitochondria in Renal Tubules: Light Microscopic, Immunohistochemical and Enzyme Activity Analysis **Z. Zsengeller and S. Rosen.** Beth Israel Deaconess Med. Ctr. (762.5)

422. BREAST CANCER SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Breast Cancer Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Neoplasia

Epithelial Pathobiology

Cancer Biology

- P23 Deletion of Sorting Nexin 27 Reverses Epithelial-Mesenchymal-Transition in Highly Aggressive Breast Cancer Cells **K. Li, S. Wu, M.P. Playford and J. Sun.** Rush Univ., Langley H.S., McLean, VA and NHLBI, NIH. (926.20)
- P24 Functional Studies of CtBP in Breast Cancer Using the Lentiviral pINDUCER System **D.I. Yi, S.S. Park, G. Liang, T. Yan, J.S. Byun and K. Gardner.** NCI, NIH. (926.1)
- P25 Molecular Classification Predicts Outcome among Patients with ER+/PR+/HER2- Breast Cancers **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman.** Univ. of North Carolina Sch. of Med. and Lineberger Comprehen. Cancer Ctr. (284.10)
- P26 Recurrence-Free Survival among Patients with ER+/PR+/HER2- Breast Cancers Is Predicted by Expression of the Estrogen Response Signature **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman.** Univ. of North Carolina Sch. of Med. and Lineberger Comprehen. Cancer Ctr., Chapel Hill. (926.2)
- P27 Isolation and Characterization of Human Breast Epithelial Cells **S. Hoynowski, J.W. Ludlow and B. Buehrer.** Zen Bio Inc., Research Triangle Park. (284.3)
- P28 Leptin as a Mediator of Tumor-Stromal Interactions Promotes Breast Cancer Stem Cell Activity **S. Catalano, C. Giordano, S. Panza, F.C. Chemi, I. Barone, D. Bonofiglio, A. Cordella, A. Hashim, B. Simoes, R. Clarke, A. Weisz and S. Andò.** Univ. of Calabria, Fndn. IRCCS, Naples, Univ. of Salerno, Italy and Univ. of Manchester. (284.5)
- P29 Trends in Breast Lesions in Lagos, Nigeria: Changing or Static? **O. Obadofin and A. Daramola.** Lagos Univ. Teaching Hosp. (926.3)
- P30 Exploring Molecular and Morphological Relationships between Obesity and CtBP in Breast Cancer **S.S. Park, D.I. Yi, G. Liang, T. Yan, S. Amb, J.S. Byun and K. Gardner.** NCI, NIH. (926.4)
- P31 CTBP-BRCA1 Modulates Epithelial Cell Fate in Breast Cancer **J.S. Byun and K. Gardner.** NCI, NIH. (926.5)
- P32 Differential Responses to Hormone Therapy among ER+/PR+/HER2- Breast Cancers That Differentially Express the Estrogen Response Signature **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman.** Univ. of North Carolina at Chapel Hill Sch. of Med. (284.7)

- P33 Therapeutic Benefit of Chemotherapy and Hormone Therapy among Estrogen Response Signature-Positive ER+/PR+/HER2- Breast Cancers **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman.** Univ. of North Carolina at Chapel Hill Sch. of Med. (926.6)
- P34 Atp6v1c1 Facilitates Breast Cancer Growth and Bone Metastasis through the mTORC1 Pathway **M. McConnell, S. Feng, W. Chen, G. Zhu, L. Deng and Y-P. Li.** Univ. of Alabama at Birmingham and Ruijin Hosp., Jiao Tong Univ. Sch. of Med., Shanghai. (284.8)
- P35 Caveolin-1 Loss in Human Breast Cancer Is Associated with Increased Tumor Aggressiveness and Mortality **P.C. Hart, R.D. Minshall and M.G. Bonini.** Univ. of Illinois at Chicago. (284.6)
- P36 Using Protein Chips to Develop a Highly Specific HER2 Antibody for HER2 Amplification Testing **L. Zhou, K. Yuan, L. Qi, Z. Li, G. Wu, X. Huang, Y. Shen, M. Zhao, W. Fu, H. Liu, B. Chu, G. Wang, Y. Shu, D. Ma, W. He and J. Chen.** Origene Tech Inc., Rockville, MD, Beijing Cancer Hosp. and Soochow Univ., China. (417.8)
- P37 Anti-compression and Anti-angiogenic Therapy for Breast Cancer **A. Jiang, T. Mammoto, E. Jiang, D. Ingber and A. Mammoto.** Boston Children's Hosp. (284.2)

423. CLUB HEPATOMANIA (LIVER PATHOBIOLOGY) SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Liver Pathobiology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Liver Pathobiology

Injury/Connective Tissue/Fibrosis

- P38 15-PGDH Prevents LPS-induced Acute Liver Injury through Activation PPAR- γ **L. Yao, C. Han and T. Wu.** Tulane Univ. Sch. of Med. (53.1)
- P39 Alcohol Exacerbates Liver Injury and Fibrosis in Mice with Liver-Specific Deficiency of Augmenter of Liver Regeneration **S. Kumar, A. Dangi and C. Gandhi.** Univ. of Cincinnati, VA Med. Ctr. and Cincinnati Children's Hosp. Med. Ctr. (53.2)
- P40 Mitochondrial-Targeted Antioxidant Treatment in a Mouse Model of Non-alcoholic Fatty Liver Disease **M.D. Thompson, M. Cismowski, H.K. Bid and P.A. Lucchesi.** Nationwide Children's Hosp., Columbus. (53.3)
- P41 Integrated Computational Model of Intracellular Signaling and MicroRNA Regulation Predicts the Molecular Components and Timing Critical to Hepatic Stellate Cell Activation **A. Parrish, L. Kuttippurathu and R. Vadigepalli.** Thomas Jefferson Univ. (53.4)
- P42 Regulation of Kupffer Cell Activation by Hepatic Stellate Cells **K. Roth, R. Albee and B. Copple.** Michigan State Univ. (53.5)

- P43 Knockout of Histidine Decarboxylase Reduces Hepatic Fibrosis in Bile Duct Ligated Mice **H. Francis and L. Hargrove**. Central Texas Veteran's Healthcare Syst. and Scott & White Healthcare, Temple, TX. (53.6)
- P44 Receptor Interacting Protein Kinase 3 Deficiency Exacerbates Cholestatic Liver Injury in Mice **B. Woolbright, C.D. Williams, M-L. Bajt, W-X. Ding and H. Jaeschke**. Univ. of Kansas Med. Ctr. (53.8)
- P45 Evaluation of YAP as a Therapeutic Target in HCC and CCA **H. Bai, Q. Nguyen, Q. Zhu, G. Alpini and R. Anders**. Baylor Scott&White Healthcare, Texas A&M Univ. Col. of Med., Johns Hopkins Univ. Sch. of Med. and Central Texas Veterans Hlth. Care Syst. (45.4)
- P46 Origin and Diversity of Fibroblastic Cells From Intrahepatic Cholangiocarcinoma **A.E. Sirica, A. Usui, D.J.W. Campbell and C.I. Dumur**. Virginia Commonwealth Univ. Sch. of Med. (45.5)
- P47 CRISPLD2 in Hepatic Fibrogenesis and Cholangiocellular Carcinoma Progression **C. Saravanan, C. Spence, J. Trevaskis, X. Wang, J-R. Galarneau, W. Chutkow and K. Mansfield**. Novartis Insts. for Biomed. Res., Cambridge, MA. (45.6)
- P48 Functional Role of MicroRNA-200 Family in Human Gall Bladder Cancer Stem Cells **F. Meng, H. Francis, Y. Han, S. Glaser and G. Alpini**. Texas A&M Hlth. Sci. Ctr. Col. of Med. and Central Texas Veterans Hlth. Care Syst., Temple. (45.7)
- P49 Bile Acids Promote Diethylnitrosamine-Induced Hepatocellular Carcinoma via Increased Inflammatory Signaling **U. Apte, L. Sun, P. Borude, B. Bhushan, M.W. Manley, Jr. and H. Li**. Univ. of Kansas Med. Ctr. and Third Affil. Hosp., Sun Yat-Sen Univ., China. (45.9)
- P50 Proteomic Profiling of Histone Posttranslational Modifications in Late Gestation Fetal Hepatocytes Capable of Liver Repopulation **H. Francois-Vaughan, E. Doud, P.M. Thomas, N. Kelleher, P. Gruppuso and J.A. Sanders**. Rhode Island Hosp. and Brown Univ. and Feinberg Sch. of Med., Northwestern Univ. (416.2)
- P51 Attenuation of the Inflammatory Response after Acetaminophen-Induced Injury by Human Mesenchymal Stem Cell-Derived Hepatocytes in Mice **P. Stock, S. Brückner, S. Winkler, M. Dollinger and B. Christ**. Univ. of Leipzig and Univ. Hosp. Ulm, Germany. (416.3)
- P52 A Cytochrome P450-Independent Mechanism of Acetaminophen-Induced Hepatocellular Injury **K. Miyakawa, R. Albee, L.G. Letzig, A.F. Lehner, M. Scott, J.P. Buchweitz, L.P. James, P.E. Ganey and R.A. Roth**. Michigan State Univ. and Univ. of Arkansas, Little Rock. (416.4)
- P53 Reprogramming Factor OCT4 Is Crucial for Transdifferentiation of Hepatocytes to Biliary Epithelial Cells **V. Bhave, M. Doffou, G. Adams, W.C. Bowen, S. Donthamsetty and G. Michalopoulos**. PCOM Sch. of Pharm., Univ. of Pittsburgh Sch. of Med. and Georgia State Univ. (416.6)
- P54 Wnt/Beta-Catenin Cooperates with Yap Signaling to Promote Hepatobiliary Repair in a Model of Chronic Liver Injury **K. Nejak-Bowen, H. Okabe and S.P. Monga**. Univ. of Pittsburgh. (416.7)
- P55 Mice Lacking β -Catenin in Liver Develop Hepatic Fibrosis in Response to Iron Overload **M. Preziosi, S. Singh, T. Ganz and S.P. Monga**. Univ. of Pittsburgh and UCLA. (611.6)
- P56 Activating β -Catenin Mutations and AKT Synergize to Promote Lipogenic Liver Tumors In Mice **J. Tao, X. Li, S. Singh, X. Chen and S.P. Monga**. Univ. of Pittsburgh and UCSF. (611.8)
- P57 GPC3-CD81 Axis in the HCV Mediated Liver Carcinogenesis **Y. Xue, B. Bowen, A. Orr, K. Koral, M. Haynes, A. Bell, S. Paranjpe, W. Mars and G. Michalopoulos**. Univ. of Pittsburgh. (611.9)
- P58 Mechanism of Liver Injury Caused by Autophagy Deficiency **B. Khambu, H. Zhang, Y. Li, X. Chen and X-M. Yin**. Indiana Univ. (148.10)

424. VASCULAR AND MUCOSAL PATHOBIOLOGY SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Vascular and Mucosal Pathobiology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Inflammation

Mucosal Pathobiology

Transporters/Channels/Barriers

- P59 Endothelial CD99 Signals through Soluble Adenylyl Cyclase and PKA to Regulate Leukocyte Transendothelial Migration **R.L. Watson, J. Buck, L.R. Levin, J. Wang, H. Arase and W.A. Muller**. Northwestern Univ. Feinberg Sch. of Med., Weill Med. Col. of Cornell Univ. and Osaka Univ. WPI Immunol. Frontier Res. Ctr. (285.1)
- P60 RvD1 Activates Resolution of Inflammation following Myocardial Infarction Leading to Improved Ventricular Function **V. Kain, K.A. Ingle, S.D. Prabhu, C.N. Serhan, M. Joshi and G.V. Halade**. Univ. of Alabama at Birmingham, Harvard Med. Sch. and Midwestern Univ., IL. (285.4)
- P61 Inflammatory Leukocytes Exhibit Distinct Rhythms in Their Recruitment to Arteries and Veins **A. de Juan, D. Druzd, K. Kraus and C. Scheiermann**. Ludwig Maximilians Univ., Munich. (285.6)
- P62 Regulatory Role of Endothelial CD47 during Leukocyte Transmigration **M. Leick, V. Azcutia, G. Newton and F.W. Luscinikas**. Brigham and Women's Hosp. and Harvard Med. Sch. (285.8)
- P63 Desmoglein 3 Inhibits Keratinocyte Migration by Suppressing p38MAPK Activity **V. Spindler, E. Hartlieb, V. Rötzer and J. Waschke**. Ludwig Maximilians Univ. Munich. (142.12)
- P64 Regulation of Tight Junction and Adherent Junction Disassembly by Connexin43 Hemichannels **J. Yao, Y. Chi, K. Gao, X. Zhang and R. Yoda**. Univ. of Yamanashi, Japan. (282.5)

- P66 F-Actin Binding Protein, Anillin, Regulates Integrity of Intercellular Junctions in Human Epithelial Cells **D. Wang, G.K. Chadha, A. Feygin and A. Ivanov.** Virginia Commonwealth Univ. (282.7)
- P67 AKAP9, a Regulator of Microtubule Dynamics, Is Essential for Remodeling of the Blood-Testis Barrier **D. Venkatesh, D. Mruk, J. Herter, X. Cullere, Y. Cheng and T. Mayadas.** Brigham and Women's Hosp. and Harvard Med. Sch. and Popul. Council, NYC. (282.8)
- P68 CLMP Expression Is Increased in the Intestinal Epithelium under Inflammatory Conditions and Regulates Intercellular Adhesion, Proliferation and Migration **A-C. Luissint, L. Xiaoming, A. Bennett, H. Nishio, R. Hilgarth, I. McCall, A. Nusrat and C.A. Parkos.** Emory Univ. and Univ. of Michigan. (282.9)
- P69 Critical Role of Protein Kinase D in VEGF-Induced Vascular Permeability and Angiogenesis **Z.G. Jin, J. Zhao, M. Yin, I-S. Kwon and M. Mastrangelo.** Univ. of Rochester Med. Ctr. (282.10)
- P70 Role of PDZ4 Domain of PDZK1 in the Regulation of Cholesterol Metabolism via the Hepatic HDL Receptor SR-BI **O. Kocher, G. Birrane, J. Halford, R. Pal, R. Sheng, W. Cho, M. Penman, N. Elowe and M. Krieger.** Beth Israel Deaconess Med. Ctr., MIT, Univ. of Illinois, Chicago and Broad Inst., Cambridge, MA. (610.3)
- P71 Blockade of Tim-4 Aggravates Atherosclerosis **A. Foks, D. Engelbertsen, N. Alberts-Grill, F. Kuperwaser, R. DeKruyff, G.J. Freeman and A. Lichtman.** Harvard Med. Sch., Brigham and Women's Hosp., Dana-Farber Cancer Inst. and Stanford Univ. (418.3)
- P72 KRIT1 Depletion Modifies Endothelial Cell Behavior through Increased VEGF Signaling **P.V. DiStefano, J.M. Kuebel, I.H. Sarelus and A.J. Glading.** Univ. of Rochester Med. Ctr. (418.4)
- P73 *Giardia duodenalis* Depletes Goblet Cell Mucins and Degrades MUC2, Facilitating Bacterial Translocation **C.B. Amat, J-P. Motta, A. Bhargava, K. Chadee and A.G. Buret.** Univ. of Calgary, Canada. (507.1)
- P74 Distinct Roles of the Mucus Layer and Microbiota in Conferring Innate Host Defense and Susceptibility to Disease **A. Leon-Coria, F. Moreau, M. Surette and K. Chadee.** Univ. of Calgary. (507.7)
- P75 LPS Ligation of TLR4 on Alveolar Macrophages Promotes PMN and CDR+ T Cell Transendothelial Migration **S. Al Heialy, A.A. Shaikh, A.M. Assiri, T. Rui, M. Nader and P. Kvietys.** Alfaisal Univ., Riyadh, King Faisal Spec. Hosp. & Res. Ctr., Saudi Arabia and Affil. Peoples' Hosp. of Jiangsu Univ., China. (763.2)
- P76 IL6 Is Part of an Autocrine Loop in TNF- α /SFK Induced Increase in Endothelial Monolayer Permeability **H. Alsaffar, N.C. Martino, A. Lowery, A. Adam and P.A. Vincent.** Albany Med. Col. (763.5)
- P77 Marine Hydroquinone Zonarol Prevents Inflammation and Apoptosis in Dextran Sulfate Sodium-Induced Mice Ulcerative Colitis **S. Yamada, T. Koyama, H. Noguchi, A. Nawata, T. Nakayama and T. Satoh.** Sch. of Med., Univ. of Occup. and Envrn. Hlth., Kitakyushu, Grad. Sch. of Marine Sci. and Technol., Tokyo and Sch. of Biosci. and Biotechnol., Tokyo Univ. of Technol. (766.5)
- P78 The Intimal Alteration of Human Varicose Veins Is Associated with Oxidative Stress and Cyclooxygenase-2 Dependent Mechanisms **J.P. Velasco-Martin, A. Aguado, I. Mendez, G. España-Caparrós, M. Salices, J. Regadera and A.M. Briones.** Autonomous Univ. of Madrid and Moncloa Univ. Hosp., Madrid. (610.1)
- P79 Septic Murine Pulmonary Microvascular Endothelial Barrier Dysfunction In vitro Is Regulated by TIMP3 **V. Arpino, L. Wang, R. Bird, C. Pape, S. Mehta and S.E. Gill.** Lawson Hlth. Res. Inst., London, ON, Schulich Sch. of Med. and Dent., Western Univ. and Schulich Sch. of Med. and Dent., Western Univ., Canada. (609.5)
- P80 Loss of Cortactin Is Associated with Intestinal Epithelial Barrier Dysfunction and Development of Colitis **A.F. Citalán-Madrid, A. García, H. Vargas, A. Betanzos, P. Nava, K. Rottner, R. Menningen and M. Schnoor.** CINVESTAV-IPN, Mexico City, Helmholtz Ctr. for Infect. Res., Braunschweig and Univ. Hosp. Münster. (282.1)
- P81 Endothelial Glycocalyx-Mediated Nitric Oxide Production in Response to Selective AFM Pulling **A.M.T. Weber, R. Mathews and J.M. Tarbell.** City Col. of New York. (609.10)

425. INFLAMMATION/IMMUNOPATHOLOGY SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Inflammation/Immunopathology Scientific Interest Group)

TUES. 5:30 PM — RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Inflammation

Inflammation/Immunity

- P82 CD43 Functions as an E-Selectin Ligand for Th17 Cells In Vitro and Is Required for Th17 Cell Recruitment In Vivo **F.E. Velázquez, A. Grodecki, A. Knapp, A.M. Salvador, T. Nevers and P. Alcaide.** Tufts Med. Ctr. and Tufts Sackler Grad. Sch. of Biomed. Sci. (285.2)
- P83 Maresin 1: A Novel Macrophage Derived Endogenous Proresolving Inhibitor of Primary Tumor Growth and Metastasis **K.A. Lehner, M.L. Sulciner, S. Ramon, D.K. Mudge, S. Huang, C.N. Serhan and D. Panigrahy.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch., Brigham and Women's Hosp., Harvard Med. Sch. and Inst. for Systs. Biol., WA. (926.8)

- P84 *Entamoeba histolytica* Induces Pro-inflammatory Mediator HMGB1 Release in Early Contact with Macrophage **S. Begum, J. St-Pierre, F. Moreau and K. Chadee**. Univ. of Calgary, Canada. (507.3)
- P85 Novel Peptide-Conjugated Maresins Stimulate Tissue Regeneration and Clearance of Infections in Planaria and Inflammatory Exudates **J. Dalli, N. Chiang and C.N. Serhan**. Brigham and Women's Hosp. and Harvard Med. Sch. (285.5)
- P86 *Staphylococcus aureus* Activation of NLRP3 Inflammasome and Necroptosis through MLKL Exacerbates Pneumonia **K. Kitur and A. Prince**. Columbia Univ. (148.5)
- P87 Alteration of Murine Regulator of Calcineurin 1 Results in Dysmorphogenesis of Pancreatic Islets **G.T. Gurda, A.S. Baras, J.A. Williams and T.C. Cornish**. Univ. of Pittsburgh Med. Ctr., Johns Hopkins Univ. and Univ. of Michigan. (765.1)
- P88 Protective Role of Rho Guanosine Diphosphate (GDP)-Dissociation Inhibitor Ly-GDI in Acute Pulmonary Alveolitis **H. Gao, C. Yan, R-E. Abdunnour, M. Wu and X. Wang**. Brigham and Women's Hosp., Univ. of North Dakota and Tianjin Nankai Hosp., China. (927.16)
- P89 The Role of Talin-1 and Kindlin-3 in Neutrophilic Mac-1 Activation **L.M. Watts and C.T. Lefort**. Brown Univ. and Rhode Island Hosp. (418.10)
- P90 Resolvin D4 Potent Antiinflammatory Proresolving Actions Confirmed via Total Synthesis **J.W. Winkler, S.K. Orr, J. Dalli, N. Chiang, N.A. Petasis and C.N. Serhan**. Brigham and Women's Hosp. and Harvard Med. Sch. and Univ. of So. California. (285.10)
- P91 Cocksackieviral Infection Causes Cytoplasmic Aggregation and Cleavage of TAR DNA Binding Protein-43 **G. Fung, J. Shi, E. Deng, J. Zhang, A. Hong and H. Luo**. Univ. of British Columbia. (507.5)
- P92 High MUC2 Production in Goblet Cells Induces ER Stress and Exhibit Increase Susceptibility to Apoptosis **A.A. Tawiah, F. Moreau and K. Chadee**. Univ. of Calgary, Canada. (148.2)
- P93 Myeloid-Derived Suppressor Cells as Mediator of PAF-R Dependent Systemic Immunosuppression and Melanoma Tumor Growth **A. Thyagarajan-Sahu, J.B. Travers and R.P. Sahu**. Indiana Univ. Sch. of Med. (147.7)
- P94 Intestinal Epithelial Ecto-5'-Nucleotidase CD73 Regulates the Homeostasis of *Salmonella typhimurium* and Commensal Bacteria **D.J. Kao, B.J. Saeedi, K.D. Schwisow, S.P. Colgan and D.J. Kominsky**. Univ. of Colorado Anschutz Med. Campus, Aurora. (507.8)
- P95 Critical Roles for the IQ-Motif and Actin-Binding Domain of Endothelial Cell IQGAP1 during Leukocyte Transendothelial Migration **D.P. Sullivan, P. Dalal and W.A. Muller**. Northwestern Feinberg Sch. of Med. (285.7)
- P96 Bag3+ P209L Transgene Provides a Cardiac-Specific Murine Model of Protein Misfolding and Aggregation **M. Quintana, C. Yates, S. Takayama and M. Willis**. Univ. of North Carolina at Chapel Hill. (46.6)
- P97 A Potential Role for Regulatory T Cells in Apoptotic Cell Clearance by Macrophages in a Murine Model of Acute Lung Injury **J.D. Proto, M. Subramanian, M.N. Islam, J. Hook, G. Gusarova, J. Bhattacharya and I. Tabas**. Columbia Univ. (148.3)
- P98 The New Molecular Generation Diagnosis of Mycetoma: A Case Report and Literature Review **T. Hinojosa, R. Arenas and S. Tying**. Med. Sch., Univ. of Monterrey, Mexico, Hosp. Gen. Dr. Manuel Gea Gonzalez, Mexico City and Univ. of Texas, Houston. (507.6)
- P99 Role of CD47 in CD4+ T Cell Proliferation after TCR Stimulation **V. Azcutia, G. Newton, R. Bassil, S.J. Khoury, W. Elyaman and F.W. Luscinskas**. Brigham and Women's Hosp. (285.3)
- P100 Pulmonary Retention of PMN Attracts Primed Intestinal Lymphocytes in a Mouse Model of Inflammatory Bowel Disease **S. Mateer, E. Marks, S. Maltby, B. Goggins, J. Horvat, P. Hansbro and S. Keely**. Sch. of Biomed. Sci. and Pharm., Univ. of Newcastle, Australia. (142.1)
- P101 PGC1 α Rescue Retinal Pigment Epithelial Cells from Oxidative Damage: Implication for Age-Related Macular Degeneration **A. Khadka, J. Iacovelli and M. Saint-Geniez**. Harvard Med. Sch., Schepens Eye Res. Inst.-Mass Eye and Ear Infirmary. (148.4)
- P102 Cross-Reactivity of Gut Commensals and Autoantigen in Antiphospholipid Syndrome **C.A. Dehner, W.E. Ruff, S.M. Vieira, A. Goodman and M.A. Kriegel**. Yale Univ. and Ludwig Maximilian Univ., Munich. (142.4)
- P103 Effects of the NOD2 Mutations E600A, T605P, and T605N on NF- κ B Activation **A.M. Domina, E. Stiles, R. Ewer, C. Bocian, S. Lee and M. Saab**. Husson Univ. Sch. of Pharm., ME. (763.3)
- P104 Obesity-Associated Inflammation Contributes to Adipose Stromal Cells Pro-fibrotic Phenotype **N. Springer, M. van den Berg, B.R. Seo and C. Fischbach**. Cornell Univ. (925.6)
- P105 Binding and Entry of 1918 Pandemic Influenza Receptor Binding Domain Variants in Normal Human Bronchial Epithelial Cells **A.S. Davis, D. Chertow, L. Qi and J. Taubenberger**. NIAID, NIH, Kansas State Univ. Col. of Vet. Med. and CC, NIH. (507.4)

426. IMMUNOHISTOCHEMISTRY AND MICROSCOPY SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Immunohistochemistry and Microscopy Scientific Interest Group and The Histochemical Society)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Imaging, Immunohistochemistry and Microscopy

- P106 Prevention of Angiotensin II- Induced Aortic Aneurysm and Associated Pathogenesis by Inhibiting CYP1B1 or Its Gene Disruption (*ApoE^{-/-}/Cyp1b1^{-/-}* Mice) **S. Thirunavukkarasu, N.S. Khan, B.L. Jennings and K.U. Malik**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis. (418.2)

P107 Using Protein Microarray Technology to Screen Anti-PD-1 Monoclonal Antibodies for Specificity and Applications in Anatomic Pathology **C. Chen, H. Wei, K. Yuan, G. Wu, J. Chen, B. Chu, G. Wang, Y. Shu, W. He and D. Ma.** Origene Tech Inc., Rockville, MD and Soochow Univ., China. (417.9)

427. DIGITAL AND COMPUTATIONAL PATHOLOGY SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Digital and Computational Pathology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Neuropathology

Neurobiology

P108 Towards Single Cell Pathway Component Analysis in Diagnostic Pathology: Digitized Image Analysis **H.N. Gokozan, M.F. Ahmad Fauzi, B. Elder, J. Winter, V.K. Puduvalli, C.R. Pierson, M.N. Gurcan and J.J. Otero.** The Ohio State Univ., Multimedia Univ., Malaysia and Nationwide Children's Hosp., Columbus. (762.3)

P109 MR Microscopy for 3D Identification of Cortical Tubers, White Matter "Microtubers" and Radial Migration Lines in Ex Vivo Pediatric TSC with Epilepsy **J.M. Singh, J. Peters, J. Madsen, O. Afacan, B. Scherrer, M. Sahin, H. Lidov and S. Warfield.** Boston Children's Hosp. (149.5)

P110 Subarachnoid Hemorrhage Triggers Arrest of Cerebral Spinal Fluid Circulation **R.G. Federley, E.V. Golanov, S.T. Wong and G. Britz.** Houston Methodist Hosp. and Houston Methodist Res. Inst. (149.4)

428. ENVIRONMENTAL AND TOXICOLOGICAL PATHOLOGY SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Environmental and Toxicologic Pathology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Environmental Pathology

Injury/Connective Tissue/Fibrosis

P111 1- Exposure to Ambient Ozone Affects Circulating Progesterone Levels and Ovulation in Mice **C.R. Caruso, N. Cabello, S. DiAngelo and P. Silveyra.** Penn State Col. of Med. (612.4)

P112 Effects of Imidacloprid on Myogenesis in C2C12 Myoblasts **A. Rutherford, Y. Kim, F. Beppu and Y. Park.** Univ. of Massachusetts Amherst and Tokyo Univ. of Marine Sci. and Technol. (612.5)

P113 Acute Ozone (O₃) Exposure Enhances Aortic Contraction in Healthy Rats while Exacerbating Pulmonary Injury in Diabetics **S.J. Snow, L. Thompson, V. Bass, M. Schladweiler, A. Ledbetter, J. Richards, C. Gordon and U. Kodavanti.** EPA, Research Triangle Park. (411.1)

P114 Effects of Quercetin and α -Lipoic Acid on α -Cypermethrin-Induced Oxidative Stress in Rats **S.O. Rotimi, E. Ugwu, I. Essien, I.B. Adelani and O.A. Rotimi.** Covenant Univ., Nigeria. (612.2)

P115 Early Life Lung Antioxidant Levels and Response to Ozone: Influence of Sex and Maturation in Wistar Rats **J. Dye, E. Gibbs-Flournoy, J. Richards, E. Hines, K. Kraft, J. Norwood and G. Hatch.** EPA, Research Triangle Park and Chevron Co., Houston. (411.3)

P116 Ambient Fine Particulate Matter Induces Endothelial Progenitor Cells Apoptosis via Reactive Oxygen Species Formation **Y. Cui, X. Xie, F. Jia, J. He, Z. Li, M. Fu, H. Hao, Y. Liu, J.Z. Liu, P.J. Cowan, H. Zhu, Q. Sun and Z. Liu.** The Ohio State Univ. and Univ. of Melbourne. (411.2)

P117 Apratoxin-A Induces Pancreatic Toxicity **S. Akare, K. Condon, S. Eckley, K-C. Huang, Z. Chen, Y. Jiang, Y. Kotake, Y. Van Gessel and D. Hutto.** Eisai Inc., Andover, MA. (612.6)

429. REGENERATIVE MEDICINE SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Regenerative Medicine Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL, PACIFIC GRAND BALLROOM ABCD

Liver Pathobiology

Regenerative Medicine

P118 Modeling Steatosis and Lipid-Mediated Cell Injury Using Induced Pluripotent Stem Cell-Derived-Hepatocytes **J. Ignatius Irudayam, D. Contreras, S.W. French and V. Arumugaswami.** Cedars-Sinai Med. Ctr. and David Geffen Sch. of Med., UCLA. (611.2)

P119 Development of a Pretreatment Strategy to Enhance the Efficiency of Hepatocyte Transplantation in Mice **Y.C. Hsu, M-N. Fan, Y.J. Huang, I-S. Yu, C-Y. Chen, Y-M. Wu and S-W. Lin.** Natl. Taiwan Univ. and Natl. Taiwan Univ. Hosp. (611.1)

P120 Ethanol Affects the Progression of Planarian Head Regeneration in a Time-Dependent Manner **L. Hanna, J. McGee, D. Srinivasan and M. Staehle.** Rowan Univ., NJ and Rochester Inst. of Technol. (1018.5)

P121 Mesenchymal Stem Cell Exosomes – Potential Regenerative Medicine Application for Tendinopathy **J.W. Ludlow and B. Buehrer.** Zen Bio Inc., Research Triangle Park. (1018.3)

P122 Nuclear Reprogramming with Hindbrain Patterning Genes by Nanochannel Electroporation **C. Czeisler, D. Gallego-Perez, C. Ortiz, P. Gygli, C. Askwith, L.J. Lee and J.J. Otero.** The Ohio State Univ. Col. of Med. and Col. or Engin. (1018.4)

- P123 Identification of Novel Interferon Stimulated Genes in Differentiated Hepatocytes Differentiated **D. Contreras, J. Ignatius Irudayam, R. Songyang, Q. Nguyen, S. French, V. Funari and V. Arumugaswami.** Cedars-Sinai and UCLA. (1018.1)
- P124 In Vivo Tracking and Effects of SPIO-Labeled Mesenchymal Stem Cells in a Porcine Model of Abdominal Aortic Aneurysm **J.R. Li, D.H. Lee, D.K. Han, B. Rawal, K. Briley-Saeboe, V. Mani, V. Gillespie, R. Hajjar, Z. Fayad, R. Tadros and P. Faries.** Mount Sinai Hosp. (610.5)
- P125 Mitochondrial Transplantation in Cardiomyocytes: Rescue of Mitochondrial Function and Replacement of mtDNA **C.A. Pacak, J.M. Preble, H. Kondo, S. Levitsky, P.J. del Nido, D.B. Cowan and J.D. McCully.** Boston Children's Hosp. (764.4)
- P126 Resistin Promotes Angiogenesis in Endothelial Progenitor Cells through Inhibition of MicroRNA-206 **C-M. Su, W-C. Chang and C-H. Tang.** China Med. Univ. and Chang Jung Christian Univ., Taiwan. (927.9)
- P127 Functional Role of MicroRNA-200 Family in Human Gall Bladder Cancer Stem Cells **F. Meng, H. Francis, Y. Han, S. Glaser and G. Alpini.** Texas A&M Hlth. Sci. Ctr. Col. of Med. and Central Texas Veterans Hlth. Care Syst., Temple. (45.7)
- P132 Coronary Arteries Injury in a Model of Pulmonary Fat Embolism Syndrome **C.R. Patel, S. Alqalyoobi, D. Naji, B. Herndon, A. Poisner and A. Molteni.** Univ. of Missouri-Kansas City and Univ. of Kansas Med. Ctr. (610.6)
- P133 T Cells Control Cardiac Remodeling in Pressure Overload-Induced Heart Failure **T. Nevers, A.M. Salvador, A. Grodecki-Pena, A. Knapp, F. Velazquez, M. Aronovitz, T. Kershaw, R. Blanton, N. Kapur, R. Karas and P. Alcaide.** Tufts Med. Ctr. (46.5)
- P134 Differential Role of Toll-like Receptors in Elicitation of Cardiac Innate Response to IL-10 **A.K. Bagchi, G. Akolkar, S. Mandal, X. Gao, X. Yang and P.K. Singal.** St. Boniface Hosp. Res. and Univ. of Manitoba. (46.7)
- P135 Role of Heat Shock Proteins in Modulating ECM Deposition **J.M. Leavitt, R. Whalen, K.L. Veraldi, R.J. Binder and C. Yates.** Palomar Col., CA. (925.1)
- P136 CD36, Fibroblasts and Intestinal Inflammation **T.A. Reeves, A. Nillas and M. Anderson-Thomas.** Med. Univ. of South Carolina. (142.2)
- P137 MCP-1-Induced Protein Promotes Human Pulmonary Fibroblast Migration Induced by SiO₂ via MAPKs and PI3K Signaling **J. Chao, H. Liu, X. Dai, X. Wang, T. Yun, X. Liu, Q. Yin and H. Yao.** Med. Sch., Southeast Univ., Nanjing, China. (411.9)
- P138 Incidence of Pulmonary Fibrosis in Lungs of CUX-1 Transgenic Mice **S. Helgeson, E. Harris, B. Herndon, G. Vanden Heuvel, R. Baybutt and A. Molteni.** Sch. of Med., Univ. of Missouri-Kansas City, Wheaton Col., IL and Sch. of Med., Western Michigan Univ. (411.8)
- P139 Matrix Metalloproteinase-12 Inhibits Myofibroblast Differentiation and Lung Fibrosis **B. Hu, Z. Wu, D. Bai, R. Tang and S.H. Phan.** Univ. of Michigan. (411.6)
- P140 A Role for FIZZ1 in a Model of Scleroderma **T. Liu, V. Martins, Z. Wu, F. Gonzalez De los Santos and S.H. Phan.** Univ. of Michigan Sch. of Med. and Univ. of São Paulo Fac. of Med. (927.10)
- P141 Granzyme B Mediates Both Direct and Indirect Cleavage of Extracellular Matrix in Skin after Chronic Low-Dose Ultraviolet Light Irradiation **L.G. Parkinson, A. Toro, H. Zhao and D.J. Granville.** Univ. of British Columbia and St Paul's Hosp., Vancouver. (925.5)

**430. DER SCHADENKLUB (CELL INJURY)
SCIENTIFIC INTEREST GROUP POSTER
DISCUSSION AND NETWORKING SESSION**

Poster Discussion

(Sponsored by: ASIP Cell Injury Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Cell and Tissue Injury

Cardiac Pathobiology

Inflammation/Immunity

- P128 The Absence of MuRF1 Protects against Calpain1-Induced Systolic Dysfunction In Vivo **D.I. Brown, J. Robbins and M.S. Willis.** Univ. of North Carolina at Chapel Hill and Cincinnati Children's Hosp. (46.1)
- P129 Characteristics of Skin Inflammatory Cells following Exposure of Mice to Sulfur Mustard **S. Kim, G.M. Composto, C.R. Croutch, R.P. Casillas, D.R. Gerecke, J.D. Laskin, D.E. Heck, L.B. Joseph and D.L. Laskin.** Rutgers Univ., MRIGlobal Inc, Rutgers Univ.-RWJ Med. Sch. and New York Med. Col. (766.6)
- P130 PAR2 Activation Protects against Colitis but Inhibits Epithelial Wound Healing **E.H. Trusevych, V. Iablokov, M. Dickey, P.L. Beck and W.K. MacNaughton.** Univ. of Calgary. (142.3)
- P131 Effects of Negative Pressure Wound Therapy and Elastomeric Materials on Bone Healing **R. Wang and W.D. Wagner.** Virginia Tech – Wake Forest Univ. (1018.2)

**431. VETERINARY AND COMPARATIVE PATHOLOGY
SCIENTIFIC INTEREST GROUP POSTER
DISCUSSION AND NETWORKING SESSION**

Poster Discussion

(Sponsored by: ASIP Veterinary and Comparative Pathology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Veterinary Pathology

Inflammation/Immunity

- P142 Carnitine Palmitoyltransferase 2 (CPT2) Inhibition in Rats and Dogs Resembles Inborn Human CPT2 Deficiency **M.C. De Vera Mudry, M. Festag, J-C. Hoflack and F. Cramer.** F. Hoffmann-La Roche Ltd., Basel. (612.3)

- P143 Effects of Aging and Respiratory Syncytial Virus Infection on the uPA/Plasmin System in Pulmonary Fibrosis **M. Gharaee-Kermani, M.R. Gyetko and J.A. Macoska**. Univ. of Massachusetts and Ann Arbor VA Hosp. and Univ. of Michigan. (411.7)
- P144 TNF Modulates the Gut Microbiota and Drives Inflammation **A.J. Kozik, Y.L. Jones-Hall and C.H. Nakatsu**. Purdue Univ. (142.8)
- P145 Human and Canine Codon Optimization of Measles and Canine Distemper Viral Nucleic Acid Sequences Increases Sequence Identity and Protein Expression Compared to Wild Type and Human Codon Sub-optimized Constructs **E.W. Uhl, M.L. Osborn, F.J. Michel and R.J. Hogan**. Univ. of Georgia. (927.4)
- P146 Napsin A and Thyroid Transcription Factor-1 Immunohistochemistry in the Diagnosis of Canine Pulmonary Carcinomas **J. Beck, M. Miller, C. Frank, D. DuSold and J. Ramos-Vara**. Purdue Univ., NCI, NIH and Colorado State Univ. (762.2)
- P149 Oxidative Damage Is Correlated with Mitochondrial Autophagy **G. Perry, E.A. Perry, P.I. Moreira, S. Correia, R.J. Castellani, X. Wang, H-g. Lee and X. Zhu**. Univ. of Texas at San Antonio, Case Western Reserve Univ., Univ. of Maryland Sch. of Med. and Univ. of Coimbra, Portugal. (613.1)
- P150 Protein Expression of Alzheimer's Disease – and Reduced Hippocampal Volume-Risk Loci in Human Hippocampus **S.L. Adams, T. Norman, K. Tilton, S. Seshadri and I. Delalle**. Boston Univ. Sch. of Med. and New England Col. of Optom. (613.2)
- P151 Cyclin A2 Promotes DNA Repair and Neural Stem Cell Growth **P.E. Gygli, J.C. Chang, H.N. Gokozan, F.P. Catacutan, T.A. Schmidt, A. Griveau, W. Michowski, M. Wong, K. Palanichamy, P. Sicinski, C. Czeisler and J.J. Otero**. The Ohio State Univ., UCSF and Dana-Farber Cancer Inst. (613.5)
- P152 Analysis of Glial Activation around Brain Metastases of Breast Tumors in a Mouse Model **S.A. Amico-Ruivo, Y. Shapovalov, C.E. Lamantia, S. Spielman, E.B. Brown and A.K. Majewska**. D'Youville Col., Buffalo and Univ. of Rochester. (613.6)
- P153 Regulation of Actin Interacting Protein Drebrin by Mutations in HSPB1 **M. Mata, X. Sun and D. Fink**. Univ. of Michigan and VA Healthcare Syst., Ann Arbor. (613.7)
- P154 Modeling Human MEGF10 Myopathy in *Drosophila melanogaster* **B. Matin, H. Blomquist, C. Chen, A.S. Kopin, P.B. Kang and I. Draper**. Tufts Univ., Boston, Boston Children's Hosp., Tufts Med. Ctr. and Univ. of Florida Col. of Med. (613.9)
- P155 Visualization and Objective Quantification of Autonomic Circuitry in Mouse Area Postrema Using a Genetic Method **H.N. Gokozan, S. Corcoran, C. Czeisler, P.E. Gygli, F.P. Catacutan, F. Baig and J.J. Otero**. The Ohio State Univ. (613.10)

432. NEUROPATHOLOGY SCIENTIFIC INTEREST GROUP POSTER DISCUSSION AND NETWORKING SESSION

Poster Discussion

(Sponsored by: ASIP Neuropathology Scientific Interest Group)

TUES. 5:30 PM—RENAISSANCE BOSTON WATERFRONT HOTEL,
PACIFIC GRAND BALLROOM ABCD

Neuropathology

Neurobiology

- P147 AT101 Down-regulates CXCL12 mRNA and Secreted Protein in Malignant Peripheral Nerve Sheath Tumor cells **C.D. Graham, N. Kaza, B. Klocke and K. Roth**. Univ. of Alabama at Birmingham. (149.2)
- P148 Depressive Symptoms in Rats with Myocardial Infarction Associated with Local Brain Expression of Neutrophil Gelatinase-Associated Lipocalin **R.G. Schoemaker, L. Gouweleeuw, H. Liu and U.L.M. Eisel**. Univ. of Groningen and Univ. Med. Ctr. Groningen. (149.7)

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Pharmacology

433. REYNOLD SPECTOR AWARD IN CLINICAL PHARMACOLOGY LECTURE

Lecture

TUES. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107C

The Reynold Spector Award in Clinical Pharmacology was established in 2014 by ASPET in recognition of Dr. Spector's dedication and contributions to clinical pharmacology. The Award recognizes excellence in research and/or teaching in clinical pharmacology.

- 8:30 Introduction.
8:35 Bench-to-Bedside Translation in Clinical Pharmacology: From Knowledge Generation to Healthcare Delivery **S.A. Waldman**. Thomas Jefferson Univ.

434. "CAN WE TALK?" STRATEGIES FOR COLLABORATIVE PHARMACOLOGY EDUCATION

Symposium

(Sponsored by: The Divisions for Pharmacology Education; Molecular Pharmacology; Cardiovascular Pharmacology; and Neuropharmacology)

TUES. 9:30 AM—WESTIN BOSTON WATERFRONT, GRAND BALLROOM C

CHAired: A.L. GORMAN, J.S. Reuben and J.L. Szarek

Education

- 9:30 Simulations as a Tool to Enhance Collaborative Pharmacology Learning in the Context of Professionalism, Interprofessional Communication, and Teamwork **J.L. Szarek**. The Commonwealth Med. Col.
10:20 Using Small Group Case Studies to Teach Pharmacotherapeutics for a Diverse World **P. Wagner and J.S. Reuben** Univ. of South Carolina Sch. of Med. – Greenville.
11:05 Many Heads are Better than One: It's TBL Time **A.L. Gorman**. Univ. of Central Florida Col. of Med.

435. BIASED GPCR SIGNALING IN DRUG DEVELOPMENT: FROM THEORY TO PHYSIOLOGY

Symposium

(Sponsored by: The Divisions for Molecular Pharmacology; Neuropharmacology; Drug Discovery and Development; and Translational and Clinical Pharmacology)

TUES. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 106

CHAired: S. RAJAGOPAL AND A. CHRISTOPOULOS

Neurobiology

- 9:30 Biased Receptor Signaling and Beyond **T.P. Kenakin**. Univ. of North Carolina Sch. of Med.
10:00 Structural Features Responsible for GPCR Functional Selectivity **B.L. Roth**. Univ. of North Carolina Sch. of Med.
10:30 Delineating the Dynamics of μ -Opioid Receptor Signaling and Regulation **M. Canals**. Monash Univ.
11:00 Implications for GPCR Functional Selectivity/Biased Signaling in the Actions of Dopamine **M.G. Caron**. Duke Univ. Med. Ctr.
11:30 Bias in The 4th Dimension: The Influence of Ligand Binding Kinetics upon the Quantification of Biased Agonism at G Protein-Coupled Receptors **J.D. Lane**. Monash Inst. of Pharmaceut. Sci., Australia. (772.1)
11:45 A Pre-Assembled GPCR-Signalosome Reveals Unappreciated Ligand Sensitivity and Mediates Unique Whole Cell Responses **M.L. Halls**. Monash Univ., Australia. (935.3)

436. CARDIAC FIBROBLASTS: FAIR-WEATHER FRIENDS IN MYOCARDIAL FIBROSIS AND REPAIR

Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology; Molecular Pharmacology; and Drug Discovery and Development)

TUES. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

CHAired: P.A. INSEL AND U. MENDE

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

Inflammation/Immunity

Injury/Connective Tissue/Fibrosis

- 9:30 New Ideas on Cardiac Fibroblast Activation and New Therapeutic Approaches **B. Hinz**. Univ. of Toronto.
9:55 Cardiac Fibroblasts and Cellular Cross Talk in Heart Failure **B.C. Blaxall**. Univ. of Cincinnati and Cincinnati Children's Hosp.

**Last Day to
Visit Exhibits
Tuesday, March 31
9:00 AM – 4:00 PM**

- 10:20 GPCRs as Regulators of Cardiac Fibroblasts **P.A. Insel**. UCSD.
- 10:45 Extracellular Matrix-Cardiac Fibroblast Communication: New Opportunities for Therapy **M.L. Lindsey**. Univ. of Mississippi Med. Ctr.
- 11:10 Eicosapentaenoic Acid Prevents Interstitial Cardiac Fibrosis in a Mouse Model of Hypertensive Heart Disease **J.A. Eclov**. Univ. of South Dakota. (942.7)
- 11:25 Persistent Phenotypic Shift in Cardiac Fibroblasts following Transient ACE Inhibition **L. Madhavpeddi**. Univ. of Arizona Col. of Med.-Phoenix. (942.2)
- 11:40 Panel Discussion.
- 10:30 Sleep-wake Disturbances as a Predictor of PTSD Susceptibility: Implications for Early Intervention after Traumatic Stress **T.A. Mellman**. Howard Univ. Col. of Med.
- 11:00 Sleep/Wake and Quantitative Electroencephalography (EEG) Disruptions in a Rodent Model of PTSD: Potential Preclinical Biomarkers for Drug Effects **M. Nedelcovych**. Vanderbilt Univ. Med. Sch.
- 11:30 Challenges of Implementing Basic Preclinical Methods to Identify Candidate Compounds Toward the Advancement of New Pharmacological Therapies for PTSD and Related Disorders **R.F. Genovese**. Walter Reed Army Inst. of Res.

437. NEW TECHNOLOGIES TO MEASURE MITOCHONDRIAL CHANGES

Symposium

(Sponsored by: The Divisions for Toxicology and Drug Metabolism)

TUES. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

CHAired: C.C. BEESON AND B.S. CUMMINGS

- 9:30 Identification of Mitochondrial Toxicophores **C.C. Beeson**. Med. Univ. of South Carolina.
- 10:00 Identification of Mitochondrial Toxicants and Mitochondrial Changes in Human Tissues **D.P. Jones**. Emory Univ.
- 10:30 Urinary Biomarkers of Mitochondrial Dysfunction **R.G. Schnellmann**. Med. Univ. of South Carolina.
- 11:00 Mitochondrial Subpopulation Lipidomics in Aging Tissue **B.S. Cummings**. Univ. of Georgia.
- 11:30 Idiosyncratic Drug-Induced Liver Injury Potential of Zileuton Is Detected in Diversity Outbred Mice **A.H. Harrill**. Univ. of Arkansas for Med. Sci. (937.3)
- 11:45 Pesticide-Induced Mitochondrial Dysfunction Augments NLRP3 Inflammasome Signaling Pathway in Primary Microglia **S. Sarkar**. Iowa State Univ. (777.5)

438. NOVEL THERAPEUTIC TARGETS AND PRECLINICAL MODELS OF POST-TRAUMATIC STRESS DISORDER

Symposium

(Sponsored by: The Divisions for Behavioral Pharmacology; Neuropharmacology; and Toxicology)

TUES. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109B

CHAired: C.K. JONES AND M. NEDELCOVYCH

Neurobiology

- 9:30 PTSD and the Neurocircuitry of Impaired Fear Extinction **M. Milad**. Harvard Med. Sch.
- 10:00 Using Positron Emission Tomography (PET) to Gain Insight into Targeted Pharmacological Treatment of PTSD **A. Neumeister**. NYU Langone Med. Ctr.

439. SYSTEMS PHARMACOLOGY: ENHANCING TRANSLATIONAL RESEARCH BY NETWORK AND PHARMACODYNAMIC MODELING

Symposium

(Sponsored by: The Divisions for Drug Discovery and Development; Translational and Clinical Pharmacology; and Toxicology)

TUES. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109A

CHAired: D.E. MAGER AND D.R. ABERNETHY

- 9:30 Systems Pharmacology for Prediction of Adverse Drug Events **D.R. Abernethy**. FDA.
- 10:00 Network Analysis to Identify Multiscale Mechanisms of Drug Action **D.A. Lauffenburger**. MIT.
- 10:30 Merging Network Analysis and Pharmacodynamics for Translational Modeling **D.E. Mager**. Univ. at Buffalo, SUNY.
- 11:00 Computational and Functional Genomics to Understand Human Disease and Drug Response **N. Ahituv**. UCSF.
- 11:30 Extraction and Integration of Diverse Data Streams to Support Systems Networks **N. Shah**. Stanford Univ.

440. THE HUMAN MICROBIOME: SYSTEMS PHARMACOLOGY INSIGHTS AND THE POTENTIAL FOR NEW DRUG DISCOVERY

Symposium

(Sponsored by: The Divisions for Translational and Clinical Pharmacology; Toxicology; Molecular Pharmacology; Drug Discovery and Development; and Cardiovascular Pharmacology)

TUES. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107C

CHAired: R. CORRIDEN AND C. LAROCK

Microbiome

Inflammation/Immunity

Cancer Biology

- 9:30 The Human Microbiome in Health and Disease **S.K. Mazmanian**. Caltech.
- 10:15 Inflammatory Cell Dynamics in Cancer and Infection: Interrogating the Role of the Microbiome **R.S. Goldszmid**. NCI, NIH.

- 10:40 Pharmacomicrobiomics: The Impact of Human Microbiome Variations on Systems Pharmacology and Personalized Therapeutics **R.K. Aziz**. Cairo Univ.
- 11:05 Obesity and Gut Barrier Function: Using the Microbiota and Prebiotics to Understand Early Consequences of a High Fat Diet **K. Hamilton**. Univ. of California, Davis.
- 11:30 Panel Discussion.

441. DIVISION FOR CARDIOVASCULAR PHARMACOLOGY TRAINEE SHOWCASE

Division Oral Session

(Sponsored by: The Division for Cardiovascular Pharmacology)

TUES. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

CHAired: L.E. SEE HOE AND J.M. SCHILLING

- 2:30 Toll-Like Receptor 9 Signals through Both the Stress-Tolerance and Inflammatory Cascades after Pharmacological Stimulation in Isolated Rat Arteries **C.G. McCarthy**. Georgia Regents Univ. (783.2)
- 2:45 P2Y2 Receptor Control of Tissue Factor Transcription in Human Coronary Artery Endothelial Cells: New AP-1 Site and Negative Regulator **Y. Liu**. Auburn Univ. (625.7)
- 3:00 Caveolin-3/AdipoR1 Dependent Mitochondrial STAT3 Activation in Ischemic Postconditioning Cardioprotection **H. Li**. The Univ. of Hong Kong. (777.3)
- 3:15 β 2-Adrenergic Receptor Expression on Hematopoietic Cells Is Critical for Survival following Myocardial Infarction **L. Grisanti**. Temple Univ. (942.11)
- 3:30 Neddylation Promotes Vascular Endothelial Dysfunction: A Role for Histone Deacetylases 2 and Arginase 2 **D. Pandey**. Johns Hopkins Univ. (626.5)
- 3:45 Increased Energy Expenditure Induced by Ptp1b Deletion in Proopiomelanocortin Neurons Leads to Inflammation and Endothelial Dysfunction **T. Bruder-Nascimento**. Georgia Regent Univ. (626.3)
- 4:00 Pharmacogenomics Studies of PAR4 Regulation in Human Platelets **B. Tourdot**. Thomas Jefferson Univ. (941.3)

442. BEHAVIORAL PHARMACOLOGY DIVISION SYMPOSIUM: SIGMA RECEPTORS IN HEALTH AND DISEASE

Division Symposium

(Sponsored by: The Division for Behavioral Pharmacology)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109A

CHAired: H. KHOSHBOUEI

Transporters/Channels/ Barriers

Cancer Biology

- 3:00 Introduction.
- 3:05 Sigma1 in Cancer Cell Protein Homeostasis **K.J. Felix**. Drexel Univ. Col. of Med.
- 3:33 Sigma-1R-dependent Modulation of Neuronal Excitability: A Novel Mechanism Involved in Addictive Processes **S. Kourrich**. Univ. of Texas Southwestern Med. Ctr.
- 4:01 Sigma Receptor Involvement in Stimulant Abuse **J.L. Katz**. NIDA, NIH.
- 4:29 A Role for Sigma Receptors in Excessive Alcohol Drinking **V. Sabino**. Boston Univ. Sch. of Med.
- 4:57 Sigma1R Regulation of Dopamine Transporter **H. Khoshbouei**. Univ. of Florida.
- 5:25 Session Summary.

443. DIVISION OF TOXICOLOGY SYMPOSIUM: PHARMACOGENETICS AND DRUG TOXICITY

Division Symposium

(Sponsored by: The Division for Toxicology)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

CHAired: G.O. RANKIN

- 3:00 Introduction **G.O. Rankin**. Marshall Univ.
- 3:10 Warfarin Pharmacogenetics: Trials and Tribulations **B.F. Gage**. Washington Univ. Sch. of Med. in St. Louis.
- 3:45 CYP2D6 Pharmacogenetics: Controlling the Atomoxetine Dose-Exposure Relationship to Improve Efficacy and Reduce Toxicity in Adolescents with ADHD **J.S. Leeder**. Children's Mercy Kansas City.
- 4:20 Carboxylesterase 1: Recent Developments in Pharmacogenetics **J.S. Markowitz**. Univ. of Florida.
- 4:55 Role of Genetic Polymorphisms in Metabolism and Toxicity of Drugs of Abuse **L. Richards-Waugh**. Marshall Univ.

444. PRESYNAPTIC AUTORECEPTORS AND IMPROVED TREATMENTS OF MAJOR PSYCHIATRIC DISORDERS

Symposium

(Sponsored by: The Divisions for Neuropharmacology; Molecular Pharmacology; Behavioral Pharmacology; Drug Discovery and Development; and Translational and Clinical Pharmacology)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109B

CHAired: S.Z. LANGER

Neurobiology

- 3:00 Presynaptic, Autoreceptor-Mediated Regulation of Neurotransmission: Physiological and Pharmacological Relevance **S.Z. Langer**. Euthymia Ltd.
- 3:30 Mechanism of Action of Alpha-2 Adrenoceptor Agonists in ADHD and Related Prefrontal Cortical Disorders **A.F. Arnsten**. Yale Med. Sch.
- 4:00 Concomitant Antidepressant and Antipsychotic Medication in Schizophrenia. Mechanisms of Action and Significance of Presynaptic Alpha-2 Adrenoceptors **T.H. Svensson**. Karolinska Inst.
- 4:30 Implicating the Alpha-2 Receptor in Unique Actions of Drugs **W.Z. Potter**. NIMH.
- 5:00 Role of Monoaminergic Autoreceptor Desensitization in the Antidepressant Response **P. Blier**. Univ. of Ottawa.

445. STRUCTURAL AND DYNAMIC BASIS OF RECEPTOR-LIGAND INTERACTIONS

Symposium

(Sponsored by: The Divisions for Molecular Pharmacology; Neuropharmacology; and Translational and Clinical Pharmacology)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 106

CHAired: E. ORTLUND AND S.F. TRAYNELIS

Neurobiology

- 3:00 Structural Advances in Glutamate Receptors **H. Furukawa**. Cold Spring Harbor Lab.
- 3:30 Structural Studies of Allostery at the M4 Muscarinic Acetylcholine Receptor **D.M. Thal**. Monash Inst. of Pharmaceutical Sciences.
- 4:00 Cryo-electron Microscopy Comes of Age: Applications to Molecular Pharmacology **S. Subramaniam**. NCI, NIH.
- 4:30 Differential Hydrogen/Deuterium Exchange Mass Spectrometry to Study Receptor-Ligand Signaling **P. Griffin**. The Scripps Res. Inst., Scripps Florida, Jupiter.
- 5:00 Unexpected Allosteric Network Drives Nuclear Receptor-Phospholipid Signaling **E.A. Ortlund**. Emory Univ. Sch. of Med.

446. TRANSLATIONAL AND CLINICAL PHARMACOLOGY DIVISION: YOUNG INVESTIGATOR AWARDS PLATFORM SESSION

Division Oral Session

(Sponsored by: The Division for Translational and Clinical Pharmacology)

TUES. 3:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107C

CHAired: M.A. HOLINSTAT

- 3:00 Introduction.
- 3:15 GPSM3 as a Therapeutic Target for Rheumatoid Arthritis **B.J. Gall**. West Virginia Univ. (1022.5)
- 3:30 Preclinical Evaluation of the Mitochondria-Targeted Antioxidant MitoTEMPO on the Renal Microcirculation in a Pediatric Model of Sepsis-Induced Renal Injury **C.R. Sims**. Univ. of Arkansas for Med. Sci. (784.6)
- 3:45 HIV-1 Tat Sensitizes Enteric Neurons to Bacterial Proteins **J. Ngwainmbi**. Virginia Commonwealth Univ. (628.13)
- 4:00 12-LOX Modulates FcγRIIIa-mediated Platelet Response **J. Yeung**. Thomas Jefferson Univ. (941.1)
- 4:15 Biventricular Differences in β-Adrenergic Receptor Signaling following Burn Injury **A.N. Guillory**. Univ. of Texas Med. Branch. (1025.8)
- 4:30 Glucose Metabolism Is Impaired in Cultured Myotubes from Severely Obese Humans **K. Zou**. East Carolina Univ. (944.11)
- 4:45 Awards.

447. BENEDICT R. LUCCHESI DISTINGUISHED LECTURESHIP IN CARDIAC PHARMACOLOGY

Lecture

(Sponsored by: The Division for Cardiovascular Pharmacology)

TUES. 4:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

The Benedict R. Lucchesi Award in Cardiac Pharmacology was established to honor Dr. Lucchesi's lifelong scientific contributions to our better understanding and appreciation of the pharmacological treatment and prevention of cardiovascular disease and for his mentoring of countless prominent cardiovascular pharmacologists in translational approaches.

- 4:30 Introduction.
- 4:35 Regenerative Therapy for the Failing Heart **A. Terzic**. Mayo Clin.

Physiology

448. PRESIDENT'S SYMPOSIUM SERIES PHYSIOLOGY: ANSWERS TO BIG QUESTIONS THE FUTURE OF HYPERTENSION RESEARCH

Symposium

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210BC

CHAired: H. JACOB

- 3:15 What Have We Learned from the Genetics of Hypertension? **F.C. Luft**. Charité, Berlin.
- 3:45 Hypertension and the Brain. What Are We Thinking? **R. Davisson**. Cornell Univ.
- 4:15 The Role of the Kidney in the Pathogenesis of Hypertension: Towards a Neo-Guytonian Paradigm? **R. Evans**. Monash Univ., Australia.
- 4:45 The Treatment of Hypertension, How Did We Get Here and Where Are We Going? **S. Oparil**. Univ. of Alabama at Birmingham.

449. AUTONOMIC DENERVATION IN CARDIOVASCULAR DISEASE: MECHANISMS AND THERAPEUTIC POTENTIAL

Symposium

(Sponsored by: Neural Control and Autonomic Regulation)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210A

CHAired: I.H. ZUCKER AND J. PATON

- 8:00 The Carotid Body in Heart Failure: Alternative Therapies **N. Marcus**. Univ. of Nebraska Med. Ctr.
- 8:30 Targeted Ablation of Renal Efferent and Afferent Nerves for Treatment of Hypertension **J. Osborn**. Univ. of Minnesota Sch. of Med.
- 9:00 Carotid Body Ablation: A Preclinical Study for the Treatment of Hypertension **W. Pijacka**. Univ. of Bristol.
- 9:30 Stellate Ganglionectomy for Ventricular Arrhythmia Therapy **K. Shivkumar**. UCLA.

450. CELL SIGNALING: PROTEINS, PATHWAYS AND MECHANISMS

Featured Topic

(Sponsored by: Cell and Molecular Physiology Section)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 209

CHAired: H.M. JONES AND N.A. BRADBURY

Cell Signaling

- 8:00 Speed and Amplitude in G Protein Signaling Modules **E. Ross**. Univ. of Texas Southwestern Med. Ctr.
- 8:30 Towards New Insights in Epithelial Ion Channels Regulation by the ER Luminal Chaperone ERp29 **Y. Bikard, L. Suaud, Y.S. Grumbach, J. Litvak and R.C. Rubenstein**. The Children's Hosp. of Philadelphia and Univ. of Pennsylvania Perelman Sch. of Med. (974.1)
- 8:45 Lysophosphatidic Acid Upregulates Calreticulin Expression in PC-3 Human Prostate Cancer Cells **K-Y. Lu, K-H. Lin, C-C. Lin, Y-C. Lin, Y-J. Yang, W-m. Chen, H-Y. Hsia and H. Lee**. Natl. Taiwan Univ. (974.2)
- 9:00 O-GlcNAc Plays a Role in Nrf2 Regulation in the Myocardium **B.P. Dieter, E.J. Johnson, H.M. Medford, L.E. Miller, C.A. Vella and S.A. Marsh**. Univ. of Idaho and Washington State Univ. (974.3)
- 9:15 Differential Expression of Wnt-Pathway in Late Fetal Ovine Heart and Lung Development **N. Gupta, R. Krauss, J. Smolich, M. Cheung and S. Pepe**. Murdoch Childrens Res. Inst., Melbourne. (974.4)
- 9:30 Mechanism of Linaclotide-Induced Trafficking of CFTR and NHE3 in the Human Intestinal Cell-Lines Caco-2 BBe and T84 cells **M.K. Ahsan, I. Silos-Santiago and N. Ameen**. Yale Univ. Sch. of Med. and Ironwood Pharmaceut., Cambridge, MA. (974.5)
- 9:45 Skeletal Muscle β -F1-ATPase Translation Is Inhibited by Hyperlipidemia-Induced miR-127-5p Expression in Human Obesity **L. Tran, L.E. Campbell, D.K. Coletta, L.J. Mandarino and C.S. Katsanos**. Arizona State Univ. and Mayo Clin. (974.6)

451. CNS MECHANISMS OF BLOOD PRESSURE REGULATION

Featured Topic

(Sponsored by: Central Nervous System Section)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206B

CHAired: R.D. WAINFORD

- 8:00 CNS Regulation of Blood Pressure via the Pro-renin Receptor **Y. Feng**. Colorado State Univ.
- 8:30 Inflammation in Hypertension and the Role of the Autonomic Nervous System **P. Marvar**. George Washington Univ. Sch. of Med.
- 9:00 Dynamic Regulation of microRNA Networks in the Brainstem Characterize Hypertension Development **D. DeCicco, J.S. Schwaber and R. Vadigepalli**. Thomas Jefferson Univ. (984.12)
- 9:15 How Does the Brain Talk to the Arteries and Heart? **M.P. Blaustein, L. Chen, H. Song, F.H.H. Leenen and J.M. Hamlyn**. Univ. of Maryland Sch. of Med. and Univ. of Ottawa Heart Inst. (984.3)
- 9:30 Angiotensin Converting Enzyme 1 Knockdown in the Median Preoptic Nucleus Attenuates Downstream Neural Activation following Chronic Intermittent Hypoxia **K. Faulk and J.T. Cunningham**. Univ. of North Texas Hlth. Sci. Ctr. (984.15)
- 9:45 Functional Identification of Cortical and Subcortical Areas Associated with the Increase in Muscle Sympathetic Nerve Activity in Obstructive Sleep Apnoea **V.G. Macefield, R.H. Fatouleh, L.C. Lundblad, D.K. McKenzie, P.M. Macey and L.A. Henderson**. Sch. of Med., Univ. of Western Sydney, Prince of Wales Hosp., Sydney, Sch. of Nursing, UCLA and Univ. of Sydney. (984.17)

452. DIET, NUTRITION, AND ADIPOSE TISSUE: YOU ARE WHAT YOU EAT

Featured Topic

(Sponsored by: Endocrinology and Metabolism Section)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206A

CHAired: G.L.C. YOSTEN

Nutrition Physiology

- 8:00 Lipophilic Environmental Chemicals and Their Influence on Adipose Tissue Metabolism **G. Carey**. Univ. of New Hampshire.
- 8:30 Lipid Droplets: The Energy Storage Organelle **R.V. Farese**. Harvard Sch. of Publ. Hlth.
- 9:00 Increased Levels of Heme-Oxygenase-1 Rescues Fructose-Mediated Adipocyte Dysfunction **S. Stevens, H. Ansinelli, L. Bellner, Z. Khitan and N.G. Abraham**. Marshall Univ. and New York Med. Col. (996.1)

- 9:15 Epigenetic Silencing of Netrin Is Associated with Memory Loss by High Methionine, Low Folate and Vitamin B₆/B₁₂ Containing Diet **A. Kalani, P.K. Kamat, D. Lominadze and N. Tyagi**. Univ. of Louisville. (996.6)
- 9:30 Proteomic Analysis of the Late Effects of Intrauterine Undernutrition on Adipose Tissue of Rats **A.P. Souza, A.P. Pedroso, A.A. Tashima and E.B. Ribeiro**. Fed. Univ. of São Paulo. (996.7)
- 9:45 Q-16, a Partial PPAR γ Agonist, Decreases Adiposity and Induces the Thermogenesis-Related Genes in Obese Mice **M. Coelho, C. Lima, C. Royer, I. Pitta, A. Amato and F. Neves**. Univ. of Brasilia and Univ. of Pernambuco, Brazil. (996.8)

453. EPITHELIAL TRANSPORT: CELL BIOLOGY

Featured Topic

(Sponsored by: Epithelial Transport Group)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 208

CHAired: H. MØLLER AND M. BLOUNT

Regulation of Epithelial Function

- 8:00 **Steve Hebert Lecture.** WNKs under High Pressure **M. Cobb**. Univ. of Texas Southwestern Med. Ctr.
- 8:45 Role of Bile Acids for Regulation of Aquaporins in Rodent Large Intestine **J. Yde, H.B. Moeller, N. Lajczak, A. O'Dwyer, S. Keely and R.A. Fenton**. Aarhus Univ. and Royal Col. of Surgeons in Ireland. (970.12)
- 9:00 Claudin-2 Mediates Sodium and Water Transport through a Common Pore **R. Rosenthal, D. Günzel, J.D. Schulzke, M. Fromm and A.S. Yu**. Charité, Med. Univ. Berlin and Univ. of Kansas Med. Ctr. (970.14)
- 9:15 AMPK Regulates the Vacuolar H⁺-ATPase via 14-3-3 Proteins **M.M. Al-bataineh, H. Li, A.L. Marciszyn, V. Bhalla, K.R. Hallows and N.M. Pastor-Soler**. Univ. of Pittsburgh and Stanford Univ. (969.23)
- 9:30 Renal Caffeine Effects are Independent of NHE3 Abundance, Trafficking or Phosphorylation **T. Rieg, M. Soleimani, J.A. Dominguez Rieg, M. Buslinger and R.A. Fenton**. UCSD, VA San Diego Healthcare Syst., Univ. of Cincinnati, Bastyr Univ. California, Res. Inst. of Molec. Pathol., Vienna and Aarhus Univ., Denmark. (970.4)
- 9:45 Mitochondria Form an Apical Calcium Signaling Domain in Renal Cortical Collecting Duct Cells **L.I. Galarza-Paez, D.C. Eaton, H.Y.C. Lam, O. Al Khalili, B.J. Duke, H.F. Bao, H. Ma and T.L. Thai**. Emory Univ. (969.25)

454. EXERCISE AT THE MOLECULAR LEVEL: MYOKINES AND OTHER NOVEL THERAPEUTIC OPPORTUNITIES

Symposium

(Sponsored by: Environmental and Exercise Physiology Section)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAIRER: J. WHITE

- 8:00 Exercise-Induced Myokines Irisin and Meteorin-Like: Therapeutic Effects of Muscle Through Modulation of the Adipose Tissues **B. Spiegelman**. Dana Farber Cancer Inst., Harvard Med. Sch.
- 8:30 PGC-1 α -Meteorin-Like Axis as a Potential Treatment for Duchenne Muscular Dystrophy **J. White**. Duke Univ. Sch of Med.
- 9:00 Exercise-Based Discovery of Pathways Promoting Cardiac Repair **T. Rosenzweig**. Beth Israel Deaconess Med. Ctr.
- 10:00 Exercise Mediates the Muscle-Brain Crosstalk to Improve Psychiatric Disease **J. Ruas**. Karolinska Inst., Stockholm.

455. RECENT ADVANCES IN RENAL PHYSIOLOGY AND KIDNEY DISEASE II

Featured Topic

(Sponsored by: APS Renal Section)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAIRER: P.A. WELLING AND D. ILATOVSKAYA

- 8:00 Deletion of the Proximal Tubule Basolateral Bicarbonate Transporter, NBCe1, Impairs Ammonia Metabolism **I.D. Weiner, H-W. Lee, G. Osis, M.E. Handlogten and J.W. Verlander**. North Florida/South Georgia Veterans Hlth. Syst., Gainesville and Univ. of Florida. (809.26)
- 8:15 The K⁺:Cl⁻ Cotransporter KCC4 Is Activated by Deacetylation Induced by the Sirtuin7 **A. Mercado, Z. Melo, A. Tovar, R. Rajaram, S. Cruz-Rangel, D. Ryu, N. Torres, O. Staub, G. Gamba and L. Noriega**. Ignacio Chávez Natl. Inst. of Cardiol., Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City, Univ. of Lausanne and Fed. Polytech Univ. of Lausanne. (666.24)
- 8:30 A Common Signal Patch Drives AP-1 Dependent-Golgi Export of the Basolateral Kir Channels in the Distal Nephron **X. Li and P.A. Welling**. Univ. of Maryland Sch. of Med. (666.14)

- 8:45 Cell-Specific Regulation of BK Channel and WNK Kinases in Cortical Collecting Duct by Dietary K **R. Carrisoza, A. Subramanya, M. Carattino, T. Kleyman and L. Satlin**. Icahn Sch. of Med. at Mount Sinai and Univ. of Pittsburgh Sch. of Med. (666.3)
- 9:00 Regulation of Renal TRPV4 Activity by Dietary Potassium Intake Is Essential for the Maintenance of K⁺ Homeostasis **N. Boukelmoune, M. Mamenko, O. Zaika, R. O'Neil and O. Pochynyuk**. Univ. of Texas Hlth. Sci. Ctr. at Houston. (666.4)
- 9:15 Decreased Surface NKCC2 Expression and Increased Urinary Excretion of Water and Ions in VAMP3 Knockout Mice **P.S. Caceres, M.Z. Haque and P.A. Ortiz**. Henry Ford Hosp. and Wayne State Univ. (666.19)
- 9:30 Disrupted Store-Operated Calcium Entry Causes Nephrogenic Diabetes Insipidus in Rats **M. Mamenko, I. Dhande, O. Zaika, N. Boukelmoune, O. Pochynyuk and P.A. Doris**. Univ. of Texas Hlth. Sci. Ctr. at Houston. (809.18)
- 9:45 Aldosterone Upregulates Tight Junction Expression of Claudin-4, Decreasing Paracellular Na⁺ Permeability in the Renal Cortical Collecting Duct **M. Rajagopal and A.S. Yu**. Univ. of Kansas Med. Ctr. (666.10)

456. RESILIENCE IS POWER: DEALING WITH THE UPS AND DOWNS OF YOUR SCIENTIFIC CAREER

Symposium

(Sponsored by: Careers in Physiology Committee)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAIRER: E. WEHRWEIN AND C. SCHNACKENBERG

Career Development

- 8:00 How Do People Bounce Back After Disappointment Or Distress? **S. Luthar**. Arizona State Univ.
- 8:30 What Can Scientists As Mentees Or Mentors Do to Overcome Challenges in the Workplace ? First Manuscript Or Grant Rejection, Difficult Relationship in the Lab Or Department? **H. Adams**. H.G. Adams & Assocs. Inc., Norfolk.
- 9:00 What Are Positive Ways to Dealing With a Changing Work Environment ? New Research Direction/Boss/ Department/ Institution/Job Description? **J. Pollock**. Univ. of Alabama at Birmingham.
- 9:30 How Can a Scientist Be Resilient During a Difficult Job Search for a Position in Academia Or Industry? **M. Alonso-Galicia**. Forest Res. Inst., Jersey City.

457. VOLTAGE-GATED CALCIUM CHANNELS AND THE FUNCTION OF EXCITABLE CELLS: FROM BASIC MECHANISMS TO DISEASE

Symposium

(Sponsored by: Physiological Society, The Journal of Physiology, and The American Physiological Society)

TUES. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: A.C. DOLPHIN

Transporters/Channels/ Barriers

Neurobiology

- 8:00 Voltage Gated L-Type Calcium Channels: Drug Targets in the Brain? **J. Striessnig**. Univ. of Innsbruck.
- 8:30 Cav1.2 (CACNA1c) and Cav13 (CACNA1d) L-Type Ca²⁺ Channel Signaling Mechanisms and Cocaine Addiction **A. Rajadhyaksha**. Weill Cornell Med. Col.
- 9:00 Regulation of Neuronal N-Type Calcium Channel Trafficking **A. Dolphin**. University Col. London.
- 9:30 The Role of T-Type Calcium Channels in the Electrical Excitability of Aldosterone-Producing Cells of the Adrenal Cortex **P. Barrett**. Univ. of Virginia.

458. EPITHELIAL TRANSPORT: PATHOPHYSIOLOGY

Featured Topic

(Sponsored by: Epithelial Transport Group)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: J. BOMBERGER AND T. RIEG

Regulation of Epithelial Function

Transporters/Channels/ Barriers

- 10:30 **Hans Ussing Lecture** Regulation of Mucosal Barrier Function beyond the Chambers **J. Turner**. Univ. of Chicago.
- 11:15 Intravital Imaging Reveals Angiotensin II-Induced Endocytosis and Shedding of Plasma Albumin by Podocytes **I.M. Schiefl, V. Kattler, A. Hammer and H. Castrop**. Univ. of Regensburg, Germany. (970.3)
- 11:30 OCTN1-Mediated Ergothioneine Uptake Protects Lung Epithelial Cells from Tobacco Smoke-Induced Damage **C. Ehrhardt, S. Nickel, M.A.M.Y. Selo, C.G. Clerkin, J.J. Salomon, B. Talbot and J.J. Walsh**. Sch. of Pharm. and Pharmaceut. Sci., Trinity Col. Dublin. (970.7)
- 11:45 Regulation of Intestinal SGLT1 by Catestatin in Hyperleptinemic Type 2 Diabetic Mice **J.A. Dominguez Rieg, V.R. Chirasani, H. Köpsell, S. Senapati, S.K. Mahata and T. Rieg**. Bastyr Univ. CA, VA San Diego Healthcare Syst., Indian Inst of Technol. Madras, Univ. of Würzburg and UCSD. (970.9)

- 12:00 Intestinal Phosphate Regulation in Chronic Kidney Disease **V. Hogg-Cornejo, E. Sutherland, E. Dobrinskikh and M. Levi**. Univ. of Colorado Denver Anschutz Med. Campus. (969.10)
- 12:15 Calpain-2 Proteolysis of MARCKS Is a Negative Feedback Regulator of ENaC **D.S. Montgomery, Z.M. Ghazi, T.L. Thai, D.C. Eaton and A.A. Alli**. Emory Univ. Sch. of Med. (969.26)

459. INFLAMMATORY RESPONSES IN GASTROINTESTINAL AND LIVER CANCER: CURRENT INSIGHTS INTO MECHANISM AND TREATMENT

Featured Topic

(Sponsored by: Gastrointestinal and Liver Physiology Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: R.K. RAO

Oxidative Stress

Cancer Biology

Inflammation/Immunity

- 10:30 Uncovering the Role of Pattern Recognition Receptors in the Pathogenesis of Gastric Cancer **B. Jenkins**. Monash Inst. of Med. Res., Australia.
- 11:00 Systems Approaches to Uncovering Inflammatory Mechanisms in the Gastrointestinal Cancer **K. Haigis**. Massachusetts Gen. Hosp.
- 11:30 Stromal Loss of mRNA-Binding Protein IMP1 Promotes a Pro-tumorigenic Colon Tumor Microenvironment In Vivo **P. Chatterji, K. Hamilton, E. Lundsmith, S. Andreas and A. Rustgi**. Univ. of Pennsylvania. (999.3)
- 11:45 Intestinal Vitamin D Receptor Protects Mice from dysbiosis via Modulating JAK/STAT Pathway in Tumorigenesis **S. Wu, Y-g. Zhang, R. Lu, Y. Xia, D. Zhou and J. Sun**. Rush Univ. and Univ. of Rochester. (999.4)
- 12:00 Chronic Ethanol Feeding Promotes Azoxymethane and Dextran Sodium Sulfate-Induced Colonic Tumorigenesis by Enhancing Mucosal Inflammation **P.K. Shukla, K.K. Chaudhry, H.R. Mir, R. Gangwar, N. Yadav, B. Manda and R.K. Rao**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis. (999.5)
- 12:15 Attenuation of Claudin-18 in Mouse Stomach Promotes the Development of Intramucosal Carcinoma **Y. Zheng, J. Wu, S. Muthupalani, Y.E. Wang, L-H. Ang, J.G. Fox and S.J. Hagen**. Beth Israel Deaconess Med. Ctr., MIT and Dana-Farber Cancer Inst. (999.6)

460. INTERACTIONS BETWEEN CARDIOVASCULAR AND INGESTIVE BEHAVIORAL SIGNALS AT THE CIRCUMVENTRICULAR ORGANS

Featured Topic

(Sponsored by: APS Neural Control and Autonomic Regulation Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: J. COLLISTER AND A. FERGUSON

- 10:30 Traditional and New Roles of Circumventricular Organs in Cardiovascular Regulation and Homeostasis **A.K. Johnson**. Univ. of Iowa.
- 11:00 Circumventricular Organs: Not Just for Cardiovascular Control! New Insights to CVO Involvement in Sensing Metabolic Signals and Mediating Ingestive Behaviors **T.A. Lutz**. Univ. of Zurich.
- 11:30 Overexpression of Copper/Zinc Superoxide Dismutase (SOD1) in the Organum Vasculosum of the Lamina Terminalis Attenuates Chronic Angiotensin II Hypertension in the Rat **J.P. Collister, H. Taylor-Smith, D. Drebes, D. Nahey, J. Tian and M.C. Zimmerman**. Univ. of Minnesota and Univ. of Nebraska Med. Ctr. (988.2)
- 11:45 OVLT Neurons Exhibit Exquisite Osmosensitivity to Elevated NaCl Concentrations **B.J. Kinsman, K.N. Browning and S.D. Stocker**. Penn State Col. of Med. (988.1)
- 12:00 Angiotensin Type 1a Receptors in the Forebrain Subfornical Organ Protect against High Fat Diet-Induced Hepatic Steatosis **J.A. Horwath, S.D. Butler, A.L. Mark, R.L. Davisson and C.N. Young**. Weill Cornell Med. Col., Cornell Univ. and Univ. of Iowa. (988.7)
- 12:15 Leptin and Amylin Influence the Excitability of Area Postrema Neurons, Possibly via cAMP-Mediated Mechanisms **P.M. Smith, P. Brzezinska, F. Hubert, D.H. Maurice and A.V. Ferguson**. Queen's Univ., Canada. (988.4)

462. JULIUS H. COMROE, JR. DISTINGUISHED LECTURESHIP OF THE APS RESPIRATION SECTION

Lecture

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

Unique Aspects of the Pathobiology of Pulmonary Hypertension in the Developing and Mature Lung **U. Raj**. Univ. of Illinois at Chicago.

463. OMICS AND EPITHELIAL SYSTEMS PHYSIOLOGY

Symposium

(Supported by Agilent)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

CHAired: E. DELPIRE AND J. MCCORMICK

Regulation of Epithelial Function

- 10:30 Proteomic Analysis of the Kidney Filtration Barrier **M. Rinschen**. Univ. Hosp. of Cologne.
- 10:55 Protein Interaction Network of the Hippo Pathway Reveals Mechanisms of Kinase-Phosphatase Interactions **A-C. Gingras**. Samuel Lunenfeld Res. Inst., Mount Sinai Hosp., Toronto.
- 11:20 Global Compensatory Response to Loss of Thiazide-Sensitive Sodium Chloride Cotransporter Phosphorylation **R. Grimm**. Univ. of Maryland Sch. of Med.
- 11:45 Genome-Wide Transcriptome and Epigenomics of Kidney Disease Reveals Notch Pathway in Podocytes **K. Susztak**. Univ. of Pennsylvania.
- 12:10 Reading and Writing Regulatory Networks Underlying Human Epithelial Transport Diseases **J. Rinehart**. Yale Univ. Sch. of Med.

464. OXIDATIVE STRESS: MECHANISMS AND RESPONSES

Featured Topic

(Sponsored by: Cell and Molecular Physiology Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: C. WHITE AND K. YADDANAPUDI

Oxidative Stress

Injury/Connective Tissue/Fibrosis

- 10:30 Mitochondria Ca²⁺ Uniporter: a Platform for Redox Signaling **M. Muniswamy**. Temple Univ. Sch. of Med.
- 11:00 Differential Effects of Buffer pH, CaCl₂, and Superoxide Dismutase on Ca²⁺-Induced H₂O₂ Release from Mitochondrial Complexes I and III **R.J. Lubbe, D.P. Lindsay, M. Aldakkak, A.K.S. Camara and D.F. Stowe**. Med. Col. of Wisconsin. (979.1)
- 11:15 PPAR γ -Independent Side Effects of Thiazolidinediones on Mitochondrial Redox State in Rat Isolated Hearts **M.M. Salzman, Q. Cheng, D. Weihrauch, A.K.S. Camara, D.F. Stowe and M.L. Riess**. Vanderbilt Univ., TVHS VA Med. Ctr., Nashville, Med. Col. of Wisconsin and Clement J. Zablocki VA Med. Ctr. (979.2)
- 11:30 Truncation of GSK-3 β in Cardiac Mitochondria Is the Master Switch of the mPTP **S.J. Hurst, L. Gomez, B. Jhun, J. O-Uchi and S-S. Sheu**. Thomas Jefferson Univ. (979.3)

- 11:45 Calcineurin Alpha Inhibition Induces Nox2 Up-regulation via NF κ B **C.R. Williams, R.S. Hoover and J.L. Gooch.** Emory Univ., Atlanta VA Med. Ctr. and Philadelphia Col. of Osteo. Med. (979.4)
- 12:00 NADPH Oxidases Mediate Zinc Deficiency-Induced Oxidative Stress in Mouse Kidneys **M.S. Li, J.L. Gooch, R.S. Hoover and C.R. Williams.** Emory Univ. Sch. of Med., Philadelphia Col. of Osteo. Med. and Atlanta VA Med. Ctr. (979.5)
- 12:15 Nuclear Localization and Biological Function of Matrix Metalloproteinase-2 **S. Baghirova, M.Y. Kondo, B.G. Hughes and R. Schulz.** Univ. of Alberta. (979.6)

465. REJUVENATING THE BETA CELL

Symposium

(Sponsored by: Endocrinology and Metabolism Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: R.M. LYNCH AND W.K. SAMSON

- 10:30 LIM Domain Transcription Complexes during Pancreatic Islet Development and Function **C.S. Hunter.** Univ. of Alabama at Birmingham.
- 11:00 Chemical Methods to Induce Beta-Cell Proliferation **B. Wagner.** Broad Inst. of MIT and Harvard.
- 11:30 Can an Endogenous Source Be Used for Beta Cell Replacement Therapy for Diabetes? **S. Bonner-Weir.** Harvard Med. Sch.
- 12:00 Accessing the Molecular Barcode: Multivalent Ligands for Beta-Cell Specific Targeting and Therapeutics **R. Lynch.** Univ. of Arizona.

466. SEX HORMONE EFFECTS ON AUTONOMIC AND ENDOTHELIAL FUNCTION

Featured Topic

(Supported by Experimental Physiology, The Physiological Society)

(Sponsored by: Environmental and Exercise Physiology Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: N. STACHENFELD

Regulation of Epithelial Function

- 10:30 Sex Differences and Blood Pressure Control in Humans **M.J. Joyner.** Mayo Clin.
- 11:00 Sympathetic Baroreflex Sensitivity in Normotensive Pregnant Women **C.W. Usselman, R.J. Skow, M.K. Stickland, R.S. Chari, C.G. Julian, M.H. Davenport and C.D. Steinback.** Univ. of Alberta and Univ. of Colorado Boulder. (820.5)
- 11:15 Membrane-Initiated Rapid Endothelial Responses to Estrogen **J.R. Bender.** Yale Univ. Sch. of Med.
- 11:45 Effects of LPS Endotoxemia on Cardiovascular Parameters and Plasma Nitric Oxide of Ovariectomized Rats **J.C. Castardo de Paula, L. de Jager, R.V. da Silva, P. Pinge-Filho and M.C. Martins-Pinge.** State Univ. of Londrina, Brazil. (820.3)

- 12:00 Diabetes and Estrogen: The Role of Oxidative Stress on Endothelial Function in Women **W.H. Jarrard, L. Haack, N. Seigler and R.A. Harris.** Georgia Regents Univ. and Univ. of Ulster, Jordanstown. (820.2)
- 12:15 Estradiol Effects on Inflammation Related Gene Expression in the Nucleus Tractus Solitarius **M. Hay, M. Hamilton, A.K. Johnson, B. Xue and D. Bowles.** Univ. of Arizona, Pennington Biomed. Res. Ctr., LSU, Univ. of Missouri-Columbia and Univ. of Iowa. (820.1)

467. THE BIOLOGY OF OXYGEN HOMEOSTASIS AND HYPOXIA

Featured Topic

(Sponsored by: Water and Electrolyte Homeostasis Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: A. POLICHNOWSKI AND R. EVANS

- 10:30 Can Continuous Measurement of Urinary PO₂ Provide a Clinically Useful Index of Risk of Acute Kidney Injury? **R. Evans.** Monash Univ., Australia.
- 11:00 Effects of Norepinephrine on Blood Pressure and Intrarenal Perfusion and Oxygenation in Ovine Hypotensive Sepsis **C.N. May, J. Kosaka, R.G. Evans, R. Bellomo and Y.R. Lankadeva.** Florey Inst. of Neurosci. and Ment. Hlth., Monash Univ. and Austin Hlth., Victoria, Australia. (963.4)
- 11:15 Pericytes Protect against Renal Ischemia-Reperfusion Injury in Male and Female Spontaneously Hypertensive Rats **G.R. Crislip, P.M. O'Connor and J.C. Sullivan.** Georgia Regents Univ. (963.5)
- 11:30 Increased Oxygen Consumption and Basal Metabolism of the Proximal Tubule in Early Diabetes **P. Singh, J. Thomas, H. Pham, S. Khang and S. Thomson.** UCSD and VA San Diego Healthcare Syst. (963.8)
- 11:45 Acute IP Furosemide Increases Medullary PO₂ in the Diabetic Rat Kidney **J. O' Neill, A. Fasching, D. Patinha, L. Pihl, S. Franzen and F. Palm.** Linköping Univ. and Uppsala Univ., Sweden. (963.9)
- 12:00 Intrarenal Blockade of Angiotensin II AT₁ Receptor Abolishes Renal Cortical Hypoxia in Salt-Restricted Animals **D. Patinha, L. Pihl and F. Palm.** Linköping Univ. and Uppsala Univ., Sweden. (963.2)
- 12:15 Telemetry-Based Recording of Renal Cortex Oxygenation during Endogenous RAS Activation: Preliminary Observations **T.W. Emans, M.P. Koeners, J.A. Joles, C.T.P. Krediet, J. Debets and B.J. Janssen.** Acad. Med. Ctr., Univ. of Amsterdam, Univ. Med. Ctr. Utrecht, Univ. of Bristol and Maastricht Univ., Netherlands. (963.3)

468. THE COST OF PHYSIOLOGICAL PLASTICITY**Featured Topic**

(Sponsored by: Comparative and Evolutionary Physiology Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: A. HINDLE AND F. VAN BREUKELEN

Oxidative Stress

- 10:30 Paradoxical Anaerobism in Desert Pupfish; When Oxidative Metabolism Costs More Than Anaerobic Metabolism **S. Hillyard**. Univ. of Nevada.
- 11:00 Anthropogenic Disturbance Reveals the Limits of Aerobic Diving in Turtles **C. Williams**. Univ. of California, Irvine.
- 11:30 Do Late-Instar *Drosophila* Larvae Experience Functional Oxygen Limitations? **J.F. Harrison, V. Callier and K.J. Greenlee**. Sch. of Life Sci., Arizona State Univ. and North Dakota State Univ. (982.2)
- 11:45 Neuronal and Neuroendocrine Mechanisms of Social Rank and Stress Coping in Teleost Fish **S. Winberg, P-O. Thörnqvist, J. Dahlbom, E. Roman and E. Höglund**. Uppsala Univ., Sweden, Tech Univ. of Denmark Natl. Inst. of Aquatic Resources and Univ. of Agder, Norway. (982.5)
- 12:00 Physiological Tradeoffs Underlie the Evolution of Hypoxia Tolerance and Exercise Performance in Fish **G.R. Scott, K.D. Crans and N. Prankevicus**. McMaster Univ., Canada. (982.4)
- 12:15 Torpor in Tenrecs, a Basal Protoendothermic Mammal **B. Cahoon, M.D. Treat and F. van Breukelen**. Sch. of Life Sci., Univ. of Nevada Las Vegas. (982.6)

469. WIGGERS AWARD FEATURED TOPIC: RELATION BETWEEN EPICARDIAL ARTERY PHYSIOLOGY AND MICROCIRCULATION**Featured Topic**

(Sponsored by: Cardiovascular Section)

TUES. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: J.A.E. SPAAN AND W. CHILIAN

Translational Physiology

- 10:30 The Bumpy Road of Coronary Pressure Flow Relations Into Clinical Application: the Role of Coronary Microcirculation **J.A.E. Spaan**. Univ. of Amsterdam.
- 11:15 Variability in IV Adenosine-Induced Coronary Microvascular Resistance and Systemic Pressure Compromises FFR Determination Despite Stable Stenosis Hemodynamics **L. Casadonte, K.M. Marques, J.A.E. Spaan and M. Siebes**. Acad. Med. Ctr., Univ. of Amsterdam and VU Univ. Med. Ctr., Amsterdam. (953.9)

- 11:30 Aspirate from Stented Aortocoronary Saphenous Vein Grafts Reduces Coronary Flow and Left Ventricular Pressure in an Isolated Perfused Rat Hearts **P. Kleinbongard, H. Lieder, P. Kahlert and G. Heusch**. Univ. of Essen Med. Sch. (953.4)
- 11:45 Endocardial Prevalence of Coronary Collaterals Becomes Transmurally More Uniform in a Human Heart with Left Ventricular Hypertrophy **M.G. van Lier, E.R. Oost, A.C. van der Wal, J.A. Spaan, M. Siebes and J.P. van den Wijngaard**. Acad. Med. Ctr., Univ. of Amsterdam. (953.5)
- 12:00 Exercise Training Reverses Age-Induced Coronary Microvascular Dysfunction **J. Muller-Delp, B.J. Behnke, M.D. Delp, B. Chen, P. Ghosh, J. Stabley, K. Hotta, M. Cowan, T. Lucero and H. Morgan**. Florida State Univ., Kansas State Univ. and Univ. of Florida. (953.7)
- 12:15 Circulating MicroRNAs Characterize Insufficient Coronary Collateral Artery Development in Patients with Chronic Total Occlusion **N. Hakimzadeh, A.Y. Nossent, A.M. van der Laan, S.H. Schirmer, N. van Royen, P.H.A. Quax, I.E. Hoefler and J.J. Piek**. Acad. Med. Ctr., Univ. of Amsterdam, Leiden Univ. Med. Ctr., Univ. Clin. des Saarlandes, Germany, VU Univ. Med. Ctr., Netherlands and Univ. Med. Ctr. Utrecht. (953.2)

470. HISTORY OF PHYSIOLOGY GROUP LECTURE**Lecture**

(Sponsored by: History of Physiology Group)

TUES. 1:00 PM—WESTIN BOSTON WATERFRONT, GRAND BALLROOM E

Walter B Cannon's WWI Experience: Treatment of Traumatic Shock Then and Now **K.L. Ryan**. U.S. Army Inst. of Surg. Res., Fort Sam Houston.

471. ROBERT M. BERNE DISTINGUISHED LECTURESHIP OF THE APS CARDIOVASCULAR SECTION**Lecture**

TUES. 2:00 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

Understanding Pathogenesis of Human Heart Failure: from Molecular Pathways to Phenotype Characterizations **P. Ping**. UCLA Sch. of Med.

472. AUGUST KROGH DISTINGUISHED LECTURESHIP OF THE APS COMPARATIVE AND EVOLUTIONARY PHYSIOLOGY SECTION**Lecture**

(Supported by Novo Nordisk Foundation)

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

The Role of Antifreeze Proteins in the Survival of Polar Fishes **A.L. DeVries**. Univ. of Illinois at Urbana-Champaign.

473. AUTOPHAGY: IMPORTANCE IN HEALTH, EPITHELIAL TRANSPORT AND AGING**Symposium***(Sponsored by: Epithelial Transport Group)*

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: M. LEVI AND J. KLEIN

Regulation of Epithelial Function**Transporters/Channels/ Barriers**

- 3:15 Proteostasis in Biology Aging and Disease **R.I. Morimoto.** Northwestern Univ.
- 3:45 Autophagy and Kidney. Insights from Specialized Epithelia **T.B. Huber.** Albert Ludwigs-Univ. Freiburg.
- 4:15 Nutrient Sensing Modulates Mitochondrial Quality Control and the Inflammasome. A Sirtuin Perspective **M.N. Sack.** NHLBI-NIH.
- 4:45 Chaperone-Mediated Autophagy: Connecting Metabolism, Proteostasis, and Aging **J. Schneider.** Albert Einstein Col. of Med.

474. CATION CHANNELS CONTROLLING INTRACELLULAR FUNCTIONS**Symposium***(Sponsored by: Cell and Molecular Physiology Section)*

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: J.A. KOZAK AND L.I. BRUEGGEMANN

Transporters/Channels/ Barriers

- 3:15 Regulation and Function of Endolysosome Two-Pore Channels **M.X. Zhu.** Univ. of Texas, Houston.
- 3:45 Regulation of Trpm7: Insights from Mice and Humans **J.A. Kozak.** Wright State Univ.
- 4:15 CALHM Ion Channels **K. Foskett.** Univ. of Pennsylvania.
- 4:45 Ryanodine Receptor: Not Only a Ca Channel **M. Fill.** Rush Univ.

475. EMERGING ROLE OF AMPK IN KIDNEY EPITHELIAL TRANSPORT, METABOLISM AND DISEASE**Symposium***(Sponsored by: Renal Section)*

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: P. SINGH AND A. McDONOUGH

Regulation of Epithelial Function**Transporters/Channels/ Barriers**

- 3:15 Role of Ampk in Diabetic Kidney Disease **K. Sharma.** UCSD.
- 3:45 Functional Interaction between AMPK, ACC1 and NKCC Co-transporters **D.A. Power.** Austin Hlth. and Univ. of Melbourne.

- 4:15 Role of AMPK in Acute and Chronic Kidney Disease **P. Singh.** UCSD.
- 4:45 Ampk Regulation of Kidney Tubular Transport **K.R. Hallows.** Univ. of Pittsburgh.

476. HORACE W. DAVENPORT DISTINGUISHED LECTURESHIP OF THE APS GASTROINTESTINAL AND LIVER PHYSIOLOGY SECTION**Lecture**

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

Transporters/Channels/ BarriersMediators of Intestinal Adaptation in Health and Disease: Stem Cells, Hormones, Nutrients, and Bugs **P.K. Lund.** Univ. of North Carolina at Chapel Hill.**477. INFLAMMATION IN OBESITY IS NOT ALL BAD****Symposium***(Sponsored by: Endocrinology and Metabolism Section)*

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: J. YE AND O.P. MCGUINNESS

Inflammation/Immunity**Obesity**

- 3:15 Inflammation-Driven Adipose Tissue Expansion As a Critical Mediator of Systemic Metabolic Homeostasis **P.E. Scherer.** Univ. of Texas Southwestern Med. Ctr.
- 3:55 Regulation of Energy Metabolism By Inflammation in Obesity **J. Ye.** Pennington Biomed. Res. Ctr., LSU, Baton Rouge.
- 4:35 Is Insulin Resistance a Vascular Disease? **O.P. McGuinness.** Vanderbilt Univ. Sch. of Med.

478. MEMBRANE REPAIR IN MUSCLE CELLS: MOLECULAR MECHANISMS AND THERAPEUTIC APPROACHES**Symposium***(Sponsored by: Muscle Biology Group)*

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: D.E. MICHELE AND J.M. METZGER

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

- 3:15 Annexin A6 in Muscle Membrane Repair **E. McNally.** Northwestern Univ. Feinberg Sch. of Med.
- 3:40 Cytoskeleton Dependent Recruitment of Dysferlin in Membrane Repair **D. Michele.** Univ. of Michigan.
- 4:05 The Critical Interplay Between Exocytosis and Endocytosis in Plasma Membrane Repair **N.W. Andrews.** Univ. of Maryland College Park.

- 4:30 Targeting Cell Membrane Repair for Regenerative Medicine **J. Ma.** The Ohio State Univ.
 4:55 Enhancing Membrane Resealing With Novel Triblock Copolymers in Cardiac and Skeletal Muscle Diseases **J. Metzger.** Univ. of Minnesota, Minneapolis.

479. MUSCLE ATROPHY, HYPERTROPHY AND MICRORNA

Symposium

(Sponsored by: Environmental and Exercise Physiology Section)

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: J.A. CARSON AND X.H. WANG

- 3:15 A Therapeutic Strategy for Muscle Wasting - Inhibition of Myostatin **W.E. Mitch.** Baylor Col. of Med.
 3:45 MicroRNA and Myogenesis **D.C. Guttridge.** The Ohio State Univ.
 4:15 MicroRNA and Muscle Hypertrophy **J.J. McCarthy.** Univ. of Kentucky.
 4:45 MicroRNA and Muscle Atrophy **X.H. Wang.** Emory Univ.

480. THE BRAIN ON INTERMITTENT HYPOXIA

Symposium

(Sponsored by: Respiration Section)

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: B. DOUGHERTY AND T. BAKER-HERMAN

Oxidative Stress

- 3:15 Neuronal Injury in Sleep Apnea **S. Veasey.** Univ. of Pennsylvania.
 3:45 Plasticity of Central Afferent Processing and Circuits After Intermittent Hypoxia **D. Kline.** Univ. of Missouri-Columbia.
 4:15 Priming of Neural Stem/Progenitor Cells With Intermittent Hypoxia **H. Ross.** Univ. of Florida.
 4:45 CNS Plasticity with Intermittent Hypoxia **B. Dougherty.**

481. TRAINEE HIGHLIGHTS IN PHYSIOLOGICAL GENOMICS

Featured Topic

(Sponsored by: APS Physiological Genomics Group)

TUES. 3:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: A. KRIEGEL AND H. CAI

- 3:15 Seven Encapsulated and Nonencapsulated (iso) microRNAs in Human Samples Predict Coronary Atherosclerosis and Cardiac Events **A.M. James, S.A. Thomas, K. Rooney, A. Quyyumi, H. Wu, Z. Johnson and C.D. Searles.** Emory Univ. Sch. of Med., Emory Univ. Sch. of Publ. Hlth. and Yerkes Primate Res. Ctr. (665.5)

- 3:30 MicroRNA 29b and Cardiotonic Steroid-Induced Cardiac Fibrosis in Adult Cardiac Fibroblasts **C.A. Drummond, M.C. Hill, C.J. Cooper, J.I. Shapiro and J. Tian.** Univ. of Toledo and Marshall Univ. (814.5)
 3:45 Analysis of MicroRNA-22 on Cardiac Hypertrophy Induced by High Fat Diet **E.C. Guedes and G.P. Diniz.** Univ. of São Paulo. (814.9)
 4:00 Heart and Lung bta-miR-22-3p Decrease and bta-miR-125a Increase in Growth-Restricted Fetal Lambs with Sustained In Utero Stress **R. Krauss, B. Phipson, N. Gupta, A. Oshlack, M. Cheung, J. Smolich and S. Pepe.** Murdoch Childrens Res. Inst. and Univ. of Melbourne. (814.11)
 4:15 A CRISPR/Cas9 System Based Targeted Disruption of a Novel Rat Long Non-coding RNA in a Rat Genetic Model of Hypertension **X. Cheng, S. Miller, W. Filipiak, B. Mell, T. Saunders and B. Joe.** Univ. of Toledo, Washington Univ. in St. Louis and Univ. of Michigan. (814.1)
 4:30 Simulation Studies Informed by RNA-seq Data Suggest the Utility of a Multi-network Bayesian Graphical Model Algorithm for the Study of Hypertension in the Dahl S Rat **A. Dayton, F. Stingo, C. Yang, P. Liu, N.N. Zheleznova, J.D. Bukowy, K-W. Ahn, P. Laud, M. Vannucci, M. Liang and A.W. Cowley.** Med. Col. of Wisconsin, Rice Univ. and MD Anderson Cancer Ctr. (814.14)
 4:45 SIRT3 Deficiency Impairs Hypoxic Signaling, Reprograms Basal Glycolytic Metabolism and Exacerbates Myocardial Ischemic Injury **X. He, H. Zeng and J-X. Chen.** Univ. of Mississippi Med. Ctr. (971.12)
 5:00 GABA A Receptor Gamma 3 Is a New Candidate Gene for Cardiovascular and Behavioral Disorders **J. Xia, S.N. Batchu, K. Donlon, A.N. Murashev and V.A. Korshunov.** Univ. of Rochester Med. Ctr., St. Michael's Hosp., Univ. of Toronto and Shemyakin-Ovchinnikov Inst. of Bioorg. Chem., Russia. (665.4)

482. APS BUSINESS MEETING

Business Meeting

TUES. 5:45 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

WEDNESDAY, APRIL 1

Across Societies – Experimental Biology

483. CAREER DEVELOPMENT WORKSHOPS

Workshop

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER –
EXHIBIT HALL B

Career Development

The following workshops will be held in the EB2015/FASEB Career Center. There is no fee or pre-registration associated with the workshops — just walk in and sit down!

Critiquing of CV/Resumes is by appointment and starts at 9:00 AM on Sunday and continues until 3:00 PM on Wednesday. Sign up on-site in the EB2015/FASEB Career Center, Hall B.

- 9:00 Developing & Writing the Doctoral Dissertation Proposal
H. Adams. H.G. Adams & Assocs. Inc., Norfolk, VA.
- 9:00 Transforming Your CV **N. Saul.** UCSF.
- 9:00 Networking: Is it Only Who You Know? **J. Blumenthal.**
Montgomery Col., Rockville, MD.
- 9:00 Job Hunting in Biotech Part 2: Interviewing for Scientist
Position **B. Lindstaedt.** UCSF.

- 10:30 Job Talk/Chalk Talk: Making the Grade **D. Behrens.**
Univ. of California, Berkeley.
- 10:30 Ten Ways to Get Lucky in the Job Search **J. Lombardo**
and P. Clifford. Med. Col. of Wisconsin and Marquette
Univ. and Univ. of Illinois at Chicago
- 11:00 Attitudes & Behaviors: How are You Perceived?
J. Blumenthal. Montgomery Col., Rockville, MD.
- 11:00 Translating Your Credentials **A. Green.** Univ. of
California, Berkeley.
- 1:00 Job Hunting in Biotech Part 3: Compensation Negotiation
for Scientist Positions **B. Lindstaedt.** UCSF.
- 1:00 Nailing the Job Talk & Interview Prep **A. Green.** Univ. of
California, Berkeley.
- 1:00 Your Behavioral CV **J. Blumenthal.** Montgomery Col.,
Rockville, MD.
- 1:00 Global Interview Skills: A Practice Workshop for
International Candidates **D. Behrens.** Univ. of
California, Berkeley.

Biochemistry and Molecular Biology

484. ASBMB PLENARY LECTURE

Plenary

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 253 ABC

- 8:00 Plenary Lecturer Introduction.
- 8:05 **484.1** Structural Basis of Broad Neutralization of Viral
Pathogens **I.A. Wilson.** The Scripps Res. Inst.

485. PLANTS AS SOURCES OF BIOENERGY

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 252AB

CHAired: L. KUNST

Follow the conversation: #plants

- 9:00 Chair's Introduction.
- 9:05 **485.1** Interpretation of the Genome in Synchronized
Chlamydomonas Cells **S. Merchant, I. Blaby, D. Strenkert,**
S. Coku, M. Pellegrini, M. Zones and J. Umen. UCLA and
Donald Danforth Plant Sci. Ctr., St. Louis.

- 9:30 Systems Metabolic Engineering of *Arabidopsis*
for Increased Cellulose Production **J.Y. Yen, G.E. Gillaspay and**
R.S. Senger. Virginia Tech. (**887.26**)
- 9:45 **485.2** Production of Oil in Plant Vegetative Tissues
J.M. Dyer, O.P. Yurchenko, S. Park, S.K. Gidda, Y. Cai, J.M.
Shockey, J.M. Goodman, K.D. Chapman and R.T. Mullen.
USDA, Maricopa, AZ, Univ. of North Texas, Univ. of Guelph,
Canada, USDA, New Orleans and Univ. of Texas Southwestern
Med. Ctr.
- 10:10 Inositol Signaling Interactors as Potential
Regulators of Growth, Energy Sensing, and Biomass in Plants
J.L. Donahue, F.L. Erickson, E. Ananieva, S.P. Williams, P.
Rangarajan and G. Gillaspay. VPI and State Univ., Salisbury
Univ., MD and Des Moines Univ. (**887.24**)
- 10:25 Engineering High Value Oil Production into
Biofuel Crops **J. Chappell, C. Kempinski and Z. Jiang.** Univ.
of Kentucky. (**887.23**)
- 10:40 **485.3** Tailoring Biomass for Biochemical, Chemical
or Thermochemical Catalytic Conversion **M.C. McCann, M.M.**
Abu-Omar, R. Agrawal, J.J. Bozell, N.C. Carpita, C.C.S.
Chapple, M.F. Crowley, N.W. Delgass, B.S. Donohoe, M.E.
Himmel, H.I. Kentamaa, L. Makowski, R. Meilan, N.S.
Mosier, A.S. Murphy, W.A. Peer, F.H. Ribeiro and M.P. Tucker.
Purdue Univ., Univ. of Tennessee, Natl. Renewable Energy
Lab., Northeastern Univ. and Univ. of Maryland.
- 11:05 Discussion.

486. BIOLOGICS: ANTIBODIES AND ANTIDOTES

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAired: M. FABBRI

Follow the conversation: #cancer

- 9:00 Chair's Introduction.
- 9:05 **486.1** Update on the Development of Curative Cancer Immunotherapies **N.P. Restifo**. NCI, NIH.
- 9:30 Antibody Directed Enzyme Prodrug Therapy: Discovery of Novel Genes, Isolation of Novel Gene Variants and Production of Long Acting Drugs for Efficient Cancer Treatment **S.K. Goda**. Anti-doping Lab., Doha, Qatar. **(897.28)**
- 9:45 **486.2** GPCR-Targeting Nanobodies as Attractive Research Tools, Diagnostics and Therapeutics **M.J. Smit**. VU Univ. Amsterdam.
- 10:10 Angiotensin-(1-7) as an Antinociceptive Agent in Cancer-Induced Bone Pain **B.L. Forte, L.M. Slosky, W.D. Staatz, T.M. Largent-Milnes and T.W. Vanderah**. Univ. of Arizona. **(897.4)**
- 10:25 Cancer Immunotherapy via Regulation of the Ubiquitin Proteasome Pathway **S. Kumar, J. Wu, J. LaRocque, S. Agarwal, J. Marblestone, M. Kodrasov, J. Weinstock and M. Mattern**. Progenra Inc., Malvern, PA. **(897.33)**
- 10:40 **486.3** Immunomodulation Therapy Goes to Tumor Site **L. Chen**. Yale Sch. of Mgmt.
- 11:05 Discussion.

487. ETHNICITY, RACE, MICROBIOME METABOLIC HOMEOSTASIS

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 255

- 9:00 Chair's Introduction.
- 9:05 *The microbiota of indigenous people* **J.C. Litran**. Mount Sinai Hosp.
- 9:35 **487.1** Periodontal Disease and the Oral Microbiome in Minority Populations **P. Kumar and M.R. Mason**. The Ohio State Univ.
- 10:05 Food System Disparities **J.D. Burke**. Univ. of New Hampshire.
- 10:35 **487.2** Diet, Microbiota, and Microbial Metabolites in Rural Africans and African Americans **S.J.D. O'Keefe**. Univ. of Pittsburgh.
- 11:05 Discussion.

488. VISUALIZING MULTICOMPONENT STRUCTURES IN INFECTION AND IMMUNITY

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

CHAired: E. ADAMS

Follow the conversation: #immunology

- 9:00 Chair's Introduction.
- 9:05 **488.1** Cryo-EM at Near-Atomic Resolution of Bacterial and Host Filaments **E.H. Egelman**. Univ. of Virginia.
- 9:30 The Role of RING Dimerization in the E3 Ubiquitin Ligase Activity of the TRIM5 α Retroviral Restriction Factor **D. Ivanov, Z. Yudina, R. Johnson, N. Biris, A.B. Taylor, P.J. Hart and B. Demeler**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. **(888.9)**
- 9:45 **488.2** EM of Pathogen Secretion Systems: Unfolded Protein Transport across Membranes in Action **T. Marlovits**. Univ. Med. Ctr. Hamburg-Eppendorf and German Electron Synchrotron Ctr., Res. Inst. of Molec. Pathol., Vienna and Austrian Acad. of Sci.
- 10:10 Differential Effects of Nanoparticle Surface-Functionalization on the Polarization Profiles of M1 and M2 Macrophages **T. Syrovets, K. Haas, C. Loos, A. Musyanovych, V. Mailänder, K. Landfester and T. Simmet**. Ulm Univ. and Max Planck Inst. for Polymer Res., Mainz. **(716.9)**
- 10:25 Role of the U2AF Homology Motif in Human Tat-SF1 as a Cofactor for HIV-1 Splicing **S. Loerch and C.L. Kielkopf**. Univ. of Rochester. **(718.21)**
- 10:40 **488.3** Analyzing Macromolecular Complexes In Situ Using Cellular Cryo-electron Microscopy **D. Nicastro**. Brandeis Univ.
- 11:05 Discussion.

489. O-GLCNACYLATION: HOW SWEET IT IS

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258A

CHAired: E. WEERAPANA

Follow the conversation: #PTMS

- 9:00 Chair's Introduction.
- 9:05 **489.1** The Split Personality of Human O-GlcNAc Transferase **S. Walker**. Harvard Med. Sch.
- 9:30 Defining the Mechanism of O-GlcNAc Signaling in Stress-Induced Autophagy and Cardioprotection **K. Fahie, M. McCartin, M. Wolfgang and N. Zachara**. Johns Hopkins Univ. Sch. of Med. **(717.8)**
- 9:45 **489.2** O-GlcNAcylation of CaMKII in Cardiac Myocytes Can Be Pro-arrhythmic **D. Bers**. Univ. of California, Davis.
- 10:10 O-GlcNAc Modified Residues of IRS1 Impact Postprandial Lipid Metabolism **L.E. Ball, K. Robinson, M.N. Berkaw and M.G. Buse**. Med. Univ. of South Carolina. **(728.47)**

- 10:25 Sweet Tooth of a Glucose Transporter: GLUT1 C-Terminal Phosphorylation and O-GlcNacylation Effect in Breast Cancer Cell Lines **G.P. Padilla-Meier and S. Mishra**. Univ. of Manitoba. (717.14)
- 10:40 **489.3** Nutrient Regulation of Signaling and Transcription by O-GlcNacylation **G.W. Hart**. Johns Hopkins Univ. Sch. of Med.
- 11:05 Discussion.

490. COOPERATIVITY AND CROSSTALK

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258B

CHAired: D. S. WUTTKE

Follow the conversation: #DNA

- 9:00 Chair's Introduction.
- 9:05 **490.1** Coupling of Human DNA Excision Repair and the ATR-Mediated DNA Damage Checkpoint **L. Lindsey-Boltz, M.G. Kemp, J.T. Reardon, V. DeRocco, R.R. Iyer, P. Modrich and A. Sancar**. Univ. of North Carolina at Chapel Hill Sch. of Med. and Duke Univ. Med. Ctr.
- 9:30 Non-cognate DNADamage Prevents Formation of Active Conformation of Y-Family DNA Polymerases DinB and Pol Kappa **P. Nevin, X. Lu, K. Zhang, J.R. Engen and P.J. Beuning**. Northeastern Univ. (561.8)
- 9:45 **490.2** A New Look at Transcription-Coupled DNA Repair **E. Nudler, V. Epshtein, V. Kamarthapu, V. Svetlov and K. McGary**. NYU Sch. of Med., HHMI.
- 10:10 ATR Promotes the Replication Traverse of DNA Interstrand Crosslinks **J. Huang, M. Bellani, Y. Xue, W. Wang, A.R. Meetei and M.M. Seidman**. NIA, NIH, Baltimore and Cincinnati Children's Hosp. Med. Ctr. (560.9)
- 10:25 The Role of Histone H1 in *S. cerevisiae* **R. Leicher, S. Schilit and S. Holmes**. Wesleyan Univ. (709.4)
- 10:40 **490.3** Crosstalk In DNA-Alkyltransferase Functions **M.G. Fried and I. Tessmer**. Univ. of Kentucky and Univ. of Würzburg.
- 11:05 Discussion.

491. TARGETING DISORDER WITH SMALL MOLECULES

Symposium

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: S. SHOWALTER

Follow the conversation: #protein

- 9:00 Chair's Introduction.
- 9:05 **491.1** Biophysical Studies of Amyloid Formation and Its Inhibition **S.E. Radford**. Univ. of Leeds.
- 9:30 Ligand-Induced Conformational Change Propagates NEMO-Mediated NF- κ B Signaling **R. Shaffer, S. Cote, K. Allen and A. Whitty**. Boston Univ. (563.6)
- 9:45 **491.2** Specificity and Promiscuity in Small Molecule Binding to Intrinsically Disordered Protein Regions **S. Metallo**. Georgetown Univ.

- 10:10 Safe Inhibition of Amyloid Proteins Toxicity without Protein Specificity **G. Bitan**. UCLA. (564.2)
- 10:25 Fragment-Based Drug Discovery Targeting KEAP1/Nrf2 Binding **M. Zhong, A. Lynch, S. Jehle, D. Kozakov, S. Vajda, K. Allen and A. Whitty**. Boston Univ. (712.20)
- 10:40 **491.3** On Modulating the Regulatory Role of Intrinsically Disordered Proteins Using Small Molecules **C. Camacho**. Univ. of Pittsburgh.
- 11:05 Discussion.

492. WALTER A. SHAW YOUNG INVESTIGATOR AWARD LECTURE

Award Lecture

(Supported by Avanti Polar Lipids, Inc.)

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 252AB

Presented in the session, "Lipid Magic: How Do They Do It?" Refer to session 493 for additional details.

- 1:30 **492.1** From Lipidomics to Cellular Functions: Lipids as Modulators of Protein Activity **B. Brügger**. Heidelberg Univ.

493. LIPID MAGIC: HOW DO THEY DO IT?

Symposium

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 252AB

CHAired: P. DE CAMILLI

Follow the conversation: #lipids

- 1:15 Chair's Introduction.
- 1:20 Award lecturer introduction and award presentation.
- 1:30 From Lipidomics to Cellular Functions: Lipids as Modulators of Protein Activity **B. Brügger**. Heidelberg Univ. (492.1)
- 1:55 **493.1** Membrane Proteins – the Lipid Connection **C. Robinson**. Univ. of Oxford.
- 2:20 Biochemical Characterization of the Interaction between Hsp70s and Lipids **B. Kdeiss, C. McCallister and N. Nikolaidis**. California State Univ. Fullerton. (886.11)
- 2:35 **493.2** Structural Mechanisms of PI3K and PTEN Regulation **R. Williams, G.R. Masson, O. Vadas, J.E. Burke and O. Perisic**. MRC Lab. of Molecul. Biol., Cambridge.
- 3:00 **493.3** The Signaling Phospholipid PIP₃ Functions as a Ligand Hormone for Nuclear Receptors **H.A. Ingraham, R. Blind, E. Sablin, D. Das and R.J. Fletterick**. UCSF and SLAC Natl. Accelerator Lab.
- 3:25 Discussion.

494. GUT MICROBES, DRUGS AND TOXINS

Symposium

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 254AB

CHAired: A. GOODMAN

Follow the conversation: #microbiome

- 1:15 Chair's Introduction.
- 1:20 **494.1** Networks of Exchanging Antibiotic Resistomes in Human and Environmental Microbiota **G. Dantas**. Washington Univ. Sch. of Med.
- 1:50 Toxin-Antitoxin Systems and Their Role(s) in Persistence **R. Page and W. Peti**. Brown Univ. (575.23)
- 2:05 **494.2** Pharmaceutical Control of the Microbiome **M. Redinbo**. Univ. of North Carolina at Chapel Hill.
- 2:35 Neonatal Antibiotic Exposure Alters Compositional Gut Microbiota Development during the First 6 Months of Life **H. Kumar, S. Rautava, M.C. Collado, N. Borzykh, E. Löyttyniemi, E. Isolauri and S. Salminen**. Fac. of Med., Univ. of Turku, Finland and IATA-CSIC, Spain. (575.3)
- 2:50 **494.3** TBD **E. Alm**. Broad Inst., MIT
- 3:20 Discussion.

495. FUNCTION OF THE EXTRACELLULAR MATRIX IN DEVELOPMENT AND DISEASE

Symposium

(Cosponsored by: AAA and ASBMB)

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 257AB

Follow the conversation: #ECM

- 1:15 Chair's Introduction.
- 1:20 **495.1** Recessive Forms of Osteogenesis Imperfecta and Implications for Mechanisms of Disease **P.H. Byers**. Univ. of Washington.
- 1:45 Cargo Receptor Traffics Many Matrix Proteins Out of the Endoplasmic Reticulum by Binding to N-Terminal IleProVal-Like Motif **Y. Yin, M.R. Garcia, A. Novak and L.W. Fisher**. NIDCR, NIH. (719.12)
- 2:00 **495.2** Crosstalk between Bone and Muscle: Deletion of Mbtps1 in Bone Leads to Age-Dependent Increase in Muscle Size and Contractile Function **J.P. Gorski, N.T. Huffman, N.G. Seidah, L. Bonewald and M. Brotto**. Sch. of Dent., Univ. of Missouri-Kansas City, Inst. of Res. Clins. of Montreal and Sch. of Nursing and Hlth. Studies, Univ. of Missouri-Kansas City.
- 2:25 SUN2 Accumulation Contributes to Vascular Smooth Muscle Cell Alterations Induced by Matrix Rigidity **N. Bélaadi, G. Chadeuf, L. Nguyen, M. Rio, G. Louarn, G. Loirand and C. Guilly**. INSERM, Nantes and CNRS, Univ. of Nantes. (719.20)

- 2:40 Role of CD47 in Triple Negative Breast Cancer **S. Kaur, S.P. Singh, A.G. Elkahloun, W. Wu, T. Song, A. Arora and D.D. Roberts**. NCI, NIH, NIAID, NIH and NHGRI, NIH. (890.5)
- 2:55 **495.3** Mechanisms of FGF-Mediated Morphogenesis **R. Marcucio**. UCSF.
- 3:20 Discussion.

496. STRATEGIES FOR SUBSTRATE RECOGNITION

Symposium

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258A

CHAired: L. HEDSTROM

Follow the conversation: #enzyme

- 1:15 Chair's Introduction.
- 1:20 **496.1** Sirtuins and Novel Protein Posttranslational Modifications **H. Lin**. Cornell Univ.
- 1:45 Elucidating Anthrax Lethal Factor Interactions with MAP Kinase Kinase Substrates **A.B. Goldberg, R. Ngongoni and B.E. Turk**. Yale Univ. Sch. of Med. (894.4)
- 2:00 Ribozymes to Proteins: Evolution of Enzymes Catalyzing tRNA Processing **C.A. Fierke, M.J. Howard, X. Liu, Y. Chen and B.P. Klemm**. Univ. of Michigan.
- 2:25 Exploiting Non-canonical Amino Acids to Alter Enzyme Substrate Specificity **C.L. Windle, A.S. Nelson, A.R. Pearson and A. Berry**. Univ. of Leeds and Univ. of Hamburg. (720.1)
- 2:40 Active Role of the Substrate during Catalysis by the Therapeutic Enzyme L-Asparaginase II **S.B. Rempe, J. Vanegas, A. Anishkin, D.M. Rogers and S. Sukharev**. Sandia Natl. Labs., Albuquerque, Univ. of Maryland College Park and Univ. of South Florida. (573.51)
- 2:55 **496.2** Substrate Recognition in Lantibiotic Biosynthesis **W. van der Donk**. HHMI and Univ. of Illinois at Urbana-Champaign.
- 3:20 Discussion.

497. RNA EXPRESSION AND CELL FATE

Symposium

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 258B

CHAired: Y. J. ZHANG

Follow the conversation: #RNA

- 1:15 Chair's Introduction.
- 1:20 **497.1** Signal-Dependent Regulation of Transcription Factor Activity **G. Gill, G. Saia and J. Lalonde**. Tufts Univ. Sch. of Med.
- 1:45 Characterization of the Transcriptional Regulation of Tetratricopeptide Repeat Domain 39c in Skeletal Muscle **D. Waddell and J. Menke**. Univ. of North Florida. (880.20)

2:00 **497.2** Efficient Conversion of Human Fibroblasts to Functional Neurons by Sequential Inactivation of PTB/nPTB-Regulated RNA Programs **X-D. Fu, Y. Xue, H. Qian and J. Hu.** UCSD.

2:25 Talk **TBD.**

2:40 Role of Extracellular MicroRNAs in Atherosclerosis **M. Nguyen, D. Karunakaran, M. Geoffrion and K. Rayner.** Univ. of Ottawa. (562.31)

2:55 **497.3** A Unified Model Describing the Architecture and Creation of Promoters and Enhancers **J.T. Lis, L. Core, A. Martins, C. Danko, A. Siepel, G. Booth, F. Duarte and D.B. Mahat.** Cornell Univ.

3:20 Discussion.

498. TRANSPORTERS II – CAPTURING FUNCTIONAL MOTIONS OF TRANSPORTERS

Symposium

WED. 1:15 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 258C

CHAired: O. BOUDKER

Follow the conversation: #protein

1:15 Chair's Introduction.

1:20 **498.1** Conformational Changes of a Type II ABC Importer for Small Substrate Transport **H. Pinkett.** Northwestern Univ.

1:45 Developing New Assays (Fluorosomes) for Characterization of Drug Interactions of ABC Multidrug Transporters **A. Telbisz, B. Sarkadi, G. Wright, P. Bansal and D. Melchior.** Res. Ctr. for Nat. Sci., Hungarian Acad. of Sci., Budapest and TFC Biosci. Inc., Worcester. (574.29)

2:00 **498.2** Visualizing Functional Motions of Membrane Transporters at an Atomic Resolution **E. Tajkhorshid.** Univ. of Illinois at Urbana-Champaign.

2:25 Transport of Alzheimer's Associated Amyloid- β through Membranes Catalyzed by P-Glycoprotein **J.W. McCormick, P.D. Vogel and J.G. Wise.** Southern Methodist Univ. (566.9)

2:40 Structural-Function Mechanism of *Vibrio cholerae* Cytolysin: A b-Barrel Pore-Forming Toxin **A.K. Rai and K. Chattopadhyay.** Indian Inst. of Sci. Educ. and Res. Mohali, Punjab, India. (574.1)

2:55 **498.3** Imaging Functional Dynamic Processes within Integral Membrane Proteins at the Single-Molecule Scale **S.C. Blanchard, D.S. Terry, J.B. Munro, N.N. Akyuz1, G.G. Gregorio, R.A. Kolster, Z. Zhou, H. Zhao, R.B. Altman, M. Juette, Q. Zheng, S. Jockusch, O. Boudker, W. Mothes and J.A. Javitch.** Weill Cornell Med. Col., Yale Univ. Sch. of Med., Col. of P&S, Columbia Univ., Tri-Instn. Trng. Prog. in Chem. Biol., NY and Columbia Univ.

3:20 Discussion.

Nutrition

499. ASN SPONSORED SATELLITE PROGRAM: NATIONAL FOOD AND NUTRITION POLICY: BALANCING THE ROLE OF RESEARCH, NUTRITION SCIENCE AND PUBLIC HEALTH

ASN Satellite

(Sponsored by: The Corn Refiners Association)

WED. 6:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 151AB

500. ASN SPONSORED SATELLITE PROGRAM: PHENOTYPIC FLEXIBILITY

ASN Satellite

(Sponsored by: Nutritech, a European Commission-Funded Project)

WED. 9:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, 151AB

501. RESISTANT STARCH, MICROBIOTA AND GUT HEALTH

Symposium

(Supported by PepsiCo, Inc.)

(Sponsored by: Nutritional Sciences Council)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, GRAND BALLROOM EAST

CHAired: D.F. BIRT

Human Nutrition and Metabolism

8:00 Resistant Starch, Potential for Reduction of Risk for Colon Cancer **D.F. Birt.** Iowa State Univ.

8:35 How Does Dietary Resistant Starch Impact the Gastrointestinal Microbiota? **J. Walter.** Univ. of Alberta.

9:10 Resistant Starch and Inflammation: A Role in the Treatment of Inflammatory Bowel Disease **J. Higgins.** The Children's Hosp.

9:45 Resistant Starch Mechanisms: Short Chain Fatty Acids, Gut Hormones, or Other Suspects; Does it Add Up? **J.L. Slavin.** Univ. of Minnesota.

502. WHAT'S NEW IN NATURAL PRODUCTS ANALYSIS? CUTTING-EDGE METHODS AND AVAILABLE RESOURCES FOR NUTRITION RESEARCH

Symposium

(Sponsored by: Nutritional Sciences Council and Dietary Bioactive Components RIS)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: B.C. SORKIN AND J.M. HARNLY

Research Methods

- 8:00 Importance of Accurate Measurement in Nutrition Research: Flavonoids as a Case Study **J.M Harnly**. USDA, ARS.
- 8:25 How to Approach a More Holistic Analysis of Complex Natural Products **C. Simmler**. Univ. of Illinois at Chicago.
- 8:50 The Challenge of Reproducibility in Natural Products Research: Perspectives and Examples from the NCCAM Product Integrity Policy **D.C. Hopp**. NCCAM, NIH.
- 9:15 Importance of Making Sure the Methods are a Match for the Materials, and the NIH Analytical Methods and Reference Materials Program **P.N Brown**. British Columbia Inst. of Technol.

503. MODERATE ALCOHOL USE, NUTRITION AND CHRONIC DISEASES: WHAT WE KNOW AND WHERE TO GO NEXT

Symposium

(Supported by PepsiCo, Inc.)

(Sponsored by: Nutritional Epidemiology RIS, Obesity RIS and Aging and Chronic Disease RIS)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
GRAND BALLROOM EAST

CHAired: N. PAREKH AND L.M. TROY

Human Nutrition and Metabolism

- 10:30 Alcohol Use and Association with Dietary Intake **R.A. Breslow**. NIAAA, NIH.
- 10:50 Mechanisms of Alcohol Pathogenesis **S. Smith**. Univ. of Wisconsin-Madison.

- 11:15 Moderate and Light Alcohol Use, Obesity and Diabetes Risk **E.B. Rimm**. Harvard Sch. of Publ. Hlth., Harvard Univ.
- 11:40 Moderate and Light Alcohol Use, Cardiovascular Disease and Cancer **K.J. Mukamal**. Harvard Med. Sch., Harvard Univ.
- 12:05 Research Gaps and Future Directions **R.A. Breslow**. NIAAA, NIH.

504. "ONE NUTRITION": CLINICAL NUTRITION ACROSS SPECIES

Symposium

(Supported by PepsiCo, Inc.)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 157ABC

CHAired: L.M. FREEMAN AND S.N. MEYDANI

Diet and Non-Communicable Diseases

- 10:30 Introduction to "One Nutrition" **D.T. Kochevar**. Tufts Univ. Cummings Sch. of Vet. Med.
- 10:40 Nutritional Modulation of Cardiovascular Disease in Dogs and Cats **L.M. Freeman**. Tufts Univ. Cummings Sch. of Vet. Med.
- 11:05 Dietary Manipulation of Canine and Feline Microbiota **J.S. Suchodolski**. Texas A&M Univ.
- 11:30 The Pet Obesity Epidemic **D.E. Linder**. Tufts Univ. Cummings Sch. of Vet. Med.
- 11:55 Nutrition Fads Across the Species **K.E. Michel**. Univ. of Pennsylvania Sch. of Vet. Med.

Pathology

505. HISTONES, INFLAMMASOMES, NETS AND CELL/ORGAN INJURY

Symposium

(Sponsored by: ASIP Cell Injury Scientific Interest Group)

WED. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160A/B

CHAired: P.A. WARD AND C.T. ESMON

Cell and Tissue Injury

Inflammation/Immunity

- 8:30 Overview **C.T. Esmon.** Oklahoma Med. Res. Fndn.
9:00 Histone Mediation of Acute Lung and Cardiac Injury **P.A. Ward.** Univ. of Michigan.
9:30 NETs Fueling Disease **D.D. Wagner.** Boston Children's Hosp./Harvard Med. Sch.
10:00 Histopathological Features of NETs **P. Kubes.** Univ. of Calgary Med. Ctr.
10:30 Neutrophil Extracellular Traps: A Novel Function for Chromatin **A. Zychlinsky.** Max Planck Inst. for Infection Biol. Berlin.
11:00 **505.1** Mechanoregulation of Human Neutrophil Host Defense and Survival **X.M. O'Brien, N.M. Elisseou, E.J. Flores, D.C. Patel, C.R. Morrissette, A.J. Loosley and J.S. Reichner.** Rhode Island Hosp., Brown Univ.
11:15 Discussion.

506. MOLECULAR AND CELLULAR BASIS OF DISEASE: NEOPLASIA MORNINGS: SIPMET SYMPOSIUM: CANCER STEM CELLS

Symposium

(Sponsored by: Italian Society of Pathology and Translational Medicine, ASIP Neoplasia and Growth Regulation Scientific Interest Group and ASIP Regenerative Medicine Scientific Interest Group)

WED. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 162A

CHAired: S. ANDO AND K. GARDNER

Neoplasia

Cancer Biology

Regenerative Medicine

- 8:30 Therapeutic Strategies Based on Cancer Stem Cell Targeting **R. De Maria.** Regina Elena Natl. Cancer Inst.
9:00 Asymmetric Cancer Cell Division: Mechanisms & Models **S. Ramaswamy.** Massachusetts Gen. Hosp. Cancer Ctr.
9:30 Connecting the Machinery of Fate Determination and Tumor Suppression in the Breast Stem Cell Compartment **P.P. Di Fiore.** Univ. of Milan.
10:00 Epigenetic Regulation of Epithelial Phenotypic Transitions and Self-Renewal in Breast Cancer by a Metabolic Switch **K. Gardner.** NIH.

- 10:30 Lineage Relationships between Adult Tissue Stem Cells and Cancer Stem Cells **J.L. Sherley.** The Adult Stem Cell Technol. Ctr., LLC.
11:00 Conclusion.
11:15 Summary and Discussion.

507. MICROBIAL INTERACTIONS WITH THE HOST

Minisymposium

WED. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 160C

COCHAired: D. MILNER AND A.S. DAVIS

Inflammation

Inflammation/Immunity

Microbiome

- 8:30 **507.1** *Giardia duodenalis* Depletes Goblet Cell Mucins and Degrades MUC2, Facilitating Bacterial Translocation **C.B. Amat, J-P. Motta, A. Bhargava, K. Chadee and A.G. Buret.** Univ. of Calgary, Canada.
8:45 **507.2** *Entamoeba histolytica*-Induced Caspase-4/11 Activation Elicits a Pro-inflammatory Response in Macrophages **J. Quach, L. Mortimer, F. Moreau and K. Chadee.** Univ. of Calgary, Canada.
9:00 **507.3** *Entamoeba histolytica* Induces Pro-inflammatory Mediator HMGB1 Release in Early Contact with Macrophage **S. Begum, J. St-Pierre, F. Moreau and K. Chadee.** Univ. of Calgary, Canada.
9:15 **507.4** Binding and Entry of 1918 Pandemic Influenza Receptor Binding Domain Variants in Normal Human Bronchial Epithelial Cells **A.S. Davis, D. Chertow, L. Qi and J. Taubenberger.** NIAID, NIH, Kansas State Univ. Col. of Vet. Med. and CC, NIH.
9:30 **507.5** Coxsackieviral Infection Causes Cytoplasmic Aggregation and Cleavage of TAR DNA Binding Protein-43 **G. Fung, J. Shi, E. Deng, J. Zhang, A. Hong and H. Luo.** Univ. of British Columbia.
9:45 **507.6** The New Molecular Generation Diagnosis of Mycetoma: A Case Report and Literature Review **T. Hinojosa, R. Arenas and S. Tying.** Med. Sch., Univ. of Monterrey, Mexico, Hosp. Gen. Dr. Manuel Gea Gonzalez, Mexico City and Univ. of Texas, Houston.
10:00 **507.7** Distinct Roles of the Mucus Layer and Microbiota in Conferring Innate Host Defense and Susceptibility to Disease **A. Leon-Coria, F. Moreau, M. Surette and K. Chadee.** Univ. of Calgary.
10:15 **507.8** Intestinal Epithelial Ecto-5'-Nucleotidase CD73 Regulates the Homeostasis of *Salmonella typhimurium* and Commensal Bacteria **D.J. Kao, B.J. Saedi, K.D. Schwisow, S.P. Colgan and D.J. Kominsky.** Univ. of Colorado Anschutz Med. Campus, Aurora.
10:30 **507.9** Extracellular RNA Induces Complement Factor B in Macrophages via MyD88 **L. Zou, G. Xu, Y. Feng and W. Chao.** Massachusetts Gen. Hosp., Harvard Med. Sch.
10:45 **507.10** Constitutive and Antigen-Induced Secretion of Cytokines by Peripheral Blood Mononuclear Cells of Tuberculosis Patients **A. Mustafa.** Fac. of Med., Kuwait Univ.

Pharmacology

508. NORMAN WEINER LECTURE

Lecture

WED. 8:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107AB

Transporters/Channels/Barriers

The Norman Weiner Lecture was established in memory of Dr. Norman Weiner, past ASPET president and chair of the Department of Pharmacology at the University of Colorado and in honor of his many contributions to both ASPET and to pharmacology research and education.

8:30 Introduction **A.E. Fleckenstein**. Univ. of Utah.

8:35 Structural Basis for Function and Pharmacology of Voltage-Gated Sodium and Calcium Channels
W.A. Catterall. Univ. of Washington.

509. COMMON PATHWAYS AND MECHANISMS OF CHRONIC PAIN AND OPIOID ADDICTION

Symposium

(Sponsored by: The Divisions for Neuropharmacology; Behavioral Pharmacology; Molecular Pharmacology; Translational and Clinical Pharmacology; and Drug Discovery and Development)

WED. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 106

CHAired: S.L. INGRAM

Neurobiology

Inflammation/Immunity

- 9:30 NIH Efforts to Reduce Prescription Opioid Abuse and Improve Pain Treatment **D.A. Thomas**. NIDA, NIH.
- 10:00 Neuropathic Pain Modulates Dopaminergic Circuitry: Role for Microglial Activation **C. Cahill**. Univ. of California, Irvine.
- 10:30 Role of Ventral Tegmental Area TORC2 Signaling in Stress-Induced Morphine Reward **S. Kaska**. Michigan State Univ. (768.8)
- 10:45 Chronic Pain Increases Opioid Self-Administration Through an Accumbal Dopaminergic Mechanism **J. Moron-Concepcion**. Columbia Univ. Med. Ctr.
- 11:15 Extrasynaptic GABA_A Receptors in the Periaqueductal Gray are Involved in Descending Pain Modulation and Chronic Inflammatory Pain-Induced Plasticity **S.L. Ingram**. Oregon Health & Sci. Univ.
- 11:45 Effects of Daily Morphine Treatment on Impulsivity in Rats Responding under a 5-Choice Serial Reaction Time Task **D.R. Maguire**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio. (769.7)

510. CROSSING THE LINE: EXPLORING THE BORDERS BETWEEN PHYSIOLOGICAL REDOX SIGNALING AND OXIDATIVE STRESS

Symposium

(Sponsored by: The Divisions for Cardiovascular Pharmacology; Toxicology; Molecular Pharmacology; Drug Discovery and Development; and Translational and Clinical Pharmacology)

WED. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 109A

CHAired: T. MICHEL AND M. HAIGIS

Injury/Connective Tissue/Fibrosis

- 9:30 Hydrogen Peroxide in Cardiovascular Signal Transduction **T. Michel**. Brigham and Women's Hosp., Harvard Med. Sch.
- 9:55 Mitochondria as Signaling Organelles **N.S. Chandel**. Northwestern Univ.
- 10:20 Posttranslational Regulation of Nox4 and its Role in Heart Failure **J. Sadoshima**. Rutgers New Jersey Med. Sch.
- 10:45 Dynamic Regulation of the Nitrosothiol Proteome in Cardiovascular Disease **E. Murphy**. NHLBI, NIH.
- 11:10 Oxidative Metabolism, Oxidative Stress, and Aging: New Insights into the Roles of Sirtuins **M.C. Haigis**. Harvard Med. Sch.
- 11:35 FP Prostanoid Receptor Mediated Up-regulation of Hypoxia-Inducible Factor-1 α through Activation of Mitogen-Activated Protein Kinase and Reactive Oxygen Species Signaling Pathways **C.M. Sanchez**. Col. of Pharm., Univ. of Arizona. (621.13)

511. MOVING BEYOND TRADITIONAL STIMULANTS: EMERGING CHARACTERISTICS AND THERAPEUTIC APPLICATIONS OF ATYPICAL REUPTAKE INHIBITORS

Symposium

(Sponsored by: The Divisions for Behavioral Pharmacology; Molecular Pharmacology; Neuropharmacology; and Translational and Clinical Pharmacology)

WED. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 107C

CHAired: L.P. CARTER AND B.E. BLOUGH

Neurobiology

Transporters/Channels/ Barriers

- 9:30 Introduction **L.P. Carter**. Jazz Pharmaceut. Inc.
- 9:40 Is Modafinil an Atypical DAT Inhibitor? **M.H. Baumann**. NIDA, NIH.

- 10:05 Molecular Approaches for Differentiating Atypical Uptake Inhibitors from Traditional Stimulants at the Dopamine Transporter **K.C. Schmitt**. NYU Sch. of Med.
- 10:30 Chemical and Pharmacological Approaches for Differentiating Atypical Monoamine Releasers and Uptake Inhibitors from Traditional Stimulants **B.E. Blough**. Research Triangle Inst.
- 10:55 Clinical and Pharmacological Relevance of Rebound Hypersomnia in Differentiating Traditional Stimulants from Wake Promoting Agents **M. Tafti**. Univ. of Lausanne.
- 11:20 Characterization of the Atypical Effects of JZP-110 at the Dopamine Transporter and in Clinical Trials **L.P. Carter**. Jazz Pharmaceut. Inc.
- 11:45 General Discussion.

512. NATURAL PRODUCTS: BIOACTIVE MOLECULES FROM NATURE

Symposium

(Sponsored by: The Divisions for Translational and Clinical Pharmacology; Toxicology; and Drug Metabolism)

WED. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 108

CHAIRIED: B.T. GREEN, B.E. Blough and M.A. Holinstat

- 9:30 Marine Toxins in Nicotinic Receptor Targeted Drug Design **W.R. Kem**. Univ. of Florida.
- 10:00 The "Fungal Pharmacy": A Source for Structurally Diverse and Bioactive Compounds **N.H. Oberlies**. Univ. of North Carolina at Greensboro.
- 10:30 CNS Drug Discovery from Marine Cyanobacteria **K.J. Tidgewell**. Duquesne Univ.
- 11:00 Toxicities and Teratogenic Potential of Piperidine and Pyridine Enantiomers from Plants **S.T. Lee**. USDA.
- 11:30 Targeting Lactate Efflux Inhibition for the Development of Potent Antiproliferative Agents **S.S. Messeha**. Florida A& M Univ. (945.1)
- 11:45 Characterization of Synthetic Ircinianin Analogues as Potent and Selective Modulators of $\alpha 3$ Glycine Receptor **S. Talwar**. Univ. of Queensland. (770.6)

513. STRUCTURAL BASIS FOR ION CHANNEL PHARMACOLOGY

Symposium

(Sponsored by: The Divisions for Molecular Pharmacology; Neuropharmacology; and Translational and Clinical Pharmacology)

WED. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 107AB

CHAIRIED: W.A. CATTERALL

Neurobiology

Transporters/Channels/ Barriers

- 9:30 Introduction **W.A. Catterall**. Univ. of Washington.
- 9:35 Structural Basis for Pharmacology of Pentameric Receptors **P.-J. Corringer**. Pasteur Inst.
- 10:10 Mechanism of Drug and Agonist Action on Glutamate Receptors **S.F. Traynelis**. Emory Univ.
- 10:45 Structural Basis for G Protein Regulation of Kir Channels **M. Whorton**. Oregon Hlth. & Sci. Univ.
- 11:20 Structural Basis for Pharmacology of TRPV1 Channels **E. Cao**. UCSF.

514. TRANSPORTER-MEDIATED DRUG INTERACTIONS: CLINICAL SIGNIFICANCE AND PREDICTIONS

Symposium

(Sponsored by: The Divisions for Drug Metabolism; Toxicology; and Cardiovascular Pharmacology)

WED. 9:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 109B

CHAIRIED: M.J. ZAMEK-GLISZCZYNSKI AND C. LEE

Transporters/Channels/ Barriers

- 9:30 Can We Prospectively Predict Complex DDIs Involving Hepatic OATPs? **A. Galetin**. Manchester Pharm. Sch.
- 10:00 Prediction of Digoxin Clinical Drug-Drug Interactions from in Vitro Transporter Assays **C.A. Lee**. Ardea Biosciences.
- 10:30 Is BCRP Relevant to Clinical Drug PK, and What are the Best Practices in BCRP DDI Study Design? **J.W. Polli**. GlaxoSmithKline.
- 11:00 When are Renal Transport DDIs Relevant from a PK and Kidney Toxicity Perspective? **J. Wang**. Univ. of Washington.
- 11:30 Why have Clinical DDIs not been Observed at the Level of BBB Efflux? **M.J. Zamek-Gliszczyński**. GlaxoSmithKline.

Physiology

515. PRESIDENT'S SYMPOSIUM SERIES PHYSIOLOGY: ANSWERS TO BIG QUESTIONS

APS NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE LECTURE

Lecture

WED. 4:45 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210BC

CHAired: R.J. LEFKOWITZ

Translational Physiology

Seven Transmembrane Receptors **R.J. Lefkowitz.**
HHMI, Duke Univ. Med. Ctr.

516. CIRCADIAN CLOCK IN METABOLIC REGULATION

Featured Topic

(Sponsored by: Endocrinology and Metabolism Section)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 209

CHAired: L. WANG

Obesity

- 8:00 Nuclear Receptor Control of Circadian and Metabolic Cycles **L. Wang.** Univ. of Connecticut.
- 8:30 Interplay Between Circadian Rhythms and Metabolism: Impact of High-Fat Diet and Exercise **J. Pendergast.** Vanderbilt Univ. Med. Ctr.
- 9:00 Cardiomyocyte-Specific Bmal1 Deletion Triggers Extracellular Matrix Response Associated with Markers of Impaired Inflammation Resolution and Diastolic Dysfunction **K.A. Ingle, V. Kain, M. Goel, S.D. Prabhu, M.E. Young and G.V. Halade.** Univ. of Alabama at Birmingham. (1035.3)
- 9:15 Transcriptional Control of Oscillatory Homocysteine Homeostasis by Nuclear Receptor SHP **Z. Yang, S. Lee and L. Wang.** Univ. of Connecticut. (1035.1)
- 9:30 Contribution of PPAR α and Ketone Body to Sleep Homeostasis in Mice **S. Chikahisa, N. Shimizu, T. Shiuchi and H. Sei.** Univ. of Tokushima Grad. Sch. (1035.4)
- 9:45 Metabolic Effects of Temporally Targeted Food Restriction in Female Rats with or without Estrogen **R.J. Naukam and K.S. Curtis.** Oklahoma State Univ. Ctr. for Hlth. Sci. (818.3)

517. EVOLUTION OF AIR BREATHING

Featured Topic

(Sponsored by: Respiration Section and Comparative and Evolutionary Physiology Section)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 210A

CHAired: M.B. HARRIS AND R.J.A. WILSON

- 8:00 Exaptations to Air Breathing: Lung Breathing from Lungless Vertebrates **M.B. Harris.** Univ. of Alaska Fairbanks.
- 8:30 Evolution of Respiratory Pumps and Their Control **E. Brainerd.** Brown Univ.
- 9:00 Development and Evolution of Respiratory Oscillators in Vertebrates **P.A. Gray.** Washington Univ. in St. Louis.
- 9:15 Oscillating Wildly: Turning the Evolution of Respiratory Rhythm Generation on Its Head **M. Baghdadwala, W. Trask and R.J. Wilson.** Univ. of Calgary, Canada. (1033.7)
- 9:30 Atypical Respiratory Physiology of a Recent Air-Breathing Fish: *Pangasius* **M. Bayley, M.L. Phuong, C. Damsgaard, D.T.H. Huong and T. Wang.** Aarhus Univ., Denmark and Can Tho Univ., Viet Nam. (1033.2)
- 9:45 On the Cellular Evolution of the Lung **J.S. Torday.** Harbor-UCLA Med. Ctr. (1033.1)

518. FROM BASIC SCIENCE TO PRECISION MEDICINE: THE USE OF GENOMIC, EPIGENOMIC AND TRANSLATIONAL RESEARCH TO DEVELOP PERSONALIZED TREATMENTS

Symposium

(Sponsored by: American Federation for Medical Research)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 212

CHAired: K. PAYNE AND K. COLBURN

Education

Translational Physiology

- 8:00 The Role of the Genomic Landscape in the Development of Pediatric Leukemia **J.J. Yang.** St. Jude Children's Res. Hosp.
- 8:30 Applying Molecular Epidemiology in Pediatric Leukemia **J.D. Schiffman.** Univ. of Utah.
- 9:00 A Novel Xenograft Model to Deliver a Human Cytokine That Drives High-Risk Pediatric Leukemia **K.J. Payne.** Loma Linda Univ.
- 9:30 The Use of Global Epigenetic Analysis to Develop a Novel Treatment for Pediatric Leukemia **S. Dovat.** Penn State Hershey Col. of Med.

519. MENTORING FOR DIVERSE CAREERS: MENTOR AND PROTÉGÉ, PERSPECTIVES

Symposium

(Sponsored by: Women in Physiology Committee)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: M.R. DWINELL AND K.M. MATHIS

Career Development

- 8:00 Should I Pursue An Alternative Career Path? **L. Collins.** Foley & Lardner LLP, Madison, WI.
- 8:30 How Can I Help Train a Mentee for An Alternative Career in Science? **J. Schwartz.** Univ. of Michigan.
- 9:00 Career Opportunities That Fit: You Beyond the PhD **M. Urso.** Smith and Nephew Biotherapeut., Fort Worth.
- 9:30 Panel Discussion.

520. NEUROMUSCULAR DISEASES: NOVEL THERAPEUTIC STRATEGIES

Featured Topic

(Sponsored by: Muscle Biology Group)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: V. LJUBICIC

- 8:00 Novel Therapeutic Strategies for Mitochondrial Myopathies **M.A. Tarnopolsky.** McMaster Univ., Canada.
- 8:30 Genetic Proof in Mice That Calcium is the Final Common Pathway Leading to Myofiber Necrosis in Muscular Dystrophy **J.D. Molkentin.** HHMI, Children's Hosp. Med. Ctr., Cincinnati.
- 9:00 Long-Term Dietary Quercetin Enrichment Improves Muscle Function in Dystrophic Skeletal Muscle **J.T. Selsby, C.G. Ballmann and J.C. Quindry.** Iowa State Univ. and Auburn Univ. (1039.6)
- 9:15 Chemical Chaperone Therapy Reduces Myofiber Damage in Dystrophin-null *mdx* Mice **J.A. Roche and A.L. Mueller.** Wayne State Univ. and Univ. of Maryland Sch. of Med. (1039.2)
- 9:30 Membrane-Stabilizing Copolymers Confer Protection to Dystrophic Skeletal Muscle in Vitro and in Vivo **E.M. Houang, K. Haman, A. Filareto, R.C. Perlingeiro, F.S. Bates, D.A. Lowe and J.M. Metzger.** Univ. of Minnesota, Minneapolis. (1039.3)
- 9:45 Effect of Long-Term Quercetin Supplementation on Dystrophic Cardiac Pathology in *mdx/utrn^{+/+}* Mice **C.G. Ballmann, R. Beyers, T. Denney, J.T. Selsby and J.C. Quindry.** Auburn Univ. and Iowa State Univ. (1039.4)

521. SALT-SENSITIVE HYPERTENSION: THE BRAIN OR THE KIDNEY TO BLAME

Symposium

(Sponsored by: Brazilian Society of Physiology and Sociedad Chilena de Ciencias Fisiológicas)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205C

CHAired: V.R. ANTUNES AND J.G. REYES

- 8:00 Renal Contributions to Salt-Sensitive Hypertension **L.G. Navar.** Tulane Univ. Sch. of Med.
- 8:30 What Does the Brain Have to Do with Salt-Sensitive Hypertension? **J.W. Osborn.** Univ. of Minnesota, Minneapolis.
- 9:00 Renin Expression in Kidney Collecting Ducts During Hypertension: is it Contributing to Sodium Reabsorption? **A.A. Gonzalez.** Pontifical Catholic Univ. of Valparasio, Chile.
- 9:30 Fine Tuning Between Hindbrain and Forebrain Mechanisms to Control Arterial Pressure and Sympathetic Nerve Activity During Hyperosmolality **D.S.A. Colombari.** São Paulo State Univ. Sch. of Dent.

522. THE PATHOPHYSIOLOGY OF DRUG-INDUCED VASCULAR INJURY (DIVI)

Symposium

(Sponsored by: Cardiovascular Section)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: B.R. WAMHOFF AND J. TURK

Injury/Connective Tissue/Fibrosis

- 8:00 The Pathophysiology of Drug-Induced Vascular Injury: A Brief Introduction **J. Turk.** Amgen, Thousand Oaks.
- 8:25 The Role of Nitric Oxide in Drug-Induced Vascular Injury **J.L. Weaver.** FDA, Silver Spring.
- 8:50 Identification of Biomarkers Associated with Hemodynamic-Related DIVI Mechanisms **B. Enerson.** Pfizer Inc.
- 9:15 Translational Relevance of Non-vasoactive Vasculitides **I. Mikaelian.** Abbvie BioResearch Ctr., Worster, MA
- 9:40 Recreating the Pathophysiology of Interspecies Drug-Induced Vascular Injury in Vitro **B. Blackman.** HemoShear, LLC, Charlottesville.

523. TRANSLATIONAL STRATEGIES FOR MUSCULOSKELETAL REGENERATIVE MEDICINE

Symposium

(Sponsored by: Translational Physiology Group)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206A

CHAired: C. MENDIAS AND K. FUNAI

Translational Physiology

Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)

- 8:00 Matrix-Based Strategies for Musculoskeletal Tissue Regeneration **S. Badylak**. Univ. of Pittsburgh.
- 8:45 Gene Therapy-Based Strategies for Musculoskeletal Tissue Regeneration **J. Chamberlain**. Univ. of Washington.
- 9:10 Cell Therapy-Based Strategies for Musculoskeletal Tissue Regeneration **A. Asakura**. Univ. of Minnesota, Minneapolis.

524. WANTED AND UNWANTED PARACELLULAR PASSAGE IN INTESTINAL EPITHELIA

Symposium

(Sponsored by: Gastrointestinal and Liver Physiology Section)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: M. FROMM AND J. SCHULZKE

Regulation of Epithelial Function

Transporters/Channels/ Barriers

- 8:00 Molecular Organization of Tricellular Tight Junctions **M. Furuse**. Natl. Inst. of Physiol. Sci., Okazaki, Japan.
- 8:30 Tricellular Tight Junction and Macromolecular Passage **S.M. Krug**. Charité.
- 9:00 Molecular Basis of Tight Junction Pore and Leak Pathways **C.R. Weber**. Univ. of Chicago.
- 9:30 Features That Make Tight Junctions Leaky Or Tight **C.M. Van Itallie**. NHLBI, NIH.

525. WHO CAN TOLERATE BLOOD LOSS? NEW INSIGHTS INTO MECHANISMS OF COMPENSATION TO HEMORRHAGE

Symposium

(Sponsored by: Environmental and Exercise Physiology Section)

WED. 8:00 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 207

CHAired: V.A. CONVERTINO AND C. HINOJOSA-LABORDE

- 8:00 Blood Loss versus LBNP: Perspective from Human Studies **B. Johnson**. Univ. at Buffalo.
- 8:25 The Physiology of Tolerance to Hemorrhage in Humans **C. Hinojosa-Laborde**. U.S. Army Inst. of Surg. Res., Fort Sam Houston.
- 8:50 Peripheral Control of the Circulation in Women With Low Orthostatic Tolerance **N. Stachenfeld**. John B. Pierce Lab., Yale Univ. Sch. of Med.
- 9:15 Environmental Factors That Influence Hemorrhage Tolerance **C. Crandall**. Presbyterian Hosp., Dallas.
- 9:40 A Novel Approach for Measuring the Reserve to Compensate for Blood Loss **R. Carter**. U.S. Army Inst. of Surg. Res., Fort Sam Houston.

526. CONTRIBUTORS TO THE SLOWED AGING PHENOTYPE: EXERCISE AND OTHER COMMON MEDIATORS

Symposium

(Supported by Univ. of California, Irvine Exercise Medicine and Sport Sciences Initiative)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210BC

CHAired: K.L. HAMILTON

- 10:30 The In Vivo Bioenergetics of Aging Skeletal Muscle in Humans **J. Kent-Braun**. Univ. of Massachusetts Amherst.
- 11:00 Is Proteostasis a Shared Characteristic of Slowed Aging? **B. Miller**. Colorado State Univ.
- 11:30 Is Cellular Stress Resistance a Shared Mechanism of Slowed Aging? **C. Selman**. Univ. of Glasgow.
- 12:00 Exercise Adaptations for Slowing Age-Related Dysfunction and Disease **P.J. Adhihetty**. Univ. of Florida.

527. EFFECTS OF A CHANGING CLIMATE ON INSECT PHYSIOLOGY**Symposium**

(Sponsored by: Comparative and Evolutionary Physiology Section)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: K.J. GREENLEE AND J.F. HARRISON

Oxidative Stress

- 10:30 Understanding Seasonally Cycling Selective Pressures: An Essential Component of Predicting Organismal Responses to Climate Change. **C. Williams**. Univ. of Florida.
- 11:00 Incorporating Temporal and Spatial Variation in Temperature into Predictions of Climate Change Impacts **M.E. Dillon**. Univ. of Wyoming.
- 11:30 Physiological Changes in the Insect Tracheal System throughout Juvenile Development **K.J. Greenlee**. North Dakota State Univ.
- 12:00 Gas Exchange in Tracheate Anthropods: Coping with Hypoxia and Metabolic Demands **S. Hetz**. Humboldt Univ.

528. ENTERIC NERVOUS SYSTEM REGULATION OF GI FUNCTION**Symposium**

(Sponsored by: Gastrointestinal and Liver Physiology Section)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: R. MITTAL

Neurobiology

- 10:30 Recent Advances in the Understanding of Gut Microbial Regulation of the Ens **S. Srinivasan**. Emory Univ.
- 11:00 Optogenetic Approaches to Investigate Colonic Motility **T. Smith**. Univ. of Nevada, Reno.
- 11:30 Enteric Nervous System in Diabetes Mellitus **J. Wiley**. Univ. of Michigan Hosp.
- 12:00 Stem Cell Transplantation of the Ens **P.J. Pasricha**. Johns Hopkins Univ. Sch. of Med.

529. MOLECULAR REGULATORS OF SKELETAL MUSCLE ANGIOGENESIS IN HEALTH AND DISEASE**Featured Topic**

(Sponsored by: Cardiovascular Section)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: T. HAAS AND T. GUSTAFSSON

- 10:30 The MDM2/FoxO Signaling Axis Establishes Angiogenic Responsiveness in Skeletal Muscle **E. Roudier**. York Univ., Canada.
- 11:00 Regulation of VEGFR2 Activation in Skeletal Muscle by VEGF Isoforms with Differential ECM- and NRP1-Binding: A Computational Study **L. Clegg and F. Mac Gabhann**. Johns Hopkins Univ. (1050.7)
- 11:15 Deficiency of Senescence Marker Protein-30 Impairs Collateral Growth by Suppressing Nitric Oxide Bioactivity under Ischemia **H. Yamauchi, T. Owada, S-i. Saitoh and Y. Takeishi**. Fukushima Med. Univ. (1050.3)
- 11:30 Diabetic Status Impacts the Capacity for Angiogenesis in Peripheral Artery Disease **B. Annex**. Univ. of Virginia Hlth. Syst.
- 11:30 Angioadaptive Allies: Relationship between Human Primary Endothelial Cells and Human Skeletal Muscle Myofibroblasts **J. Ciccone, Y. Alinejad, J. Aiken, M-A. Despatis, F. Balg, E. Roudier, G. Grenier and O. Birot**. York Univ., Toronto and Univ. of Sherbrooke, Canada. (1050.8)
- 11:45 Conditional VEGF Gene Deletion in Both Endothelial Cells and Skeletal Myofibers Leads to Exercise Intolerance Accompanied by a Decrease in Body Mass and Cardiac Enlargement **A. Sulaeman, J. Fine, P.D. Wagner and E.C. Breen**. UCSD. (1050.1)

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and Molecular Biology (ASBMB)
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Investigative Pathology (ASIP)
American Society for Nutrition (ASN)
American Society for Pharmacology and
Experimental Therapeutics (ASPET)

530. MUSCLE DISEASES: RECENT ADVANCES IN DISEASE MECHANISMS

Featured Topic

(Sponsored by: Muscle Biology Group)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 209

CHAired: A. BEEDLE AND J. SELSBY

- 10:30 Mechanisms of Disease in MEGF10 Myopathy **P.B. Kang**. Univ. of Florida.
- 11:00 Specialization of Dystrophin and Utrophin Impacts Duchenne Muscular Dystrophy Pathogenesis **J.M. Ervasti**. Univ. of Minnesota, Minneapolis.
- 11:30 Therapeutic Targeting of Akt/mTOR Signaling in Fktn-Deficient Muscle **S.J. Foltz, A. Patel, K.B. Peissig and A.M. Beedle**. Univ. of Georgia. (1038.12)
- 11:45 The Effects of Two TGF- β Superfamily Ligand Trapping Agents on the Morphology of Dystrophic (mdx) Triangularis Sterni Muscle **C. Nielsen, C. Borowy, K. Jacinto, R. Potter, C. Kaminski, R. Kumar and C.G. Carlson**. Midwestern Univ., AZ and Acceleron Pharma, Cambridge, MA. (1038.5)
- 12:00 Targeting Mechanically-Activated NOS Signaling in Dystrophic Cardiomyopathy **J.F. Garbincius and D.E. Michele**. Univ. of Michigan. (1038.8)
- 12:15 The LMNA Mutation R321X Associated with Dilated Cardiomyopathy Leads to Reorganization of the Endoplasmic Reticulum and Aberrant Ca²⁺ Signaling in HEK 293 Cells **A. Gerbino, M. Carosino, F.R. Del Vecchio, S. Torretta, G. Schena, G. Procino and M. Svelto**. Univ. of Bari Aldo Moro. (1038.7)

531. NEONATAL LUNG DEVELOPMENT AND ADULT LUNG HOMEOSTASIS: COMMON MOLECULAR MECHANISMS IN LUNG DISEASE

Symposium

(Sponsored by: Respiration Section)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 208

CHAired: L. NELIN AND S. ABMAN

- 10:30 The *Good Side* of NF- κ B: Novel Angiogenic and Anti-inflammatory Functions That Promote Lung Development and Repair **C.M. Alvira**. Stanford Univ.
- 11:00 Neonatal RAGE Biology and the Foreshadowing of Lung Disease **P. Reynolds**. Brigham Young Univ.
- 11:30 Progenitor Cell-Mediated Angiogenesis in Lung Development **C. Baker**. Univ. of Colorado Sch. of Med. and Children's Hosp. Colorado.
- 12:00 Stem Cells in Alveolar Growth and Repair – Mechanisms and Therapies **B. Thébaud**. Ottawa Hosp. Res. Inst.

532. NEUROPLASTICITY IN SPACE: REFLECTIONS FROM THE STS-90 NEUROLAB SPACE SHUTTLE CREW

Symposium

(Sponsored by: History of Physiology Group)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 210A

CHAired: J. DEAN

Neurobiology

- 10:30 Introduction: STS-90 Neurolab Spacelab Mission **J. Dean**.
- 10:35 Can the Brain Develop Normally Without Gravity? **J. Buckley**. Geisel Sch. of Med. at Dartmouth.
- 11:15 Animal Ops in Space **R. Linnehan**. NASA Johnson Space Ctr.
- 11:55 Electrophysiology in Space: How Do I Ground This Thing? **J. Pawelczyk**. Penn State.

533. REFRESHING PERSPECTIVES ON THE ROLE OF THE CHEMOREFLEXES IN THE CONTROL OF CARDIORESPIRATORY FUNCTIONS: NEW PATHWAYS AND PLAYERS

Featured Topic

(Sponsored by: Neural Control and Autonomic Regulation)

WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 205B

CHAired: N. MARCUS

- 10:30 Cardiorespiratory Imbalance in Low Vs High Output Heart Failure: the Role of the Chemoreflex Pathway **R. Del Rio**. Autonomous Univ. of Chile.
- 11:00 Impact of Erythropoietin in the Carotid Body Response to Hypoxia and Hypercapnia **J. Soliz**. Laval Univ., Canada.
- 11:30 Chronic Phenytoin Treatment Reduces Hypoxic Ventilatory Responses in Rats **J. Alcayaga, M.P. Oyarce and R. Iturriaga**. Univ. of Chile Fac. of Sci. and Univ. of Chile Fac. of Biol. Sci. (1060.6)
- 11:45 Role of the Peripheral Chemoreceptor Reflex on Cardiovascular and Sympathetic Responses to Obstructive Sleep Apnea in Rats **K. Miki, M. Yoshimoto, C. Kajihara and Y. Mizukami**. Nara Women's Univ., Japan. (1060.3)
- 12:00 Carotid Chemoreceptor Desensitization Improves Baroreflex Control of Blood Pressure during Hypoxia in Humans **M.T. Mozer, M.J. Joyner, T.B. Curry and J.K. Limberg**. Mayo Clin. (1060.4)
- 12:15 P2X3 Receptor Antagonism Reduces Peripheral Chemoreceptor Reflex Hypersensitivity and Blood Pressure in the Spontaneously Hypertensive Rat **W. Pijacka, A.P. Ford and J.F.R. Paton**. Univ. of Bristol and Afferent Pharmaceut., CA. (1060.1)

534. SCIENTISTS AS SUPERVISORS: HIRING, FIRING, AND BEYOND**Symposium***(Sponsored by: Trainee Advisory Committee)*WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 206A

CHAired: C.T. BANEK AND J. STEINER

Career Development

- 10:30 Hiring and Firing: Finding the Right Employees
M.B. Reid. Univ. of Florida.
- 11:00 Effectively Managing People and Resources
K. Barrett. UCSD.
- 11:30 Dealing With Difficult Situations and People
F. Montemurro. Boston Univ.
- 12:00 Panel Discussion.

535. SYMPATHETIC CONTROL OF THE VASCULATURE IN CLINICAL POPULATIONS**Featured Topic***(Sponsored by: Environmental and Exercise Physiology Section)*WED. 10:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 207

CHAired: L. ALEXANDER AND J. GREANEY

Regulation of Epithelial Function**Neurobiology**

- 10:30 Sympathetic Control of the Cutaneous Microcirculation in Hypertension **J. Greaney.** Penn State.
- 11:00 Healthy Aging Does Not Alter Sympathetic Drive during Whole-Body Passive Heating **D. Gagnon, Z.J. Schlader and C.G. Crandall.** Texas Hlth. Presbyterian Hosp. Dallas and Univ. of Texas Southwestern Med. Ctr. and Univ. at Buffalo. (1053.1)
- 11:15 Effect of Pregnancy on Sympathetic and Peripheral Vascular Responses to the Cold Pressor Test **P.K. Wakefield, C.W. Usselman, M.K. Stickland, R.S. Chari, C.G. Julian, M.H. Davenport and C.D. Steinback.** Univ. of Alberta and Univ. of Colorado Boulder. (1053.5)
- 11:30 Greater β -Adrenergic Vasodilation in Healthy Men versus Women: Cyclooxygenase Suppresses Nitric Oxide **G.L. Peltonen, R.E. Johansson, J.K. Limberg, J.W. Harrell, B.S. Ernst, J.M. Kellawan, M.K. Crain, M.W. Eldridge, J.J. Sebranek, B.J. Walker and W.G. Schrage.** Univ. of Wisconsin-Madison. (1053.4)
- 11:45 Augmentation of Endothelium-Dependent Vasodilatory Signaling Improves Functional Sympatholysis in Contracting Muscle of Older Adults **C.M. Hearon, Jr., M.L. Racine, J.C. Richards, G.J. Luckasen, D.G. Larson and F.A. Dinunno.** Colorado State Univ. and PVHS, Loveland, CO. (1053.3)
- 12:00 Sympathetic Vascular Transduction in Type 2 Diabetes Mellitus **P.J. Fadel.** Univ. of Missouri-Columbia.

536. AUTOPHAGY AND MIRNA IN DIABETIC HEART FAILURE**Featured Topic***(Sponsored by: Cardiovascular Section)*WED. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 208

CHAired: P.K. MISHRA

- 2:30 FoxO and Diabetic Cardiomyopathy **J.A. Hill.** Univ. of Texas Southwestern Med. Ctr.
- 3:00 Role of miRNAs in Diabetic Cardiomyopathy **S. Chakrabarti.** Western Univ. Schulich Sch. of Med. and Dent., Canada.
- 3:30 MiR-133a Mitigates Mitophagy in *Ins2^{+/−}* Diabetic Heart **S.S. Nandi and P.K. Mishra.** Univ. of Nebraska Med. Ctr. (1040.1)
- 3:45 Upregulation of miR-21 Restores Cardioprotection under Diabetic Conditions **J. Olson, Y. Yan, X. Bai, M. Liang and Z.J. Bosnjak.** Med. Col. of Wisconsin. (1040.2)
- 4:00 Incretin Ameliorates Diabetic Microangiopathy in Heart by Activation of Autophagy via PKA/AMPK Axis **Y.K. Bando and A. Monji.** Nagoya Univ., Japan. (1040.3)
- 4:15 Mdivi-1 Mitigates ROS and Mitophagy, Improves Healthy Mitochondrial Pool in Hyperglycemic Cardiomyocytes **S.K. Sharawat, S.S. Nandi, V. Keshewani, H.R. Shahshahan and P.K. Mishra.** Univ. of Nebraska Med. Ctr. (1040.4)

537. AUTOPHAGY IN MUSCLE**Featured Topic***(Sponsored by: Environmental and Exercise Physiology Section)*WED. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER,
ROOM 207

CHAired: D. HOOD

- 2:30 Autophagy Activation During Chronic Muscle Disuse **M. Sandri.** Univ. of Padova.
- 3:00 Exercise Adaptations Depend on Autophagy Pathways **Z. Yan.** Univ. of Virginia Sch. of Med.
- 3:30 Acute Exercise-Induced Mitophagy Is Mediated in Part by PGC-1 α **A. Vainshtein, L.D. Tryon, M. Pauly and D.A. Hood.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada. (821.4)
- 3:45 Acute Endurance Exercise-Mediated Autophagy Occurs in Parallel with the Simultaneous Activation of mTOR **Y. Lee, J-y. Cho, I-H. Cho, E-b. Kang, G. Javan and L. Cosio Lima.** Univ. of West Florida, Korea Natl. Sport Univ. and Alabama State Univ. (821.5)
- 4:00 Ulk1 Is Required for Lysosome Targeting to Damaged Mitochondria following Acute Exercise **R.C. Laker, V.A. Lira, R.J. Wilson, M. Zhang and Z. Yan.** Univ. of Virginia and Univ. of Iowa. (821.9)
- 4:15 Effects of Mechanical Ventilation and Autophagy on Diaphragm Oxidative Stress and Proteolysis **A.J. Smuder, K.J. Sollanek, W.B. Nelson, K. Min, E.E. Talbert and S.K. Powers.** Univ. of Florida. (821.7)

538. EMERGING CONCEPTS IN HYPOXIA-RELATED DISEASE SIGNALING**Symposium**

(Sponsored by: American Federation for Medical Research)

WED. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 211

CHAired: N. RASOULI AND S.P. COLGAN

Translational Physiology

- 2:30 Impact of Adipose Tissue Hypoxia on Insulin Resistance in Obesity **N. Rasouli**. Univ. of Colorado Denver, Aurora.
- 3:00 Hypoxic Signaling in Intestinal Injury and Recovery **S.P. Colgan**. Univ. of Colorado Denver, Aurora.
- 3:30 Hypoxia and Transcriptional Regulation of Key Genes in Inflammation **C.T. Taylor**. University Col. Dublin.
- 4:00 Targeting HIFs for the Treatment of Cardiovascular Disease **G.L. Semenza**. Johns Hopkins Univ. Sch. of Med.

539. SYSTEMIC AND PULMONARY VASCULAR FUNCTION AT HIGH ALTITUDE/HYPOXIA: LEARNING FROM MALADAPTATIONS**Featured Topic**

(Sponsored by: Cardiovascular Section)

WED. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 206B

CHAired: U. SCHERRER

Oxidative Stress

- 2:30 Role of Chronic Hypoxemia in the Pathogenesis of Vascular Dysfunction in Humans **S. Rimoldi**. Univ. Hosp. Bern.
- 3:00 Redox-Regulation of Vascular Endothelial Function in Hypoxia; from Adaptation to Maladaptation **D.M. Bailey**. Univ. of South Wales.
- 3:30 High Altitude Gestation and Prenatal Programming of Bradykinin Induced Pulmonary Endothelial Ca²⁺ Responses and Arterial Vasorelaxation in Fetal and Newborn Lamb **A. Brunelle, C. Blum-Johnston, C. Wee, Q. Blood, R. Wilson, M.R. Romero, M. Francis, M.S. Taylor, L.D. Longo and S.M. Wilson**. Loma Linda Univ. Sch. of Med. and Univ. of South Alabama Col. of Med. (1051.1)

- 3:45 Hypocapnic Hypoxia Silences the Retrotrapezoid Nucleus **T.M. Basting, P.G.R. Burke, D. Stornetta, R.L. Stornetta and P.G. Guyenet**. Univ. of Virginia. (1051.2)
- 4:00 Sustained Hypoxic Pulmonary Hypertension and Systemic Vascular Dysfunction in High-Altitude Dwellers Prone to Re-entry High Altitude Pulmonary Edema, Improvement by Anti-oxidants **D. Cerny, E. Rexhaj, E. Bouillet, R. Soria, T. Meister, M. Villena, C. Sartori, Y. Allemann, U. Scherrer and S. Rimoldi**. Univ. Hosp., Bern. (1051.6)
- 4:15 Transcriptomic and Epigenomic Responses during Human Adaptation to High-Altitude Hypoxia **R.C. Roach, D. Dvorkin, C.G. Julian, J. Gronewold, N. Bourdillon, J. Bucher, J.E. Elliott, O. Evero, J.L. Fan, S. Jameson-Van Houten, B. Kayser, J.P. Kern, S.E. Kim, S.S. Laurie, A.T. Lovering, B. Ryan, N.B. Wachsmuth and A.W. Subudhi**. Univ. of Colorado Anschutz. Med. Campus, Univ. of Lausanne, Univ. of Oregon, Univ. of Colorado Boulder and Univ. of Bayreuth. (1051.5)

540. VASCULAR BIOENGINEERING**Symposium**

(Sponsored by: Biomedical Engineering Society)

WED. 2:30 PM—BOSTON CONVENTION & EXHIBITION CENTER, ROOM 212

CHAired: G. DAI AND J. TIEN

- 2:30 An Integrated in Vivo Model of Vascularized Tumor and Cardiac Tissue **S. George**. Washington Univ. in St. Louis.
- 3:00 Manipulating the Microvasculature and Its Environments **J. Hoying**. Univ. of Louisville.
- 3:30 Physical Principles That Govern Vascularization of Scaffolds **J. Tien**. Boston Univ.
- 4:00 Create Multi-scale Vascular Network Using 3D Bio-Printing Technology **G. Dai**. Rensselaer Polytech. Inst.

Poster Presenters: Upload Your Poster

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SUNDAY, MARCH 29

Across Societies – Experimental Biology

541. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education

Presentation time: 1:30 PM–3:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2015 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for **Sunday only**.

- T4 **541.1** A Comparison of Team-Based Learning Formats: Can We Minimize Stress While Maximizing Results **C.J. Miller, J.C. Falcone and M.J. Metz**. Univ. of Louisville.
- T5 **541.2** Using Role-Playing Simulations to Teach Endocrine and Respiratory Physiology in Large Classes **K. Hull**. Bishop's Univ., Canada.
- T6 **541.3** Rapid Prototyping of a Skeletal Muscle – an Engineering Application in an Anatomy and Physiology Course **N. Stecher and S. Chomyszak**. Wentworth Inst. of Technol., Boston.
- T7 **541.4** Steps for Building a Learning Community in a Medical Physiology Course **H.I. Modell**. Bastyr Univ. and Physiol. Educ. Res. Consortium, Seattle.
- T8 **541.5** “Dialogical Story-Telling” Approach to Enhance Analytical Thinking and Student Engagement during Lecture-Based Classes **S.K. ElSayed and S. Loftus**. Oakland Univ. William Beaumont Sch. of Med. and Assiut Univ., Egypt.
- T9 **541.6** Fostering Inclusive Education: Intentionally vs. Spontaneously **S.Y. Kuang**. Oakland Univ. William Beaumont Sch. of Med.
- T10 **541.7** Service Learning through Educational Outreach Enhances Student Learning and Engagement **E. Keen-Rhinehart**. Susquehanna Univ.
- T11 **541.8** Implementing the Use of Service-Learning in an Undergraduate Human Physiology Course at Elon University **J.K. Uno**. ELon Univ.
- T12 **541.9** Community Event Promotes Active Engagement in Science **K.M. Brooks, Z.W. Paquin and K.M.S. Johnson**. Beloit Col., WI.
- T13 **541.10** Integrating Mathematics Principles in Cell Biology **D. Lin, D. Mimbs and L. West**. Lee Univ., TN.
- T14 **541.11** How to Teach Physiology to 4th-Grade Children? High Tech PhUn! **A.N. Gurovich, T. Anthis, E. Barrett, C. Brown, J. Brown, S. Cole, L. Evans, B. Fagg, S. Hamilton, O. Harpenau, R. Hayslip, S. Jarrett, K. Majors, B. Miller and D. Thomas**. Indiana State Univ.
- T15 **541.12** Reaction Time as a Physiological Process in Fourth Grade Students **E. Barrett, B. Fagg, T. Anthis, O. Harpenau and A.N. Gurovich**. Indiana State Univ.
- T16 **541.13** The Cardiovascular System for Fourth Graders: Heart Rate and Physical Activity during PhUn Week **J. Brown, S. Jarrett, B. Miller, R. Hayslip and A.N. Gurovich**. Indiana State Univ.
- T17 **541.14** Measuring Brain Activity in Fourth Grade Students through Biopac Science Lab **S. Hamilton, C. Brown, L. Evans, K. Majors, D. Thomas and A.N. Gurovich**. Indiana State Univ.
- T18 **541.15** Educational Outreach as a Simple, Yet Effective, Service Learning Opportunity for Exercise Science Undergraduate and Graduate Students **E.K. Merritt and B. Merritt**. Appalachian State Univ. and Mabel Sch., Zionville, NC.
- T19 **541.16** Having PhUn in Australia while on Summer Vacation **P.A. Halpin**. Univ. of New Hampshire.
- T20 **541.17** Using Facebook to Engage Biology Undergraduates and Keep Alumni Connected **P.A. Halpin**. Univ. of New Hampshire.
- T21 **541.18** Combining Blood Glucose Testing with Analysis of a Classic Paper in an Endocrine Physiology Lab Activity **K.L. Walton**. Missouri Western State Univ.
- T22 **541.19** Teaching Pathophysiology to BSN Nursing Students: Useful Strategies **I.N. Igbo, M.B. Landson and K.C. Straker**. Prairie View A&M Univ.
- T23 **541.20** Collaborative Teaching Strategies Lead to Retention of Skills in Acid-Base Physiology: A 2-Year Follow-Up Study **R.M. Berg, J.P. Hartmann and L.N. Toksvang**. Rigshospitalet, Copenhagen.
- T24 **541.21** Worming a Model Organism into Capstone Research Projects **T. Crum and J. Sarathy**. Benedictine Univ.
- T25 **541.22** Open Inquiry-Based Learning Elicits Deeper Understanding of Complex Physiological Concepts Compared to Traditional Lecture-Style or Guided-Inquiry Learning Methods **B.M. Franklin, L. Xiang, J.A. Collett, M.K. Rhoads and J.L. Osborn**. Univ. of Kentucky.
- T26 **541.23** Implementing Clinical Scenarios in an Undergraduate Physiology Course to Enhance Critical Thinking across Multiple Body Systems **J.H. Shaw**. Oklahoma State Univ.
- T27 **541.24** Connecting Undergraduate Learning in the Life Sciences to Authentic Professional Practices Enhances Understanding and Socialization in the Discipline of Physiology **E.M. Waters, S.M. Keesom, K.E. Sylvia and W.M. Schlegel**. Indiana Univ.
- T28 **541.25** Addressing Core Competencies in *Vision and Change*: Use of a General Physiology Course to Reinforce Quantitative and Interdisciplinary Approaches **T.A. Pressley**. U.S. Air Force Acad., CO and Texas Tech Univ. Hlth. Sci. Ctr.
- T29 **541.26** Proposal to Poster: A Model for Individualized Inquiry-Based Research Projects in the Context of an Undergraduate Physiology Laboratory Course **J.M. Poteracki, R. Dunbar and E.A. Wehrwein**. Michigan State Univ and Univ. of Minnesota Rochester.

- T30 **541.27** Northwest Biosciences Network: Implementation of Vision and Change in Introductory Biology **S. Stavrianeas, E. Baumgartner, J. Brown, J. Duncan, C. Gaiser, L. Kayes, S. Kiser, A. Kruchten and W. Shriner.** Willamette Univ.; Western Oregon Univ.; Univ. of Portland; Linfield Col.; Oregon State Univ.; Lane Community Col. and Mt. Hood Community Col., OR.
- T31 **541.28** Transformation of the Introductory Biology Experience for All Students: Progress of the Northwest Biosciences Consortium **A. Kruchten, E. Baumgartner, J. Brown, J. Duncan, C. Gaiser, L. Kayes, S. Kiser, W. Shriner and S. Stavrianeas.** Linfield Col.; Western Oregon Univ.; Univ. of Portland; Willamette Univ.; Oregon State Univ.; Lane Community Col. and Mt. Hood Community Col., OR.
- T32 **541.29** Transforming Teaching and Learning Using an Active Learning Approach across an Entire Research Intensive Faculty of Pharmacy and Pharmaceutical Sciences **P.J. White, I.C. Larson, E. Yuriev, P. Rangachari, D.T. Malone and J. Short.** Monash Univ., Australia and McMaster Univ., Canada.
- T33 **541.30** Investigating Multimodal Classroom Experiences across a Biology Curriculum **A.M. Petzold, K.J. Metzger and R.L. Dunbar.** Univ. of Minnesota Rochester.
- T34 **541.31** Implementation of a Integrated Program in Human Biology **A.L. Golden, D. Spicer and R. Achterman.** Bastyr Univ., WA.
- T35 **541.32** Core Competencies in Animal Physiology **W. Cliff, K. Hull, S. Blatch, P.A. Halpin and B. Beason-Abmayr.** Niagara Univ.; Bishop's Univ., Canada; Stevenson Univ., MD; Univ. of New Hampshire and Rice Univ.
- T36 **541.33** A Homeostasis Concept Inventory for Undergraduate Physiology **J. McFarland, M.P. Wenderoth, J. Michael, H. Modell, A. Wright and W. Cliff.** Edmonds Community Col., WA; Univ. of Washington; Rush Med. Col.; Physiol. Educ. Res. Consortium, Seattle; Canisius Col., NY and Niagara Univ.
- T37 **541.34** Knowing Common Misconceptions about Homeostasis Helps Students' Learning **A. Wright, J. McFarland, M.P. Wenderoth, J. Michael, H. Modell and W. Cliff.** Canisius Col., NY; Edmonds Community Col., WA; Univ. of Washington; Rush Med. Col.; Physiol. Educ. Res. Consortium, Seattle and Niagara Univ.
- T38 **541.35** The Use of Independent-Study Modules to Review Areas of Misconception in Physiology **R.E. Laudadio.** Unaffil.
- T39 **541.36** Program Assessment in a Large Undergraduate Physiology Curriculum **C.I. Stanescu, E.J. Henriksen and N.A. Delamere.** Univ. of Arizona.
- T40 **541.37** Student Perception of Achievement Influences Student Evaluation of Teaching **J.T. Selsby and J.A. Sterle.** Iowa State Univ.

Anatomy

542. ANATOMY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:15 PM

- D201 **542.1** The Midface Deep Fascia: The Missing Plane of the Infraorbital Region that Changes the Concept of Fascia Superficialis of the Face **C. Andretto Amodeo, A. Casasco, A. Icaro Cornaglia and G.S. Keller.** Columbus Nursing Home, Milan; Univ. of Pavia and David Geffen Sch. of Med.- UCLA.
- D202 **542.2** Changes of Chemical Elements in the Special Embalming Fluid after Immersed in Human Fresh Amputated Remains **J. Luo, T. Liu, L. Liu, T. Hu, J. Wang, Y. Chen, L. Zeng and J. Huang.** Sch. of Basic Med. Sci. and Third Xiangya Hosp. of Central South Univ., Changsha, China.

543. ANATOMY: ANIMAL MODELS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:15 PM

- D203 **543.1** Morphological Analysis of the Saphenous Nerve in the Dog **T.M. Doyle, M.J. Lopez and M.A. McNulty.** LSU Sch. of Vet. Med.

- D204 **543.2** Use of Freshwater Prawn Larval Locomotor Activity and Electrophysiological Recording at the Adult Neuromuscular Junction to Assess the Effects of Urban River Contaminants on Behavior and Nervous System Function **J.L. Crooke Rosado, N.M. Rivera Chéverez and M.A. Sosa Llorens.** Univ. of Puerto Rico-Sch. of Med.
- D205 **543.3** Developing, Testing and Optimising a Mouse Hindlimb Musculoskeletal Model **J.P. Charles, O. Cappellari, A.J. Spence, D.J. Wells and J.R. Hutchinson.** Royal Vet. Col., London and Hatfield and Temple Univ.
- D206 **543.4** Renoprotection from Diabetic Complications in OVE Transgenic Mice by Endothelial Cell Specific Overexpression of Metallothionein **E. Carlson, J. Chhoun, D. Laturus, L.K. Young, J. Swinscoe, P. Epstein, S. Zheng and Y. Tan.** Univ. of North Dakota Sch. of Med. and Hlth. Sci. and Univ. of Louisville.
- D207 **543.5** 3D Rendering of Porcine Recurrent Laryngeal Neuroanatomy **N.L. Mason and J.J. Wisco.** Brigham Young Univ. and Univ. of Utah Sch. of Med.
- D208 **543.6** Seriated CT-Scan of a Naturalized Crocodile in the Frontal Plane **P.P. Le Floch-Prigent, S. Verdeille and J-B. Gillot.** Versailles Univ. Med. Sch.; Clin. Bizet, Paris and Sci. Library, Briex/Gillot, Paris 6th.
- D209 **543.7** Seriated C.T-Scan of the Osseous Head in *Pantera pardus* **P.P. Le Floch-Prigent, S. Verdeille and J.B. Gillot.** Sch. of Med., Versailles Univ. ; CIMOP, Clin. du Val d'Or, St. Cloud and Sci. Library, Briex/Gillot, Paris 6th.

544. ANATOMY: GASTROINTESTINAL

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D210 **544.1** Expression and Function of proBDNF in Pancreatic Cancer **S. Liu**. North Sichuan Med. Col.
- D211 **544.2** The Profile of Mononuclear Phagocyte Subsets in the Murine Ileum and Mesenteric Lymph Nodes during Intestinal Schistosomiasis Points to a Central Role of CD11c⁺CX3CR1⁺F4/80⁺ Dendritic Cells **K. Alpaerts, R. Buckinx, N. Cools, S. Nullens, Z. Berneman, B. De Winter, L. Van Nassauw and J-P. Timmermans**. Univ. of Antwerp and Fac. of Med. and Hlth. Sci., Univ. of Antwerp.
- D212 **544.3** Anatomical Mapping of the Omental Vasculature to Refine Its Optimal Use in Free Flap Transfer **D.J. McAndrew, L. Buckley, B.G. Ashford and J. Clark**. Grad. Sch. of Med., Univ. of Wollongong and Chris O'Brien Lifehouse, Sydney.
- D213 **544.4** Codistribution of Collagens V and VI with Collagens I and III in Hepatic Fibrosis of Elderly Cadavers **K.M. Mak**. Icahn Sch. of Med. at Mount Sinai.
- D214 **544.5** Extracellular Matrix Proteins of Fibrous Septa in Elderly Cadaveric Livers **K.M. Mak**. Icahn Sch. of Med. at Mount Sinai.
- D215 **544.6** May Anatomy Explain the Origin of the Leak after Gastrectomy Sleeve? **M. Perez, L. Brunaud, S. Kedaif, C. Guillotin, A. Gerardin, D. Quillot, G. Grosdidier and N. Reibel**. Fac. of Med. and Univ. Hosp. of Nancy.
- D216 **544.7** Protective Effects of Camel Milk on Carbon Tetrachloride-Induced Hepatotoxicity in Wistar Rats **C.J. Ihentuge, C.O. Ugochukwu and C.I. Anibeze**. Imo State Univ. and Abia state Univ., Nigeria.
- D217 **544.8** Histological Changes in the Pancreas of Streptozotocin-Induced Diabetic Rats Fed with Rind of *Citrullus lanatus* **H.K. Okechukwu, C.J. Ihentuge, C.O. Ugochukwu and C.I. Anibeze**. Imo State Univ., Nigeria and Abia State Univ.
- D218 **544.9** Evaluation of Toxicological Effects of Tartrazine Food Additive on Histomorphologic Architecture of Liver of Wistar Rats **C.O. Ugochukwu, C.J. Ihentuge and H.K. Okechukwu**. Imo State Univ. and Abia State Univ., Nigeria.

545. ANATOMY: MUSCULOSKELETAL

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D219 **545.1** Accuracy of Osteophyte Detection in Conventional Computed Tomography and Magnetic Resonance Imaging of Joints **N. Al-Attar, G. Venne, R. Easteal and M. Kunz**. Queen's Univ. and Kingson Gen. Hosp., Canada.
- D220 **545.2** Anatomic Evaluation of the Safety of a Novel Technique for Acromioclavicular Joint Reconstruction: A Cadaveric Study **E. Wilson, M. Pickell, D. Banaszek, M. Ducsharm, D. Bardana and R. Easteal**. Queen's Univ. and Queen's Univ. and Kingston Gen. Hosp.

- D221 **545.3** The Infrapatellar Plica – a New Intra-articular Ligament of the Knee **T.V. Smallman, K.J. Shekitka, K.A. Mann and A. Race**. Upstate Med. Univ., Syracuse; Saint Agnes Hosp., Baltimore and Auburn Community Hosp., NY.
- D222 **545.4** Genistein Treatment Increases Bone Mass in Obese Diabetic Mice **R.M. Michelin, L. Al-Nakkash, T.L. Broderick and J.H. Plochocki**. Midwestern Univ., AZ.
- D223 **545.5** Leg Bone Geometry in Human Diabetic Neuropathy **H.F. Honig, M.D. Allen, B.L. Allman and C.L. Rice**. Univ. of Western Ontario.
- D224 **545.6** MicroScribe 3D Analysis of the Rotator Cuff Muscles Compared to MRI Reconstruction **A.M. Jorgensen, M. Avondet, B. Gardiner, S. Robison and J.J. Wisco**. Brigham Young Univ. and Univ. of Utah Sch. of Med.
- D225 **545.7** Distribution of Neural Factors and Angiogenesis Markers between Human Tensor Veli Palatini Muscle and Tensor Tympani Muscle **I. Sato, Y. Miwa, T. Yatsu and M. Sunohara**. The Nippon Dent. Univ. at Tokyo.
- D226 **545.8** Influence of the Meniscomfemoral Ligaments on the Morphology of the Posterior Cruciate Ligaments – an MRI-Assisted Morphometric Analysis of Different Phases in Life **L. Hirtler, S. Röhrich and F. Kainberger**. Med. Univ. of Vienna.
- D227 **545.9** Influence of the Torsion of Femur and Tibia on the Torsion of the Calcaneal Tendon **L. Hirtler, M. Hadrovic-Avdic and F. Kainberger**. Med. Univ. of Vienna.
- D228 **545.10** An Aberrant Pronator Quadratus with Possible Flexor Function at the Wrist **K. Tufts, G. Gibson, F. Feuchter and C. Lewis**. Samuel Merritt Univ., CA.
- D229 **545.11** Does the Axillary Nerve Play a Role in the Innervation of the Long Head of the Triceps Muscle? A Cadaveric Study in A Puerto Rican Population **S. Medina, E. Mejias and W.R. Veras**. Univ. Central del Caribe. PR.

546. ANATOMY EDUCATION: MICROANATOMY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D230 **546.1** Digital Microscopy: A New Method for Histology Teaching **B. Romana-Souza, L.C. Porto and A. Monte-Alto-Costa**. State Univ. of Rio de Janeiro.
- D231 **546.2** Microscopic Anatomy and Pathology Laboratories: Design of an E-Learning Atlas as an Evolving Response to Interdisciplinary Medical Curricular Needs **M.S. Davis, A. Mills, D. Karcher, P. Latham, J. Krum and R.A. Jurjus**. George Washington Univ. Sch. of Med. & Hlth. Sci.
- D232 **546.3** Quantitative Analytics on Educational Value of the Unique Instructional Tools on a New Virtual Histology Laboratory **O. Rosenthal and L.M.J. Lee**. Univ. of Colorado Sch. of Med.
- D233 **546.4** Construction and Implementation of Multiplatform Virtual Microscopy for Histology **R. Ettarh, T. Frash, J. DeVore and J. Rhodes**. Tulane Univ. Sch. of Med. and Pacific Northwest Univ. of Hlth. Sci.
- D234 **546.5** The Effectiveness of Active Learning in Histotechnology and Parasitology Techniques-Based Laboratory Courses **B.H. Dubansky and S. Hoger**. Tarleton State Univ., TX.

- D235 **546.6** Perceptions of a Flipped Histology Class: As Polarized as Politics? **B. Klein**. Indiana Univ.
- D236 **546.7** Pathology Encountered during Cadaver Dissection Provides an Opportunity for Integrated Learning and Critical Thinking **G. Zhang and B.A. Fenderson**. Thomas Jefferson Univ.
- D237 **546.8** An Approach to Teaching Histology and Embryology Efficiently in English in China **O. Sha, Y. Guan, M. Xie, Z. Liu and X. Fan**. Shenzhen Univ., China.

547. ANATOMY EDUCATION: ETHICAL ISSUES IN BODY DONATION PROGRAMS AND PLASTINATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM–2:15 PM

- D238 **547.1** A Proposal for Ethical Guidelines in Anatomical Education **S. Hildebrandt**. Boston Children's Hosp./Harvard Med. Sch.
- D239 **547.2** Ethical Issues in the Use of Willed Bodies in Anatomical Education **T.H. Champney**. Univ. of Miami Miller Sch. of Med.
- D240 **547.3** A Student Proposal for Ethical Guidelines in Anatomical Education: Ethical and Policy Considerations **P. Kahn and T. Gardin**. Albert Einstein Col. of Med.; Harvard Univ. Med. Sch. and Harvard Univ. Divinity Sch.
- D241 **547.4** How a Professional Identity Is Forged in the Anatomy Lab for Medical Students **C. Krebs, A. Parhar and G. Parhar**. Univ. of British Columbia.
- D242 **547.5** Assessment of Brazilian Students' Views about the Use of Human Bodies in Anatomy Education **A.O. Rocha, J. Pedron, L.D.G.R. Thomaz, M.C. Giroto and L.E.L. Simoneti**. Fed. Univ. of Hlth. Sci. of Porto Alegre, Brazil.
- D243 **547.6** Accommodating Students Suffering from PTSD in the Gross Anatomy Laboratory **J.C. Mussell**. LSU Hlth. Sci. Ctr., New Orleans.
- D244 **547.7** The Role of Body Donation Programs in Improving Anatomy Education **A.O. Rocha, L.D.G.R. Thomaz, J. Pedron, L.E.L. Simoneti, M.C. Giroto and J.A. Bonatto-Costa**. Fed. Univ. of Hlth. Sci. of Porto Alegre, Brazil.
- D245 **547.8** The Central Role of Thiel-Embalmed Cadaveric Dissection in a New Medical School's Integrated Systems-Based Curriculum Emphasizing Inquiry-Based Learning **N.T. Boaz**. Integrat. Ctrs. for Sci. and Med., Martinsville, VA.
- D246 **547.9** Pilot Study Evaluating Three Light-Embalming Solutions for Preparation of Cadavers for Short-Term Medical Training Courses **N.A. Schmalz, L. Challyandra, T.G. Siems and E. Stark**. David Geffen Sch. of Med. at UCLA and UCLA.

- D247 **547.10** Fix for Life. The Development of a New Embalming Method to Preserve Life-Like Morphology **A.J. van Dam, C. van Munsteren and M.C. de Ruiter**. Leiden Univ. Med. Ctr.
- D248 **547.11** Soft Embalming of Cadaveric Components for Training Purposes **M. Sochor, S. Heltzel, D. Sikon and R. Sikon**. Univ. of Virginia and Virginia Dept. of Hlth., Richmond.
- D249 **547.12** Fungal Contamination of Plastined Specimen **M.D. Barros, A. Navarini and T.S. Masuko**. Hlth. Clin. of São Paulo Sch. of Med. Sci. and Fed. Univ. of Bahia, Brazil.

548. ANATOMY EDUCATION: DISSECTION VERSUS PROSECTON

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM–2:15 PM

- D250 **548.1** *En Bloc* Dissection of Thoracic and Abdominal Viscera: A Beneficial Approach for Medical Student Learning **A.M. Xi, N. Kulkarni and M.H. Hankin**. Oakland Univ. William Beaumont Sch. of Med.
- D251 **548.2** Effect of Cadaver Dissection on Written and Practical Gross Anatomy Test Scores **N.R. Olivieri, M.I. Hurley and M.P. Olivieri**. D'Youville Col., NY and St. Lawrence Univ.
- D252 **548.3** Benefits of Extracurricular Participation in Dissection in a Prosection-Based Medical Anatomy Program **A. Whelan, J.J. Leddy and C.J. Ramnanan**. Fac. of Med., Univ. of Ottawa.
- D253 **548.4** Evaluation of Role of Dissection in Medical Education: A Case Study of Imo State University Nigeria **C.J. Ihentuge and C.O. Ugochukwu**. Imo State Univ., Nigeria.
- D254 **548.5** Dissection in Gross Anatomy Course: The Need for a Learner-Centered Pedagogy **M.A. Musa, A. Bello, A. Abdulsalam, G.M. Bala, B.O. Onimisi and T. Ammani**. Usmanu Danfodiyo Univ. Col. of Hlth. Sci., Nigeria.
- D255 **548.6** Using the Brains We Have: Dissection of the Human Brain Assists the Medical Student in Learning and Retaining Neuroanatomy **G. Rae, R.J. Cork, A. Karpinski, H. Farris and W. Swartz**. LSU Hlth. Sci. Ctr., New Orleans.
- D256 **548.7** Student Learning Outcomes and Retention of the Cardiovascular System in Cadaver-Based and Computer-Based Anatomy Courses: A Comparative Study **B. Locke and G. Nusse**. San Francisco State Univ.
- D257 **548.8** Perceived Relevance of Anatomy to Clerkship: Opinions of an Inaugural Class of Final Year MD Undergraduate Students **O.O. Oyedele**. Univ. of British Columbia Okanagan.

549. ANATOMY EDUCATION: TEACHING STRATEGIES AND METHODS**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching**Education**

Presentation time: 12:30 PM—2:15 PM

- D258 **549.1** Concept Mapping of Anatomy Dissection **N. Kulkarni, A. Xi and M.H. Hankin.** Oakland Univ. William Beaumont Sch. of Med.
- D259 **549.2** LabLink: Journaling via Multimedia in Anatomical Dissections **S.N. Dudgeon, G.M. Fox and K. Alsup.** Univ. of Michigan.
- D260 **549.3** The Constructive Approach to Teaching Anatomy through Clay Modeling: A Multi-tier Educational Value **S. Márquez, J. Patel, J.A. Rosentsveyg, A.M. Márquez and A.S. Pagano.** SUNY Downstate Med. Ctr.; Univ. of Connecticut; North Shore-LIJ Hlth. Syst.; Our Lady of Fatima and NYU Sch. of Med.
- D261 **549.4** Teaching the Extraocular Muscles of the Eye: Construction and Evaluation of a Low-Cost, High-Fidelity Ophthalmotrope for Medical Trainees **A.K.O. Maini, L.A. Welke and G.M. Nagy.** Ross Univ. Sch. of Med., Dominica.
- D262 **549.5** Subject Specific Cross Word Puzzles Were Effective Active Learning Tools **K.K.H. Svoboda, L-B. Ruest, R. Spears, D. Roeche and L.A. Opperman.** Texas A&M Univ. Baylor Col. of Dent.
- D263 **549.6** Getting Active with Musculoskeletal Anatomy Instruction **W.S. Brooks.** Univ. of Alabama at Birmingham.
- D264 **549.7** Digesting, Retaining, and Improving Cranial Nerve Study **S. Paskin-Flerlage and S. Márquez.** SUNY Downstate Med. Ctr.
- D265 **549.8** A Cadaver-Based Anatomy Course for Advanced Art Students **B.E. Hirsch and M. Grimaldi.** Drexel Univ. Col. of Med.; Philadelphia Museum of Art and Art Students League of New York.
- D266 **549.9** An Untold Story: The Important Contributions of Muslim Scholars for the Discovery of Human Anatomy and the History of Evolutionary Thinking **M. Alghamdi, A. Malik, J.M. Ziermann and R. Diogo.** Howard Univ. Col. of Med.
- D267 **549.10** Course Remediation within a First-Year Integrated Medical Curriculum **A.L. Mork, B. Klement, D.F. Paulsen and L.E. Wineski.** Morehouse Sch. of Med.

550. ANATOMY EDUCATION: SOFTWARE USED IN EDUCATION**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching**Education**

Presentation time: 12:30 PM—2:15 PM

- D268 **550.1** Browsing Software of the Visible Korean Data Used for Teaching Sectional Anatomy **B.S. Chung and M.S. Chung.** Ajou Univ. Sch. of Med., South Korea.
- D269 **550.2** Using a Multimedia Dissection Tool in Human Anatomy Lab **X. Zhang, G. Enders, A. Alexander, J. Ryan, M. Al-Kofahi, J. Cullan, T. Paolo and C. Magnifico.** Univ. of Kansas Med. Ctr.
- D270 **550.3** Enhancing Clinical Gross Anatomy through Mobile Learning and Digital Media **B.A. Krause, M.D. Riley and M.W. Taylor.** Ohio Univ. Col. of Hlth. Sci. and Professions and Ohio Univ. Col. of Osteo Med.
- D271 **550.4** Comparative Study on the Effectiveness of Integrated versus Discipline-Based Digital Learning Resources **K.M. Mitchell and L.M.J. Lee.** Univ. of Colorado Sch. of Med., Aurora.
- D272 **550.5** Assessing Medical Student's Perspective on Mobile Devices and Apps in an Integrated Curriculum **D. Harmon and J. Burgoon.** The Ohio State Univ.
- D273 **550.6** An Augmented Reality Embryology Textbook **S.V. Webster and S. Atherton.** Col. of Med., Swansea Univ. and Morrilton Hosp., Swansea, U.K.
- D274 **550.7** iPads in the Cadaver Lab – A Complement to Dissection and Study **M.L. Donohue, M.J. Vilburn, A. Conta Steencken and S.B. Stearns.** SUNY Upstate Med. Univ.
- D275 **550.8** Contextualizing Basic Science, Preclinical, and Clinical Concepts via Adaptive Multimedia Networks: 'BlueLink,' a Novel Approach to Interdisciplinary Education **G.M. Fox and K. Alsup.** Univ. of Michigan Med. Sch.
- D276 **550.9** A Survey of Student Use of a Novel Software Tool for Teaching Neuroanatomy, *Draw It to Know It* **B. Barger and A. Fisch.** Indiana Univ. and Indiana Univ. Sch. of Med.
- D277 **550.10** Developing an HTML5 Neuroanatomical Learning Tool for the Computer, Tablet and Smartphone **A.R. Severson and B.B. Paulsen.** Univ. of Minnesota Med. Sch., Duluth Campus.
- D278 **550.11** Evaluation of a Virtual 3D Learning Resource in Neuroanatomy for Undergraduate Medical Students **L. Allen, R. Eagleson and S. de Ribaupierre.** Univ. of Western Ontario and Schulich Sch. of Med. and Dent., Ontario.

Poster Presenters: Upload Your Poster

Where: E-Poster Counter, Lobby D

Deadline: Wed., April 1, 3:00 PM

Uploaded posters will be available online to all registered attendees following the meeting at www.experimentalbiology.org

- D279 **550.12** Production of an Anatomical Video of the Middle Cranial Fossa and Its Conversion into an Interactive Teaching Module **P. Oliver**. LSU Hlth. Sci. Ctr., New Orleans.
- D280 **550.13** Development of an Online Tool for Periodontal Disease Education **S. Johnston, A. Al-Osman, L. Kalman, M.I. Johnson, N. Tabbara and K.A. Galil**. Western Univ., Canada.
- D281 **550.14** Illustrations, CT Scans and Pictures of Anatomical Dissections in a 3D Atlas of the Human Hand **L. Burchianti, M.D. Barros and D.F. Curcio**. Santa Casa Sch. of Med. Sci., São Paulo and Icahn Sch. of Med. at Mount Sinai.
- D282 **550.15** Using Virtual Patient Learning Modules to Integrate Clinical Skills with Gastrointestinal Anatomy and Embryology **M. Doroudi, D. Min and I. Zandieh**. Univ. of British Columbia.
- D283 **550.16** Introducing Cutting Edge Technology to the Anatomy Curriculum at the University of Pecs **J. Farkas, D. Reglodi, G. Nagy and S. Vigh**. Univ. of Pecs Med. Sch., Hungary and Ross Univ. Sch. of Med., Dominica.
- D284 **550.17** E-Learning: Effective or Defective? The Impact of Commercial E-Learning Tools on Learner Cognitive Load and Anatomy Instruction **S. Van Nuland and K. Rogers**. Western Univ., Canada.

551. ANATOMY EDUCATION: STUDENT CENTERED LEARNING

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM–2:15 PM

- D285 **551.1** Medical Gross Anatomy for Large Classes in a 'Flipped' Classroom. **M.A. Meredith, J.L. Dupree, H.R. Clemo, M.G. McGinn, D.G. Simpson, H.D. Massey, P.J. Haar and S. Digiovanni**. VCU Sch. of Med.
- D286 **551.2** Long-term Retention and Effectiveness in a Large-sized Flipped Gross Anatomy Course for Doctoral of Physical Therapy Students **L. Day**. Northeastern Univ.
- D287 **551.3** The Flipped Anatomy Classroom: Principles of Swimming to Avoid Sinking **D.A. Morton and J. Colbert-Getz**. Univ. of Utah Sch. of Med.
- D288 **551.4** Assessing Organizational Changes to a First Year Medical Gross Anatomy Dissection Course **R.D. Darling, A.J. Notebaert, Y. Lu, M.L. Conway, A. Maklad and A.R. Sinning**. Univ. of Mississippi Med. Ctr.
- D289 **551.5** Two Years of Experience with Near-Peer Anatomists in a New Medical School'S Setting **A. Barash, N. Dickman, S. Reis and D. Karasik**. Bar-Ilan Univ., Israel.
- D290 **551.6** Continued Development of the Role of Teaching Assistants in Mount Sinai's "Structures" Course **P.P. Maffucci, B.M. Laitman and J.T. Laitman**. Icahn Sch. of Med. at Mount Sinai.
- D291 **551.7** Research Design for the Assessment of an In-Class, Student-Driven Teaching Activity **D.C. Bentley, N.S. Richardson and C.L. DeZorzi**. Univ. of Toronto; York Univ., Canada and Humber Col., Toronto.
- D292 **551.8** Developing Lifelong Learning Skills through Self-Directed Learning in the Gross Anatomy Laboratory Using Narrated Digital Slideshows **S. Dunham**. Indiana Univ.

- D293 **551.9** Different Student Perceptions of the Effectiveness of Team-Based Learning Exercises between Undergraduate Health Sciences and Medical Students **A.K. Ball, T. Hawke, P. Helli and B. Wainman**. McMaster Univ., Canada.
- D294 **551.10** Developing Core Competencies in First Year Medical Students: Peer Presentations of Case Studies in Neurobiology **A.K. Salm and J.L. Culberson**. West Virginia Univ. Sch. of Med.
- D295 **551.11** Facilitating OT and PT Graduate Student Laboratory Participation, Preparedness, and Professionalism in a Compressed, Intensive Gross Anatomy Dissection Course Series **R.D. Theiss**. Governors State Univ., IL.

552. CARDIOVASCULAR BIOLOGY: ANATOMY AND MORPHOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D296 **552.1** Ultrastructure and Histological Analyses of Cardiac Injury in *Ciona intestinalis* **H.J. Evans-Anderson**. Winthrop Univ., SC.
- D297 **552.2** A Salamander Model for Atrial Septal Defects and Cardiopulmonary Evolution **Z.R. Lewis and J. Hanken**. Harvard Univ.
- D298 **552.3** Variations in Branching of the Profunda Femoris Artery **M.I. Hurley, T.M. Stevens, S.M. Estaris, K.K. Duen and M.P. Olivieri**. D'Youville Col., NY.
- D299 **552.4** The Epiploic Flow-Through Flap: Preoperative Evaluation of Right Gastroepiploic Artery on Multidetector Computed Tomography **N. Settembre, S. Malikov, Z. Bouziane and M. Braun**. University Hosp. and IADI, INSERM U947, Vandoeuvre las Nancy.
- D300 **552.5** Examining Coronary Arterial Variations in an Urban Sample: Implications to Cardiovascular Disease **Z. Zhang, D.J. Mastriano, J.Y. Tan, M. Hasan, J.M. Lazar, A.S. Pagano and S. Marquez**. SUNY Downstate Col. of Med. and NYU Sch. of Med.
- D301 **552.6** Evaluation of Two Methods of Left Atrial Appendage Closure and its Proximity to the Circumflex Artery **B. Malakouti-Nejad, E. Winkler, M. Johnson, J. Catrip, K.L. Losenno and M.W.A. Chu**. Western Univ. and London Hlth. Sci. Ctr., Canada.
- D302 **552.7** Establishing an Anatomical Proximity between the Coronary Circumflex Artery and the Mitral Valve Annulus: Implications for Mitral Valve Surgery **E.J. Winkler, B. Malakouti-Nejad, M. Johnson, J. Catrip, J. Nagendran and M.W.A. Chu**. Univ. of Western Ontario and London Hlth. Sci. Ctr., Canada.
- D303 **552.8** Differential Lectin Binding in Giant Danio, Goldfish, and Zebrafish Hearts **P.J. Lafontant and A. May**. DePauw Univ.
- D304 **552.9** Lymphangioma: Differential Diagnosis of a Cadaveric Nodular Pigmented Lesion **A. Alavalapadu, A. Bhandari, E. Schlegel and F. Kirera**. Ross Univ. Sch. of Med.
- D305 **552.10** Beating the Bends: Dolphin Thoracic Rete as a Natural Vascular Filter for Trapping Nitrogen Bubbles and Preventing Diving Decompression Sickness **J.S. Reidenberg and J.T. Laitman**. Icahn Sch. of Med. at Mount Sinai.

- D306 **552.11** Situs Inversus Totalis: From Anatomical Variation to Clinical Studies **G. Casey, L. Campeau, D. Mandal and A. Russell.** LSU Hlth. Sci. Ctr., New Orleans.
- D307 **552.12** Lymph Drainage of the Upper Limb and Mammary Region to the Axilla: Anatomical Study in Stillbirths **G.A. Cuadrado, M.F.C. Andrade, F.E. Akamatsu and A.L. Jacomo.** Univ. of São Paulo Med. Sch.

553. CARDIOVASCULAR BIOLOGY: DYSFUNCTION; DISEASE; GENETIC DISORDERS

Poster

7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D308 **553.1** The Effects of Green Tea on the Adrenal Cortex of Aged Rats, a Histological Study **M.A. Othman.** Col. of Med. and Med. Sci., Arabian Gulf Univ., Bahrain and Col. of Med., Assiut Univ., Egypt.
- D309 **553.2** Heart Specific Deletion of RNA Binding Protein Rbfox1 Sensitizes Mice to Pressure Overload-Induced Cardiac Dysfunction **W. Zhu, I. Bender, A. Yellamilli and J. van Berlo.** Univ. of Minnesota, Minneapolis.
- D310 **553.3** IL-10 Improves Cardiomyocyte Survival via Downstream MyD88-Dependent TLR4 Innate Signaling of Jak/Stat3 Pathway **A.K. Bagchi, G.K. Akolkar, S. Mandal and P.K. Singal.** Univ. of Manitoba.
- D311 **553.4** BMP-pSmad1/5/8 Pathway Activation in Calcific Aortic Valve Disease **M.V. Gomez and K.E. Yutzey.** Cincinnati Children's Hosp. and Univ. of Cincinnati.
- D312 **553.5** Differential Regulation of CCN1 during Valve Remodeling in TGF β isoform Activation, Collagen Production through Integrin Signaling **S. Ghatak, S. Misra, R. Moreno Rodriguez, Y. Sugii, V.C. Hascall and R.R. Markwald.** Med. Univ. of South Carolina.
- D313 **553.6** The Cardiac Potassium Channel HERG Is Blocked by Calcium at a Site Near the Outer Mouth of the Channel **A. Nguyen, A. Wong, A. Oberoi, T. Le and A. Miller.** Touro Univ. California.
- D314 **553.7** Loss of Axin2 in Murine Aortic Valves Leads to Myxomatous Disease **A. Hulin, C.M. Alfieri and K.E. Yutzey.** Cincinnati Children's Hosp. Med. Ctr.
- D315 **553.8** Neural Crest-Derived Valve Interstitial Cells Calcify in the *Klotho*-Deficient Mouse Model of Aortic Valve Disease **E.E. Wirrig and K.E. Yutzey.** Cincinnati Children's Hosp. Med. Ctr.
- D316 **553.9** The Timing of In Utero Caffeine Exposure Influences the Morphological, Functional, and Trans-generational Effects on Adult Hearts **C. Wendler, R.R. Poulsen and X. Fang.** Univ. of Florida.
- D317 **553.10** Age-Related Changes in Endothelial Ca²⁺ Signaling Revealed by Imaging from Inside Arteries at Normal Physiological Pressures **C. Wilson, C. Saunter, J.M. Girkin and J.G. McCarron.** Strathclyde Univ. and Durham Univ., U.K.

554. CARDIOVASCULAR BIOLOGY: ANGIOGENESIS; LYMPHANGIOGENESIS; VASCULOGENESIS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D318 **554.1** Fine-Tune Regulation of *Cpn1* (Carboxypeptidase N1) to Control Vascular Patterning during Zebrafish Development **T-Y. Wu and C-Y. Wu.** Natl. Sun Yat-sen Univ., Taiwan.
- D319 **554.2** *Prdx1* Encode Peroxiredoxin Is Required for Vascular Development in Zebrafish **C. Wu and H-h. Syue.** Natl. Sun Yat-sen Univ., Taiwan.
- D320 **554.3** Follistatin-BMP Signaling Regulated by Isl2/Coupled TGF β Is Critical for Vascular Development **R-F. Li and W. Chang-Yi.** Natl. Sun Yat-sen Univ., Taiwan.
- D321 **554.4** Endothelial and Cancer Cells Have Differing Amounts of TGF Beta Receptors Involved in Angiogenesis **I. Duffy, P. Varacallo, H. Klerk and J. Hawker.** Saint Leo Univ. and South Florida State Col.

555. CARDIOVASCULAR BIOLOGY: SEX AND GENDER RELATED DIFFERENCES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D322 **555.1** Reduced Myocardial Apoptosis May Be Responsible for Attenuated Decline in Left Ventricular Systolic Function in Female Compared to Male Postinfarcted Middle-Aged Rats **K. Pavliak, Y-F. Chen, A. Pingitore and E.I. Dedkov.** NYIT Col. of Osteo. Med. and CNR Inst. of Clin. Physiol., Pisa.
- D323 **555.2** Sex-Specific Calcium Handling Underlying Sex-Specific Cardiomyocyte Death in Heart Failure **G. Kararigas, C.E. Molina, H. Summer, I. Baczko, S. Golz and V. Regitz-Zagrosek.** Charité Univ. Hosp., Berlin; Hosp. de la Santa Creu i Sant Pau, Barcelona; Bayer HealthCare, Wuppertal and Univ. of Szeged, Hungary.
- D324 **555.3** High Intensity Interval Grip Exercise Does Not Induce Post-exercise Hypotension in Older Women **D.C. Bentley and S.G. Thomas.** Univ. of Toronto.
- D325 **555.4** Study of Relationship between Blood Pressure and Visual Acuity among Nigerians **M.G. Taura, L.H. Adamu and M.H. Modibbo.** Bayero Univ. Kano, Nigeria.

556. CARDIOVASCULAR BIOLOGY: STEM CELLS, CELL AND MOLECULAR BIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D326 **556.1** Zeb2: A Novel Regulator of Cardiac Fibroblast to Myofibroblast Transition **F. Jahan, S. Rattan, I.M.C. Dixon and J.T. Wigle.** Univ. of Manitoba and St. Boniface Hosp. Res. Ctr., Winnipeg.
- D327 **556.2** Scleraxis: A Novel Transcriptional Regulator of Cardiac Fibroblast Function and Phenotype **R.A. Bagchi, P. Roche, R. Schweitzer and M.P. Czubyrt.** Univ. of Manitoba and Oregon Hlth. & Sci. Univ.

557. CARDIOVASCULAR BIOLOGY: HEART DEVELOPMENT AND GROWTH

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D328 **557.1** Inhibition of DNA Methyltransferase 1 Promotes Proliferation and Alters Gene Expression in Mouse Embryonic Cardiomyocytes **X. Fang, S.A. Rivkees and C.C. Wendler.** Univ. of Florida.
- D329 **557.2** Growth Dynamics and Mononucleation of the Ventricular Conduction System **D. Sedmera and R.G. Gourdie.** First Fac. of Med., Charles Univ.; Acad. of Sci. of Czech Republic, Prague and Virginia Tech Carilion Res. Inst.
- D330 **557.3** Developmental Regulation of Epicardial Cell Adhesion and Coronary Vasculogenesis **C.J. Hatcher, B.S. Tanner, D. Abdurahman, K.K. Nelson, W. Laidlaw and G. Gorski.** Philadelphia Col. of Osteo. Med.
- D331 **557.4** The Role of Non-muscle Myosin II in Early Chick Morphogenesis **M.S. Hoang and Q. Chu-LaGraff.** Union Col., NY.
- D332 **557.5** Effect of Hypoxia on Gene Expression in the Chick Embryonic Heart **O. Nanka, E. Krejci, J.L. Barth and D. Sedmera.** First Fac. of Med., Charles Univ., Czech Republic; Med. Univ. of South Carolina and Acad. of Sci., Prague.
- D333 **557.6** Development of the Ventricular Conduction System of the Crocodylian Heart **A. Kvasilova, B. Jensen, V.M. Christoffels and D. Sedmera.** First Fac. of Med., Charles Univ., Czech Republic; Aarhus Univ., Denmark; Acad. Med. Ctr., Amsterdam and Acad of Sci., Prague.

558. CELL BIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Cardiovascular

Presentation time: 12:30 PM–2:15 PM

- D334 **558.1** Short- and Long-Term Pro-inflammatory Mediator Responses in Prostate Adenocarcinoma Progression in TRAMP Mice after Goniothalamin Therapy **V. Cagnon, L. Kido, F. Montico, D.V. Costa, J.E. Carvalho and R. Pilli.** Univ. of Campinas, São Paulo.
- D335 **558.2** Examining O-Xylosyltransferase in *Drosophila* **B. Palus and E.M. Selva.** Univ. of Delaware.
- D336 **558.3** Toll-Like Receptor 10 Expression in Chicken, Cattle, Pig, Dog, and Rat Lungs **Y. Balachandran, S. Knaus and B. Singh.** Univ. of Saskatchewan.
- D337 **558.4** Effects of Bleomycin, Etoposide and Cisplatin Treatment on Leydig Cell Structure and Transcription of Steroidogenic Enzymes in Rat Testis **N. Kilarkaje and M. Al-Bader.** Fac. of Med., Kuwait Univ.
- D338 **558.5** FRET Biosensors Reveal AKAP-Mediated Shaping of Subcellular PKA Activity and a Novel Mode of Ca²⁺/PKA Crosstalk **M.B. Schott and B. Grove.** Univ. of North Dakota.
- D339 **558.6** Selective Inhibition of Osteosarcoma Cell Functions Induced by Curcumin-Loaded Self-Assembled Arginine-Rich-RGD Nanospheres **R.K. Chang, L. Sun and T.J. Webster.** Northeastern Univ.
- D340 **558.7** A Novel Immunity Boosting Strategy through Hypoxia-Inducible Factor-1 against Urinary Tract Infections **A.E. Lin, F.C. Beasley, J. Olson, N. Keller, R.A. Shalwitz, T.J. Hannan, S. Hutlgren and V. Nizet.** UCSD and Aerpio Therapeut., Cincinnati.
- D341 **558.8** A New Model of Tubulobulbar Complex Budding in the Seminiferous Epithelium of the Testis **K. Lyon, E. Bosseboeuf and W.A. Vogl.** Univ. of British Columbia.
- D342 **558.9** Cyclophilin A, a Novel Component of *Listeria monocytogenes* Comet Tails **A.S. Dhanda and J.A. Guttman.** Simon Fraser Univ., Canada.
- D343 **558.10** Analysis of SM22 at Enteropathogenic *Escherichia coli* Induced Pedestals **M.D. Chua, K.J. Hipolito and J.A. Guttman.** Simon Fraser Univ., Canada.
- D344 **558.11** Role of Gravin in Compartmentalization of cAMP Signaling **F.N. Thompson Gonowolo and B.D. Grove.** Univ. of North Dakota Sch. of Med. and Hlth. Sci.
- D345 **558.12** TGFβ-Induced TAZ Upregulation and the Underlying Mechanisms **M.Z. Miranda, J.F. Bialik, M. Rozycki, S.F. Pedersen and A. Kapus.** Keenan Res. Ctr.; Univ. of Toronto and Univ. of Copenhagen.
- D346 **558.13** Application of Laser Feedback Interference Microscopy to Localize the Ciliary Vector **B. Ovaryn and P. Satir.** Albert Einstein Col. of Med.
- D347 **558.14** Steroid Hormone and Reactive Stroma Evaluation in Different Grades of Prostate Cancer in TRAMP Mice following Anti-inflammatory Treatments **V. Cagnon, R. Sauce, L. Kido, F. Montico, J. Carvalho, D. Costa and R. Pilli.** UNICAMP, São Paulo.

Biochemistry and Molecular Biology

559. BMB EDUCATION AND PROFESSIONAL DEVELOPMENT

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A1 **559.1** Integrating Biochemistry into a First-year Undergraduate Rhetoric-Intensive Seminar Program **K.V. Mills**. Col. of the Holy Cross.
- A2 **559.2** RCN-UBE: Integrating Evolution and Homeostasis with the Core Concepts of Biochemistry and Molecular Biology **J.E. Bell, A. Aguanno, P. Mertz, M. Johnson and K.M. Fox**. Univ. of Richmond; Union Col., NY; Univ. of Alabama; St Mary's Col. of Maryland and Marymount Manhattan.
- A3 **559.3** From Sir Walter Raleigh to the Mongoose: A Problem-Based Learning Course in Biochemistry Centered Around Curare **D.R. Dries**. Juniata Col., PA.
- A4 **559.4** Teaching Professional Skills to Chemistry and Biochemistry Majors **C.A. Sarisky and W.G. Hollis, Jr.** Roanoke Col., VA.
- A5 **559.5** Eureka! Energizing the Next Generation of Clinical Researchers **K.E. Sawarynski, D. Baxa and M. Dereski**. Oakland Univ. William Beaumont Sch. of Med.
- A6 **559.6** A Web Repository of Research Literature Assessment Questions to Promote Student Learning and Acquisition of Scientific Reasoning and Inquiry Skills Necessary for Both the MCAT2015 and ASBMB Certification **H. Jakubowski**. Col. of St. Benedict, St. John's Univ., MN.
- A7 **559.7** K-12 STEM Outreach: Ushering in the Next Generation of Scientists **K.X. Mulligan**. Vanderbilt Univ.
- A8 **559.8** Broader Impact Careers for Scientists in Science Education and Communication **B. Jacque, S.A. Tammen and K. Meiri**. Tufts Univ. Sch. of Med.
- A9 **559.9** Teen Meetings Outside the Box: Building Science Communication Skills through a Network of Graduate Level Trainees, Science Teachers, and High School Teens **T.M. Evans, N. Blake, L.M. McManus and M.J. Lichtenstein**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- A10 **559.10** A Practical Approach to Career Advising for Biochemistry and Molecular Biology Majors **P.J. Kennelly**. VPI & State Univ.
- A11 **559.11** Get Up and Learn – Active Learning of Hemoglobin Function in the Biochemistry Classroom **A. Diegelman-Parente**. Mercyhurst Univ., PA.
- A12 **559.12** Acquiring Skills beyond the Bench through the Great Diseases – a Teacher-Scientist Partnership **S.A. Tammen, K. Malanson, B. Jacque and K. Meiri**. Tufts Univ. Sch. of Med.
- A13 **559.13** Biochemistry Summer Academy – Assistance in the Development of Curricula for the Next Generation Science Standards **G. Blaha, D. Niks, J.L. Halford and T. Baldwin**. Univ. of California, Riverside.
- A14 **559.14** Effective Strategies for Integrating Prerequisite Course Concepts into Teaching Biochemistry **A.T.S. Taylor and W. Novak**. Wabash Col., IN.
- A15 **559.15** Intervertebral Canals of Cervical Spine **K.A. Zhandarov**. I.M. Sechenov First Moscow State Med. Univ.
- A16 **559.16** Flipped Classroom Activities in Introductory Chemistry and Biochemistry Courses for Nursing and Nutrition Majors **E. Anderson**. Univ. of Saint Joseph, CT.
- A17 **559.17** Flipping without Flopping in Advanced Cell Biology **R. Pals-Rylaarsdam and A.K. Wilson**. Benedictine Univ., IL.
- A18 **559.18** An Expanded Rubric for Assessing Molecular Visualization Literacy **M.A. Franzen, P.A. Craig, D.M. Dean, D.R. Dries, L. Listenberger and W. Novak**. Milwaukee Sch. of Engin.; Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol.; Univ. of Saint Joseph; Juniata Col., PA; St. Olaf Col., MN and Wabash Col., IN.
- A19 **559.19** Design and Implementation of a Professional Master of Science in Biotechnology Innovation and Regulatory Science with Global Impact **K.L. Clase and S.R. Byrn**. Purdue Univ.
- A20 **559.20** Fostering Critical Thinking Skills in a Master's-Level Course via In-Depth Analysis of Primary Literature **E. Tour, C. Abdullah, J. Parris, R. Lie and A. Guzdar**. UCSD.
- A21 **559.21** Plagiarism in Lab Reports in the age of Turnitin **E. Tour, T. Bertram-Gallant, M. Picciotto and G. Bozinovic**. UCSD.
- A22 **559.22** Renaturation of RibonucleaseA (RNaseA): Walking in the Footsteps of a Nobel Prize Winner **T.H. Carter**. St. John's Univ.
- A23 **559.23** An Inquiry-Based Laboratory Module to Promote Understanding of the Scientific Method and Bacterial Conjugation **M. Berkmen, A.C. Murthy and M.P. Broulidakis**. Suffolk Univ., Boston.
- A24 **559.24** Inquiry-Based Cell Culture Laboratory Course for Undergraduates **L.M. Carastro**. Univ. of Tampa.
- A25 **559.25** Measurement of Level of Branched Chain Amino Acids in Nutritional Supplements **D.J. Lamela, K. Sachandani, K.A. Hubble and K.A. Keenan**. Richard Stockton Col., NJ.
- A26 **559.26** YZGD, a Two-Domain Enzyme, as a Teaching Tool in a Biochemistry Laboratory **S. O'Handley**. Rochester Inst. of Technol.
- A27 **559.27** Utilizing Ligation Independent Cloning in an Undergraduate Biochemistry Laboratory Course **J.T. Hazzard, B.L. Forte, M.T. Nelp, A.P. Young and A.C. Hausrath**. Univ. of Arizona.
- A28 **559.28** A Recombinant DNA Lab Exercise Based on Racing Endonuclease and Ligase Enzymes **R. Hill and M. Junker**. Kutztown Univ.
- A29 **559.29** Protein Structure-Function Relationships of T4 Lysozyme in an Advanced Biochemistry Laboratory **T.J. Watt and T.B. Toro**. Xavier Univ. of Louisiana.
- A30 **559.30** Incorporating Research in the Biochemistry Laboratory **T. Johann**. Roanoke Col., VA.
- A31 **559.31** A Research-Based Laboratory Course Examining the Structure and Function of Alcohol Dehydrogenase Improves Student Confidence in Common Biochemical Techniques **M.O. Huff and A.J. Krzysiak**. Bellarmine Univ., KY.
- A32 **559.32** Pathways over Time: A Semester-Long Research Investigation for the Introductory Laboratory **C.M. O'Connor and D.M. Warner**. Boston Col.

- A33 **559.33** The Chemistry of Cooking Laboratory Exercises: A Perspective to Increase Chemistry and Biology Access to Students by Using Approachable Experiments **A.B. Zammit, M.A. Wallert and J.J. Provost**. Univ. of San Diego and Minnesota State Univ. Moorhead.
- A34 **559.34** Using Computational Modeling to Teach Experimental Design **A.G. Wright and D. Gammack**. Marymount Univ., VA.
- A35 **559.35** Examining Microbial Biodiversity in Soil: A Research-Based Introductory Biology Laboratory Course **S.M. Lo**. UCSD.
- A36 **559.36** Cross-Course Laboratory Collaboration in Cell Biology and Organic Chemistry II Leads to Increased Knowledge of Science Content and Process **S.A. Carle, J.S. Miller, P. Mowery and J.G. MaKinster**. Hobart & William Smith Colls., NY.
- A37 **559.37** SUNY/NYAS STEM Mentoring After School Program Statewide Scale Up Project, Year Three **P. Ortiz, K. Breton, J. Duncan-Poitier, G. Elphick, M. Groome, J. Lansing and G. Moore**. Univ. at Albany, SUNY; New York Acad. of Sci. and Gaylen Moore Prog. Eval. Svcs., NY.
- A38 **559.38** Transforming Undergraduate Education in the Molecular Life Sciences – A Special Summer Symposium **Q.C. Vega and M. Huff**. Montclair State Univ., NJ and Bellarmine Univ., KY.
- A39 **559.39** Interdisciplinary Learning Communities at Linfield College Increase Interactions among Students and Participation in Science **A. Kruchten**. Linfield Col., OR.
- A40 **559.40** Probing the Inflammatory Response Behind Diabetes and Obesity via the Biochemical Characterization of NOD1, an Innate Immune Receptor **T.E. Rivas, M. Lauro, C. Grimes and B. Bahnson**. Univ. of Delaware.
- A41 **559.41** Undergraduate Research – a Key to Advancing Interest in STEM **M.A. Carroll, E.J. Catapane and D. Skeete**. Medgar Evers Col., Brooklyn.
- A42 **559.42** A Computational Study of the Contributions to the Relative Stability of the α and β Conformers of D-Glucopyranose **R. Balilli, M. Abdulsalam, R. Baello, R. Booth, S. Suresh and M.L. Kasner**. Montclair State Univ.
- A43 **559.43** Implementation and Benefits of a Capstone Undergraduate Research Program **D. Martin**. Saint Mary's Univ. of Minnesota.
- A44 **559.44** A Theoretical Study of the Factors that Contribute to the Conformational Energy of Six-Membered Rings **M. Abdulsalam, R. Balilli, R. Baello, R. Booth, S. Suresh and M.L. Kasner**. Montclair State Univ.
- A45 **559.45** An RNA Research-Based Advanced Biochemistry Laboratory Course: Design, Implementation, and Outcomes **K.D. Mouzakis**. Fort Lewis Col., CO.
- A46 **559.46** Exploring Ethanol: Engaging First-Year Undergraduates in the Biochemistry of Ethyl Alcohol **G.E. Joyce and R.J. Howard**. Skidmore Col., NY.
- A47 **559.47** Fueling the Interdisciplinary Flame: Exploring Plant-Based Alternative Fuels in the Undergraduate Laboratory **G.E. Gregorzak, J. Fajardo, M. Baillie and A. Hlousek-Radojic**. Univ. of Delaware.
- A48 **559.48** Confirmation and Characterization of Lin-/Sca-1⁺/CD45⁺ Very Small Embryonic-Like Cells Purified from Bone Marrow **E.H. Shin, A.M. Truman, D.C. Woods and J.L. Tilly**. Northeastern Univ.
- A49 **559.49** Expression of Neuronal Nitric Oxide Synthase in the Extratesticular Pathway and Its Role in Murine Sperm Maturation **R. Pollak and P. DeLeon**. Univ. of Delaware.
- A50 **559.50** A Bioinformatics Course-Based Undergraduate Research Experience **K.J. Saville, G. McNeil, C.D. Shaffer, W. Leung, D. Lopatto and S.C. Elgin**. Albion Col., MI; York Col., NY; Washington Univ. in St. Louis and Grinnell Col., IA.
- A51 **559.51** Use of Social Media to Manage Out-of-Class Discussion **J.T. Tansey**. Otterbein Univ., OH.

560. DNA REPLICATION AND REPAIR

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A52 **560.1** Selective DNA Damage Slowed Histone Turnover **R. Kellow and J. Neidigh**. La Sierra Univ. and Loma Linda Univ. Sch. of Med.
- A53 **560.2** Two Potential Sites of Protein-Protein Interaction within the *Mycobacterium tuberculosis* DNA Gyrase Complex **N. Wright, J. Peavey, D. Borg, R. Raab and T. Johann**. Roanoke Col., VA and James Madison Univ.
- A54 **560.3** De Novo Thymidylate Biosynthesis and Uracil Misincorporation in DNA as Related to Neural Tube Defect and Cancer Outcomes in Mouse Models **M.S. Field, X. Lan and P.J. Stover**. Cornell Univ.
- A55 **560.4** Crystal Structure of the *Plasmodium falciparum* Apicoplast DNA Polymerase **M.E. Milton, R.B. Honzatko and S.W. Nelson**. Iowa State Univ.
- A56 **560.5** Directed Evolution of DinB in *Escherichia coli* by Hydroxylamine Mutagenesis and UV Selection **J.M. Hollander and P.J. Beuning**. Northeastern Univ.
- A57 **560.6** *Saccharomyces cerevisiae* as a Tool to Examine Rpa2 N-Terminal Phosphorylation across Common Eukarya **T.M. Wilson, P.L. Ghospurkar, B.L. Senger and S.J. Haring**. North Dakota State Univ.
- A58 **560.7** The Q Motif Is Involved in DNA Binding in ChlR1 (DDX11) Helicase **H. Ding and Y. Wu**. Univ. of Saskatchewan.
- A59 **560.8** Swi1^{TIMELESS} Prevents Repeat Instability at Fission Yeast Telomeres **E. Noguchi and M. Gadaleta**. Drexel Univ. Col. of Med.
- A60 **560.9** ATR Promotes the Replication Traverse of DNA Interstrand Crosslinks **J. Huang, M. Bellani, Y. Xue, W. Wang, A.R. Meetei and M.M. Seidman**. NIA, NIH, Baltimore and Cincinnati Children's Hosp. Med. Ctr.
- A61 **560.10** Evidence-Based Design of a Fragile Site in Budding Yeast **S. Fernando, M.F. Arlt, T.W. Glover and T.E. Wilson**. Univ. of Michigan.
- A62 **560.11** PDIP46 – A Pol δ and PCNA Binding Protein that Stimulates Human Pol δ Activity **X. Wang, S. Zhang, S.H.S. Lin, E. Lee, M. Lee and Z. Zhang**. New York Med. Col. and UCSF.
- A63 **560.12** Biochemical Mechanism for Recruitment of the Checkpoint Activator TOPBP1 to Stalled Replication Forks **M. Michael**. Univ. of So. California.
- A64 **560.13** Checkpoint Regulation of Replication Forks at Sites of DNA Damage **D.R. Iyer and N.R. Rhind**. UMass Med. Sch.
- A65 **560.14** Incision-Independent Repair of a Psoralen-Interstrand Crosslink **J. Zhang, M. Budzowska and J. Walter**. Harvard Med. Sch. and HHMI.
- A66 **560.15** Processing of 3' Phosphate DNA Termini by the Herpes Simplex Virus-1 DNA Polymerase: A Novel 3' Phosphatase Activity **P.E. Boehmer and K. Rupesh**. Univ. of Arizona Col. of Med.-Phoenix.

561. REPLICATION AND TRANSLESION SYNTHESIS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A67 **561.1** Specificity and Activity of Y-Family DNA Polymerases DinB and Pol Kappa **N. Antczak, J. Walsh, P. Ippoliti and P. Beuning**. Northeastern Univ.
- A68 **561.2** Mechanisms of Translesion DNA Bypass across (5'S)-8,5'-Cyclo-2'-Deoxyguanosine by *Sulfolobus solfataricus* DNA Polymerases **L. Zhao, W. Xu, A.M. Ouellette, Z. Wawrzak, S.J. Shriver and S.M. Anderson**. Central Michigan Univ. and Northwestern Univ., Argonne, IL.
- A69 **561.3** Investigating the Importance of DinB-RecA Interactions to the Regulation of DinB's Activity and the Fidelity of the DNA Damage Response **T.F. Tashjian, I. Lin, T. Cafarelli and V. Godoy**. Northeastern Univ. and Dana-Farber Cancer Inst.
- A70 **561.4** Expression and Purification of Putative Y-Family Polymerase DinB from *Sinorhizobium meliloti* **C. Kramer, N. DeLateur, T.E. Brewer, K.M. Jones and P. Beuning**. Northeastern Univ. and Florida State Univ.
- A71 **561.5** Molecular Dynamics Study of the Opening and Closing Mechanisms for DNA Polymerase I **B.R. Miller, C. Parish and E.Y. Wu**. Univ. of Richmond.
- A72 **561.6** A Single-Molecule Reconstitution of Translesion Synthesis and Competition between DNA Polymerases **J.E. Kath, S. Jergic, J.M. Heltzel, D.T. Jacob, N.E. Dixon, M.D. Sutton, G.C. Walker and J.J. Loparo**. Harvard Med. Sch.; MIT; Univ. at Buffalo and Univ. of Wollongong, Australia.
- A73 **561.7** A Molecular Dynamics Investigation of the Thermostability of DNA Polymerase **E. Modeste, L. Mawby, B. Miller III, E. Wu and C. Parish**. Univ. of Richmond.
- A74 **561.8** Non-cognate DNA Damage Prevents Formation of Active Conformation of Y-Family DNA Polymerases DinB and Pol Kappa **P. Nevin, X. Lu, K. Zhang, J.R. Engen and P.J. Beuning**. Northeastern Univ.
- A75 **561.9** Re-replication Origins in *Sciara* DNA Puffs Revealed by New and Old Genomic Technologies Including Nanopore Sequencing **J.M. Urban, A. Bashir, R. Sebra, M.S. Foulk, M. Howison and S.A. Gerbi**. Brown Univ. and Mount Sinai Sch. of Med.
- A76 **561.10** Characterization of the N-terminal Arms of the Polymerase Manager Protein UmuD **D.A. Murison, J.N. Ollivierre, Q. Huang, D.E. Budil and P.J. Beuning**. Northeastern Univ.
- A77 **561.11** Cell Death Mechanisms Induced by Altered Telomerase RNA Template Sequence **W.M. Hernandez-Sanchez and D.J. Taylor**. Case Western Reserve Univ.
- A78 **561.12** Structural Basis for Mitochondrial DNA Replication **W. Yin, M. Szymanski and C. Shumate**. Univ. of Texas Med. Branch.

562. RNA EXPRESSION AND POSTTRANSCRIPTIONAL REGULATORY EVENTS I

(Poster Session II scheduled on Monday)

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A79 **562.1** High Resolution Architecture of Human Transcriptional Activity Revealed by Native Elongating Transcript Sequencing **A. Mayer, J. di Iulio, S. Maleri, U. Eser, A. Reynolds, J. Vierstra, R. Sandstrom, J.A. Stamatoyannopoulos and L.S. Churchman**. Harvard Med. Sch. and Univ. of Washington.
- A80 **562.2** Characterization of *S. cerevisiae* Phenotypes Associated with Cancer-Causing Mutations in Hsh155p **D.M. Zoerner, G. Luo, T. Carrocci, U.S. Tretbar and A.A. Hoskins**. Univ. of Wisconsin-Madison.
- A81 **562.3** Interactome Dynamics of the Transcription Elongation Complex Revealed by Quantitative Proteomics **K.M. Harlen and S. Churchman**. Harvard Med. Sch.
- A82 **562.4** *RTT105* in Ty1 Retrotransposition: A Possible Role in Virus-Like Particle Assembly **J.L. Scales, M.P. Peterson and J.B. Keeney**. Juniata Col. and Viterbo Univ.
- A83 **562.5** Let the Cells Do the Work: Production of Novel Recombinant pre-miRNAs in *E. coli* as Therapeutic Agents **A. Yu, W. Wang, Q. Chen, P.Y. Ho and M. Li**. Univ. of California, Davis, Sacramento.
- A84 **562.6** Alternative ELISA Using a RNA Aptamer against Calf Intestinal Alkaline Phosphatase **V.D. Huynh, E.Z. Wei, A.D. Ellington and G.M. Stovall**. Univ. of Texas at Austin.
- A85 **562.7** BIRC6 Is Up-Regulated via Transcriptional and Post-transcriptional Mechanisms in Imatinib Resistant Chronic Myeloid Leukemia **R.J. Zhang, D. Okumu, M. Levine and L.M. Graves**. Univ. of North Carolina at Chapel Hill.
- A86 **562.8** *RAP_{2,6}L* mRNA Level in Oil Palm (*Elaeis guineensis*) Leaf, Inflorescence Explants and Calli Produced from Them **G.C. Mgebeze, H.O. Shittu and A. Iserhienrhien**. Univ. of Benin.
- A87 **562.9** A Novel Isoform of CPEB2 Regulates the Metastasis of Triple Negative Breast Cancer **R.M. Johnson, N. Vu, C.E. Chalfant and M.A. Park**. Virginia Commonwealth Univ. and Hunter Holmes McGuire VA Med. Ctr.
- A88 **562.10** High Fat Diet-Induced Alterations in Alternative Splicing of Pre-mRNA **S. Ravi, R.J. Schilder, L.S. Jefferson and S.R. Kimball**. Penn State Col. of Med and Penn State.
- A89 **562.11** Regiospecific Function of the C-terminal Domain of RNA Polymerase II in Yeast **S.M. Fuchs, M. Babokhov, M. Mosaheb and S.A. Morrill**. Tufts Univ.
- A90 **562.12** Analysis of the Helicase Activity of *Escherichia coli* RNase R **SK. Tofajen Hossain and M.P. Deutscher**. Miller Sch. of Med., Univ. of Miami.
- A91 **562.13** Functional Analysis of FOXC1 in TGF- β Mediated Epithelial to Mesenchymal Transition **F. Berry, F. Mirzayans and A. Hopkins**. Univ. of Alberta.
- A92 **562.14** A Quick, Affordable Method for the Quantification of Gene Isoforms **G. Bistulfi and C. Sutherland**. D'Youville Col., NY.
- A93 **562.15** TGF-beta Regulates Alternative Splicing of CD44 by Inducing Smad3 Binding to CD44 pre-mRNA **Y.E. Zhang, V. Tripathi, K.M. Sixt and M. Heller**. NCI, NIH.

Visit the Exhibits
Sunday – Tuesday
9:00 AM – 4:00 PM

- A94 **562.16** Insulin and Angiotensin II Regulate Titin Alternative Splicing via Rbm20 **C. Zhu, Z. Yin and W. Guo.** Univ. of Wyoming.
- A95 **562.17** Dissecting Musashi1 Role in Chromatin Remodeling and Its Consequences to DNA Repair and Radio-Resistance **P. Rosa de Araujo, A.E. Silva and L.O. Penalva.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- A96 **562.18** Testosterone and Sex: The Role of Hormones in Sexual Dimorphism **J.D. Partsch, D.M. Rodriguez, G.S. Van Dongen, E.D. Ketterson and M.P. Peterson.** Juniata Col., PA; Indiana Univ. and Viterbo Univ., WI.
- A97 **562.19** OsteoMiR: A Novel Panel of MicroRNA Biomarkers in Osteoblastic and Osteocytic Differentiation from Mesencymal Stem Cells **T. Eguchi, E.S. Hara, M. Ono, K. Watanabe, T. Kuboki and S. Calderwood.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.; Natl. Ctr. for Geriat. and Gerontol., Japan and Okayama Univ. Grad. Sch. of Med., Dent. and Pharmaceut. Sci.
- A98 **562.20** Identifying and Correcting RNA Preservation Differences in Human Blood Samples **D.E. Donohue, A. Gautam, S. Ann-Miller, R. Hammamieh and M. Jett.** The Geneva Fndn., Tacoma and U.S. Army Ctr. for Envrn. Hlth. Res., Fort Detrick, MD.
- A99 **562.21** miR-153-3p and miR-205-5p Target Key Regulatory Pathways in Neuronal Cells **K.S. Patil, I. Basak, R. Pal, J.P. Larsen and S.G. Møller.** St. John's Univ., NY and Stavanger Univ. Hosp., Norway.
- A100 **562.22** Differential CYCLOIDEA Expression across Developing Compound Floral Heads **V. Thompson, A. Lim, B. Berger, V. Ricigliano and D. Howarth.** St. John's Univ., NY.
- A101 **562.23** CYCLOIDEA Gene Expression across *Dipsacales* in Relation to Floral Symmetry **A. Lim, V. Thompson, B. Berger, V. Ricigliano and D. Howarth.** St. John's Univ., NY.
- A102 **562.24** An Epigenetic Switch of let-7 Targeted Oncofetal Genes **C. Jnbaptiste, A. Gurtan, V. Lu, A. Bhutkar and P. Sharp.** MIT.
- A103 **562.25** Characterizing Polyadenylated uaRNAs Suggests a Potential Role for Pabpn1 **A.C. Chiu, X. Wu, A. Subtelny and P. Sharp.** MIT.
- A104 **562.26** Characterizing CDK12 and CDK13 Activity in Transcription and mRNA Biogenesis in Mouse Embryonic Stem Cells **S. Dubbury and P.A. Sharp.** MIT.
- A105 **562.27** Small Molecule Disruption of T-Box Regulated Transcription **G.C. Todd, K. Lu, K. Frohlich, W.A. Cantara, D.B. Kitchen, Z. Kloos, K.A. McDonough and P.F. Agris.** Univ. at Albany, SUNY; NY State Dept. of Hlth., Albany; The Ohio State Univ. and Albany Molec. Res. Inc., Albany.
- A106 **562.28** Synthesis and Characterization of Ribonucleic Acid Aptamers Targeted at *Aspergillus* Fungus Cell Surface Carbohydrates **M.R. Sheridan, D.R. Engelke and C.E. Rohlman.** Albion Col. and Univ. of Michigan.
- A107 **562.29** Nutritional Status Modulates Box C/D snoRNP Biogenesis by Regulated Subcellular Relocalization of the R2TP Complex **W.A. Houry.** Univ. of Toronto.
- A108 **562.30** Identification of mRNA Localization Motifs through Cell Fractionation and Alternative Splicing Analysis **J.M. Taliaferro, M. Vidaki, F.B. Gertler and C.B. Burge.** MIT.
- A109 **562.31** Role of Extracellular MicroRNAs in Atherosclerosis **M. Nguyen, D. Karunakaran, M. Geoffrion and K. Rayner.** Univ. of Ottawa.
- 563. INTRINSICALLY DISORDERED PROTEINS, IDPS: PROTEIN FOLDING AS A REGULATORY PHENOMENON I**
- (Poster Session II scheduled on Monday; Poster Session III scheduled on Tuesday)
- Poster**
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:05 PM–1:35 PM*
- A110 **563.1** Expanding Electrochemical DNA Biosensors to Detect Ricin **L. Fetter and A.J. Bonham.** Metropolitan State Univ. of Denver.
- A111 **563.2** Electrochemical DNA Biosensors for Point-of-Care Protein and Toxin Detection **A.J. Bonham.** Metro. State Univ. of Denver.
- A112 **563.3** Electrochemical Biosensor Development for Detection of Botulinum Toxin A **J.M. Richards and A.J. Bonham.** Metro. State Univ. of Denver.
- A113 **563.4** Association between Intrinsic Disorder and Serine/Threonine Phosphorylation in *Mycobacterium tuberculosis* **G.P. Singh.** Sch. of Biotechnol., KIIT Univ., India.
- A114 **563.5** Conformational Regulation of the C-Terminal Random Coil in S100A4 by Ca²⁺ Ions **G. Katona, A. Duelli, B. Kiss, I. Lundholm, A. Bodor, M.V. Petoukhov, D.I. Svergun and L. Nyitrai.** Univ. of Gothenburg; Eötvös Lorand Univ.; Eötvös Lorand Univ., Hungary and EMBL Hamburg Outstation.
- A115 **563.6** Ligand-Induced Conformational Change Propagates NEMO-Mediated NF-κB Signaling **R. Shaffer, S. Cote, K. Allen and A. Whitty.** Boston Univ.
- A116 **563.7** Regulation of Translation Initiation by a Network of Overlapping Intra- and Intermolecular Interactions Mediated by Natively Unfolded Protein Segments **A. Marintchev, N. Nag, K.A. Edmonds, J. Yu and B. Marintcheva.** Boston Univ. Sch. of Med. and Bridgewater State Univ.
- A117 **563.8** Selective RNA Sequestration Mediated by a Heat-Sensing Disordered Protein Region **D.A. Drummond, E. Pilipenko, J. Riback, J.K. Scott, A. Rojek, B.A. Budnik, E.W.J. Wallace and C. Katanski.** Univ. of Chicago and Harvard Univ.
- A118 **563.9** Structure and Assembly of Functional Amyloids **S. Perrett.** Chinese Acad. of Sci., Beijing.
- A119 **563.10** Polyisoprenylated Cysteiny Amides Induce Apoptosis and Inhibit Proliferation and Migration of Human K-Ras Mutant Cancer Cells **A.T. Nkembo, O. Salako, R. Poku, B. Aguilar, H. Flores-Rozas and N.S. Lamango.** Florida A&M Univ.
- A120 **563.11** Widespread Protein Assembly as a Stress Response **E.W.J. Wallace, B. Budnik and D.A. Drummond.** Univ. of Chicago and Harvard Univ.
- A121 **563.12** "Protein Un-Design": Evolutionary Origins of Native DNA-Binding Architectures in Unfolded Polypeptides **M.A. Weiss, J.D. Racca, Y-S. Chen and N.B. Phillips.** Case Western Reserve Univ.
- A122 **563.13** Regulation of Ubiquitin Independent Proteasomal Degradation of Intrinsically Disordered Proteins **Y. Shaul.** Weizmann Inst. of Sci.
- A123 **563.14** The Complex Role of Sequence on the Stability and Function of a Thermophilic TIM Barrel Protein **Y.H. Chan, K. Zeldovich and C.R. Matthews.** UMass Med. Sch.

564. PROTEIN AGGREGATION AND AMYLOID DISEASES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A124 **564.1** Post-translational Modifications Promote Formation of SOD1 Oligomers with Potential Toxicity in ALS **N.V. Dokholyan, R.L. Redler, E.A. Proctor, F. Ding and M. Caplow.** Univ. of North Carolina at Chapel Hill.
- A125 **564.2** Safe Inhibition of Amyloid Proteins Toxicity without Protein Specificity **G. Bitan.** UCLA.
- A126 **564.3** ALS-Related *SIGMAR1* Missense Mutation Causes TDP-43 Inclusion and Mitochondrial Injury **Y. Shinoda, H. Tagashira and K. Fukunaga.** Tohoku Univ.
- A127 **564.4** Inhibition of Toxic IAPP Aggregation by Extracts of Common Fruits **D. Moffet, P.-Y. Kao, E. Green, C. Pereira, S. Ekimura, D. Juarez, T. Whyte, T. Arhar, B. Malaspina and L.A. Nogaj.** Loyola Marymount Univ. and Mount Saint Mary's Col., Los Angeles.
- A128 **564.5** Amyloid Formation by Human Apolipoproteins: Sequence Analyses and Structural Insights **O. Gursky and M. Das.** Boston Univ. Sch. of Med.
- A129 **564.6** Investigation of Aggregative Properties of the Antimicrobial Peptide LL-37 by Dynamic Light Scattering and Electrophoretic Shift Mobility Assay **K. Kelly, R.K. Zachary and M.L. Craig.** Mary Baldwin Col., VA.
- A130 **564.7** Effect of Glucocerebrosidase and Its Substrate, Glucosylceramide on α -Synuclein Aggregation and Degradation **R.P. McGlinchey and J.C. Lee.** NHLBI, NIH.
- A131 **564.8** Cysteine Cathepsins Are Essential in Lysosomal Degradation of α -Synuclein **R. McGlinchey and J.C. Lee.** NHLBI, NIH.
- A132 **564.9** A Molecular Dynamics Study of Interaction between Kinesin Light Chain and Amyloid Precursor Protein **C.A. Taylor, S. Shah, B.R. Miller and C.A. Parish.** Univ. of Richmond.
- A133 **564.10** Computational Analysis of the Interaction between Kinesin Light Chain and Amyloid Precursor Protein **S.S. Shah, C.A. Taylor, B.R. Miller and C.A. Parish.** Univ. of Richmond.
- A134 **564.11** Mechanisms of Rapid Ataxin-1 Degradation in Spinocerebellar Ataxia Type 1 **M. Kohiyama, N. Toker, C. Hearing and S. Lagalwar.** Skidmore Col., NY.
- A135 **564.12** Quantitative Analysis of Amyloid Clearance in the *Saccharomyces cerevisiae* Model System [PSI⁺] **S. May and J.L. Camberg.** Univ. of Rhode Island.
- A136 **564.13** The Prion Switch Unravelled **G. Salzano, T.H. Tran, G. Giachin, F. Benetti, P. D'Angelo and G. Legname.** Intl. Sch. for Adv. Studies, Trieste; European Synchrotron Radiation Facility, Grenoble and Univ. of Rome La Sapienza.
- A137 **564.14** Increases in Neuroinflammation and Astrocyte Activation in a Murine Model of Mixed Dementia **A.M. Helman, T.L. Beckett, D.M. Niedowicz, K. Kohler, V.L. Reeves, T.L. Lee, D.M. Wilcock and M.P. Murphy.** Univ. of Kentucky.

565. PROTEIN SYNTHESIS AND TURNOVER I

(Poster Session II scheduled on Tuesday)

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A138 **565.1** OASIS Is a Novel Cofactor of HIF1 α to Promote the Transcription Depend on Hypoxia Response Element under the Hypoxic Condition **M. Cui, X. Cui, S. Kanemoto, K. Tanimoto and K. Imaizumi.** Hiroshima Univ. Inst. of Biomed. and Hlth. Sci. and Hiroshima Univ. Inst. for Radiation Biol. and Med.
- A139 **565.2** Synthesis and Application of Small Cationic Peptides as Potential Antibiotics **C.M. Ferrante, J.P. Brandt and M.J. Wolyniak.** Hampden-Sydney Col., VA.
- A140 **565.3** Mitochondrial Ribosome Profiling Reveals Rapid and Dynamic Translation Regulation during Yeast Mitochondrial Biogenesis **M.T. Couvillion, G. Shipkovenska, B. Tye and L.S. Churchman.** Harvard Med. Sch.
- A141 **565.4** Serine 32 to Threonine Mutation Preserves Peroxiredoxin 6 Structure and Enzymatic Function but Abolishes Its Trafficking to Lamellar Bodies In Vivo **E.M. Sorokina, C. Dodia, J.-Q. Tao, S. Zhou, S.I. Feinstein and A.B. Fisher.** Univ. of Pennsylvania.
- A142 **565.5** Identification of a Novel Trafficking Pathway Exporting Protein to the Nucleus via Classical Secretory Pathway in *Plasmodium falciparum* **R. Sharma, B. Sharma and S.K. Dhar.** Jawaharlal Nehru Univ.
- A143 **565.6** Identification of Oma1p Protease Sensitive Sites in Subunit 1 of Yeast Cytochrome Oxidase **G.P. McStay, M. Zafar, F. Tamanna, B. Thomas, S. Ivezic, A. Chowdhury and S. Noreen.** New York Inst. of Technol.
- A144 **565.7** Investigating EAAT3 Trafficking through the Secretory Pathway **K. Saha, T. Steinkellner, T. Hofmaier, O. Kudlacek, S. Sucic, M. Freissmuth and H. Sitte.** Inst. of Pharmacol., Vienna and UCSD.
- A145 **565.8** A Yeast-Based Screening for Signal Motifs that Regulate Membrane Protein Trafficking **S. Shikano, J.D. Bernstein and Y. Okamoto.** Univ. of Illinois at Chicago.
- A146 **565.9** rLosac, a Hemolin, Prevents Human Chondrocyte Aging and Degeneration of Articular Cartilage **A.M. Chudzinski-Tavassi, M.P. Alvarez-Flores, R.V. Bosch, E. Antonoili, E.S. Pereira-Junior, M. Ferreti and M. Cohen.** Inst. Butantan, São Paulo; Hosp. Albert Einstein, São Paulo and Fed. Univ. of São Paulo
- A147 **565.10** Mechanistic Basis of Residue Specificity in Targeted Electrophilic Modification **D. Lee, S. Parvez, Y. Fu, H. Le and Y. Aye.** Cornell Univ. and Weill Cornell Med. Col.
- A148 **565.11** The Reversal of the Anticoagulant and Anti-hemostatic Effect of LMWH by rLopap **S.A. de Andrade, L.C. Carrijo-Carvalho, A.C. Sato, F.H. de Abreu Maffei and A.M. Chudzinski-Tavassi.** Butantan Inst., São Paulo; Fed. Univ. of São Paulo and São Paulo State Univ.
- A149 **565.12** Expression of Sperm Acrosomal SLLP1 Binding Protein in a Mammalian System for Crystallization **R. Stein, E. Pires, J. Shetty, I. Shumilin and J. Herr.** Univ. of Virginia.
- A150 **565.13** GTP Hydrolysis Is Not Required for Post-translational Protein Insertion by a Chloroplast Signal Recognition Particle **P. Sharma, A.D. Kight, R.L. Goforth and R.L. Henry.** Univ. of Arkansas.

- A151 **565.14** Role of ATP Synthase as a Molecular Drug Target against Bacterial Infections **Z. Ahmad**. Kirksville Col. of Osteo. Med., A.T. Still Univ.
- A152 **565.15** c-Src Regulates Mitochondrial Translation by Phosphorylation of Elongation Factor Tu **C.A. Hunter, H. Koc and E.C. Koc**. Joan C. Edwards Sch. of Med. and Sch. of Pharm., Marshall Univ.

566. CHANNELS AND TRANSPORTERS: WHAT'S NEW IN MEMBRANE TRANSPORT PROTEINS I

(Poster Session II scheduled on Monday)

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A153 **566.1** Conserved Motifs Contribute to Conjugation and Localization of a Bacterial Mating ATPase **A. Murthy, N. Aleksanyan, M.N.N. Bui and M.B. Berkmen**. Suffolk Univ., Boston.
- A154 **566.2** Oligomerization of Two Membrane Proteins Critical for Bacterial Mating **O.R. Pinkhasov and M.B. Berkmen**. Suffolk Univ., Boston.
- A155 **566.3** Role of Pore Lining Residues in Drug Modulation of Ligand-Gated Ion Channels **T.R. Schneider, J.-A.M. Facey, G.E. Joyce, T.B. Voigt, E.P. Stater, M.J. Hyde, L.C. Venner and R.J. Howard**. Skidmore Col., NY.
- A156 **566.4** Toward the Structural Characterization of the Gabapentin Binding Site **J. Briot, J. Sygusch, N. D'Avanzo and L. Parent**. Univ. of Montreal and Montreal Heart Inst.
- A157 **566.5** Intracellular Zinc Dyshomeostasis Caused by a Disrupted TRPML1-TMEM163 Protein Interaction **J. Silva and M.P. Cuajungco**. California State Univ. Fullerton.
- A158 **566.6** Molecular Basis for Substrate and Inhibitor Interactions with the Glycine Transporter, GlyT2 **R.J. Vandenberg, J.E. Carland, A. Edington and R.M. Ryan**. Univ. of Sydney.
- A159 **566.7** Investigating the Interaction between the Dopamine Transporter and the Sigma 1 Receptor **M.A. Rodriguez, D. Perley, K. Henry, H. Khoshbouei, A. North and D. Sambo**. Univ. of North Dakota and Univ. of Florida Col. of Med.
- A160 **566.8** Fatty Acid Binding to CD36 Affects oxLDL Uptake **J.A. Hamilton, P. Miguel and A. Jay**. Boston Univ. Sch. of Med.
- A161 **566.9** Transport of Alzheimer's Associated Amyloid- β through Membranes Catalyzed by P-Glycoprotein **J.W. McCormick, P.D. Vogel and J.G. Wise**. Southern Methodist Univ.
- A162 **566.10** Molecular Insights into the Multispecific Recognition of Dipeptides of Deep-Sea Gram-Negative Bacteria *Pseudoalteromonas* sp. SM9913 **Y-Z. Zhang**. Shandong Univ., China.
- A163 **566.11** An Ionic Lock between Intracellular Loop 1 and a C-Terminal Amphipathic Helix Stabilizes the Serotonin Transporter along Its Folding Trajectory **S. Sucic, A. El-Kasaby, F. Koban and M. Freissmuth**. Med. Univ. of Vienna.
- A164 **566.12** Delivery of Cargo Molecules to Cell Interiors by a Cell-Penetrating Peptide-Tagged Adaptor **J.L. McMurry, C.A. Chrestensen, S.J. Nowak and J.C. Salerno**. Kennesaw State Univ.

- A165 **566.13** Amino Acid Positions Important for Substrate Specificity in Plant Sucrose Transporters **A. Reinders and J. Ward**. Univ. of Minnesota.
- A166 **566.14** Lysosomal ATP Transport Mechanism and Its Significance **X. Dong, M.X. Zhu, R. Murrell-Lagnado, Q. Cao, P. Huang, X.Z. Zhong and Y. Zou**. Dalhousie Univ., Canada; Univ. of Texas Hlth. Sci. Ctr. at Houston and Univ. of Cambridge.
- A167 **566.15** Ferroportin-Mediated Cellular Iron Efflux Requires Extracellular Calcium **A. Shawki, T.A. Ruwe, C.J. Mitchell, S. Prakash, E. Nemeth, T. Ganz and B. Mackenzie**. Univ. of Cincinnati Col. of Med. and David Geffen Sch. of Med. at UCLA.

567. PROTEOMICS AND BIOINFORMATICS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A168 **567.1** Comparative Proteomics of Amyolytic Strains of *Bacillus subtilis* and *Bacillus licheniformis* **M.R. Adeyanju and O.O. Adebawo**. Olabisi Onabanjo Univ., Nigeria.
- A169 **567.2** Urinary Candidate Biomarker Discovery in a Rat Unilateral Ureteral Obstruction Model **Y. Yuan and Y. Gao**. Chinese Acad. of Med. Sci., Sch. of Basic Med. Peking Union Med. Col. and Beijing Normal Univ.
- A170 **567.3** Effects of Anesthetics Pentobarbital Sodium and Chloral Hydrate on Urine Proteome **M. Zhao and Y. Gao**. Inst. of Basic Med. Sci., Chinese Acad. of Med. Sci./Peking Union Med. Col. and Beijing Normal Univ.
- A171 **567.4** Phosphoproteins with Stability against All Urinary Phosphatases as Potential Biomarkers in Urine **M. Zhao and Y. Gao**. Inst. of Basic Med. Sci., Chinese Acad. of Med. Sci./Peking Union Med. Col. and Beijing Normal Univ.
- A172 **567.5** Prediction of a New SelD-Like Family that May Participate in Sulfur Metabolism in Hyperthermophilic Sulfur-Reducing Archaea **Y. Zhang**. Shanghai Inst. for Biol. Sci., Chinese Acad. of Sci.
- A173 **567.6** Proteomic Analysis of the Interacting Partners of Different S6Ks Isoforms **I.C.B. Pavan, L.B. Freitas, A.M.M. Springer, S. Yokoo, C.M. Carnielli, A.F. Paes-Leme and F.M. Simabuco**. Univ. of Campinas and Brazilian Biosci. Natl. Lab., Campinas.
- A174 **567.7** Investigating Cysteine-Mediated Protein Activities in Complex Proteomes **S.M. Couvertier and E. Weerapana**. Boston Col.
- A175 **567.8** A Scoring Function for Motif Template Alignments with ProMOL **S. Madha, V.A. Kovuri, M. Bryan, P.A. Craig and H.J. Bernstein**. Rochester Inst. of Technol. and Dowling Col.
- A176 **567.9** Improved Accuracy of Proteome Quantification by MS/MS Fragment Intensity **Q. Wu, Y. Shan, L. Zhang, Y. Zhang and R.A. Fenton**. Aarhus Univ., Denmark and Dalian Inst. of Chem. Phys., Chinese Acad. of Sci.
- A177 **567.10** MoonProt: A Database for Proteins that Are Known to Moonlight **C. Jeffery, M. Mani, S. Zabad, V. Ambler, C. Chen, H. Liu, G. Zwicke, T. Mathur, B. Patel and J. Thakkar**. Univ. of Illinois at Chicago and Illinois Inst. of Technol.
- A178 **567.11** Improving Function Assignment for Metalloenzymes through Active Site Alignment Using ProMOL/PyMOL **V.A. Kovuri, M. Bryan, H.J. Bernstein and P.A. Craig**. Rochester Inst. of Technol. and Dowling Col., NY.

- A179 **567.12** Distributed Computing Approach to In Silico Protein Function Prediction Using ProMOL **M.R. Bryan, V.A. Kovuri, P.A. Craig and H.J. Bernstein.** Rochester Inst. of Technol. and Dowling Col., NY.
- A180 **567.13** Shotgun Proteomic Analysis of Protein Expression in Mosquito Ovaries Post Blood Meal **D.L. Geiser, W. Li, D.Q.-D. Pham, V.H. Wysocki and J.J. Winzerling.** Univ. of Arizona and Univ. of Wisconsin-Parkside.
- A181 **567.14** A Chemical Glycoproteomics Platform Applied to Human Prostate Cancer **D.R. Spiciarich, S.L. Maund, D.M. Peehl and C.R. Bertozzi.** Univ. of California, Berkeley and Stanford Univ. Med. Sch.
- A182 **567.15** Label-Free Quantitative Proteomics Identify Global Protein Interactors for the Androgen Receptor Associated Cochaperone SGTA **L. Prieto, Y. Garcia and M.B. Cox.** Univ. of Texas at El Paso.
- A183 **567.16** Interactome Analysis of BetaM Protein Encoded by ATP1B4 Gene Using Two-Hybrid Systems **N.B. Pestov, T.V. Korneenko and N.N. Modyanov.** Shemyakin-Ovchinnikov Inst. of Bioorganic Chem., Moscow and Univ. of Toledo Col. of Med.
- A184 **567.17** Discovering Relationships between Lysine Ubiquitylation and Acetylation Sites from Proteomic Datasets **J. Elwood, J.A. Maki and D.M. Freund.** Col. of Saint Scholastica, MN and Univ. of Minnesota, St. Paul.
- A185 **567.18** Examining Big Data Using Information Flow Analysis – Application to the Functional Characterization of Plant-Derived Therapeutics **P. Hensley, W.T. Logging and A.F. Fliri.** SistaMedic, Groton, CT and Icahn Sch. of Med. at Mount Sinai.
- A186 **567.19** Admixture in Horse Breeds Illustrated from Single Nucleotide Polymorphism Data **C.J. Torres Gutierrez and Y. Brandvain.** Univ. of Puerto Rico in Ponce and Univ. of Minnesota.
- A187 **567.20** Using ProMol to Study Zinc Finger Motifs **M. Albalwi, H.J. Bernstein and P.A. Craig.** Rochester Inst. of Technol.
- A188 **567.21** The Discovery of Human sORF-Encoded Polypeptides in Cell Lines and Tissue **J. Ma, C.C. Ward, I. Jungreis, S.A. Slavoff, A.G. Schwaid, J. Neveu, B.A. Budnik, M. Kellis and A. Saghatelian.** Harvard Univ.; MIT; Broad Inst. of MIT and Harvard; Salk Inst. and Yale Univ.
- A189 **567.22** Development and In Silico Evaluation of Large-Scale Metabolite Identification Methods Using Functional Group Detection for Metabolomics **J.M. Mitchell, H.N.B. Moseley, T.W.-M. Fan and A.N. Lane.** Univ. of Kentucky.
- A190 **567.23** Investigation of Evolutionary Events in Corynebacteriaceae Involving Prenyltransferases in *Corynebacterium glutamicum* **M.D. Allen, K.J. Nelson and F.M. Mann.** Winona State Univ.
- A191 **567.24** Examination of Isoprenoid Chain-Length Control in *Corynebacterium glutamicum* **K.J. Nelson and F.M. Mann.** Winona State Univ., MN.
- A192 **567.25** Proteomic Analysis of Sera and Saliva from Children with Autism Spectrum Disorder and Matched Controls **K.L. Wormwood, A.G. Ngounou Wetie, I. Sokolowska, K.M. Beglinger, J.P. Ryan, A.G. Woods and C.C. Darie.** Clarkson Univ., NY and SUNY Plattsburgh.
- A193 **567.26** Proteomics Study of Human Breast Milk for Breast Cancer Biomarkers Discovery **R. Aslebagh, A. Ngounou, D. Channaveerappa, K. Arcaro and C. Darie.** Clarkson Univ., NY and Univ. of Massachusetts Amherst.
- A194 **567.27** Efficient and Convenient Enrichment of Multi-spanning Membrane Proteins for Proteomic Studies **J. Geddes, S. Meier, E. Cirbaite, J. Siurkus, B. Kaboord and K. Opperman.** Thermo Fisher Scientific, Rockford, IL and Thermo Fisher Scientific, Vilnius, Lithuania.
- A195 **567.28** Investigation of Tumor Differentiation Factor-Induced Cell Differentiation Using Mass Spectrometry **D. Channaveerappa, A. Ngounou Wetie, L. Lupu, A. Robu, A. Zamfir and C. Darie.** Clarkson Univ., NY.
- A196 **567.29** Evaluation of Sample Disruption Techniques for High Throughput Extraction of Subcellular Organelles **S. Garrett and J. Atwood.** Omni Intl., Kennesaw, GA.
- A197 **567.30** Whole Exome Sequencing Analysis Is an Efficient Method for Comprehensively Evaluating Genetic Variability Associated with Interparticipant Response to Glucocorticoid Receptor-Mediated Signaling **R.M. Lassalle-Klein, T.M. Forst, R.S. Knox and P.J.M. Murphy.** Seattle Univ.
- A198 **567.31** Peptidomic and Proteomic Profiling of the Juvenile Rheumatoid Arthritis Synovial Fluid Reveals Transthyretin as Potential Biomarker of the Disease **C.C. Clement, H. Moncrieffe, A. Becerra, L.J. Stern and L. Santambrogio.** Albert Einstein Col. of Med.; Cincinnati Children's Hosp. Med. Ctr. and UMass Med. Sch.

568. LIPIDS - IN VIVO DYNAMICS, PROTEIN PARTNERS AND SIGNALING I

(Poster Session II scheduled on Monday)

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A199 **568.1** The Lipid Transfer Protein STARD3: An Architect from Inside the Cell **C.L. Tomasetto, F. Alpy, G. Drin and T.P. Levine.** IGBMC- U964 INSERM, Strasbourg; University Col. London and Univ. of Nice Sophia-Antipolis
- A200 **568.2** Phosphorylation/Dephosphorylation of Yeast Pah1p Phosphatidate Phosphatase Regulate Its Ubiquitin-Independent Proteasomal Degradation **L.-S. Hsieh, W.-M. Su and G.M. Carman.** Rutgers Ctr. for Lipid Res.
- A201 **568.3** Status of Lipid Peroxidation and the Immune System in the Remote Period after a Sublethal Dose of Gamma Radiation **G. Ilderbayeva, A. Abduldayeva, A. Utegenova and O. Ilderbayev.** Semey State Med. Univ. and Astana Med. Univ., Kazakhstan.
- A202 **568.4** Ceramide Regulates MRN Complex-ATM-Dependent Apoptotic Pathway in Human Lymphoblastoids **Y. Ueda, R. Gao, H. Ogiso, M. Taniguchi, T. Kondo, M. Hashimoto-Nishimura and T. Okazaki.** Kanazawa Med. Univ.; Tottori Univ. Hosp. Cancer Ctr., Japan and Grad. Sch. of Med., Kyoto Univ.
- A203 **568.5** Lack of Pah1p PA Phosphatase in Yeast Causes Reduced Chronological Life Span through Increased Energy Expenditure for Lipid Synthesis **Y. Park, G.M. Carman and G.-S. Han.** Rutgers Univ.
- A204 **568.6** Yeast Nem1-Spo7 Protein Phosphatase Activity on Pah1 Phosphatidate Phosphatase Is Specific for the Pho85-Pho80 Protein Kinase Phosphorylation Sites **W.-M. Su, G.-S. Han and G.M. Carman.** Rutgers Univ.

- A205 **568.7** Signaling Regulates Activity of DHCR24, the Final Enzyme in Cholesterol Synthesis **W. Luu, E.J. Zerenturk, I. Kristiana, L.J. Sharpe and A.J. Brown.** Univ. of New South Wales.
- A206 **568.8** Regulation of the Yeast DAG Kinase by Phosphorylation **Y. Qiu and G.M. Carman.** Rutgers Univ.
- A207 **568.9** Specific Transient Interactions between a *Bacillus* Virulence Factor and Phosphatidylcholine in Membranes **A. Gershenson, B. Yang, T. He, H.M. Khan, C. Grauffel, N. Reuter and M.F. Roberts.** Univ. of Massachusetts Amherst; Boston Col. and Univ. of Bergen.
- A208 **568.10** Strenuous Exercise and Quercetin Intake Stimulates Aortic NF κ B Signaling **H. Mahini, G. Ainsworth and M. Garelnabi.** Univ. of Massachusetts Lowell.
- A209 **568.11** The Low Density Lipoprotein Receptor Modulates the Effects of Testosterone on White Adipose Tissue Metabolic Activation through Estrogen-Independent Mechanisms **C. Constantinou, A. Natsos, M. Karavyraki, E. Papakosta and K. Kypreos.** Univ. of Patras.
- A210 **568.12** Lipid Metabolism Regulation by Hyperosmolarity in Renal Cells **C.I. Casali, K. Weber, E. Morel Gómez and M.d.C. Fernández.** Fac. of Pharm. and Biochem., Univ. of Buenos Aires.
- A211 **568.13** Coq9 Regulates the Deamination of Q6-Intermediates in Yeast Q Biosynthesis and Human Coq9 Homolog Rescues Yeast coq9 Mutant by Increasing the Incorporation of 4-Hydroxybenzoic Acid **C. He, D. Black, C.M. Allan, T.P.T. Nguyen, B. Meunier, S. Rahman, C. Srinivasan and C.F. Clarke.** UCLA; Ctr. of Molec. Genet., CNRS; University Col. London and California State Univ. Fullerton.
- A212 **568.14** Yeast Pah1 Phosphatidate Phosphatase Regulates the Expression of the *CHO1*-Encoded Phosphatidylserine Synthase for Membrane Phospholipid Synthesis **G-S. Han and G.M. Carman.** Rutgers Ctr. for Lipid Res., New Brunswick.
- A213 **568.15** Transbilayer Lipid Distribution in Nano Scale **M. Murate, M. Abe, M. Umeda and T. Kobayashi.** RIKEN, Wako; Kyoto Univ. and Univ. Lyon 1
- A214 **568.16** Influence of Serum and Hypoxia on Endogenously Synthesized Lipids and Lactate from Radiolabeled Glucose or Glutamine in Murine Glioblastoma Cells **N. Ta and T. Seyfried.** Boston Col.
- A215 **568.17** Phosphatidylinositol 4-Phosphate Dynamics during Phagocytosis **R. Levin, G.R.V. Hammond, T. Balla, G.D. Fairn and S. Grinstein.** Hosp. for Sick Children; NICHD, NIH and St. Michael's Hosp., Toronto.
- A216 **568.18** Genetic Screen for Suppressors of Yeast *Coq8* Mutants **A.M. Hussein, H.T. Lam, T.P. Nguyen, C.H. He and C.F. Clarke.** UCLA.
- A217 **568.19** Perilipin 5 Mediated Lipid Droplet Remodelling Revealed by Coherent Raman Imaging **N. Billecke, M. Bosma, W.T. Rock, P. Schrauwen, M. Bonn, M.K.C. Hesselink and S.H. Parekh.** Max Planck Inst. for Polymer Res., Mainz; Maastricht Univ. Med. Ctr. and Karolinska Inst.
- A218 **568.20** DHA Up-regulated Expression of Lipogenic and Endoplasmic Reticulum Stress-Related Genes in Pig Adipose Tissues **C-W. Huang, Y-J. Chen, H.J. Mersmann and S-T. Ding.** Natl. Taiwan Univ.
- A219 **568.21** Interaction of Ceramide Synthase with Long Chain Fatty Acyl-CoA Synthase 5 Channels De Novo Ceramide to Acylceramide Generation by Diacylglycerol Acyltransferase 2 on Lipid Droplets **C.E. Senkal, Y.A. Hannun and L.M. Obeid.** Stony Brook Univ. and Northport VA Med. Ctr.
- A220 **568.22** Does PtdIns(4,5) P_2 Concentrate So It Can Multitask? **G. Hammond and T. Balla.** NICHD, NIH and Univ. of Pittsburgh Sch. of Med.
- A221 **568.23** Bile Acids and Bile Salts of the Arabian Gulf Catfish *Arius bilineatus*, Val **J.M. Al-Hassan, S. Oommen, B.M. Paul and M. Afzal.** Kuwait Univ.
- A222 **568.24** Kinetic Mechanism of Lipidprotein Nanodisc Dissociation in Bicelles **K. Muñoz-Forti and R. Renthal.** Univ. of Puerto Rico, Ponce and Univ. of Texas at San Antonio.
- A223 **568.25** Müller Cells Regulate Notch Signaling and Retinal Angiogenesis via the Soluble Epoxide Hydrolase-Dependent Generation of 19,20-Dihydroxydocosapentaenoic Acid **I. Fleming, J. Hu, R. Popp and T. Frömel.** Goethe Univ. Frankfurt.
- A224 **568.26** The Biological Actions of 11,12-Epoxyeicosatrienoic Acid in Endothelial Cells Are Specific to the R/S Enantiomer and Require the Gs Protein **I. Fleming, Y. Ding and T. Frömel.** Goethe Univ., Frankfurt.
- A225 **568.27** Characterization of *S. cerevisiae* Coq10p, a Putative START Domain Q-Binding Protein **H.S. Tsui and C.F. Clarke.** UCLA.
- A226 **568.28** The Effect of Divalent Cations on Complex Phosphoinositide/Lipid Monolayers at the Air/Water Interface **K.E. King, A. Qifti and A. Gericke.** Worcester Polytech Inst.
- A227 **568.29** Characterization of Proteins Associated with the Coenzyme Q Biosynthetic Complex and Analyses of Phosphorylated Coq Proteins in Yeast Mitochondria **A.M. Awad, C.M. Allan, J.S. Johnson, D.I. Shirasaki, J.A. Loo and C.F. Clarke.** UCLA.
- A228 **568.30** Studies into the Farnesylated Analogs of Key Intermediates in the Biosynthetic Pathway of Coenzyme Q: Synthesis and Metabolism **A. Nag, C. He, J. Shepherd and C. Clarke.** UCLA and Gonzaga Univ., WA.
- A229 **568.31** Effect of Oxidized Linoleic Acid on Plasma apoC 3 Levels in C57BL Mice **G. Ainsworth, H. Mahini, H. Alaimo, N. Jamil and M. Garelnabi.** Univ. of Massachusetts Lowell.
- A230 **568.32** The Perinuclear Endoplasmic Reticulum as the Site of Phosphatidylethanolamine Synthesis in a Model Eukaryote **P. Buetikofer and L. Farine.** Univ. of Bern.
- A231 **568.33** Regulation of Yeast Glycerol-3-Phosphate Acyltransferase Gpt2p/Gat1p through Phosphorylation **B. Shabits, B. Nagler, K. Athenstaedt and V. Zarembeg.** Univ. of Calgary, Canada and Graz Univ. of Technol., Austria.
- A232 **568.34** Distribution of Phosphatidylethanolamine in Intracellular Membrane Networks **S. Hou and M. Zhao.** Feinberg Cardiovasc. Res. Inst., Northwestern Univ.
- A233 **568.35** Purification and Characterization of PldB, an *Escherichia coli* Lysoglycerophospholipase **A.E. Sopeyin and T.A. Garrett.** Vassar Col., NY.
- A234 **568.36** The Interplay between Cholesterol and Vitamin D Biosynthesis **A.V. Prabhu, W. Luu, L.J. Sharpe and A.J. Brown.** Sch. of Biotechnol. and Biomolec. Sci., Univ. of New South Wales.

569. APOPTOSIS AND CELL STRESS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A235 **569.1** FAM129B, a Novel Protein, Suppresses the TNF α Apoptotic Pathway and Promotes the NF- κ B Survival Pathway in Cancer Cells by Interacting with KEAP1 **F.A. Hachem, S. Chen, H.G. Evans and D.R. Evans.** Sch. of Med., Wayne State Univ. and Eastern Michigan Univ.
- A236 **569.2** Arginyltransferase (Ate1) Is a Pro-apoptotic Enzyme Essential for Stress Response **A. Kumar, M.D. Birnbaum and F. Zhang.** Univ. of Miami.
- A237 **569.3** Hyperglycemia Hinders First Trimester Cytotrophoblast Migration and Induces Apoptosis **C. Cawyer, S. Yuen, A.F. Pantho, N. Drever, M.R. Beeram, D.C. Zawieja, T.J. Kuehl and M.N. Uddin.** Baylor Scott & White Hlth., Texas A&M Hlth. Sci. Ctr.; Baylor Univ.; Col. of Nat. Sci., Univ. of Texas at Austin and Texas A&M Hlth. Sci. Ctr.
- A238 **569.4** Development of Resistance to Intrinsic Apoptotic Stimuli in Lymphocytes without Alterations in Bcl-2 Family Member Gene Expression **C.D. Bortner, A.B. Scoltock and J.A. Cidlowski.** NIEHS, NIH, Research Triangle Park.
- A239 **569.5** Cloning, Expression and Refolding of the Metacaspase Scp3 of *Schizophyllum commune* in Brewer's Yeast and *E. coli* **A.J. Jaksic, E. Loew, A. Kaminski, A. Glaser and K.M. Fox.** Union Col., NY.
- A240 **569.6** Expression and Purification of the Metacaspase Protein Scp3 from the Fungus *S. commune* **T.S. Barker, C. Gagliardi and K.M. Fox.** Union Col., NY.
- A241 **569.7** Investigating the Role of the Yeast Metacaspase, Yca1p, in the Programmed Cell Death of Aneuploid Cells of the Budding Yeast, *Saccharomyces cerevisiae* **S. Rogers, R. Frazier, S. Pinches and N. Austriaco.** Providence Col.
- A242 **569.8** Characterization of Yeast Bax Inhibitor, *BX11*, Function in the Unfolded Protein Response and Calcium Signaling in *Saccharomyces cerevisiae* **W. Cavedon, J. O'Brien, A. Gonzalez, M. McCarthy and N. Austriaco.** Providence Col.
- A243 **569.9** Ubiquitin-Specific Protease 24 Regulates Apoptosis through Deubiquinating Bax and Mediating Ku70 Acetylation **S-a. Wang and J-j. Hung.** Inst. of Bioinformat. and Biosignal Transduction, Tainan.
- A244 **569.10** Serum Fortilin Is a Viable Biomarker of In Vivo Apoptosis **D. Pinkaew, N. Wanachottrakul, P. Sinthujaroen, J.R. Petersen, A. Phongdara, M. Sheffield-Moore and K. Fujise.** Univ. of Texas Med. Branch and Prince of Songkla Univ., Thailand.
- A245 **569.11** Acrolein Exacerbates HAART-Induced Apoptotic Death in Hepatocytes by Enhancing Transcriptionally Permissive Epigenetic Modifications at FasL Promoter **S. Ghare, H. Donde, S. Joshi-Barve, C. McClain and S. Barve.** Univ. of Louisville and Louisville VA Med. Ctr.
- A246 **569.12** Induction of Apoptosis Over Time in DLD-1 Colon Cancer Cells with Doxorubicin **S. Kondaveeti and B.A. Clack.** Stephen F. Austin State Univ.

- A247 **569.13** A Common Cytochrome c-Centred Signalosome for Programmed Cell Death in Humans and Plants **M.A. De la Rosa, K. Gonzalez-Arzola, J. Martinez-Fabregas, A. Diaz-Quintana and I. Diaz-Moreno.** Univ. of Seville & CSIC.
- A248 **569.14** Inhibition of Apoptosis by Angiotensin 1-7/mas Pathway through MKP-2 Activation in Alveolar Epithelial Cells **I. Gopallawa and B.D. Uhal.** Michigan State Univ.
- A249 **569.15** Understanding the Apoptotic Potential of Heart Cells **T.A. Davis and V. Del Gaizo Moore.** Elon Univ.
- A250 **569.16** Investigation of the Cellular Mechanism of Apoptosis in Renal Failure during Sepsis **T. Lampl and V. Del Gaizo Moore.** Elon Univ.
- A251 **569.17** Flow Cytometry Cell Cycle Analysis of Apoptotic Mouse HT-2 T Lymphocytes **M.C. Pinkston and R.J. Lauzon.** Union Col., NY.

570. MECHANISTIC IMPACTS OF POSTTRANSLATIONAL MODIFICATIONS I

(Poster Session II scheduled on Monday)

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A252 **570.1** Substoichiometric Hydroxynonylation of a Single Protein Recapitulates Whole-Cell-Stimulated Antioxidant Response **Y. Aye, S. Parvez and Y. Fu.** Cornell Univ. and Weill Cornell Med. Col.
- A253 **570.2** The Interplay of Phosphorylation and Ubiquitylation in the Regulation of PTEN **Z. Chen, D. Bolduc, M. Yan, X. Jiang, C. Wolberger and P.A. Cole.** Johns Hopkins Univ. Sch. of Med. and Mem. Sloan Kettering Cancer Ctr.
- A254 **570.3** O-GlcNAcylation Regulates Ischemia-Induced Neuronal Apoptosis through AKT Signaling **C-X. Gong, J. Shi, J-h. Gu, C. Dai, J. Gu, X. Jin, J. Sun, K. Iqbal and F. Liu.** NYS Inst. for Basic Res. in Develop. Disabil., Staten Island and Nantong Univ., China.
- A255 **570.4** Understanding the Mechanisms that Lead to Dynamic Stress-Induced O-GlcNAcylation: Identification of the Stress-Dependent Interactome of the O-GlcNAcase **J.A. Groves, A.O. Maduka, R. O'Meally, R.N. Cole and N.E. Zachara.** Johns Hopkins Univ. Sch. of Med.
- A256 **570.5** Regulation of Hepatic Lipid Metabolism by Glutaredoxin-1 and Protein Glutathione-Adducts **D. Shao, J. Han, X. Hou, J. Fry, J. Behring, C. Yao, X. Weng, D. Pimentel, M. Long, H. Roy, F. Seta, R. Cohen, R. Matsui and M. Bachschmid.** Whitaker Cardiovasc. Inst.; Ctr. for Biomed. Mass Spectrometry and Boston Med. Ctr.
- A257 **570.6** A Lysosomal Targeting Defect of V0a1 Suppresses V-ATPase Activity Elevating Lysosomal pH in Ppt1^{-/-} Mice: Amelioration by NtBuHA **M.B. Bagh, G. Chandra, S. Peng, Z. Zhang and A.B. Mukherjee.** NICHD, NIH.
- A258 **570.7** Mutational Analysis of the Dimer and Decamer Interface Residues in the Yeast Peroxiredoxin Tsa1 **M.A. Loberg, J.A. Buchan, K.M. Allan, M.K. Spencer and J.D. West.** The Col. of Wooster, OH.
- A259 **570.8** Using Thiol-Reactive Cross-Linkers to Stabilize Interactions between Thioredoxin and Its Redox Partners in Baker's Yeast **K.M. Allan, J.A. Pilat, J. Chepogeno, H.J. Sizak and J.D. West.** The Col. of Wooster.

- A260 **570.9** Writing and Reading the CTD Code: In Vitro Reconstruction of Post-translational Modifications on RNA Polymerase II **J.E. Mayfield, M.R. Robinson, J.S. Brodbelt and Y. Zhang.** Univ. of Texas at Austin.
- A261 **570.10** O-GlcNAcylation Stabilizes Nod2, an Innate Immune Receptor Involved in Crohn's Disease **C-W. Hou, N.E. Zachara and C.L. Grimes.** Univ. of Delaware and Johns Hopkins Univ. Sch. of Med.
- A262 **570.11** Posttranslational Modification Cross Talk Regulates the Critical Adaptive Immune Molecule, the Class II Transactivator **J.E. Morgan and S.F. Greer.** Georgia State Univ.
- A263 **570.12** Identifying Autopalmitoylation Inhibitors through Scaffold Ranking **L.D. Hamel, B.J. Lenhart, D.A. Mitchell, M.A. Giulianotti and R.J. Deschenes.** Univ. of South Florida and Torrey Pines Inst. for Molec. Studies, Por St. Lucie, FL.
- A264 **570.13** Structural and Functional Properties of N-Methyl-D-Aspartate Receptor-Specific ConRIB **S. Kunda, Y. Yuan, J. Zajicek, R.D. Balsara and F.J. Castellino.** Univ. of Notre Dame.
- A265 **570.14** Chemistry-Driven Approaches to Deconstruct Redox-Linked Signal Transduction Networks **J. Haegele, H. Lin, M. Long, S. Parvez and Y. Aye.** Cornell Univ. and Weill Cornell Med. Col.
- A266 **570.15** Histone Post-translational Modifications Differentially Regulated in a Mouse Model of Heart Disease **M.R. Miller, A. Makaju, L. Wang and S. Franklin.** Univ. of Utah.
- A267 **570.16** Role of mTOR and ERK in PMT-Induced Cell Proliferation and Survivin Upregulation **H. Oubrahim, D. Bacsik and P.B. Chock.** NHLBI, NIH.
- A268 **570.17** Dynamic Interactions of TATA-Box Binding Protein with Promoters Is Regulated by GlcNAcylation **S. Hardiville, G. Han, J. Ma, P. Hu, P.S. Banerjee and G.W. Hart.** Johns Hopkins Sch. of Med.
- A269 **570.18** Two Functions of Lysyl Oxidases: Extracellular Matrix Maturation and Cell Proliferation **P.C. Trackman, D. Saxena and M.V. Bais.** Boston Univ.
- A270 **570.19** Nuclear Localization and Stabilization of GPS2 Depend on Arginine Methylation and Interaction with the Cofactor TBL1 **J. Huang, H.E. Johnson, M. Chan, C. Lentucci, M.D. Cardamone and V. Perissi.** Boston Univ. Sch. of Med.
- A271 **570.20** Proteomic Mapping of Mitotic O-GlcNAc Sites **S.A. Whelan, E.P. Tan, C. Lanza, C.E. Costello, M.E. McComb and C. Slawson.** Sch. of Med., Boston Univ. and Med. Ctr., Univ. of Kansas.
- A272 **570.21** Western Diet Alters Phosphorylation and O-GlcNAcylation of Proteins Involved in Mouse Heart Metabolic Disease **S.A. Whelan, J.L. Spencer, C. Heckendorf, C. Yao, J.B. Behring, D.A. Siwick, W.S. Colucci, R.A. Cohen, M.M. Bachschmid, C.E. Costello and M.E. McComb.** Sch. of Med., Boston Univ.

571. MOLECULAR MECHANISMS OF INFECTION AND IMMUNITY I

(Poster Session II scheduled on Monday;
Poster Session III scheduled on Tuesday)

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A273 **571.1** Investigating the Binding Affinity of Nod2 and Soluble Bacterial Cell Wall Dimers **L.A. Genova and C.L. Grimes.** Univ. of Delaware.
- A274 **571.2** Impact of Environmental Conditions on the Pathogenesis of the Common Cold **C. Huang.** Bengye, Shandong Kerui Gp.
- A275 **571.3** Human Single-Chain Antibodies against Polycyclic Aromatic Hydrocarbons **V. Ustinov, A. Studennikov, V. Vavilov, M. Tyumentseva, V. Morozova, N. Tikunova and A. Glushkov.** Inst. of Human Ecol., Siberian Br. of Russian Acad. of Sci., Kemerovo and Inst. of Chem. Biol. and Fund. Med., Siberian Br. of Russian Acad. of Sci., Novosibirsk.
- A276 **571.4** Circadian Rhythms Orchestrate Lymph Node Homing and Egress **D. Druzd, A. de Juan, K. Kraus and C. Scheiermann.** Ludwig Maximilians Univ., Munich.
- A277 **571.5** Immunoglobulin Knockout Chickens Lack Detectable Circulating IgA in Response to Keyhole Limpet Hemocyanin Vaccination **K. Bolek and K. Klasing.** Univ. of California, Davis.
- A278 **571.6** Cytochrome C Binds Complement 3b **L. Sibulo and D. Rhodes.** Pacific Northwest Univ. of Hlth. Sci.
- A279 **571.7** In Vitro Modeling of Extracellular Trap Release and Association with LL-37 Peptide in THP-1-Derived Macrophages **S.A. Stone and M.L. Craig.** Mary Baldwin Col., VA.
- A280 **571.8** Proinflammatory Environmental Exposures in Asthma **C. Cheah, M. Daines and W. Morgan.** Univ. of Arizona.
- A281 **571.9** Tamm-Horsfall Protein Binds Properdin **C. Vargas and D. Rhodes.** Pacific Northwest Univ. of Hlth. Sci.
- A282 **571.10** Biological Significance of Dual Oriented Nontypeable *Haemophilus influenzae* Vaccine Candidate P6 **C. Reulbach, J. Shaul, M. Pichichero and L. Michel.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol. and Rochester Gen. Hosp.
- A283 **571.11** Quantifying the Two P6 Populations in Various Strains of Nontypeable *Haemophilus influenzae*. **J. Shaul, C. Reulbach, B. Kisselstein, M. Pichichero and L.V. Michel.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol. and Rochester Gen. Hosp.
- A284 **571.12** The Effect of P6 Dual Orientation on Anti-P6 Bactericidal Activity in Nontypeable *Haemophilus influenzae* **K. Morrow, S. Kumar, M. Pichichero and L.V. Michel.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol.; Univ. of California, Berkeley and Rochester Gen. Hosp.

- A285 **571.13** Validation of Recombinant Antibodies against Human Transcription Factors **C. Griffin, S. Miersch, E. Marcon, S. Banerjee, J. Wells, M. Hornsby, A. Kossiakoff, S. Koide, M. Paduch, S. Sidhu and J. Moffat.** Univ. of Toronto; UCSF and Univ. of Chicago.
- A286 **571.14** Development and Characterization of Synthetic Human Antibodies for Sensing Cellular Metabolic States **J. Tomic, M. McLaughlin, R. Geyer, S. Sidhu and J. Moffat.** Univ. of Toronto and Univ. of Saskatchewan.
- A287 **571.15** Identification of the Antimicrobial Peptide LL-37 as a Ligand for Integrin $\alpha_M\beta_2$ (Mac-1, CD11b/CD18) Reveals Its Role in Macrophage Phagocytosis **V.K. Lishko, B. Moreno, N.P. Podolnikova and T.P. Ugarova.** Arizona State Univ.
- A288 **571.16** Extracellular Substrate Stiffness Alters Macrophage Morphology and Function **E. Gruber, S. Sinha, E. Ehrlich and C. Leifer.** Cornell Univ.
- A289 **571.17** NMR Plasma Metabolome Discriminates Subjects with Dengue Infection from Non-specific Febrile Infection **T. El-Bacha, C.J. Struchiner, F.C.L. Almeida and A.T. Da Poian.** Fed. Univ. of Rio de Janeiro and Natl. Sch. of Publ. Hlth., Fndn. Oswaldo Cruz, Rio de Janeiro.
- A290 **571.18** Production and Characterization of a Monoclonal Antibody against Eel Glycoprotein Hormone **K-S. Min, C-W. Park, E-B. Seo, D-J. Kim and M-H. Kang.** Hankgyong Natl. Univ.; NFRDI, Busan and Hoseo Univ., South Korea.
- A291 **571.19** Rescuing Nod2, an Innate Immune Receptor of Bacterial Cell Wall Fragments, in Crohn Disease **C.L. Grimes and V. Mohanan.** Univ. of Delaware.
- A292 **571.20** Outer Membrane Protein A of *Shigella flexneri* 2a Induces B Cell Activation and Protective Immune Response in Mouse Model **R. Bhowmick and M.K. Chakrabarti.** Natl. Inst. of Cholera & Enteric Dis., Kolkata.
- A293 **571.21** X-Ray Single Molecule Tracking Reveal Motions of Peptides in the Binding Groove of MHC II Regulated by DM **H. Kozono, T. Miyabe, Y. Kozono and Y.C. Sasaki.** Tokyo Univ. of Sci. and Univ. of Tokyo.
- A294 **571.22** Structural and Functional Characterization of a Maize-Derived Hepatitis B Surface Antigen for the Development of an Oral Vaccine **S. Shah, C.A. Hayden, J.A. Howard and A.G. Rao.** Iowa State Univ.
- A295 **571.23** Cucurbiturils as Inhibitors of Complex Formation between LL-37 and DNA **C. Brooks, R.K. Zachary and M.L. Craig.** Mary Baldwin Col., VA.
- A296 **571.24** The Interaction of the LL-37 Peptide with CpG DNA Oligonucleotides **I.L. Avelsgard and M.L. Craig.** Mary Baldwin Col., VA.
- A297 **571.25** Recovery and Response of Crohn's Associated Mutants to Bacterial Cell Wall Fragments **A.K. Schaefer, J.E. Melnyk, V. Mohanan and C.L. Grimes.** Univ. of Delaware.
- A298 **571.26** Assessing Host Immune Response to Dengue Virus Infection at Single-Cell Resolution **E.S. Sulistijo and K. Miller-Jensen.** Yale Univ.
- A299 **571.27** An Intricate Link between MicroRNAs and Regulation of Autophagy in Cystic Fibrosis **M.F. Tazi, D. Dakhallah, K. Caution, C. Marsh and A. Amer.** The Ohio State Univ.
- A300 **571.28** Management of amebiasis based on biochemical signaling and host pathogen interactions **J.Y. Tashjian and A. Espinosa.** Roger Williams Univ.
- A301 **571.29** Glycosylation of Human MUC1 Transcript Variant 2 Expressed in HeLa Cells **J. Warren and A.J. Piefer.** Hartwick Col., NY.
- A302 **571.30** Biophysical Characterization of TCR Variants with Reengineered Specificity and Affinity **N.K. Singh, B. Pierce, Z. Weng and B.M. Baker.** Univ. of Notre Dame and UMass Med. Sch.
- A303 **571.31** Engineering T Cell Receptors to Optimize Recognition of Target Antigens **T.P. Riley and B. Baker.** Univ. of Notre Dame.
- A304 **571.32** Conserved Residues in TCR CDR Loops and Their Role in Influencing Antigen Recognition **S.J. Blevins and B.M. Baker.** Univ. of Notre Dame.
- A305 **571.33** Molecular Dynamics Studies of the Role of Protein Flexibility in Immunological Molecular Recognition **C.M. Ayres, D.R. Scott, B.M. Baker and S.A. Corcelli.** Univ. of Notre Dame.

572. ENZYME MECHANISM

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A306 **572.1** ADP-Ribosylargininyl Activity of Cholix Toxin Is Mediated through Diffusible Intermediates **V.M-H. Sung and C-L. Tsai.** Massachusetts Gen. Hosp. and Harvard Med. Sch.
- A307 **572.2** Mechanistic Insight into the 14-3-3 Protein-Dependent Activation of Yeast Neutral Trehalase Nth1 **V. Obsilova, M. Kopecka, P. Man and T. Obsil.** Inst. of Physiol., AS CR; Charles Univ., Prague and Inst. of Microbiol., AS CR.
- A308 **572.3** Engineering New Substrate Specificity into the Active Site of Styrene Monooxygenases **P. Truong and G.T. Gassner.** San Francisco State Univ.
- A309 **572.4** Evidence for the Sacrificial Role of the Auxiliary [4Fe-4S] Cluster of Lipoyl Synthase **N.D. Lanz, M-E. Pandelia, M.I. McLaughlin, J.M. Rectenwald, A. Silakov, C.L. Drennan, C. Krebs and S.J. Booker.** Penn State and MIT.
- A310 **572.5** Radical Propagation in *E. coli* Class Ia Ribonucleotide Reductase Initiated by a 2,3,5-Trifluorotyrosyl Radical Cofactor **K. Ravichandran, E. Minnihan and J. Stubbe.** MIT.
- A311 **572.6** Mechanistic Investigation of the Radical SAM Enzyme DesII Using Fluorinated Analogs **G-M. Lin, M.W. Rusczycky, S-H. Choi and H-w. Liu.** Univ. of Texas at Austin.
- A312 **572.7** High-Resolution ^{31}P Field Cycling NMR as a Probe of Substrates Dynamics on GMP Reductase **M.M. Rosenberg, A.G. Redfield, M.F. Roberts and L. Hedstrom.** Brandeis Univ. and Boston Col.
- A313 **572.8** Activation of Two Sequential C-H Bonds in the Thymidylate Synthase-Catalyzed Reaction **Z. Islam, T.S. Strutzenberg, A.K. Ghosh and A. Kohen.** Univ. of Iowa.
- A314 **572.9** Ornithine Transcarbamylase Has a Spatially Extended Active Site as Predicted **L. Ngu, K.E. Ramos, N.A. DeLateur, P.J. Beuning and M.J. Ondrechen.** Northeastern Univ.

- A315 **572.10** Probing Conformational Change during Radical Propagation in the *E. coli* Class 1a RNR Using 3-Aminotyrosine as a Radical "Sink" **W. Lee, E. Minnihhan and J. Stubbe.** MIT.
- A316 **572.11** Structural Determinants in Hinge-Bend Motions of Neurolysin **B.L. Bibel and J.A. Sigman.** Saint Mary's Col. of California.
- A317 **572.12** Investigation of the Radical SAM Enzyme CDG Synthase **N.A. Bruender, D.P. Dowling, C.L. Drennan and V. Bandarian.** Univ. of Arizona and MIT and HHMI.
- A318 **572.13** Inhibition and Kinetic Isotope Effect Studies to Further Characterize the Mechanism of Maleamate Amidohydrolase **K. Malani and M.J. Snider.** Col. of Wooster, OH.
- A319 **572.14** Triphosphate Re-orientation of the Incoming Nucleotide as a Fidelity Checkpoint in Viral RNA-Dependent RNA Polymerases **X. Liu, X. Yang, D.M. Musser and D.D. Boehr.** Penn State.
- A320 **572.15** Characterization of Human Polyamine Oxidase **D. Zamora, J.R. Tormos Melendez and A. Galaledeen.** St.Mary's Univ. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio
- A321 **572.16** Neutron/X-Ray Joint Refinement of the Active and Inactive Form of *Helicobacter pylori* 5'-Methylthioadenosine Nucleosidase **M. Banco, V. Mishra, A. Kovalevsky and D. Ronning.** Univ. of Toledo and Oak Ridge Natl. Lab.
- A322 **572.17** Exploration of the Catalytic and Kinetic Mechanism of ATP Hydrolysis by Bacteriophage T4 Rad50 **T.J. Herdendorf and S.W. Nelson.** Iowa State Univ.
- A323 **572.18** SIRT5 Mutants Reveal Insights into Sirtuin Regulation **J. Yu, D.J. Mueller, R. Singh, M.K. Haldar, M. Sanku and D.K. Srivastava.** North Dakota State Univ. and UMass Med. Sch.
- A324 **572.19** Bioengineered Styrene Monooxygenase: Elucidating the Impact of the N-Terminus in the Efficiency and Regulation of the Flavin Transfer Reaction **N.N. Okonkwo and G.T. Gassner.** San Francisco State Univ.
- A325 **572.20** Investigating the Catalytic Mechanism of Yeast Cytochrome *c* Heme Lyase through Mutation of Highly Conserved Amino Acid Residues **S. Kulick, M. Junker and C. Sanders.** Kutztown Univ.
- A326 **572.21** A Tale of Two Chromophores: Investigating Two Distinct Isoforms of Cysteine Dioxygenase **D.L. Forbes and H.R. Ellis.** Auburn Univ.
- A327 **572.22** Evaluating the Mechanistic Roles of Amino Acid Residues in the Active Site of Cysteine Dioxygenase **C.J. Graham and H.R. Ellis.** Auburn Univ.
- A328 **572.23** Structure and Mechanism of 6-Hydroxynicotinate 3-Monooxygenase **T.J. Gerwig, M. Yuen, W. Zhen, M.A. Anderson, K. Hicks and M.J. Snider.** The Col. of Wooster, OH; SUNY Cortland and Univ. of Wisconsin-Madison.
- A329 **572.24** Isotope Effects and Kinetic Mechanism of *Enterobacter cloacae* Nitroreductase **A-F. Miller and W. Pitsawong.** Univ. of Kentucky.
- A330 **572.25** Visualization of Pronation States in PLP Dependent Enzymes **S. Dajnowicz, T. Mueser, L. Hanson and C.A. Schall.** Univ. of Toledo.
- A331 **572.26** Mechanism of Action of OXA-58 β -Lactamase **D. Golemi-Kotra, P. Gill and D. Wilson.** York Univ., Canada.
- A332 **572.27** Analyzing the Mechanistic Role of an Active Site Lysine Residue in Monofunctional and Bifunctional Proline Dehydrogenases **J.L. Floth and D. Becker.** Univ. of Nebraska-Lincoln.
- A333 **572.28** Investigation of the Radical SAM Methylthiotransferase MiaB Reaction Mechanism **A.J. Arcinas and S.J. Booker.** Penn State.
- A334 **572.29** Remote Residues Affect Stability of Ornithine Transcarbamylase **K. Ramos, L. Ngu, N. DeLateur, M.J. Ondrechen and P.J. Beuning.** Suffolk Univ., MA and Northeastern Univ.

573. ENZYMES MECHANISMS AND CHEMICAL BIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A335 **573.1** Production of Bacterial Cellulose, Cloning and Characterization of Novel β -glucosidases from *Gluconacetobacter xylinum* **R. Auta, J. Loh, I. Radecka and P. Hooley.** Univ. of Wolverhampton, UK and Kaduna State Univ., Nigeria.
- A336 **573.2** Nature's Sniper for Long-Range Specific Protein Oxidation **A. Liu.** Georgia State Univ.
- A337 **573.3** Extending the Kynurenine Pathway to an Aldehyde Disarming Enzyme: Mechanistic Study of Bacterial AMSDH and Identification of the Correct Human Enzyme **I. Davis, L. Huo, F. Liu, B. Andi, S. Esaki, H. Iwaki, Y. Hasegawa, A.M. Orville and A. Liu.** Georgia State Univ.; Brookhaven Natl. Lab. and Kansai Univ., Japan.
- A338 **573.4** Thermostable Alkaline Protease Production by *Bacillus aryabhatai* J4 **S.A. Selim.** Aljouf Univ., Saudi Arabia.
- A339 **573.5** Substrate Specificity and Quaternary Structure of a Novel Class of Tryptophan Synthases **F. Busch and R. Sterner.** Univ. of Regensburg.
- A340 **573.6** Use of V-Agent Analogs to Probe the Active Site of Atypical Butyrylcholinesterase from *Oryzias latipes* **M.G. Kirkpatrick, R.E. Sweeney, S.A. Kasten, R.C. diTargiani, D.M. Cerasoli and T.C. Otto.** U.S. Army Med. Res. Inst. of Chem. Defense, Aberdeen Proving Ground, MD.
- A341 **573.7** Seeing Is Believing: Visualizing Hydrolysis and Inhibition of an Epoxide Hydrolase Virulence Factor **K.L. Hvorecny, C.D. Bahl, J.M. Bomberger, S. Moreau-Marquis, S. Kitamura, C. Morisseau, B.D. Hammock, B.A. Stanton and D.R. Madden.** Geisel at Dartmouth; Univ. of Pittsburgh and Univ. of California, Davis.
- A342 **573.8** Incorporation of Azide Functionality into Recombinant Protein via Recombinant, Enzymatic, and Chemical Approaches for Bio-orthogonal Modification **L. Wang, R. Jiang, L. Wang and X-L. Sun.** Cleveland State Univ. and China Med. Univ.
- A343 **573.9** Fresh Surprises from the Old Cofactor NAD(P)H **R.G. Rosenthal, B. Vögeli, G. Stoffel and T.J. Erb.** ETH Zurich.
- A344 **573.10** Towards Optimization of a General RNA Labeling Deoxyribozyme: Characterization of a Unimolecular Deoxyribozyme **M.L. Ashton, T. Carrocci, C. Hoebartner and A. Hoskins.** Univ. of Wisconsin-Madison and Max Planck Inst. for Biophys. Chem. Göttingen.

- A345 **573.11** Detection of Lipid-Linked Peptidoglycan Precursors by Exploiting an Unexpected Transpeptidase Reaction **Y. Qiao, M.D. Lebar, K. Schirner, K. Schaefer, H. Tsukamoto, D. Kahne and S. Walker.** Harvard Univ.
- A346 **573.12** Protein Splicing of a Temperature-Dependent Intein from an Extreme Thermophile **N.M. Siegart, K.M. Colelli, J.N. Reitter and K.V. Mills.** Col. of the Holy Cross.
- A347 **573.13** Alternative Thymidylate Synthase: New Intermediates Suggest New Flavin Mechanism **A. Kohen, T.V. Mishanina and L. Yu.** Univ. of Iowa.
- A348 **573.14** Substrate Recognition by Human Mitochondrial RNase P: Moonlighting of a tRNA Methyltransferase **X. Liu, M.J. Howard, B.P. Klemm and C.A. Fierke.** Univ. of Michigan.
- A349 **573.15** Substrate Recognition by the Radical Enzyme Benzylsuccinate Synthase **M.A. Funk and C.L. Drennan.** MIT and HHMI.
- A350 **573.16** MTHFD1 and Nuclear Thymidylate Biosynthesis **R.P. Liebenthal, P.J. Stover, E. Kamynina and M.S. Field.** Cornell Univ.
- A351 **573.17** Sequence Similarity Networks for the Protein Universe **K.L. Whalen, B. Sadkhin, D. Davidson and J.A. Gerlt.** Univ. of Illinois at Urbana-Champaign.
- A352 **573.18** Functional Characterization of Structural Genomics Proteins in the Crotonase Superfamily **C.L. Mills, P. Yin, P.J. Beuning and M.J. Ondrechen.** Northeastern Univ.
- A353 **573.19** Elucidating the Nicotinic Acid Degradation Pathway in *Bacillus niacini* **A.K. Daniel and M.J. Snider.** The Col. of Wooster.
- A354 **573.20** Identification of an Intermediate Methyl Carrier and the Stereochemical Outcomes of H-Atom Abstraction and Methylthiolation by the Radical SAM Enzyme RimO **B.J. Landgraf, K-H. Lee and S.J. Booker.** Penn State.
- A355 **573.21** Enzyme 'Social' Networks: Tracking Sequence/Function Relationships to Elucidate Determinants of Enzyme Specificity and Mechanism **E. Akiva, S.D. Brown, G.L. Holliday and P.C. Babbitt.** UCSF.
- A356 **573.22** Exploration of the Protein Cleaving Ability and Specificity of 1,4,7-Triazacyclononane-copper(II) Chloride **P. Sweet and B. Bodsgard.** Saint Mary's Univ. of Minnesota.
- A357 **573.23** Study of Kinetic Mechanism of Flavin-Dependent Thymidylate Synthase from *Thermotoga maritima* **A. Sapra and B. Palfey.** Univ. of Michigan Med. Sch.
- A358 **573.24** Potential New Chemical Roles for Diheme Enzymes in *Burkholderia* **K. Rizzolo and S.J. Elliott.** Boston Univ.
- A359 **573.25** An Old Cofactor in a New Light: Adenosylcobalamin in Light-Dependent Gene Regulation **M. Jost, S. Padmanabhan, M. Elíaz-Arnanz and C.L. Drennan.** MIT; Rocasolano Phys. Chem Inst., Spanish Natl. Res. Council and Univ. of Murcia, Spain.
- A360 **573.26** Investigating the Role of 3-Phosphoinositide-Dependent Protein Kinase 1 in the Spatiotemporal Regulation of the Purinosome **A. Sundaram and S. An.** Univ. of Maryland Baltimore County.
- A361 **573.27** Effect of High Light Intensity on Polyketide Synthase Gene Expression in the Toxic Dinoflagellate, *Karenia brevis* **U. Chauhan, D. Lupo and E.A. Monroe.** William Paterson Univ.
- A362 **573.28** The Reduction Effect of Low Molecular Weight Chitosan Oligosaccharide (GO2KA1) on Postprandial Blood Glucose Levels in Healthy Individuals **Y-R. Kang, S-H. Jo, S-W. Lee, S-C. Kim, E. Apostolidis, Y-C. Kim, H-S. Min, M-S. Lee and Y-I. Kwon.** Hannam Univ., South Korea; Framingham State Univ.; KunpoongBio Co. Ltd., Jeju and Univ. of Massachusetts Amherst.
- A363 **573.29** In Vitro and In Vivo Anti-hyperglycemia Effect of Novel Amadori Rearrangement Compound, Arginyl-Fructosyl-Galactose **H-Y. Choi, K-S. Ha, S-W. Lee, Y-R. Kang, J-Y. Lee, Y-H. Kim and Y-I. Kwon.** Hannam Univ. and Chungnam Natl. Univ., South Korea.
- A364 **573.30** Exploring the Serine Protease Involved in Cell-Mediated Immunity in Fish **Y. Matsuura, T. Yabu, H. Shiba, T. Moritomo and T. Nakanishi.** Nihon Univ.
- A365 **573.31** Size Separation of Large Proteins and Protein Complexes **P. Liljedahl, I. Salomonsson and T. Graner.** GE Healthcare Life Sci., Uppsala.
- A366 **573.32** Characterization of an IMP Cyclohydrolase in *Haloflex volcanii* **M.L. Pasier and C.A. Sarisky.** Roanoke Col., VA.
- A367 **573.33** Investigation of the Evolutionary Relationship between Rio2 Kinases and the Canonical Eukaryotic Protein Kinases Using X-Ray Crystallography **S. Bahmanjah and N. LaRonde.** Univ. of Maryland College Park.
- A368 **573.34** Characterization and Complementation of a Potential Novel Phenotype for *Saccharomyces cerevisiae* PHO13 **A. Gehret, K. Mills, C. Kellogg and S. O'Handley.** Rochester Inst. of Technol.
- A369 **573.35** **Withdrawn.**
- A370 **573.36** Structural Properties in the FMN Reductase of the Alkanesulfonate Monooxygenase System that Dictate Oligomeric States and Catalysis **J.M. Musila and H.R. Ellis.** Auburn Univ.
- A371 **573.37** Dramatic Conformational Flexibility of Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase Revealed by Electron Microscopy **E.J. Brignole, E.C. Wittenborn, S.M. Thompson, S.W. Ragsdale and C.L. Drennan.** MIT and Univ. of Michigan.
- A372 **573.38** B₁₂ in a New Light: Queuosine tRNA Modification **D.P. Dowling, Z.D. Miles, C. Köhrer, V. Bandarian and C.L. Drennan.** HHMI, Cambridge; MIT; Univ. of Massachusetts Boston and Univ. of Arizona.
- A373 **573.39** Radically New Methylation Reactions in Antibiotic Biosynthesis: Insights into the Mechanism of B₁₂-Dependent Radical SAM Enzymes **O. Berteau, S. Pierre, A. Benjdia, C. Gherasim and R. Banerjee.** INRA, Jouy en Josas and Univ. of Michigan Med. Sch.
- A374 **573.40** Peroxidation and Redox Reactions Catalyzed by Truncated Hemoglobins **J.K. Tang and M. Couture.** Clark Univ., MA and Laval Univ., Canada.
- A375 **573.41** Effects of CAIL/CAIV Double Knockout on Fertility **N. Mannowetz, P.M. Wandernoth, J. Szczyrba, L. Grannemann, H.M. Becker, A. Wolf and G. Wennemuth.** Univ. Clin. Essen/Univ. of Duisburg Essen; Saarland Univ., Germany and Univ. of Kaiserslautern.
- A376 **573.42** Unraveling the Biosynthesis of Dimethyl Indolic Acid, a Key Moiety of the Antibacterial Nosiheptide **E.D. Badding, T. Grove and S. Booker.** Penn State

- A377 **573.43** Small Molecule-Induced Catalytic Ubiquitination of Non-natural Substrates **D.P. Bondeson, C. Pancevac, L. Kruidenier, P. Carter, I. Churcher and C. Crews.** Yale Univ. and GlaxoSmithKline, U.K.
- A378 **573.44** Proton Tunneling Accelerates ATP Hydrolysis in Kinesin-5 Proteins **S. Kim, J. Richard, C. Parke, D. Worthylake and E.J. Wojcik.** LSU Hlth. Sci. Ctr. Sch. of Med.
- A379 **573.45** A Novel Pathway for Bacterial Ethanolamine Metabolism **B. San Francisco, X. Zhang, K.L. Whalen and J.A. Gerlt.** Univ. of Illinois at Urbana-Champaign.
- A380 **573.46** Structural Comparison of Firefly Luciferase with the Latent Luciferase CG6178 **S.T. Adams, M.F. Bohn, C. Schiffer and S.C. Miller.** UMass Med. Sch.
- A381 **573.47** Latent Luciferase Activity in Fatty Acyl-CoA Synthetases Revealed by Synthetic Luciferins **D.M. Mofford, R. Reddy and S.C. Miller.** UMass Med. Sch.
- A382 **573.48** Biochemical and Functional Characterization of the Mutagenic Cytidine Deaminase, APOBEC3B **T. Sasaki and K.S. Anderson.** Yale Univ.
- A383 **573.49** Exploring the Role of Proline Metabolism in *Helicobacter* Pathogenicity **S. Christgen, A. Ramer-Tait and D. Becker.** Univ. of Nebraska-Lincoln.
- A384 **573.50** Diacyltransferase Activity and Chain Length Specificity of Mtb PapA5 in Synthesis of Alkyl Beta-Diol Lipids **M.H. Touchette, G.R. Bommineni, R. Delle Bovi, J. Gadbery, T.O. Metz, D. Martin, N.S. Sampson, T. Miller, P.J. Tonge and J.C. Seeliger.** Stony Brook Univ. and Pacific Northwest Natl. Lab.
- A385 **573.51** Active Role of the Substrate during Catalysis by the Therapeutic Enzyme L-Asparaginase II **S.B. Rempe, J. Vanegas, A. Anishkin, D.M. Rogers and S. Sukharev.** Sandia Natl. Labs., Albuquerque; Univ. of Maryland College Park and Univ. of South Florida.

574. STRUCTURE, FUNCTION, AND BIOGENESIS OF CELL MEMBRANES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A386 **574.1** Structural-Function Mechanism of *Vibrio cholerae* Cytolysin: A β -Barrel Pore-Forming Toxin **A.K. Rai and K. Chattopadhyay.** Indian Inst. of Sci. Educ. and Res. Mohali, Punjab, India.
- A387 **574.2** Structure of an H⁺-Coupled, Substrate-Bound MATE Transporter Yields Mechanistic Insights into Multidrug Extrusion **M. Lu, M. Radchenko, J. Symersky, R. Nie and Y. Guo.** Rosalind Franklin Univ. of Med. and Sci.
- A388 **574.3** Cholesterol Forms Submicrometric Domains on the Living Erythrocyte Membrane **M. Carquin, L. Conrad, H. Pollet, P. Van der Smissen, M. Veiga-da-Cunha, P. Courttoy and D. Tyteca.** Duve Inst. & Univ. Catholique de Louvain, Brussels.
- A389 **574.4** Endosome Independent – Vesicular Transport and Targeting of the *Leishmania* RNA Import Complex to Mammalian Mitochondria In Vivo and In Vitro **J. Mukherjee, B. Mahato, S. Koley and S. Adhya.** Indian Inst. of Chem. Biol., Kolkata; Univ. of Kansas Med. Ctr. and Weizmann Inst. of Sci.
- A390 **574.5** Monoubiquitination Regulates Golgi Membrane Dynamics in the Cell Cycle **Y. Wang, X. Zhang and S. Huang.** Univ. of Michigan.
- A391 **574.6** TORC1 Inhibition Using a Drug Combination Approach in *Saccharomyces cerevisiae* **P. Bravo, S.P. Manandhar and E. Gharkhanian.** California State Univ., Long Beach.
- A392 **574.7** Investigation of Cytoskeletal Proteins from *Tetrahymena thermophila* **R. Sterner, J. Honts and A. Kilpatrick.** Drake Univ.
- A393 **574.8** Euphol from *Euphorbia tirucalli* Negatively Modulates Transforming Growth Factor- β (TGF- β) Responsiveness Correlate with TGF- β Receptor Segregation Inside Membrane Rafts **C. Ying-Pin and C. Chun-Lin.** Natl. Sun Yat-sen Univ.
- A394 **574.9** Purification and Characterization of a Bacterial Mating Protein **A. Bulku and M. Berkmen.** Suffolk Univ., MA.
- A395 **574.10** Yeast Env9 Is a Conserved Oxidoreductase Involved in Lipid Droplet Biogenesis **I. Siddiqah, S. Manandhar and E. Gharakhanian.** California State Univ. Long Beach.
- A396 **574.11** Role of N-glycosylation in the stability of Ca_v α 2 δ 1 **M-P. Tetreault, E. Segura, B. Bourdin, S. Lesage and L. Parent.** Univ. of Montreal; Institut de cardiologie de Montréal and Hosp. Maisonneuve-Rosemont.
- A397 **574.12** Electron Microscopic Analysis of Lens Gap Junction Connexin50 Hemichannels and Channels **G.E. Sosinsky, C.Y. Ren and C. Ambrosi.** UCSD.
- A398 **574.13** Acute Stimulation of GLUT1 Cell Surface Localization in Blood-Brain Barrier Endothelial Cells **O.A. Ojelabi and A. Carruthers.** UMass Med. Sch.
- A399 **574.14** PIP₂ Stabilizes Dopamine Transporter Surface Expression **R.R. Fagan, T. Hofmaier, H.H. Sitte and H.E. Melikian.** UMass Med. Sch. and Med. Univ. of Vienna.
- A400 **574.15** Dopamine and 5HT Transporter Amino and Carboxy Termini Contribute to Substrate Affinity and Psychostimulant Activity **C.G. Sweeney, M. Holy, H.H. Sitte and H.E. Melikian.** UMass Med. Sch. and Med. Univ. of Vienna.
- A401 **574.16** Mutational Analysis of a Putative Drug Resistance Transporter in the Human Parasite *T. gondii* **R.J. Rivera-Lugo, Z. Dou and V.B. Carruthers.** Univ. of Puerto Rico, Ponce and Univ. of Michigan.
- A402 **574.17** Effects of Agonist and Regulator Binding on the Structure and Conformational Flexibility of the Ligand Binding Domains of Ionotropic Glutamate Receptors **F. Barkdoll-Weil, C. Guzman, Z. Asif, P. Varnes and J.E. Bell.** Univ. of Richmond.
- A403 **574.18** Effects of Regulator Binding on the Structure and Conformational Flexibility of the Amino Terminal Domains of Ionotropic Glutamate Receptors **P. Varnes, C. Metz, E. Bartle and J.E. Bell.** Univ. of Richmond.
- A404 **574.19** Exosomal AnnexinA2's Role in Angiogenesis and Breast Cancer Metastasis **S. Maji and J.K. Vishwanatha.** Univ. of North Texas Hlth. Sci. Ctr.
- A405 **574.20** Determining the Topology of the Membrane Bound O-Acyltransferase Porcupine **L.U. Sanchez, G.J. Fraley, R. Bueno, L.M. Galli and L.W. Burrus.** San Francisco State Univ.
- A406 **574.21** Elucidating the Structural Consequences of CQC-Mediated Dimerization of MUC1 **T. Stachowski and E. Li.** Saint Joseph's Univ., PA.
- A407 **574.22** Impact Various Pcp1p Mutations Have on Mitochondrial Genome Maintenance and Morphology **A.P. Both, M.E. Huddleston and D.M. Gordon.** Mississippi State Univ.

- A408 **574.23** Isolation and Proteomics of Extracellular Microvesicles Shed by *Tetrahymena thermophila* during Mating **O. Dmytrenko, A.R. Ripeckyj and E.S. Cole**. St. Olaf Col., MN.
- A409 **574.24** FQQL Motif in the C-Terminus of Guanylyl-Cyclase/Natriuretic Peptide Receptor-A Mediates Intracellular Trafficking in Mouse Mesangial Cells **I. Mani and K.N. Pandey**. Tulane Univ. Hlth. Sci. Ctr. and Sch. of Med.
- A410 **574.25** Phosphatidylinositol 4,5-Bisphosphate Activates the Cell Adhesion Molecule CD44 and Assembles a CD44-Ezrin Heterotetramer Complex as Revealed by Small Angle Neutron Scattering **Z. Bu**. City Col. of New York, CUNY.
- A411 **574.26** Caveolin-1, a Mechano-mediator, Is Expressed in the Epithelial and Stromal Cells of Mice Cervix and Increases during Pregnancy **A.P. Brunson, T. Ohashi, S. Jesmin and C. Mowa**. Appalachian State Univ.; Univ. of Tsukuba and Univ. of Johannesburg.
- A412 **574.27** Evidence for Presence of Focal Adhesion Kinase and Enhanced Activity in Epithelial and Stromal Cells of Mice Cervix during Pregnancy **S.A. Gautam, A. Brunson, T. Ohashi, S. Jesmin and C. Mowa**. Appalachian State Univ.; Univ. of Tsukuba and Univ. of Johannesburg.
- A413 **574.28** Modulation of Neuronal GIRK Channels by Cholesterol **A. Rosenhouse-Dantsker and A.N. Bukiya**. Univ. of Illinois at Chicago and Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- A414 **574.29** Developing New Assays (Fluorosomes) for Characterization of Drug Interactions of ABC Multidrug Transporters **A. Telbisz, B. Sarkadi, G. Wright, P. Bansal and D. Melchior**. Res. Ctr. for Nat. Sci., Hungarian Acad. of Sci., Budapest and TFC Biosci. Inc., Worcester.
- A415 **574.30** Distinct Intracellular Trafficking Patterns of Host IgG by Herpes Virus Fc-Receptors **B. Ndjamen and P. Bjorkman**. Caltech.
- A422 **575.7** Production of Antimicrobial Substances by Nonpathogenic *Neisseria* Species **J. Ogle, A. Finck and E. Aho**. Concordia Col., MN.
- A423 **575.8** A Systematic Study of the Stress Response Induced by Low pH treatment of Heavily Contaminated Water on Viability and Protein Expression Profiles of *E.coli* **O. Gada**. Wellesley Col., MA.
- A424 **575.9** Cinnamaldehyde Inhibits Biofilm Formation of MRSA **M. Rossi and R.M. Heuertz**. Saint Louis Univ.
- A425 **575.10** Investigation of the Mechanism of Action of Oxazolidinones **B. Koleva, J. Aggen and P. Beuning**. Northeastern Univ.
- A426 **575.11** Prevalence of *Salmonella* spp. and Serogroups Found in Venomous and Nonvenomous Snakes Maintained in a Zoological Collection **E.D. Stark, M. Valitutto, K. Bobbitt and C. Corbo**. Wagner Col., NY and Staten Island Zool. Soc.
- A427 **575.12** Source Tracking of Fecal Contamination along San Luis Obispo Creek **D.R. Shapiro, J.D. Kent, M.F. Zuleta, C.L. Kitts, M.W. Black and J. VanderKelen**. California Polytech State Univ., San Luis Obispo.
- A428 **575.13** Pharmaceutical Control of the Microbiome **R.M. Pollet, B.D. Wallace, A.B. Robers, U.A. Boelsterli, S. Mani and M.R. Redinbo**. Univ. of North Carolina at Chapel Hill; Albert Einstein Col. of Med. and Univ. of Connecticut Sch. of Pharm.
- A429 **575.14** Isolation and Characterization of Mycobacteriophage ZoeJ, a K2 Cluster Phage **A.V. Jancevski, H. Dubois, S. Scola, E. Lebel, S. Pinches, M. Brown, W. Cavedon, M. Fernando, C. Perri, S. Rogers, N. Austriaco and K. Cornely**. Providence Col., RI.
- A430 **575.15** Radical Chemistry in the Human Gut: Discovery of Choline Trimethylamine-Lyase **S. Bodea and E.P. Balskus**. Harvard Univ.
- A431 **575.16** Chronic Sweetener Intake and Oxidative Stress in the Central Nervous System **Z. Rebolledo, I. Contreras and J.A. Estrada**. Autonomous Univ. of Mexico State, Toluca.
- A432 **575.17** Symbiotic Bacterial Metabolites Regulate Gastrointestinal Barrier Function via the Xenobiotic Sensor PXR and Toll-Like Receptor 4 **S. Mani and H. Li**. Albert Einstein Col. of Med.
- A433 **575.18** Isolation and Classification of Bacteriophages in Untreated and Treated Sewage to Test Effectiveness of Water Treatment Methods **K.A. Meuer, A.J. Piefer, M. Allen and Z. Balogh-Brunstad**. Hartwick Col., NY.
- A434 **575.19** Functional Association Profiling of Metabolic Landscape and Microbiome in Chronic Pressure Ulcer Wounds **M.C.B. Ammons and V. Copie**. Montana State Univ.
- A435 **575.20** Toxicity of Aminoglycoside Antibiotics May Be Due to Alternate Binding of the Human Mitochondrial Ribosomal RNA **S. Hong, K.D. Fanning, K.A. Harris, K.M. Frohlich and P.F. Agris**. Univ. at Albany, SUNY.
- A436 **575.21** Quantifying Dynamic Host-Microbiota Signatures of Antibiotic-Associated GI Infection: What Can the Host Proteome Tell Us? **J.E. Elias, J.S. Lichtman and J.L. Sonnenburg**. Stanford Univ.
- A437 **575.22** A Potential Role of *H. pylori* PPIase in the Transformation of Gastric Epithelial Cell and the Development of Gastric Cancer **J. Liu**. West Virginia Univ.
- A438 **575.23** Toxin-Antitoxin Systems and Their Role(s) in Persistence **R. Page and W. Peti**. Brown Univ.
- A439 **575.24** Analyzing Bacterial Communities in *Pediculus humanus capitis* **M. Plekan, M.E. St Amand, V. Klepac-Ceraj and C.N. Peterson**. Suffolk Univ. and Wellesley Col., MA.

575. HUMAN MICROBIOME AND MICROBIOME DYNAMICS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A416 **575.1** 11 β -HSD1 Mediates Insulin Resistance and Type 2 Diabetes Mellitus through JNK Activation **K. Peng and G. Liang**. Wenzhou Med. Univ., China.
- A417 **575.2** Kinetics of Biofilm Formation by *Staphylococcus aureus* and *Pseudomonas aeruginosa* **T.D. Zellmer and R.M. Heuertz**. Saint Louis Univ.
- A418 **575.3** Neonatal Antibiotic Exposure Alters Compositional Gut Microbiota Development during the First 6 Months of Life **H. Kumar, S. Rautava, M.C. Collado, N. Borzykh, E. Löytyniemi, E. Isolauri and S. Salminen**. Fac. of Med., Univ. of Turku, Finland and IATA-CSIC, Spain.
- A419 **575.4** Characterization of an Alternative Starch Utilization System from the Human Gut Bacterium *Bacteroides thetaiotaomicron* and Its Implications in Human Nutrition **M.M. Chaudet and D.R. Rose**. Univ. of Waterloo, Canada.
- A420 **575.5** Persistor Cell Control Mechanisms in Uropathogenic *Escherichia coli* **W.H. Law, M.P. Leatham-Jensen, P.S. Cohen and J.L. Camberg**. Univ. of Rhode Island.
- A421 **575.6** DCAP: A Broad-Spectrum Antibiotic that Targets the Cytoplasmic Membrane of Bacteria **V.A. Heinrich, K.A. Hurley, T.M.A. Santos and D.B. Weibel**. Univ. of Wisconsin-Madison.

- A440 **575.25** A New Method for High Throughput Quantification of Bacterial Clades in Sediment Samples **T. Von Rosen, D. Probandt and K. Knittel**. Suffolk Univ., MA and Max Planck Inst., Bremen.
- A441 **575.26** Demonstration of a Novel Platform for Measuring Gut Microbiome Metabolic Dynamics **D.A. Wagner, D. Bolt, M. Demers and K. Gruelich**. Metabolic Solutions Inc., NH.
- A442 **575.27** Silver Nanoparticle-Embedded Polymersome Nanocarriers for the Treatment of Antibiotic-Resistant Infections **B.M. Geilich and T.J. Webster**. Northeastern Univ.

576. CANCER DIAGNOSIS/PROGNOSIS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A443 **576.1** Novel Resistance Mutations to ALK Tyrosine Kinase Inhibition Arising during Cell-Culture Drug Selections in T-Cell Lymphoma **M.J. Groysman, A. Dipak Amin, E. Tapia, S.S. Rajan and J.H. Schatz**. Univ. of Arizona.
- A444 **576.2** Evaluation of Different Oxidative Stress Biomarkers in Endometriosis **C. Castruccio Castracani, G. Li Volti, A. Cianci, I. Barbagallo, G. Di Simone, L. Vanella and M. Iraci**. Univ. of Catania, Italy.
- A445 **576.3** The Anti-proliferative Effect of Doxorubicin Is Catalyzed through the Proteolytic Activation of CREB3L1 **B. Denard, Q. Chen, C. Lee, A. Pavia-Jimenez, J. Brugarolas and J. Ye**. Univ. of Texas Southwestern Med. Ctr.
- A446 **576.4** Levels of some Oxidative Stress Biomarkers and Hematological Parameters in Cancer Patients from Lagos, Nigeria **O.A. Ayanshina, S.A. Adeola and M.N. Igwo-Ezikpe**. Col. of Med., Univ. of Lagos and Fac. of Sci., Lagos State Univ., Nigeria.
- A447 **576.5** Developing an Approach for Using Low Quantities of DNA for HLA Typing: A Tool for Determining the Ancestral Link of Disease **M.L. Uaisele and L. Marquez-Magana**. San Francisco State Univ.
- A448 **576.6** Development of a Surface Plasmon Resonance-Based Assay to Detect Antiproliferative Factor in Interstitial Cystitis Patient Urine **B. Chavda, J. Ling, T. Majernick and S.L. Planey**. The Commonwealth Med. Col., PA.
- A449 **576.7** Genotyping of a *p73* Dinucleotide Polymorphism in Human Cancer Cell Lines **R.A. Cordova, K.K. Hampton, D. Kim, J.Y. Park and L.M. Carastro**. Univ. of Tampa and Moffitt Cancer Ctr., Tampa.
- A450 **576.8** Effects of Lung Carcinogens on PPARgamma Activity in A549 Cell Line **N.D. Carrasco, M. Tennis and L. Nield**. Univ. of Puerto Rico at Ponce and Univ. of Denver Anschutz Med. Campus.
- A451 **576.9** Functional Evaluation of the Effects of Missense and Non-sense SNPs in the p25 Subunit of Human Dynactin Complex **S. Misra, M.K. Mittal, A. Singhal and G. Chaudhuri**. Meharry Med. Col.

- A452 **576.10** Cyclin G2 Contributes to the Cell Cycle Arrest Response of Breast Cancer Cells to Estrogen Signaling-Antagonists and the AMPK Agonist, Metformin **M.C. Horne, M. Zimmermann, A. Arachchige Don, M. Donaldson and T. Patriarchi**. Univ. of California, Davis and Univ. of Iowa.

577. CANCER IMAGING: A PICTURE IS WORTH > 1K WORDS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A453 **577.1** Imaging Tumor Targeted Delivery Using FRET In Vivo **M. Barroso, A. Rudkouskaya, K. Anderson, S. Rajoria, L. Zhao, N. Sinsuebphon and X. Intes**. Albany Med. Col. and Rensselaer Polytech Inst.
- A454 **577.2** Luminescence Lifetime Imaging Microscopy for Analysis of Oxygen in the Cancer Cell **R.I. Dmitriev**. Sch. of Biochem. and Cell Biol., University Col. Cork.
- A455 **577.3** Role of WWOX and ERK in Controlling Cancer Cell Migration **Y-D. Sie, Y-A. Chen, P-Y. Chou, S-J. Chen and N-S. Chang**. Natl. Cheng Kung Univ., Taiwan.
- A456 **577.4** New Strategies for Probing and Inhibiting CDK4/cyclin D Hyperactivity in Melanoma **C. Prével, M. Pellerano, F. Bihel, L. Meunier and M.C. Morris**. Biomolec Inst. Max Mousseron Fac. of Pharm., Montpellier and Fac. of Pharm.-UMR CNRS, Srasbourg.
- A457 **577.5** Specific Macrophage Targeting for MRI Using Amyloid β Oligomer-Labeled Nanoparticles **A-K. Fuchs, S.T. Kumar, B. Büchele, T. Syrovets, M. Fändrich and T. Simmet**. Ulm Univ.
- A458 **577.6** Monitoring Cellular Adenine Nucleotide Levels and Their Relevance to Cellular Metabolic Functions Using Bioluminescence-Based Strategies **S. Goueli, K. Hsiao and S. Mondal**. Promega Corp., Madison and Univ. of Wisconsin Med. Sch.
- A459 **577.7** A New Approach to SNAP-Tag Technology as a Possible Imaging Tool for Translational Research **N. Sumzin, M. Moroz and V. Ponomarev**. Mem. Sloan Kettering Cancer Ctr. and St. John's Univ., NY.
- A460 **577.8** Spatiotemporal Profiling the Activities of Ectophosphatases on Cancer Cells by Molecular Imaging **J. Zhou, X. Du, J. Shi and B. Xu**. Brandeis Univ.
- A461 **577.9** Cell-*fie* of a Cancer Cell: Imaging Metastatic Potential of Single Living Tumor Cells with Fluorescent Biosensors **K. Midde, N. Sun, P. Mehlawat, H. Husain and P. Ghosh**. UCSD.
- A462 **577.10** Landscape Phage Probes for Prostate Specific Antigen **O.A. Fagbohun, V.A. Petrenko and E. Abraham**. Univ. of Ibadan, Nigeria.

578. MICRO AND LONG NONCODING RNA IN CANCER

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A463 **578.1** Post-transcriptional Regulation of PML Protein by Distinct Mechanisms **D. Guan, A. Putnam, E. Jankowsky and H-Y. Kao.** Case Western Reserve Univ.
- A464 **578.2** Transfer RNA Fragments, Novel MicroRNA-Like Short RNAs Generated Independent of Dicer, Associate with Target mRNAs in Ago Complexes and are De-regulated in Many Cancers **A. Dutta, J. Anaya and P. Kumar.** Univ. of Virginia.
- A465 **578.3** A MicroRNA Signature of Response to Erlotinib Is Impacted by the EMT-Inducing Cytokine TGF β 1 **M.J. Krentz, R. Astley and E.P. Black.** Univ. of Kentucky.
- A466 **578.4** The Role of Non-coding RNAs in Breast Cancer Resistance to EGFR Therapy **L.D. Borrero-García and S. Dharmawardhane.** Univ. of Puerto Rico Med. Sci. Campus.

- A467 **578.5** Downregulation of miR-155 Contributes to the Anti-proliferative Effects of the Soy Isoflavone Genistein in Estrogen Receptor Negative Breast Cancer **C. De La Parra, A.M. Cruz-Collazo, L. Castillo-Pichardo, L. Cubano, R. Redis, G. Calin and S. Dharmawardhane.** Univ. of Puerto Rico Med. Sci. Campus; Univ. Central del Caribe, PR and The Univ. of Texas MD Anderson Cancer Ctr.
- A468 **578.6** Post-transcriptional Regulation of the Na⁺,HCO₃⁻-Cotransporter NBCn1 (SLC4A7) by a Constitutively Active ErbB2 Receptor in MCF-7 Breast Cancer Cells **A. Gorbatenko, H.H. Sigurdsson, E. Pedraz-Cuesta and S.F. Pedersen.** Univ. of Copenhagen.
- A469 **578.7** PKC δ VIII and Bcl2 Increase Ovarian Cancer Survival via LncRNA NEAT1 Secreted by Obese Adipose-Derived Stem Cells **N.A. Patel, A. Morris, R.S. Patel, G. Carter, D.R. Cooper and M. Murr.** James A Haley Veterans Hosp., Tampa and Univ. of South Florida.
- A470 **578.8** Serum lncRNA Detection as Potential Biomarker of Lung Cancer **S. Tian, S.J. Rulli and E. Lader.** QIAGEN, Frederick, MD.
- A471 **578.9** An RNA Aptamer Binding with Tumor Endothelial Marker I **A. Kumari and P.K. Yadava.** Sch. of Life Sci., Jawaharlal Nehru Univ.
- A472 **578.10** Cancer Cell-Induced Suppression of Cytotoxic Alu RNA Biosynthesis in the Co-cultured Macrophages **A. Singhal, S. Mishra and G. Chaudhuri.** Meharry Med. Col.

Nutrition

579. GLOBAL NUTRITION: ANTHROPOMETRY

Poster

(Sponsored by: Global Nutrition Council)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C1 **I 579.1** Associations of Maternal Cortisol, Inflammation, Hemoglobin, Iron Status, and BMI with Birth Outcomes in Pregnant Women in Ghana **B.M. Oaks, C.P. Stewart, K.D. Laugero, S. Adu-Afarwuah, A. Lartey, L.M. Baldiviez, S.A. Vosti, P. Ashorn and K.G. Dewey.** Univ. of California, Davis; USDA, Davis; Univ. of Ghana and Univ. of Tampere Sch. of Med., Finland.
- C2 **II 579.2** Overweight Is Prevalent among Cameroonian Women and Is Associated with Increased Waist Circumference, Region, and Household Characteristics **R. Engle-Stone, M. Nankap, A.O. Ndjebayi, A. Friedman, A. Tarini and K.H. Brown.** Univ. of California, Davis; Helen Keller Intl., New York and Independent Consultant, Canada.
- C3 **I 579.3** Evaluating Growth Regulating Hormones in Rural Gambian Children **H.M. Nabwera, R.M. Bernstein, A.T. Jallow, M.W. Jallow and A.M. Prentice.** MRC, The Gambia; London Sch. of Hyg. and Trop. Med. and Univ. of Colorado at Boulder.
- C4 **II 579.4** What's Up with Catch-Up? No Evidence of Population-Level Catch-Up Growth in Children under 5 Years of Age When Using Height-for-Age Difference Instead of Height-for-Age Z-Scores **J.L. Leroy, M. Ruel, J-P. Habicht and E.A. Frongillo.** Intl. Food Policy Res. Inst., Washington, DC; Cornell Univ. and Univ. of South Carolina.
- C5 **I 579.5** Maternal Glycemia and Preterm Birth in the PRECONCEPT Cohort in Vietnam **N.D. Ford, P.H. Nguyen, U. Ramakrishnan and R. Martorell.** Emory Univ. and Thai Nguyen Univ. of Pharm. and Med., Hanoi.
- C6 **II 579.6** Water, Sanitation and Hygiene and Breastfeeding Contribute to Child Stunting in Rural Malawi **J.C. Ruel-Bergeron, P. Christian, K. Hurley, M.A. Bou Monclus, J. Phuka, L.S.F. Wu, R.D.W. Klemm and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Col. of Med., Univ. of Malawi.
- C7 **I 579.7** Global Update and Trends in Hidden Hunger, 1995-2011 **J.C. Ruel-Bergeron, G.A. Stevens, J.D. Sugimoto, F.F. Roos, M. Ezzati, R.E. Black and K. Kraemer.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.; WHO, Geneva; Fred Hutchinson Cancer Res. Ctr.; Sight and Life, Basel and Imperial Col. London.
- C8 **II 579.8** Stunting during Infancy and Schooling: A Prospective Study in Senegal **K.A. Bork, M. Adjibade, V. Delaunay and P. Lévi.** Inst. of Res. and Develop., Montpellier and Inst. of Res. and Develop., Dakar, Senegal.

- C9 I 579.9 Prevalence and Associated Factors of Malnutrition among Primary School Students in the Rakai District of Uganda **E. Brown and M. Kern.** San Diego State Univ.
- C10 II 579.10 Overweight, Obesity and Cardio-metabolic Indicators of Peruvian Adolescents Whose Mothers Participated in a Prenatal Zinc Supplementation Trial **N. Zavaleta, T. Garcia, F. Lazarte and L.E. Caulfield.** Nutr. Res. Inst. (IIN), Lima, Peru and Johns Hopkins Sch. of Publ. Hlth.
- C11 I 579.11 Hospital Acute Malnutrition before and after a Three-Year Multidisciplinary Hospital Nutrition Intervention in a Major Urban General Hospital, Vietnam **P.T.T. Huong, N.T. Lam, N.N. Thu, T.C. Quyen, D.T.K. Lien, N.Q. Anh, E.G. Henry, L. Oliver, S. Collier, K.M. Gura, L.S. Young, A.J. Manders, C.M. Apovian, T.R. Ziegler and C.M. Lenders.** Natl. Inst. of Nutr., Hanoi; BAch Mai Hosp., Hanoi; Boston Univ.; Dell Children's Med. Ctr., Austin; Boston Children's Hosp. and Emory Univ.
- C12 II 579.12 Socio-ecological Determinants of Type 2 Diabetes among South Indians: Influence of Sedentary Behaviours and High Energy Intakes **O.I. Bermudez, H. Vanzan, S. Ravi, S. Thanikachalam, P. Vasudevan, A. Must and M. Thanikachalam.** Sch. of Med., Tufts Univ. and Sri Ramachandra Univ., India.
- C13 I 579.13 Associations of Community-Level Sanitation and Child Stunting in Bengali and Tribal Populations in Bangladesh: A Cross-Sectional Study **S.S. Sinharoy, J.L. Waid and A.D. Stein.** Emory Univ. and Helen Keller Intl., Dhaka.
- C14 II 579.14 Effectiveness of a Community-Based Participatory Nutrition Promotion Program to Improve Linear and Ponderal Growth in Children 6 to 24 Months of Age in Rural Eastern Ethiopia: A Cluster Randomized Trial **Y. Kang, S. Sinamo, S. Kim and P. Christian.** Johns Hopkins Sch. of Publ. Hlth.; World Vision Intl., Ethiopia and World Vision Korea.
- C15 I 579.15 Trends in Nutrition Screening for Hospitalized Patients in Hanoi, Vietnam during a Four-Year Clinical Nutrition Demonstration Project **E.G. Henry, D.T.K. Lien, N.Q. Anh, L.N. Ly, J.E. Miller, V.T. Thu and C. Lenders.** Boston Univ. Sch. of Med. and Bach Mai Hosp., Hanoi.
- C16 II 579.16 Predictors of Undernutrition and Stunting among Adolescents in Tanzania: A Rural/Urban Comparison **N.P. Otis, J. Nelson-Peterman and L.S. Cordeiro.** Univ. of Massachusetts Amherst and Framingham State Univ.
- C17 I 579.17 Child-Level Dual Burden of Malnutrition in the MENA and LAC Regions: Prevalence and Predictors **H. Ghattas, Y. Acharya, M.J. Assi, K. El Asmar and A.D. Jones.** Amer. Univ. of Beirut and Univ. of Michigan Sch. of Publ. Hlth.
- C18 II 579.18 Nutritional Status of Children in Primary Schools in the Oio and Cacheu Regions in Guinea-Bissau **N. Schlossman, E. Saltzman, M.K. Shea, E. Balan, P. Fuss, P. Batra, W. Pruzensky, J. Griffith, N. Coglianese, L. Wood, M. Santoso and S. Roberts.** Global Food & Nutr. Inc., Washington, DC; USDA at Tufts Univ. and Intl. Partnership for Human Devel., Leesburg, VA.
- C19 I 579.19 Maternal HIV Infection, but not Food Insecurity, Predicts the Pattern of Weight Gain in Pregnant Women Attending Antenatal Services in Northern Uganda **B.K. Natamba, S.L. Young, E. Widen, S. Ghosh, P. Brannon, J.K. Griffiths and S. Mehta.** Cornell Univ.; Gulu Univ., Uganda; Columbia Univ.; Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy and Tufts Univ.
- C20 II 579.20 Comparison of a Novel Brief Nutrition Screening Tool and the Nutrition Subjective Global Assessment at Bach Mai Hospital, Hanoi, Vietnam **A.J. Manders, T.K.D. Lien, L.N. Ly, N. Quoc Anh, E.G. Henry, L.S. Young, L. Oliver, S.B. Collier, T.T. Tham, D.A. K, T.T. Hien, H.N. Phuong, N.T. Mai, C.T. Tuyet and C.M. Lenders.** Boston Med. Ctr.; Bach Mai Hosp., Hanoi; Boston Univ. Med. Ctr.; Dell Children's Med. Ctr., Austin and Boston Children's Hosp.
- C21 I 579.21 Nutrition Status of Children with Congenital Heart Disease: Impact of Cardiac Surgery **H.T. Tin, L.N.T. Nhan, V.M. Phuc, N.P.M. Linh, T.T.T. Chau, L.T.K. Dung, D.T. Cam, V.T.T. Hien, T.T. Nga, K.M. Gura, S. Collier, T.R. Ziegler and C.M. Lenders.** Children's Hosp. 1, Ho Chi Minh City; Natl. Inst. of Nutr., Hanoi; Boston Children's Hosp.; Emory Univ. and Boston Univ.
- C22 II 579.22 Weight, Body Composition and Infertility in Men and Women **K.I. Reyes Martin, M. Mendoza López and Y.Y. Gutiérrez-Gómez.** Monterrey Inst. of Technol., Mexico City.

580. LACTATION: RELATIONSHIPS OF MATERNAL DIET AND HEALTH TO LACTATION PERFORMANCE AND INFANT HEALTH

Poster

(Sponsored by: Lactation RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C23 I 580.1 Association between Fish and Seafood Consumption and DHA Levels in Cord Blood and Breast Milk in Taiwan **Y-T. Su, S-L. Wang, H-Y. Chen, P-Y. Sun and M-C. Huang.** Kaohsiung Med. Univ. Hosp.; Natl. Hlth. Res. Inst.; Col. of Publ. Hlth., China Med. Univ. and Hosp. and Kaohsiung Med. Univ. Sch. of Med., Taiwan.
- C24 II 580.2 Relationship of Feeding Human Milk by Breast versus Bottle with Infant Growth **K. Wilson and C. Lovelady.** Univ. of North Carolina at Greensboro.
- C25 I 580.3 Factors Associated with Subclinical Mastitis among Indigenous Mothers in the Western Highlands of Guatemala **H.M. Wren, N.W. Solomons, M.E. Scott and K.G. Koski.** McGill Univ. and CeSSIAM, Guatemala.
- C26 II 580.4 A Case-Control Study of Diabetes during Pregnancy and Low Milk Supply **L.A. Nommsen-Rivers and S. Riddle.** Cincinnati Children's Hosp. Med. Ctr.
- C27 I 580.5 Body Composition, Diet Quality, and Changes in CRP in Overweight, Lactating Women **E. Shearer, L. Wideman and C. Lovelady.** Univ. of North Carolina at Greensboro.

581. LACTATION: PREDICTORS OF LACTATION INITIATION AND DURATION; AND INTERVENTIONS TO IMPROVE LACTATION SUCCESS

Poster

(Sponsored by: Lactation RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C28 **I 581.1** Beliefs Regarding Lactation Success among Mothers on a University Campus **L.M. Dinour and Y. Bai.** Montclair State Univ.
- C29 **II 581.2** Influences on Breastfeeding Exclusivity and Duration **J. Wells, M. Virmani, T. Crook, J. Phelps and R. Hakkak.** Univ. of Arkansas for Med. Sci.
- C30 **I 581.3** Filling the Gap: Trends in and Factors Related to Infant Feeding Choice in the U.S. from 1925-1964 **K. Pilles, Y.Q. Dong, W.C. Willett, K.B. Michels and M.R. Forman.** Univ. of Texas at Austin and Harvard Sch. of Publ. Hlth.
- C31 **II 581.4** What Is Breastfeeding? **E.J. O'Sullivan, S.R. Geraghty and K.M. Rasmussen.** Cornell Univ. and Cincinnati Children's Ctr. for Breastfeeding Med.
- C32 **I 581.5** Using Videoconferencing for Lactation Consultation: An Online Survey of Acceptance among a Sample of Mothers in the United States **M.F. Habibi, C.M. Springer, M.L. Spence, M.B. Hansen-Petrik, H.N. Fouts and K.F. Kavanagh.** Univ. of Tennessee, Knoxville.
- C33 **II 581.6** Mothers' Experiences Expressing Breastmilk for VLBW Infants: A Phenomenological Case Study **K. Bower, T. Burnette, D. Lewis, C. Wright and K. Kavanagh.** Univ. of Tennessee and Univ. of Tennessee Med. Ctr., Knoxville.
- C34 **I 581.7** "Las Dos Cosas" on the U.S.-México Border **I.M. Anchondo, A.T. Flores, C. Huang and C. Finch.** Texas Tech Univ. Hlth. Sci. Ctr. and Johns Hopkins Univ.
- C35 **II 581.8** Obese Mothers Have a Lower Prevalence of Exclusive Breastfeeding <6 Months as Compared to Non-obese Mothers: Data from the 2012 National Health and Nutrition Survey **T. Gonzalez de Cosío, L. Escobar and L.D. González-Castell.** Natl. Inst. of Publ. Hlth., Cuernavaca.
- C36 **I 581.9** Breastfeeding Intentions and Practices among Women in the U.S. with Gestational Diabetes Mellitus **K.N. Doughty, K.W. Reeves, A.G. Ronnenberg, J. Qian and L. Sibeko.** Univ. of Massachusetts Amherst.

582. LACTATION: BIOACTIVE COMPONENTS AND OTHER MILK CONSTITUENTS AND THEIR EFFECT ON THE INFANT

Poster

(Sponsored by: Lactation RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C37 **I 582.1** Bovine Lactoferrin Is a Transcription Factor Stimulating IL-1 Beta Gene Expression in the Small Intestine **R. Jiang and B. Lönnnerdal.** Univ. of California, Davis.
- C38 **II 582.2** Iron and Complementary Feeding of Breast-Fed Infants: Impact on Gut Inflammation and Microbiota **J.K. Friel, E. Azad, M.B. Azad, W. Qasem, C. Cai and E. Kafipour.** Univ. of Manitoba.
- C39 **I 582.3** Milk Mineral and Cytokine Concentrations Differ in Guatemalan Mothers with Subclinical Mastitis by Stage of Lactation **C. Li, H.M. Wren, N.W. Solomons, M.E. Scott and K.G. Koski.** McGill Univ. and CeSSIAM, Guatemala.
- C40 **II 582.4** Patterns of Growth Factor Receptor Expression Correlate with Concentrations of Their Respective Growth Factors in Mouse Milk during Lactation **M. Zhang and B. Lönnnerdal.** Univ. of California, Davis.
- C41 **I 582.5** Effect of Breastmilk Leptin and Macronutrient Content on Gastric Emptying in Term Breastfed Infants **D.T. Geddes, Z. Gridneva, A.M. Cannon, A.R. Hepworth, W.J. Tie, C.T. Lai and P.E. Hartmann.** Univ. of Western Australia.
- C42 **II 582.6** A Longitudinal Study of Human Milk Composition Beyond One Year Postpartum **M.T. Perrin, A.D. Fogleman and J.C. Allen.** North Carolina State Univ.
- C43 **I 582.7** Optimization of Cell Isolation from Human Milk **F. Hassiotou, D. Savigni, P.E. Hartmann and D.T. Geddes.** Sch. of Chem. and Biochem., Univ. of Western Australia.
- C44 **II 582.8** Profiling of Human Milk miRNA **F. Hassiotou, M. Alsaweed, D. Savigni, C.T. Lai, P.E. Hartmann and D.T. Geddes.** Sch. of Chem. and Biochem., Univ. of Western Australia.
- C45 **I 582.9** Gene Expression Profiles Suggest Iron Transport Pathway in Human Lactating Epithelial Cell **J.K. Friel, C. Cai, S. Castillo San Juan and P. Eck.** Univ. of Manitoba.
- C46 **II 582.10** Branch Chain Fatty Acids of Human Milk: Influenced by Maternal Diet? **K.A. Dingess, C.J. Valentine, B.S. Davidson, Y.M. Peng, M.L. Guerrero, G.M. Ruiz-Palacios, N. Oilberding, S. Summer, D. Ward, D. Newburg, J.T. Brenna, R.J. McMahon and A.L. Morrow.** Cincinnati Children's Hosp.; Shanghai Children's Hosp.; Natl. Inst. of Med. Sci. & Nutr., Mexico; Broad Inst.; Boston Col.; Cornell Univ. and Mead Johnson.

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583. LACTATION: BIOLOGY OF LACTOGENESIS, LACTATION AND MILK COMPOSITION

Poster

(Sponsored by: Lactation RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C47 **I 583.1** Milk Osmolality and Body Hydration Status in Lactating Mothers from the Western Highlands of Guatemala **M.J. Soto Mendez, A. Maldonado, L. Burgunder, L. Scieszka, A. Gil and N.W. Solomons.** CeSSIAM, Guatemala and Univ. of Granada.
- C48 **II 583.2** Maternal Beliefs and Practices about Storage of Human Milk **D.T. Cheng, E.J. O'Sullivan and K.M. Rasmussen.** Cornell Univ.
- C49 **I 583.3** Insulin Resistance, Thyroid-Related Hormones, and Duration of Postpartum Amenorrhea in Lactating Women **M.K. McGuire, J.E. Williams and M.A. McGuire.** Washington State Univ. and Univ. of Idaho.
- C50 **II 583.4** Osmolality Values of Previously Frozen Human Milk from Guatemalan Mothers: Effects of Temperature Range for Thawing and of Storage Duration **L. Burgunder, L. Scieszka, M.J. Soto-Mendez, A. Maldonado and N. Solomons.** CeSSIAM, Guatemala City.
- C51 **I 583.5** Spatiotemporal Profile of the Human Milk Proteome across Populations and Lactation Stages: GEHM Study Insights **Q. Zhang, K. Lohe, J. Cundiff, S. Maria, S. Phillips, R. McMahon, B. Davidson and A. Morrow.** Mead Johnson Nutr., IN and Cincinnati Children's Hosp. Med. Ctr.
- C52 **II 583.6** The Total Amino Acid Profile of Human Milk Is Stable Over the First Year of Lactation and Consistent across Geographical Populations: A GEHM Study **B. Labhart, M. Gray, S.D. Maria, S.C. Phillips, R.J. McMahon, B.S. Davidson and A.L. Morrow.** Mead Johnson and Cincinnati Children's Hosp. Med. Ctr.
- C53 **I 583.7** Determination of 12 Minerals in Human Milk by Inductively Coupled Plasma - Mass Spectrometry: A GEHM Study of Three Global Cohorts through the First Year of Lactation **M. Gray, S.D. Maria, B. Labhart, S.C. Phillips, R.J. McMahon, B.S. Davidson and A.L. Morrow.** Mead Johnson Nutr. and Cincinnati Children's Hosp. Med. Ctr.
- C54 **II 583.8** A Longitudinal Quantification of Total Protein in Human Milk from Three Global Cohorts: A GEHM Study **B. Labhart, M. Gray, S.D. Maria, S.C. Phillips, R.J. McMahon, B.S. Davidson and A.L. Morrow.** Mead Johnson and Cincinnati Children's Hosp. Med. Ctr.

584. COMMUNITY AND PUBLIC HEALTH NUTRITION: COMMUNITY AND PUBLIC HEALTH NUTRITION INTERVENTIONS

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C55 **I 584.1** Anthropometric and Lifestyle Outcomes after a Family-Based Lifestyle Intervention **B. Baker, K. Briggs Early, R. Sorrells, J.P. Yi-Frazier and K. Gottlieb.** Pacific Northwest Univ. of Hlth. Sci. Col. of Osteo Med.; Seattle Children's Res. Inst., Univ. of Washington and Yakima Valley Mem. Hosp., WA.
- C56 **II 584.2** Recruiting RCT Participants: To Facebook or Not to Facebook? **M.M. Koenings, J. Martin-Biggers and C. Byrd-Bredbenner.** Rutgers Univ.
- C57 **I 584.3** Wellness Policy and the Head Start Environment: The Moderating Role of Head Start Teachers in the Children's Healthy Living Program in Hawai'i **M.K. Esquivel, F. Li and R. Novotny.** Univ. of Hawaii at Manoa.
- C58 **II 584.4** Validation of ALIVE!® Block Food Frequency Questionnaire for Use with College Students **J. Ross, A. Schweitzer, C. Klein, E.R. Mackey and D.K.Y. Lei.** Univ. of Maryland College Park and Children's Natl. Med. Ctr.
- C59 **I 584.5** Protein Quality and Micronutrient Availability of Extruded Corn, Soy, Sorghum, and Cowpea Fortified-Blended Foods **N. Delimont, A.O. Opoku-Acheampong, S. Alavi and B.L. Lindshield.** Kansas State Univ.
- C60 **II 584.6** Changes in Self-Efficacy and Fruit and Vegetable Intake in the FAITH Trial **A. Morel L'Horset, A.M. Schoenthaler, W. Chaplin, G. Ogedegbe and K.J. Lancaster.** NYU; NYU Sch. of Med. and St. Johns Univ., NY.
- C61 **I 584.7** Pulse Pressure and Blood Triglyceride Levels among a Young Multi-ethnic Group Living in South Florida **S. Ajabshir, J.C. Exebio, G.G. Zarini, A. Nayer, J.A. Vaccaro and F.G. Huffman.** Florida Intl. Univ. and Univ. of Miami Miller Sch. of Med.
- C62 **II 584.8** Association of Dietary Intake Contribution of Prospera Supplements and Socioeconomic Level in Children in San Luis Potosi, Mexico **E.B. Gaona-Pineda, L. Cuevas-Nasu, L.M. Gomez-Acosta, I. Mendez and T. Shamah.** Natl. Publ. Hlth. Inst., Cuernavaca.
- C63 **I 584.9** Oxidative Stress in Healthy Subjects with Cardiometabolic Risk Factors **B.E. Martinez-Carrillo, M. Neri, A.D. Benitez, R. Valdés-Ramos and J.A. Escoto-Herrera.** Autonomous Univ. of Mexico State, Toluca.

- C64 **II 584.10** Perceptions of Food Access and Food Purchasing Behaviors in a Low-Income Brazilian Urban Community: Formative Research Findings **G.M. Vedovato, J. Gittelsohn, A.C.B. Trude, M.A. Oliveira and P.A. Martins.** Fed. Univ. of Sao Paulo; Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Fed. Univ. of São Paulo.
- C65 **I 584.11** Determining the Feasibility and Acceptability of a Campus Dairy Campaign Designed to Increase College Students' Awareness of the Importance of Dairy Calcium **A. Rose, J. Seger, B. Gillis, J. Kennel and C. Gunther.** The Ohio State Univ.
- C66 **II 584.12** Replacement of Sugar-Sweetened Beverages with Water and its Impact on Insulin Sensitivity among Overweight Adolescents and Young Adults **R. Jin, L. Collin, M. Vos and J. Welsh.** Children's Healthcare of Atlanta and Emory Univ.
- C67 **I 584.13** Feasibility of Post-hospitalization Interventions to Improve Physical Function in Older Adults **R.R. Deer, S. Goodlett, S. Fisher, J.M. Dickinson and E. Volpi.** Univ. of Texas Med. Branch and Arizona State Univ.
- C68 **II 584.14** Impact of Reducing Sugar-Sweetened Beverage Consumption on Total Calorie and Sugar Intake **L. Collin and J. Welsh.** Children's Healthcare of Atlanta and Emory Univ.
- C69 **I 584.15** The Effects of Extended Fasting on Body Mass Index, Caloric Intake, and Metabolic Rate among Saudi Students **M. Alquraishi, A. Marshall, R. Henry and K. Robichaud.** King Saud Univ. and Lipscomb Univ. Col. of Pharm. and Hlth. Sci.
- C70 **II 584.16** Mothers and Others: Designing a Randomized Trial to Prevent Obesity among Infants and Toddlers **H.M. Wasser and M.E. Bentley.** Univ. of North Carolina at Chapel Hill.
- C71 **I 584.17** Development of Smart Phone Application "HAPPY ME" for Obesity Prevention and Acceptability Study among Elementary School Students **J-H. Jung, S-H. Jeon, H-J. Bae and J-H. Kang.** Inje Univ. Seoul Paik Hosp.
- C72 **II 584.18** Gestational Diabetes and Large for-Gestational Age Infants Are Common in a Multiethnic Population of Low-Income Pregnant Women In Montreal **V. Menard and H. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ. and Montreal Diet Dispensary.
- C73 **I 584.19** Maternal Perceptions and Experiences with an Intervention to Increase Adherence to WHO-Recommended Zinc + Oral Rehydration Salts for Diarrhea Treatment in Western Guatemala **R. García Meza, M.L. Roche, M. Vossenaar and N.W. Solomons.** CeSSIAM, Guatemala and Micronutrient Initiative, Ottawa.
- C74 **II 584.20** Changing the Consistency of Animal Source and Micronutrient-Rich Complementary Foods to Improve Acceptability and Consumption among Infants and Toddlers: Formative Research in Rural Peru **H.M. Creed-Kanashiro, R.M. Bartolini, C. Goya and M.E. Bentley.** Nutr. Res. Inst., Lima, Peru and Univ. of North Carolina at Chapel Hill.
- C75 **I 584.21** WAVE Pilot Study: Comparison of High School Soccer Players and Parents' Confidence, Expectations, and Practices in Food and Nutrition to Support Youth Sports Performance **Y. Meng, S.S. Wong and M.M. Manore.** Sch. of Biol. and Popul. Hlth. Sci., Oregon State Univ.
- C76 **II 584.22** Process Evaluation to Monitor and Guide a Multi-level, Multi-component Obesity Prevention Program for Low Income, African-American Youth **J. Gittelsohn, T. Yang, A. Kharmats, E.A. Steeves, S. Rastatter, C. Welsh and C. Shipley.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C77 **I 584.23** Process Evaluation Findings of B'More Healthy Communities for Kids: A Multi-level, Multi-component Obesity Prevention Program **T. Yang, E. Anderson Steeves, S. Rastatter, A. Kharmats, C. Shipley, K. Perepezko, C. Welsh and J. Gittelsohn.** Johns Hopkins Univ. Sch. Of Med. and Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C78 **II 584.24** Potatoes and Maillard Reaction Products: The need for a Benefit-Risk Approach **D. Liska, C. Cook, J. Szpylka and D.D. Wang.** Biofortis Nutr. Res., Addison, IL; Silliker, a Mérieux NutriSci. Co., Chicago and D&V Systematic Consulting, Bronx.
- C79 **I 584.25** Indices of Sleep Disturbances among Children with Autism in Oman: A Case Control Study **Y.M. Al-Farsi, O.A. Al-Farsi, M.M. Al-Sharbaty, M.I. Waly and S.S. Al-Adawi.** Col. of Med. and Hlth. Sci., Sultan Qaboos Univ., Oman.
- C80 **II 584.26** Potential Modulation of Vascular Function Relating to Baseline Hydration Status in Healthy Human Participants in a Randomised Controlled Trial **M. Sayegh and S. Ray.** King's Col. London and MRC Human Nutr. Res., Cambridge.
- C81 **I 584.27** Using Participatory Community Workshops to Develop Salient Communications Strategies for Introducing a Small-Quantity LNS in Rural Malawi and Mozambique **S. Kodish, N.J. Aburto, F. Dibari, T. Mlambo and J. Gittelsohn.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and World Food Prog., Rome.
- C82 **II 584.28** Willingness to Pay for Nutrition Counseling Services in Vietnam **M.V. Hoang, P.H. Nguyen, N. Hajeebhoy, P. Menon and R. Rawat.** Hanoi Med. Univ.; Intl. Food Policy Res. Inst., Washington, DC and FHI360, Viet Nam.
- C83 **I 584.29** Incorporating Social Franchising Principles in Government Health Services Improves Breastfeeding Practices in Vietnam **R. Rawat, P.H. Nguyen, S. Kim, N. Hajeebhoy, H. Tran, M.T. Ruel and P. Menon.** Intl. Food Policy Res. Inst., Washington, DC; FHI 360, Viet Nam and Save the Children, Viet Nam.
- C84 **II 584.30** Social and Behavioral Change Interventions Delivered at Scale Have Large Impacts on Infant and Young Child Feeding Practices in Bangladesh **P. Menon, K.K. Saha, A. Kennedy, A. Khaled, T. Tyagi, T. Sanghvi, K. Afsana, R. Haque, E.A. Frongillo, M.T. Ruel and R. Rawat.** Intl. Food Policy Res. Inst., Washington, DC; FHI 360; BRAC, Bangladesh and Univ. of South Carolina.
- C85 **I 584.31** Perceived Pre-pregnancy Weight Status among Participants of the Special Supplemental Nutrition Program for Women, Infants and Children **M. Koleilat, S.T. Bell, N. Vargas, M. Molina and S.E. Whaley.** California State Univ. Fullerton and Publ. Hlth. Fndn. Enterprises-WIC, Irwindale, CA.

585. COMMUNITY AND PUBLIC HEALTH NUTRITION: FOOD SECURITY AND ITS CONNECTIONS TO NUTRITION AND HEALTH

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C86 **I 585.1** Food Insecurity and Its Association with Depression among Injection Drug Users with or without HIV in Chennai, India **J. Sackey, K. Chui and A. Tang.** Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy and Tufts Univ. Sch. of Med.
- C87 **II 585.2** Perceived Causes and Consequences of Food Insecurity during Pregnancy and Lactation among Kenyan Women of Mixed HIV Status **S.E. Dumas, B. Oyier, S. Otticha, A. Arbach, A. Zheng, P. Desai, H. Khan, M. Onono and S. Young.** Cornell Univ.; Kenya Med. Res. Inst., Nairobi and Weill Cornell Med. Col.
- C88 **I 585.3** Development of a Monoclonal Antibody-Based Enzyme-Linked Immunosorbent Assay for Alternaria Mycotoxin Iso-Tenuazonic Acid in Food Products **Z-L. Xiao, Y-L. Wang, Y-D. Shen, Z-L. Xu, J-X. Dong, H. Wang, F. Wang, J-Y. Yang, H-T. Lei and Y-M. Sun.** South China Agr. Univ.
- C89 **II 585.4** Changes of Food Insecurity in Vietnamese Female Marriage Immigrants in South Korea: The Korean Genome and Epidemiology Study **H. Yang, H. Kim, H. Chung and N. Chang.** Ewha Womans Univ., South Korea.
- C90 **I 585.5** Prenatal Food Insecurity: How Is It Related to Pregnancy and Birth Outcomes among Low-Income Women **D. Nunnery and J. Dharod.** Univ. of North Carolina at Greensboro.
- C91 **II 585.6** Alcohol Use among Pregnant Ugandan Women of Mixed HIV Status Is Associated with Social Environment and Food Insecurity **S. Collins, B. Natamba, A. Arbach, E. Widen, P. Desai, H. Khan, J.K. Griffiths and S.L. Young.** Tulane Univ.; Cornell Univ.; NYU Med. Ctr.; Columbia Univ. and Tufts Univ., Boston.
- C92 **I 585.7** Is Diversity in Agricultural Production Linked to Dietary Diversity among Nepalese Women? **C.M. Fitch, S. Manohar, R. Shrestha, R. Klemm and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C93 **II 585.8** Relationship of Household Food Insecurity and Anemia in Children Receiving the Benefit from Food Assistance Programs in San Luis Potosi, Mexico **T. Shamah Levy, S. Villalpando Hernández, L. Cuevas Nasu, E.B. Gaona Pineda, I. Mendez Gómez- Humaran and J.A. Rivera Dommarco.** Natl. Publ. Hlth. Inst., Cuernavaca and CIMAT, Aguascalientes, Mexico.
- C94 **I 585.9** Food Assistance Program Participation and Health Care Utilization in Low-Income Homebound Older Georgians **V. Bhargava and J.S. Lee.** Univ. of Georgia.
- C95 **II 585.10** Food Consumption during Screen Time in Adolescents **R. Sichieri, R.M. Rodrigues, C.deC. Estima, E. Yokoo and M.F. Gombi-Vaca.** State Univ. of Rio de Janeiro and Fed. Univ. of Fluminense, Brazil.
- C96 **I 585.11** Malnutrition and Food Insecurity in Beneficiary Households from Food Assistance Programs in SLP, Mexico **L. Cuevas-Nasu, T. Shamah-Levy, E.B. Gaona-Pineda, I. Mendez-Gomez Humaran and M.A. Avila-Arcos.** Natl. Inst. of Publ. Hlth., Cuernavaca.
- C97 **II 585.12** Does Amount and Kind of Food Bought by a Household Vary by Indices of Wealth in Nepal? **E. Biehl, S. Manohar, R. Rajbhandary, R. Shrestha, R.D.W. Klemm and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C98 **I 585.13** Dietary Diversity in Children 6 to 11 Age with Food Insecurity from Food Assistance Programs in San Luis Potosi, Mexico **V. Mundo Rosas, E.B. Gaona Pineda, T. Shamah Levy, L. Cuevas Nasu and J.S. Angulo Estrada.** Natl. Inst. of Publ. Hlth., Cuernavaca.
- C99 **II 585.14** Effects of Group Prenatal Care on Food Insecurity **E. Heberlein, E.A. Frongillo, A.H. Picklesimer and S. Covington-Kolb.** Clemson Univ.; Univ. of South Carolina and Greenville Hlth. Syst., SC.
- C100 **I 585.15** Household Food Insecurity Assessed by the Food Access Survey Tool: A Comparison between the Item-Wise Internal Validity in Rural Bangladesh and Rural Zambia **M. Na, A.C. Palmer, S.A. Talegawkar, B.L. Lewis, L.S. Wu and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C101 **II 585.16** Comparison of Food Prices in the U.S. Affiliated Pacific Region Based on the 2002 USDA Food Security Toolkit and the Thrifty Food Plan **J. Greenberg, B. Luick, R. Barber, A. Bersamin, P. Coleman, R. Ettienne, T. Fleming, J. Hollyer, E. Johnson, F. Li, R. Nelson, R. Novotny, S. Remengesau, J. Riklon, K. Roberts and L. Wilkens.** Univ. of Alaska Fairbanks; Univ. of Guam Mangilao; Northern Marianas Col., Saipan; Univ. of Hawaii and Amer. Samoa Community Col., Pago Pago.
- C102 **I 585.17** Baseline Household Agriculture and Child Nutrition Linkages in the Nutrition Links Project **R. Aryeetey, E. Colecraft, G.S. Marquis, S. Clark, R. Owusu, B. Aidam, T. Gyorkos and A. Lartey.** Univ. of Ghana; McGill Univ.; WV Ghana, Accra and WV Intl., Washington, DC.
- C103 **II 585.18** Food Insecurity of Children Increases Shame of Others Knowing They Are without Food **J. Bernal, E.A. Frongillo and K. Jaffe.** Univ. Simón Bolívar, Venezuela and Univ. of South Carolina.
- C104 **I 585.19** Food Insecurity Leads to Lower Dietary Diversity among Smallholder Farmers in Haiti **J. Parent, D. Dallmann, K. Sinclair, M. Garcia and H. Melgar-Quinonez.** Sch. of Human Nutr., McGill Univ. and Inter-Amer. Inst. for Coop. in Agr.
- C105 **II 585.20** Trends in the Contribution of Perceived, Received, and Integrative Social Support to Food Security **M. Miller, H. Melgar-Quinonez, D. Dallmann and T. Ballard.** McGill Univ. and U.N. Food and Agr. Org., Rome.
- C106 **I 585.21** Household Food Insecurity and Sleep Quality among Latinos with Type 2 Diabetes **A. Bermúdez-Millán, R. Pérez-Escamilla, S. Segura-Pérez, G. Damio, J. Chhabra and J. Wagner.** Univ. of Connecticut Hlth. Ctr.; Yale Sch. of Publ. Hlth.; Hispanic Hlth. Council, Hartford and Hartford Hosp., CT.
- C107 **II 585.22** Food Insecurity and Quality of Life among Obese Latino Adolescents **M. Bruening, G. Shaibi, A. Williams, Y. Konopken and K. Skelton.** Sch. of Nutr. and Hlth. Promotion, Arizona State Univ.; Col. of Nursing and Hlth. Innov., Arizona State Univ. and St. Vincent de Paul, Phoenix.
- C108 **I 585.23** Parent-Child Relationships between Food Insecurity and Eating Behaviors **M. Bruening and J. Lucio.** Arizona State Univ.

- C109 **II 585.24** Socioeconomic Characteristics of Food Insecure Households in San Pedro, Paraguay **D. Dallmann, R.M. Lopez, J.C. Orue and H. Melgar Quinonez.** McGill Univ.; UN Food and Agr. Org., Paraguay and Dir. Gen. Stats., Surveys and Censuses, Paraguay.
- C110 **I 585.25** Food Insecurity and Maternal Education on Complementary Feeding Practices in a Rural Village in Tanzania **N.L. Dawkins, N.R. Shosho, P. Mamiro and R.D. Pace.** Tuskegee Univ. and Sokoine Univ. of Agr., Tanzania.
- C111 **II 585.26** Food-Insecure Individuals Are More Prone to Health Problems **M.E. Miller, D. Dallmann and H. Melgar-Quinonez.** McGill Univ.
- C112 **I 585.27** Factors Related to Low and High Monthly Supplemental Nutrition Assistance Program Benefit Duration among a Low-Income Population in Omaha, Nebraska **E. Calloway, H. Fricke, C. Pinard, T. Smith and A. Yaroch.** Gretchen Swanson Ctr. for Nutr., Omaha.
- C113 **II 585.28** Differences in Food Sources of Select Nutrients among U.S. Adults by Food Security Status **C.A. Taylor, A. Markwordt, N. Hooker, R. Watowicz, J. Clark and C.K. Spees.** The Ohio State Univ.
- C114 **I 585.29** Household Food Insecurity Is Associated with Obesity in Mexican Children **L.A. Hernandez, O.P. Garcia, D. Ronquillo, M.d.C. Caamaño, J.L. Rosado and H. Melgar-Quinonez.** Sch. of Nat. Sci., Autonomous Univ. of Querétaro, Mexico and McGill Univ.
- C115 **II 585.30** Gender Disparities in Perceived Life Satisfaction within Food Insecure Populations **E. Graham, T. Ballard, S. Viviani, M. DelGrossi and H. Melgar-Quinonez.** McGill Univ. and Food and Agr. Org. of U.N., Italy.

586. NUTRITION EPIDEMIOLOGY: RESEARCH WITH DIETARY SUPPLEMENTS AND BIOACTIVE COMPONENTS

Poster

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C116 **I 586.1** Micronutrient Intake in Children in Puerto Rico and the Contribution of Dietary Supplement Use **A. Lopez-Cepero, R. Torres, A. Elias-Boneta, M. Rosal and C. Palacios.** Med. Sci. Campus, Univ. of Puerto Rico and UMass Med. Sch.
- C117 **II 586.2** Adult Full Spectrum Multivitamin/Multimineral Supplement Users Have a Lower Prevalence of Vitamin and Mineral Deficiencies **J.K. Bird, E.D. Ciappio and R.A. Murphy.** DSM Nutr. Prods., Parsippany.
- C118 **I 586.3** Effect of Muscadine Juice and Elderberry Preparations on Wild-Type H1N1 Influenza Virus-Induced Cytotoxicity **S.M. Elrod and P. Greenspan.** Univ. of Georgia Col. of Pharm.
- C119 **II 586.4** Nutritional Supplement Use of an Urban African American and White Population **E.J. Stave, M. Fanelli Kuczmariski, M.A. Beydoun, A.B. Zonderman and M.K. Evans.** Univ. of Delaware and NIA, NIH, Baltimore.
- C120 **I 586.5** Effect of Dietary Supplements on Total Nutrient Intake in Korean Children and Adolescents **M. Kang, D.W. Kim, H.N. Lee, Y.J. Lee, H.J. Jung, H-Y. Paik and Y.J. Song.** Seoul Natl. Univ.; Korea Inst. for Hlth. and Soc. Affairs, Seoul and The Catholic Univ. of Korea.
- C121 **II 586.6** Analytical Content of Multivitamin/Mineral Products Manufactured for Different Consumer Categories **P.A. Gusev, K.W. Andrews, J.M. Palachuvattil, P.T. Dang, S. Savarala, F. Han, P.R. Pehrsson, L.W. Douglass, J.T. Dwyer, J.M. Betz, L.G. Saldanha, R.B. Costello and R.L. Bailey.** USDA, Beltsville; Consultant, Longmont, CO and ODS, NIH.
- C122 **I 586.7** Principal Components Analysis of Urine Caffeine and Caffeine Metabolites in the U.S. Population **C-I. Pao, M.E. Rybak, M.R. Sternberg, N. Ahluwalia and C.M. Pfeiffer.** Ctrs. for Dis. Control and Prevent. and Ctrs. for Dis. Control and Prevent., Hyattsville, MD.
- C123 **II 586.8** Oleuropein Inhibits IL-4-Induced Epithelial-Mesenchymal Transition in Airway Epithelial Cells **J-H. Gong and Y-H. Kang.** Hallym Univ., South Korea.
- C124 **I 586.9** Resveratrol Suppresses Type 2 Cytokine Induction in Basophilic Mast Cell and Th2 Cell Infiltration in PCA Mice **S-Y. Han and Y-H. Kang.** Hallym Univ., South Korea.

587. NUTRITION EPIDEMIOLOGY: ADVANCING NUTRITIONAL EPIDEMIOLOGY WITH PUBLIC USE AND COMMERCIAL DATA SETS

Poster

(Sponsored by: Nutritional Epidemiology RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C125 **I 587.1** Race-Ethnic Differences in B-Vitamin Biomarkers and Intake among US Adults in NHANES 2003–2006 **C.M. Pfeiffer, M.R. Sternberg, M.E. Rybak and D.A. Lacher.** Ctrs. for Dis. Control and Prevent., Atlanta and Hyattsville, MD.
- C126 **II 587.2** Diet Pattern and HEI-2010 Score for U.S. Adults Meeting Fiber Intake Recommendations NHANES 2001-2010 **C.R. McGill and A. Birkett.** Health Sci. Communications, Sarasota and Kellogg Co.
- C127 **I 587.3** 10-Year Beverage Intake Trends among U.S. Preschool Children: Rapid Declines between 2003 and 2010, but Stagnancy in Recent Years **C.N. Ford, S.W. Ng and B.M. Popkin.** Univ. of North Carolina at Chapel Hill.
- C128 **II 587.4** Examining Trends in Meal Patterns between 1995 and 2011 Using Two National Surveys **S.A. McNaughton, R.M. Leech and A. Worsley.** Deakin Univ., Australia.
- C129 **I 587.5** Vegetables, Fruit, and Whole Grains Consumption by U.S. Adults at Meals and Snacks: WWEIA, NHANES 2011-12 **S. Bowman, J. Friday, J. Clemens and A. Moshfegh.** USDA, Beltsville.
- C130 **II 587.6** Two Methods to Estimate Fruit and Vegetable Intake of Adults, What We Eat in America, NHANES 2009-2010 **K. Hoy, J.D. Goldman and A.J. Moshfegh.** USDA, Beltsville.

- C131 **I 587.7** Associations between Self-Rated Diet Quality and Type 2 Diabetes Indicators: Results from the National Health and Nutrition Examination Survey (NHANES 2009-2010) **J. Beasley, S.S. Yi and M.J. Firestone.** Albert Einstein Col. of Med. and NYU Sch. of Med.
- C132 **II 587.8** Egg Consumption in Adult Women from the National Health and Nutrition Examination Survey (NHANES, 2007-2010) **D.C. Mitchell, J.A. Vernarelli and B. Lohse.** Penn State and Fairfield Univ.
- C133 **I 587.9** Are Food Processing and Convenience Linked with the Nutritional Quality of Foods Purchased by U.S. Households? **J. Poti, M. Mendez, S.W. Ng and B. Popkin.** Univ. of North Carolina at Chapel Hill.
- C134 **II 587.10** What Happened to Lunch? Dietary Intakes of 4-13 Year Old Lunch Consumers and Non-consumers in the United States **K.C. Mathias, E. Jacquier and A.L. Eldridge.** Nestle Res. Ctr., Lausanne.
- C135 **I 587.11** Food Insecure Children's Exposure to Secondhand Smoke Is More Likely to Be Misclassified **M. Ding and C.A. Zizza.** Auburn Univ.
- C136 **II 587.12** Low-Calorie Sweeteners and Health **D.D. Wang, M. Shams-White, O-J. Bright and M.C. Chung.** Tufts Univ. Sch. of Med. and Tufts Univ. Friedman Sch. of Nur. Sci. and Policy.
- C137 **I 587.13** The Snack Consumption Habit and Its Contribution to the 24h Diet and the Prevalence of Obesity in Mexican Population **V.V. De La Cruz, A.G. Contreras and S.F. Villalpando.** Natl. Inst. of Publ. Hlth., Cuernavaca.
- C138 **II 587.14** Nutrient Contribution of Snacking in Americans: Results from the National Health and Nutrition Examination Survey 2011-2012 **C.K. Gugger, S. Bidwai, N. Joshi, N.M. Holschuh and A.M. Albertson.** Gen. Mills Inc., Minneapolis.
- C139 **I 587.15** Comparison of Selected Micronutrient Intakes between Vegans and Omnivores Using Dietary Reference Intakes **M. Ezmirly, J. Phelps, T. Crook and R. Hakkak.** Univ. of Arkansas for Med. Sci.
- C140 **II 587.16** Use of NHANES 2007-2010 Data to Identify Groups Vulnerable for Inadequate Micronutrient Intake **S.R. Akabas, E.E. Paxson, R. Bailey, S. Saklani and K.L. Tucker.** Columbia Univ. Med. Ctr.; ODS, NIH and Univ. of Massachusetts at Lowell.
- C141 **I 587.17** Trends in Yogurt Consumption, U.S. Adults, 1999-2012 **S.J. Nielsen and C.L. Ogden.** Natl. Ctr. for Hlth. Stats., Hyattsville, MD.
- C142 **II 587.18** Vitamin B₆ Status Is Associated with Depression among Women with Inflammation **J.M. Faraj, L.M. Troy, E.R. Bertone-Johnson and A.G. Ronnenberg.** Univ. of Massachusetts Amherst.
- C143 **I 587.19** Temporal Dietary Patterns Derived from Spectral Clustering and Factor Analysis Are Associated with Diet Quality Using NHANES 1999-2004 **Y. Zhao, Y. Hwang, S. Gelfand, E. Delp and H. Eicher-Miller.** Purdue Univ.
- C144 **II 587.20** Sugar Consumption in the United States – Food Group Contributions by Eating Occasions: Results from NHANES 2011-12 **A.M. Albertson and N.M. Holschuh.** Gen. Mills Inc., Minneapolis.
- 588. AGING: RISK FACTOR MODIFICATION FOR CARDIOMETABOLIC HEALTH AND CHRONIC DISEASE**
- Poster**
- (Sponsored by: Aging and Chronic Disease RIS)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)*
- C145 **I 588.1** Determinants of High Plasma Triglyceride Levels: A Brazilian Community-Based Study **H.T. Kano, R.M. Manda, F. Moreto, F. Burini and R.C. Burini.** Botucatu Med Sch., São Paulo State Univ.
- C146 **II 588.2** Effects of a 12-Week Health and Fitness Program on the Health Status of University Police Officers **G.J. Cloutier, A. Morton, M. Pierson, D. Arguello and C. Castaneda-Sceppa.** Northeastern Univ. Col. of Hlth. Sci.
- C147 **I 588.3** The Relationship between Caffeine Consumption and Type 2 Diabetes Markers in Three Minority Ethnicities with or without Diabetes **N. Mikati, G.G. Zarini, J.A. Vaccaro and F.G. Huffman.** Florida Intl. Univ.
- C148 **II 588.4** Relations among Plasma Ferritin, High Fat Dietary Pattern and Blood Lipids in Type 2 Diabetes: A Cohort Study **H-R. Jhang, M-C. Huang, C-C. Hsu and S. Shin.** Kaohsiung Med. Univ. Hosp.; Kaohsiung Med. Univ. and Natl. Hlth. Res. Inst., Taiwan.
- C149 **I 588.5** The Relationship between Physical Inactivity, Body Composition, and Cardiometabolic Risk in Adults with Rheumatoid Arthritis **K. Woolf, M. Kiely and Y. Yazici.** NYU Steinhardt and NYU Langone.
- C150 **II 588.6** Inadequate CHO intake Is Associated with Abdominal Fatness-Related Abnormalities in Free-Living Adults **C. Bernardino, R.M. Manda, E. Michelin, O. Teixeira, K.C. McLellan and R.C. Burini.** Botucatu Med. Sch., São Paulo State Univ. and Texas Inst. for Kidney and Endocrine Disorders, Lufkin.
- C151 **I 588.7** Soy Protein Isolate Reduces Liver Cholesterol and Lipids in Ovariectomized Rats **N. Navaei, S.A. Johnson and B.H. Arjmandi.** Florida State Univ.
- C152 **II 588.8** Validity of the Mediterranean Diet Screener **L.A. Cerwinske, A.S. Volgman, L.T. Braun, H.E. Rasmussen, S.W. Lipson and C.C. Tangney.** Rush Univ. Med. Ctr.
- C153 **I 588.9** Dietary Antioxidants in Relation to Serum CRP in Mid-Life and Older African Americans **K. Rancano, P.A. Ralston, J. Lemacks and J.Z. Ilich.** Florida State Univ. and Univ. of Southern Mississippi.
- C154 **II 588.10** Catalysts for Health Behavior Change in Midlife and Older Rural Adults: A Qualitative Study **R.A. Seguin, E.H. Morgan, M.L. Graham, S.C. Folta, M.E. Nelson, L. Paul and D.S. Kenkel.** Cornell Univ.; Tufts Univ. and Montana State Univ.
- C155 **I 588.11** Older African-American Men Have Higher Risk for Cardiovascular Disease Compared to Women, Based on the Diabetic Indicators Prediction **A.N. Carter, J.Z. Ilich, P.A. Ralston and I.L. Young-Clark.** Florida State Univ.

- C156 II 588.12 Parameters of Metabolic Syndrome in a Healthy Population Could Be Related to Diet, Activity Level and Family History **M. Vergara-Jimenez, A. Missimer, D. DiMarco, A.G. Murillo, M. Brodeur, C.J. Andersen and M-L. Fernandez.** Univ. of Connecticut and Univ. of Sinaloa, Mexico.
- C157 I 588.13 The Effects of Vitamin E on Hematopoietic Parameters in Ovariectomized Rats **S. Pourafshar, S.A. Johnson and B.H. Arjmandi.** Florida State Univ.
- C158 II 588.14 Aerobic Capacity Improve Altered Components of Metabolic Syndrome **O. Teixeira, F. Burini, F. Moreto, R. Manda and R.C. Burini.** Botucatu Med. Sch.-UNESP, São Paulo.
- C159 I 588.15 Determinants of the Low Dietary Fiber Intake and Relationship with Metabolic Syndrome – A Brazilian Community-Based Study **F.M. Ramos, K.C. McLellan, J.E. Corrente and R.C. Burini.** Botucatu Med. Sch.-UNESP, Brazil and Texas Inst. for Kidney and Endocrine Disorders, Lufkin.

589. AGING: NUTRITIONAL NEEDS AND ASSESSMENT IN OLDER ADULTS/POPULATIONS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C160 I 589.1 Dietary Inflammatory Index Scores and C-Reactive Protein Concentrations among Older Adults **J.M. Houdek, C.C. Tangney, K.A. Roehl, K.A. Varady, N. Shivappa, J.R. Hebert, D.A. Bennett and M.C. Morris.** Rush Univ. Med. Ctr.; Univ. of Illinois at Chicago and Univ. of South Carolina.
- C161 II 589.2 In-Home Food Supply among Elderly Home-Delivered Meal Recipients with High Blood Pressure or Diabetes **C. Byrd-Bredbenner, R.M. McWilliams, A. Senger-Mersich, C.L. Cuite and W.K. Hallman.** Rutgers Univ.
- C162 I 589.3 Dietary Intake among Home-Delivered Meal Recipients before and after Receiving Meals **B. Moore, S. Marceaux, B.J. Friedman and S. Crixell.** Texas State Univ., San Marcos and Meals on Wheels and More, Austin.
- C163 II 589.4 Food Insecurity, Medication Non-adherence, and Inpatient Hospital Readmissions in Low-Income Older Medicare Beneficiaries in Need of Food Assistance **E.L. Sattler, J.S. Lee and H.N. Young.** Univ. of Georgia Col. of Family and Consumer Sci. and Col. of Pharm.
- C164 I 589.5 Nutrient Intake Status by Income Level on the Elderly Korea Population: Based on 2010-2012 Korea National Health and Nutrition Examinations Survey **S.K. Kim, H.S. Lim, J.H. Yun and S.M. Kim.** Soonchunhyang Univ. Bucheon Hosp.; Col. of Human Ecol., Chungnam Natl. Univ., South Korea and Soonchunhyang Univ.
- C165 II 589.6 Use of Dietary Supplements in Individuals with Rheumatoid Arthritis **B. Ward, L. Thomas, M. Kiely, Y. Yazici and K. Woolf.** NYU Steinhardt and NYU Langone Med. Ctr.
- C166 I 589.7 Long-term Diet Patterns Associated with MMSE Scores in Filipino Women **J.R.B. Borja, P.L. Duazo, M.V. Cinco and L.S. Adair.** Univ. of San Carlos, Philippines and Univ. of North Carolina at Chapel Hill.

- C167 II 589.8 An Examination of Nutritional Status and Acculturation among Chinese Senior Immigrants Living in Northern Virginia **M. Dong, Y. Sun and L. Pawloski.** George Mason Univ. and Zhongshan Polytech, China.
- C168 I 589.9 Lifetime Cognitive Dietary Restraint in Postmenopausal Women: Associations with Weight, Weight Perceptions and Social Physique Anxiety **S.I. Barr and C.A. Rideout.** Univ. of British Columbia.
- C169 II 589.10 Assessment of Individuals with Rheumatoid Arthritis Using the Healthy Eating Index 2010 **L. Thomas, B. Ward, M. Tsai, T. Fazio, N. Lam, J. Burris, M. Kiely, Y. Yazici and K. Woolf.** NYU Steinhardt and NYU Langone Med. Ctr.
- C170 I 589.11 Do Women Smokers Have Nutritional State Worse than No Smoking Women **S.J. Papini, M.P. Fidelix, S.E.T. Minamoto and S.A.R. Paiva.** Botucatu Sch. of Med., São Paulo.
- C171 II 589.12 Relationships between Body Mass Index and the Health Status in Elderly Mongolian Subjects with COPD **M. Nakao and Y. Ishihara.** Kurume Univ., Japan.

590. NUTRITION ACROSS THE LIFESPAN: NUTRITION AND REPRODUCTIVE HEALTH

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C172 I 590.1 Impact of Maternal Prenatal Mineral Intake on Pubertal Onset in Mexican Children **J.Y. Liu, B.N. Sánchez, A.S. Ettinger, A. Cantoral, A.D. Jones, M. Tellez-Rojo, H. Hu and K.E. Peterson.** Sch. of Publ. Hlth., Univ. of Michigan; Sch. of Publ. Hlth., Yale Univ.; Sch. of Publ. Hlth., Univ. of Toronto and Natl. Inst. of Publ. Hlth., Cuernavaca.
- C173 II 590.2 Influences on Expectations for Gestational Weight Gain **R.A. Krukowski, D.S. West, M. DiCarlo and A. Andres.** Univ. of Tennessee Hlth. Sci. Ctr.; Univ. of South Carolina; Arkansas Children's Nutr. Ctr. and Univ. of Arkansas for Med. Sci.
- C174 I 590.3 Balancing the Risk of Infant Low Birth Weight and Macrosomia: An Examination of Gestational Weight Gain or Weight Loss among Obese Women **N.P. Deputy, A. Sharma and S. Kim.** Emory Univ. and Ctrs. for Dis. Control and Prevent.
- C175 II 590.4 Pica Is Prevalent and Strongly Associated with Iron Deficiency, but Not Anemia, among Mexican-Born Pregnant Women Living in the United States **A. Roy, E. Fuentes-Afflick, L. Fernald and S.L. Young.** Penn State; UCSF; Sch. of Publ. Hlth., Univ. of California, Berkley and Cornell Univ.
- C176 I 590.5 Exploring Associations between Vitamin D Status and Anemia in Pregnant Adolescents **C. Thomas, R. Guillet, E. Cooper, E. Pressman, M. Roberson and K. O'Brien.** Cornell Univ. and Univ. of Rochester Sch. of Med. and Dent.
- C177 II 590.6 Vitamin D Status Is Low in Mothers with Preeclampsia and Their Infants: A Case Control Study from Serbia **M. Djekic-Ivankovic, H. Weiler, G. Jones, M. Kaufmann, J. Kaludjerovic, V. Aleksic-Velickovic, L. Mandic and M. Glibetic.** Univ. of Belgrade; Sch. of Dietetics and Human Nutr., McGill Univ.; Queen's Univ., Canada and Harvard Sch. of Dent. Med.

- C178 **I 590.7** The Impact of Weight Loss on Quality of Life in Overweight Women with Irregular Menses **A.W. Lin, B.Y. Jarrett and M.E. Lujan.** Cornell Univ.
- C179 **II 590.8** Dietary Quality in Nulliparous Women Planning Pregnancy: Results from the ISIS Study **P.Y. Hsiao, J.L. Fung, D.C. Mitchell, T.J. Hartman and M.B. Goldman.** Indiana Univ. of Pennsylvania; Geisel Sch. of Med., Dartmouth Col.; Penn State and Emory Univ.
- C180 **I 590.9** Excessive Gestational Weight Gain Affects Risk of Overweight/Obesity among Low Income Women **E. Metallinos-Katsaras, R. Colchamiro and E. Siu.** Simmons Col. and MA Dept. of Publ. Hlth., Boston.
- C181 **II 590.10** Soft Drinks Consumption among Pregnant Women in Colombia: Factors Associated **R. Ramirez-Velez, J.F. Meneses-Echávez, K. Gonzalez-Ruiz, J. Martinez-Torres and J.E. Correa-Bautista.** Univ. Santo Tomas; Univ. del Rosario and Univ. de Pamplona, Colombia.
- C182 **I 590.11** Subclinical Depression Is Associated with Lower Birth Weight in Obese Women **S. Sobik, R.A. Krukowski, D. West, M.A. Cleves and A. Andres.** Univ. of Arkansas for Med. Sci.; Univ. of Tennessee Hlth. Sci. Ctr.; Univ. of South Carolina and Arkansas Children's Nutr. Ctr.
- C183 **II 590.12** Dietary Intake and Infertility: A Review **M.d.M. Mendoza-López, K.I. Reyes-Martin and Y.Y. Gutiérrez-Gómez.** Monterrey Inst. of Technol. and Higher Educ., Mexico City.
- C184 **I 590.13** Association between Obstetric Provider's Advice and Gestational Weight Gain in a Diverse Sample of Women **A. Lopez-Cepero, K. Leung, S. Corvera, T. Moore and M.C. Rosal.** Univ. of Puerto Rico Med. Sci. Campus and UMass Med. Sch.
- C185 **II 590.14** Placental Calcium Transporter Expression and Calcitropic Hormones in Pregnant Teens **J. Mathew, C. Thomas, E. Rothenberg, R. Guillet, E. Cooper, E. Pressman and K. O'Brien.** Cornell Univ. and Univ. of Rochester Sch. of Med. and Dent.

591. MEDICAL NUTRITION COUNCIL: PERSONALIZED NUTRITION

Poster

(Sponsored by: Medical Nutrition Council (MNC))

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C186 **I 591.1** Ancient Whole Grain Gluten-Free Egg-Free Teff, Buckwheat, Quinoa and Amaranth Pasta **T.S. Kahlon and M-c.M. Chiu.** USDA, Albany, CA.
- C187 **II 591.2** Whole Grain Gluten-Free Vegetable Spicy Snacks **T.S. Kahlon and M-C.M. Chiu.** USDA, Albany, CA.
- C188 **I 591.3** Genetic Variants in *GLUT14* Gene Enhance Susceptibility to Inflammatory Bowel Disease **M. Amir Shaghghi, C.N. Bernstein and P. Eck.** university of Manitoba.

- C189 **II 591.4** Hair as a Novel Long Term Biological Indicator for Assessing the Human Na and K Nutritional Status **B. Momcilovic, J. Prejac, V. Višnjević & #263;, N. Mimica and A.V. Skalny.** Inst. for R&D of Sustainable Eco Sys., Zagreb; Univ. Hosp. Ctr. Zagreb; Univ. Psychiat. Hosp. Vrapce, Croatia and Ctr. for Biotic Med., Moscow.

592. MEDICAL NUTRITION COUNCIL: PRENATAL NUTRIENT PROGRAMMING IN HUMANS

Poster

(Sponsored by: Medical Nutrition Council (MNC))

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C190 **I 592.1** Maternal Diet Quality and Obesity in Pregnancy Jointly Influence Neonatal Adiposity **A. Shapiro, J. Kaar, T. Crume, A. Starling, B. Ringham, D. Glueck, A.M. Siega-Riz and D. Dabelea.** Colorado Sch. of Publ. Hlth.; Univ. of Colorado Sch. of Med. and Univ. of North Carolina Chapel Hill at Chapel.
- C191 **II 592.2** Toddler Language Development Related to Maternal Perinatal Hemoglobin **M. Hakes, T. Kennedy, J. Colaizzi, L. Hubbs-Tate and D. Thomas.** Oklahoma State Univ.
- C192 **I 592.3** Fetal Exposure to the Great Chinese Famine May Cause Hyperlipidemia in Adulthood **S. Du, B. Zhang, H. Wang and B.M. Popkin.** Univ. of North Carolina at Chapel Hill and Chinese Ctr. for Dis. Control and Prevent., Beijing.
- C193 **II 592.4** Impact of Neonatal Iron Status, Gestational Age, and Gender on Auditory Brainstem Responses at Birth **S. Lee, R. Guillet, M. Orlando, E. Cooper, E. Pressman and K. O'Brien.** Cornell Univ. and Univ. of Rochester Sch. of Med. and Dent.
- C194 **I 592.5** Near-Infrared Spectroscopy of Amniotic Fluid Distinguishes between AGA and LGA Infants **J.E. Sanchez-Galan, D.H. Burns and K.G. Koski.** McGill Univ.; Tech Univ. of Panama; Univ. of New Brunswick and McGill Univ. Sch. of Dietetics and Human Nutr.

593. NUTRITION IMMUNOLOGY: NUTRITIONAL IMMUNOLOGY

Poster

(Sponsored by: Nutritional Immunology RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C195 **I 593.1** HYDRAGUT Study: Influence of HYDRATION Status on the GUT Microbiota and Their Impact on the Immune System **N. Redondo Useros, A. Gheorghe, R. Serrano Labajos, E. Nova Rebato and A. Marcos Sanchez.** Inst. of Food Sci. Technol. and Nutr., Madrid.
- C196 **II 593.2** Immune Response to a *Salmonella* Enteritidis Infection in Chickens Fed Different Immunomodulatory Nutrients **E.L. Wils-Plotz and K.C. Klasing.** Univ. of California, Davis.

- C197 **I 593.3** Immunomodulation of Innate Immune Cells by *Sutherlandia frutescens*: A Transcriptomic Analyses **W. Lei, Y. Lu, J. Hou, J. Li, J. Browning, P. Eichen, J. Cheng, D. Lubahn, W. Folk, G. Sun and K. Fritsche.** Univ. of Missouri-Columbia.
- C198 **II 593.4** Changes in Leukocytes Populations Related to Commercial Sucralose Intake **M. Sánchez Delgado, J.A. Estrada and I. Contreras.** Fac. of Med., UAEM, Toluca, Mexico.
- C199 **I 593.5** The Suppressive Effects of Indole-3-Carbinol/3,3' Diindolylmethane on LPS-Induced IL1 Release May Be Associated with Changes in CD84 in THP-1 Monocytes **Y.S. Kim and T.T.Y. Wang.** NCI, NIH, Rockville and USDA, Beltsville, MD.
- C200 **II 593.6** Effects of Arginine, Citrulline and Glutamine in Intestinal Ischemia and Reperfusion-Induced Immune Disorders **H-C. Lo and C-H. Lee.** Fu Jen Catholic Univ. and Changhua Christian Hosp., Taiwan.
- C201 **I 593.7** Immuno-Stimulatory Activities of a Blend Of Natural Extracts in Human Immune Cells **H. Wang and B. Dagg.** Shaklee Corp., Pleasanton, CA.
- C202 **II 593.8** Glutamine Modulates the Changes of Intestinal Intraepithelial $\gamma\delta$ T Lymphocyte Expression in Mice with Ischemia/Reperfusion Injury **C.L. Yeh, M-H. Pai, J-M. Shih and Y-M. Shih.** Chinese Culture Univ.; Taipei Med. Univ. and Cathay Gen. Hosp., Taipei.
- C203 **I 593.9** Leukocyte Proliferation in Iron-Deficient Conditions **I. Contreras, M. Alvarado-Guadarrama, M.C. Erazo-Muñoz and J.A. Estrada.** UAEM, Toluca, Mexico.
- C204 **II 593.10** Epigallocatechin-3-Gallate (EGCG) Inhibits Murine CD4⁺ T cell Division and Cell Cycle Progression through Modulating Cell Cycle Related-Proteins **J. Wang, X. Niu, S.N. Meydani and D. Wu.** USDA at Tufts Univ.
- C205 **I 593.11** Neuro-Immune Stimulation Therapy:Quantum Energy Transference via Bio-electromagnetic Field Resonance **G.P. Einstein, A.L. Gee and O.L. Tulp.** Univ. of Sci. Arts & Technol., Montserrat.
- C206 **II 593.12** Effectiveness of Synthetic Medicine versus FI Matrix Natural Therapy for Auto-immune Diseases and Cancer **O.L. Tulp, F.U. Izunobi and G.P. Einstein.** Col. of Med., USAT, Montserrat.
- C207 **I 593.13** *Lactobacillus rhamnosus* GG ATCC 53103 (LGG) as an Immune Adjuvant for Influenza Vaccination in the Elderly **G.I. Solano-Aguilar, A. Molokin, C. Botelho, A-M. Fiorino, B. Vinyard, J.F. Urban, M. Haverkamp and P. Hibberd.** USDA, Beltsville and Massachusetts Gen. Hosp.
- C208 **II 593.14** Anti-allergic Effect of Ramalin from *Ramalina terebrata* in TNF- α -Stimulated HaCaT and RBL-2H3 Cells **Y.J. Jang and S. Pyo.** Sch. of Pharm., Sungkyunkwan Univ., South Korea.
- C209 **I 593.15** Effect of Sinigrin on Vascular Cell Adhesion Molecule-1 Expression in TNF- α -Stimulated Mouse Vascular Smooth Muscle Cells via Downregulation of NF- κ B Signaling Pathways **H.W. Lee and K.R. Lee.** Sch. of Pharm., Sungkyunkwan Univ., South Korea.
- 594. ENERGY AND MACRONUTRIENT METABOLISM: ENERGY BALANCE, MACRONUTRIENTS AND WEIGHT MANAGEMENT**
- Poster**
- (Sponsored by: Energy & Macronutrient Metabolism RIS)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C210 **II 594.1** Useful Correlates of Body Weight and Food Perception **A.K. Thaw and W.A. Brewer.** Millsaps Col., MS.
- C211 **I 594.2** Altered Gut Hormone Secretion Precedes Overeating following Acute Energy Deprivation **K.L. O'Connor, H.R. Lieberman, A.J. Young, S.J. Montain, J.L. Scisco and J.P. Karl.** U.S. Army Res. Inst. of Envrn. Med., Natick, MA.
- C212 **II 594.3** Grit Is Negatively Associated with Body Weight, Body Mass Index and Disinhibition and Positively Related to Cognitive Eating Restraint **C.J. Metzgar and S.M. Nickols-Richardson.** Univ. of Illinois, Urbana.
- C213 **I 594.4** One in Every Five Women Misperceived Body Mass in a Sample of Young Adult and Mid-life Women Enrolled in a Weight Gain Prevention Intervention **C.J. Metzgar and S.M. Nickols-Richardson.** Univ. of Illinois, Urbana.
- C214 **II 594.5** Dietary Energy Density and Changes in Waist Circumference among Adult Women in Cebu, Philippines **A. Vargas and L.S. Adair.** Univ. of North Carolina at Chapel Hill.
- C215 **I 594.6** Weight Loss with Liquid Formula Diets in Obese Patients with and without Diabetes **W.S. Leslie, R. Taylor and M.E.J. Lean.** Sch. of Med., Univ. of Glasgow and Newcastle Univ., U.K.
- C216 **II 594.7** Increased Skim Milk Consumption Reduces Uricemia, Body Fat, and Body Weight in Excess Body Weight Women Pursuing Energy-Restricted Diet **R.C. Alfenas, F.G. Cândido, R.D.M. Alfenas and D.M.O. Freitas.** Fed. Univ. of Viçosa, Brazil.
- C217 **I 594.8** Effects of Dietary Protein Quantity and Source in Appetite Responses in Energy-Restricted Overweight and Obese Adults **J. Li, C.H. Armstrong and W.W. Campbell.** Purdue Univ.
- C218 **II 594.9** Self-Weighing Increases Weight Loss in Free-Living Adults: A Double-Blind Randomized Field Trial among 200,000 Health App Users **S. Novello, S.B. Cash and W.A. Masters.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ.
- C219 **I 594.10** A Comparison of Differently Processed Orange Beverages on Self-Reported Ratings of Hunger and Fullness **C. Saunders, L. Harkness and I. Rowland.** PepsiCo, U.K.; PepsiCo, U.S. and Univ. of Reading.
- C220 **II 594.11** The Effects of Lying, Sitting and Standing on Energy Expenditure in Young, Adult Women **C.J. Popp, W. Bridges, N. Najm, D.A. Traylor and E.D. Jesch.** Clemson Univ.

- C221 I **594.12** The Gap between Expectations and Reality of Exercise-Induced Weight Loss Is Associated with Discouragement **T.K. Kyle and D.M. Thomas.** ConscienHlth., Pittsburgh and Montclair State Univ.
- C222 II **594.13** Validation of Photography for Determining Food Intakes of High School Students **S.C. Barrett, A. Kyle, V. Skaradzinski and C. Miu Leong.** Northern Illinois Univ.

595. ENERGY AND MACRONUTRIENT METABOLISM: OBESITY AND THE METABOLIC SYNDROME

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

(Cosponsored by: Obesity RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C223 I **595.1** Weight Control Practices in Civilian Dependents of Active Duty Military Personnel **A.S. Bukhari, S.K. Das, S.J. Montain, S.M. McGraw, L.J. Lutz, J.J. Sepowitz, P.J. Niro, A.J. Young and S.B. Roberts.** U.S. Army Res. Inst. of Environ. Med., Natick, MA and USDA at Tufts Univ.
- C224 II **595.2** Effects of Extra-Virgin Olive Oil and Fish Oil on Lipid Profile and Oxidative Stress in Patients with Metabolic Syndrome **I. Dichi, D. Venturini, M.R. Urbano and A.C. Simão.** Univ. of Londrina, Brazil.
- C225 I **595.3** Proteomic Analysis of the Low Molecular Weight Peptide Fraction in Serum of Obese Zucker Rat **R. Hakkak, S. Post, S. Mackintosh, K. West and A. Tackett.** Univ. of Arkansas for Med. Sci. and Arkansas Children's Hosp. Res. Inst.
- C226 II **595.4** Rutin Reduces Body Weight with an Increase of Muscle Mitochondria Biogenesis and Activation of AMPK in Diet-Induced Obese Rats **S. Kim, S. Seo, M-S. Lee, E. Jang, Y. Shin, S. Oh and Y. Kim.** Ewha Womans Univ., South Korea.
- C227 I **595.5** Endocrine Modulators of Mouse Subcutaneous Adipose Tissue Beige Adipocyte Markers **R.A. Garcia Garcia, K.J. Claycombe and J.N. Roemmich.** USDA, Grand Forks.
- C228 II **595.6** Effects of a Diet-Based Weight-Reducing Intervention in Obese Women Resistant to Weight Loss **S. Panahi, C. Couture, C. Lepage, V. Drapeau and A. Tremblay.** Laval Univ., Quebec City.
- C229 I **595.7** Climbing Exercise Training Does Not Improve Insulin Resistance in High-Fat Diet-Induced Obese Rats **M. Maeda, T. Fujii, Y. Tai and K. Okamura.** Osaka Univ. of Hlth. and Sport Sci.
- C230 II **595.8** Anti-obesity Activity of Black Rice with Giant Embryo in ob/ob Mice **Y-M. Lee, S-I. Han, Y-J. Won, B.C. Song, S-K. Kim and K-J. Yeum.** Konkuk Univ.; Rural Development Administration and Konkuk Univ., South Korea.
- C231 I **595.9** Association between ApoE (rs429358 and rs7412), SLC16A11 (rs13342692) and ABCA1 (rs9282541) Polymorphisms and Biochemical Parameters in Subjects with Metabolic Syndrome **X. Orozco-Ruiz, M. Guevara-Cruz, B. Ayala-Alanis, I. Medina-Vera, E. Jimenez-Rolland, M. Aguilar-Lopez, A.R. Tovar and N. Torres.** Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City.
- C232 II **595.10** Plasma Acylcarnitines and Development of Metabolic Syndrome in a Middle-Aged and Older Chinese Population **X. Lin, J-R. Wu, R. Zeng, X. Ye, X. Gao, L. Sun and R. Li.** Shanghai Inst. for Biol. Sci., Chinese Acad. of Sci.
- C233 I **595.11** Obesity and Mortality among Chinese HBV Carriers **W-Y. Lin, C-C. Lin, L. Davidson and K-C. Huang.** China Med. Univ. Hosp.; Sch. of Med., China Med. Univ.; Brigham Young Univ. and Natl. Taiwan Univ. Hosp.
- C234 II **595.12** Marine Sources but Not Plant Sources of Omega-3 Fatty Acids Prevents Progression of Hepatic Steatosis in *fa/fa* Zucker Rats **L. Hong, P. Zahradka and C.G. Taylor.** Univ. of Manitoba.
- C235 I **595.13** Short-Term High Fat Diet Feeding Leads to Resistance of Hepatic mTORC1 Signaling to Stimulation by Amino Acids **S.R. Kimball, S. Ravi, B.S. Gordon and L.S. Jefferson.** Penn State Col. of Med.
- C236 II **595.14** Quenching of Cytotoxic Reactive Carbonyl Species by Black Rice with Giant Embryo **M. Colzani, Y-M. Lee, S-I. Han, G. Aldini and K-J. Yeum.** Univ. of Milan; Konkuk Univ. and Natl. Inst. of Crop Sci., RDA, Miryang, South Korea
- C237 I **595.15** Prevalence of Metabolic Syndrome and Associated Factors in Children and Adolescents with Obesity, in Mexico **E. Romero-Velarde, L.M. Aguirre-Salas, Y.A. Alvarez-Román, E.M. Vásquez-Garibay, E. Casillas-Toral and S. Fonseca-Reyes.** Univ. of Guadalajara and Civil Hosp. of Guadalajara.
- C238 II **595.16** Lack Fractionation Meals: Risk for Behavior Changes Cardiometabolic **R.S.L. Cassani, O.M.S. Amâncio, B. Geloneze and J.C. Pareja.** Univ. Hosp. of Ribeirão Preto; State Univ. of Campinas, São Paulo and Fed. Univ. of São Paulo.
- C239 I **595.17** Impaired mTOR Regulation of Lipolysis in Lipocalin-2 Deficient Adipocytes **J. Deis, H. Guo and X. Chen.** Univ. of Minnesota.
- C240 II **595.18** Metabolic Syndrome in an HIV Cohort on Antiretroviral Therapy **J. Lopez, E. Tiozzo, J. Konefal, S. Adwan, L.A. Martinez, J. Villabona, S. Cutrono, A. Rodriguez, J.M. Woolger and J.E. Lewis.** Florida Intl. Univ. and Univ. of Miami.
- C241 I **595.19** High Fructose Corn Syrup and Sucrose Do Not Differ in Their Effects on Cardiometabolic Risk Factors: A Series of Systematic Reviews and Meta-analyses of Randomized Controlled Trials **V.L. Choo, V. Ha, S. Blanco Mejia, C.W.C. Kendall, R.J. de Souza, D.J.A. Jenkins and J.L. Sievenpiper.** St. Michael's Hosp.; Univ. of Toronto and McMaster Univ., Canada.
- C242 II **595.20** β -Lapachone Ameliorates Obesity through Enhancing Browning of White Adipose Tissue in High-Fat Diet-Induced Obese Mice **T.Y. Ha, W.H. Choi, Y.J. Jang and J. Ahn.** Korea Food Res. Inst. and Univ. of Sci. and Technol., South Korea.
- C243 I **595.21** Increasing Plasma Antioxidant Performance after Lifestyle Modification Is Impaired by the Presence Metabolic Syndrome and Its Pro-oxidant Status **F. Moreto, H.T. Kano, G.A. Torezan, O. Teixeira, C.R. Correa and R.C. Burini.** Botucatu Med. Sch., São Paulo State Univ.
- C244 II **595.22** Effects of Milk Protein Concentrate on Energy Restriction-Induced Changes in Body Composition and Indices of Metabolic Syndrome **J. Zhou, J.E. Kim and W.W. Campbell.** Purdue Univ.

- C245 **I 595.23** Serum Uric Acid Levels and Metabolic Syndrome in Elementary School Children with Obesity from Nuevo León, Mexico **E.S. Perez, M.A.G. Medina, M.L.-C. Lomeli, F.J.L. González, V. Imrhan, S. Juma, P. Vijayagopal and C. Prasad.** Sch. of Publ. Hlth. and Nutr., Autonomous Univ. of Nuevo León and Texas Woman's Univ.
- C246 **II 595.24** Expression and Cellular Distribution of SLC30A Zinc Transporter Family Members in Human Normal and Diabetic Pancreases and in Human Insulin-Secreting B-Cells **L. Huang and C. Kirschke.** USDA, Davis and Univ. of California, Davis.
- C247 **I 595.25** Disassociation between Knowledge and Behaviors Related to Body Weight Status of Adults in Kentucky **C. Wang, L. Huang and C. Butler.** Col. of Agr., Food Sci. and Sustainable Sys., Kentucky State Univ.
- C248 **II 595.26** Urinary Levels of 8-Hydroxydeoxoguanosine in Young African American Population with Metabolic Syndrome **A.M. Tope, P.F. Rogers and V. Mathis.** Kentucky State Univ.
- C249 **I 595.27** Dietary and Physical Activity Factors in Overweight and Obese Adolescents at Risk for Type 2 Diabetes **K. Wagner, D. Horan, L. Smith, M. Hamilton, E. Delp, C. Boushey, T. Hannon and N. Gletsu-Miller.** Purdue Univ.; Indiana Univ. Sch. of Med.; Pennington Biomed. Res. Ctr., Baton Rouge and Univ. of Hawaii Cancer Ctr.
- C250 **II 595.28** Reduced Acidity Cranberry Improves Glycemic Response in Persons with Metabolic Syndrome **R.A. Dahl, B.T. Kristen, S.L. Googins, S.R. Hunter, M.E. Mackay, N. Vorsa, P.J. Limburg and T. Wilson.** Winona State Univ.; Rutgers Univ., New Brunswick and Mayo Clin.
- C251 **I 595.29** Urinary Sugars Excretion as an Estimate of Sugars Intakes Is Limited in Its Relationship to Cardio-metabolic Risk Factors **D. Kruimer, L. Te Morenga and J. Mann.** Univ. of Otago, New Zealand.
- C252 **II 595.30** Effect of Carbohydrate and Protein Focused Diets on Metabolic Syndrome Prevalence in Overweight and Obese Women Combined with Exercise **C.G. Goodenough, C.P. Earnest, B. Lockhart, J.M. Oliver, R.B. Kreider and C. Rasmussen.** Texas A&M Univ. and Texas Christian Univ.
- C253 **I 595.31** Influence of High Fat Diet on Macrophage Behavior and Metabolic Processes in Obesity-Sensitive and -Resistant Mice: Role of Monocyte Chemoattractant Protein 1 **T.L. Cranford, R.T. Enos, K.T. Velazquez, J.L. McClellan, M. Nagarkatti and E.A. Murphy.** Univ. of South Carolina Sch. of Med.

596. ENERGY AND MACRONUTRIENT METABOLISM: CARBOHYDRATE METABOLISM

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C254 **II 596.1** Investigation of Portion Size Calculations for the Measurement of Glycemic Response to Foods **N. Bordenave, L.B. Kock, M. Abernathy, J.C. Parcon, A.A. Gulvady, B.J.-W. van Klinken and P. Kasturi.** Pepsico Global R&D.
- C255 **I 596.2** **Withdrawn.**
- C256 **II 596.3** Glycemic Effect of Nutritive Sweeteners: Honey, Sugar and High Fructose Corn Syrup **S. Raatz, K. Beals, L. Johnson and M. Picklo.** USDA, Grand Forks ; Univ. of Minnesota, Minneapolis and Univ. of Utah.
- C257 **I 596.4** Moving to a Broader Concept of Quality of Glycemic Carbohydrates **A.H.-M. Lin, B.-H. Lee and B. Hamaker.** Univ. of Idaho Sch. of Food Sci. and Purdue Univ.
- C258 **II 596.5** Compound Heterozygous Mutations Elicit Congenital Lactase Deficiency in a Japanese Infant **L. Diekmann, K. Pfeiffer and H.Y. Naim.** Univ. of Vet. Med. Hannover.
- C259 **I 596.6** Has Honey Different Short-Term Metabolic Effects Than Glucose:Fructose Mixtures? A Pilot Human Study **C. Despland, V. Campos, B. Walther, C. Kast and L. Tappy.** Univ. of Lausanne and Agroscope, Bern.
- C260 **II 596.7** Retinoic Acid Synergizes with Insulin to Induce Glucose Disposal in L6 Rat Skeletal Muscle Cells **M. Goff and G. Chen.** Univ. of Tennessee, Knoxville.
- C261 **I 596.8** Dietary Glucogenesis by Mucosal α -Glucosidase Is Influenced by the Internal Molecular Structure of Starch Hydrolysates **A. Muniandy and A. Lin.** Bi-State Sch. of Food Sci., Univ. of Idaho and Washington State Univ.
- C262 **II 596.9** Dietary Approaches to Stop Hypertension (DASH) Diet Modified for Diabetes **A.D. Peairs, M. Hess, A.S. Shah and S.C. Couch.** Univ. of Cincinnati and Cincinnati Children's Hosp. Med. Ctr.
- C263 **I 596.10** Differences in Hormonal Markers of Acne among Adults with and without Acne **J. Burris, W. Rietkerk, J. Shikany and K. Woolf.** NYU Steinhardt; Manhattan Dermatol. & Cosmet. Surg. and Univ. of Alabama at Birmingham.
- C264 **II 596.11** No Dose-Response Relationship in the Effect of Commonly Consumer Sugars on Insulin Sensitivity across a Range of Typical Human Consumption Levels **J. Lowndes, Z. Yu and J.M. Rippe.** Rippe Lifestyle Inst., FL.

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- C265 **I 596.12** The Effect of Diet and Exercise in Women with Polycystic Ovary Syndrome **K. Sweatt, F. Ovalle, R. Azziz and B. Gower.** Univ. of Alabama at Birmingham and Georgia Regents Univ.
- C266 **II 596.13** Dietary Pattern and Rice Consumption in Northwest Arkansas **E. Pottgen, S.H. Yoon, N. Poquette, H-S. Seo and S-O. Lee.** Univ of Arkansas and Woosuk Univ., South Korea.
- C267 **I 596.14** Induction of Differentiation of Small Intestinal Enterocyte Cells by Maltooligosaccharides **M. Chegeni and B.R. Hamaker.** Purdue Univ.
- C268 **II 596.15** Distinct Inhibitory Potencies of Dietary Phenolic Compounds for the Mucosal α -Glucosidases in the Human Small Intestine **M. Simsek, R. Quezada-Calvillo, M.G. Ferruzzi, B.L. Nichols and B.R. Hamaker.** Purdue Univ.; Autonomous Univ. of San Luis Potosi, Mexico and Baylor Col. of Med.
- C269 **I 596.16** Effects of Soybean Pectin on Blood Glucose and Insulin Responses in Healthy Men **M. Jones, X. Gu, N. Stebbins, P. Crandall, S. Ricke and S-O. Lee.** Univ. of Arkansas.
- C270 **II 596.17** Acute Ingestive Effects of Agave Nectar versus Sucrose in Healthy Young Adults **A. Cravinho, M. Hammon, K. Rieger and M. Kern.** San Diego State Univ.
- C271 **I 596.18** Protein Synthesis Controls the Activity of Maltase-Glucoamylase and Sucrase-Isomaltase in Non-intestinal Tissues **R. Quezada-Calvillo, M. Simsek, J. Juarez and B.L. Nichols.** Autonomous Univ. of San Luis Potosí, Mexico; Purdue Univ. and Baylor Col. of Med.

597. ENERGY AND MACRONUTRIENT METABOLISM: DIET AND/OR EXERCISE REGULATION OF FOOD INTAKE

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

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SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C272 **II 597.1** Effect of Eating Speed at Breakfast on Gut Appetite Hormone Responses and Daily Energy Intake **K. Crisp, M. Phillips, B. Adams-Huet, L. Dart, B. Bouza, B. Franklin and M. Shah.** Texas Christian Univ. and Univ. of Texas Southwestern Med. Ctr.
- C273 **I 597.2** The Effects of Potatoes and Other Carbohydrate Side Dishes on Meal Time Food Intake, Blood Glucose and Satiety Response in Lean Healthy Children **R. Akilen, N. Deljoomanesh, K. Al-Dabous, M.U. Arshad, C.E. Smith, J.K. Hamilton and H.G. Anderson.** Univ. of Toronto Fac. of Med. and The Hosp. for Sick Children
- C274 **II 597.3** Prebiotic Fiber Consumption Decreases Energy Intake in Overweight and Obese Children **M. Hume, A. Nicolucci and R. Reimer.** Univ. of Calgary.
- C275 **I 597.4** The Impact of Beverages Varying in Macronutrient Content on Appetite and Energy Intake **A. Dougkas and E. Östman.** Lund Univ.
- C276 **II 597.5** Factors Responsible for National School Lunch Program Participants' Entree Selections **V. Haley-Zitlin, J.G. Peckham, J.D. Kropp, E. Granberg, A. Anderson and T. Mroz.** Clemson Univ.; FDA; Univ. of Florida and Univ. of Georgia.
- C277 **I 597.6** Impact of Liquid Sugar Reduction on Behavioral and Brain Responses to Food Viewing **C. Crézé, M-L. Bielser, J-F. Knebel, V. Campos, L. Tappy, M.M. Murray and U. Toepel.** Univ. and Hosp. Ctr.; Univ. of Lausanne and Ctr. for Biomed. Imaging, Lausanne.
- C278 **II 597.7** Increasing Healthful Food Variety Is Associated with Reduced Total and Food-Specific Cravings among Men in the POUNDS Lost Weight-Loss Trial **M. Vadiveloo, F.M. Sacks, G.A. Bray and J. Mattei.** Harvard Sch. of Publ. Hlth. and Pennington Biomed. Res. Ctr., Baton Rouge.
- C279 **I 597.8** Adherence to Daily Diet Monitoring using One of Three Commercial Diet Apps via Smart Phones Was Associated with Significant Weight Loss in Healthy Overweight Adults Irrespective of the Diet App **C.S. Johnston and C.A. Thompson-Felty.** Arizona State Univ.
- C280 **II 597.9** Patterns of Self-Reported Dieting and Energy Intake in 15y Girls **K.N. Balantekin, L.L. Birch and J.S. Savage.** Penn State and Univ. of Georgia.
- C281 **I 597.10** A Higher Number of Eating Episodes Is Associated with Lower Dietary Energy Density and Better Diet Quality in American Adults **J. Hollis and Y. Zhu.** Iowa State Univ. and Univ. of Iowa.
- C282 **II 597.11** Frequent Consumption of Meals Prepared Outside Home Influence Dietary Adequacy and Diversity in Korean Adults **K.W. Lee, W.O. Song and M.S. Cho.** Michigan State Univ. and Ewha Womans Univ., South Korea.
- C283 **I 597.12** Improvement of Alimentary Menú of Therapeutic Diets of Patients from Hospital de Psiquiatria "Dr. Samuel Ramírez Moreno" **L.A. Garcia Canchola, C.A. Jimenez Zamarripa, N. Onofre Mendoza, L.A. Altamirano Librado, A. Rivera Llano and C. Rivera Garcia.** Secretary of Hlth. and Natl. Polytech Inst., Mexico City.
- C284 **II 597.13** Effects of Acute Aerobic Exercise and Protein Intake on Appetite and the Neural Response to Visual Food Cues **R.D. Sayer, G.G. Tamer, Jr., N. Chen, J.R. Tregellas, M.A. Cornier, D.A. Kareken, T.M. Talavage and W.W. Campbell.** Purdue Univ.; Univ. of Colorado Anschutz Med. Campus and Indiana Univ. Sch. of Med.
- C285 **I 597.14** An Analysis of Dietary Restraint and Obesity Using a Dynamic Model of Cumulative Food Intake Curves **D. Thomas, A.N. Nduati and C.K. Martin.** Montclair State Univ. and Pennington Biomedical Res. Ctr., Baton Rouge.

598. ENERGY AND MACRONUTRIENT METABOLISM: DIETARY FATTY ACIDS AND HEALTH

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C286 **II 598.1** Effect of A Single Dose of Emulsified Versus Capsular Fish Oils on Plasma Phospholipid Fatty Acids Over 48 Hours **S.K. Raatz, L.K. Johnson and D.M. Bibus.** USDA, Grand Forks ; Univ. of Minnesota, Minneapolis and Lipid Technol., Austin, MN.
- C287 **I 598.2** Adipokine Production in Mice Fed High-Fat Diets Containing Different Types of Dietary Fats **L. Yan and W-R. Lie.** USDA, Grand Forks and EMD Millipore Corp.
- C288 **II 598.3** Elevated Arachidonic Acid Intakes Reduce Bone Mineral Content and Trabecular Volume in Growing Obese Rats **I.L. Mak, K.Z. Wang, P. Lavery, S. Agellon and H.A. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ.
- C289 **I 598.4** Silkworm Pupa Oil Exerts Hypolipidemic and Antioxidative Effects on Rat Model of High-Fat Diet Induced Hyperlipidemia **Y. Zou, Y. Shi, J. Liu, L-X. Mu and S-T. Liao.** Sericult. & Agri-Food Res. Inst., Guangzhou, China.
- C290 **II 598.5** Effect of High Concentration Lipid Diet Supplemented with n-3 PUFA, on Serum Fatty Acid Profiles of Growing Rats **P.D. Perris, C. Silva, I. Fernandez, N. Slobodianik and M.S. Felio.** Fac. of Pharm. and Biochem., Univ. of Buenos Aires.
- C291 **I 598.6** Influence of Omega-6 HUFA Status on Recovery of Muscle Performance after Fatiguing Exercise **S.J. Montain, N.M. Johannsen, C.M. Champagne, B.M. Marriott, J.R. Hibbeln, M.R. Hawes and K.G. Berry.** U.S. Army Res. Inst. of Envrn. Med., Natick, MA; Pennington Biomed Res. Ctr., Baton Rouge; Med Univ. of South Carolina; NIAAA, NIH, Silver Spring; Belovo Inc., Pinehurst, NC and Samueli Inst., Alexandria, VA.
- C292 **II 598.7** Potential Role of PYY in Skeletal Muscle Cells? **D. Gupta, H. Roman, S. Touhamy II, K. Lin and A. Thalacker-Mercer.** Cornell Univ.
- C293 **I 598.8** Association between Fatty Acid Status and Executive Function in Tanzanian Children Aged 2-6 **T. Jumbe, S. Hahn, W.S. Harris, J. Kinabo, M. Pontifex and J.I. Fenton.** Michigan State Univ.; Univ. of South Dakota and OmegaQuant Analytics, LLC and Sokoine Univ. of Agr., Tanzania.
- C294 **II 598.9** The Effects of Pistachio Consumption on Erythrocyte Membrane Lipids, Dietary Changes, and Satiety in Healthy College-Aged Females **B. Burns-Whitmore, S. Roy, A. Bushnell, A. Towne and L. Hall.** California State Polytech Univ., Pomona and California Polytech State Univ., San Luis Obispo.
- C295 **I 598.10** Sulfidogenic Bacteria Abundance in Colonic Mucosa Is Positively Correlated with Milk and Animal Fat Intake and Negatively Correlated with Mono- and Polyunsaturated Fatty Acids **P.G. Wolf, P. Cummings, N. Shah, H.R. Gaskins and E. Mutlu.** Univ. of Illinois at Urbana-Champaign and Rush Univ.
- C296 **II 598.11** High Oleic Sunflower Oil Alters the Proportions of n-6 and n-3 Polyunsaturated Fatty Acids in Young and Aging C57BL/6 Heart Tissue **J.Y. Zhang, E. Kim, P. Lawrence, K.S. Kothapalli and J. Brenna.** Cornell Univ.
- C297 **I 598.12** The Intake of Ready to Eat Cereals in Breakfast Is Associated with Fewer Intakes of 24 Hour Unsaturated Fats but Not of Fruits, Vegetables or Fiber in Mexican Children **A.G. Contreras, V. De La Cruz and S.F. Villalpando.** Natl. Inst. of Publ. Hlth., Cuernavaca.
- C298 **II 598.13** Long-Chain Polyunsaturated Fatty Acid Status Associates with Bone Mass in Overweight and Obese Children **I.L. Mak, T.R. Cohen, S-E. Loiselle, C.A. Vanstone, T.J. Hazell and H.A. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ. and Wilfrid Laurier Univ., Canada.
- C299 **I 598.14** Fish Oil Consumption Prevents Ischemic Injury through Neovasculogenesis **F-Y. Tang and F-Y. Wang.** China Med. Univ., Taiwan.
- C300 **II 598.15** Pinolenic Acid Downregulates Anabolic Pathway of Lipid Metabolism in HepG2 Cells **A.R. Lee and S.N. Han.** Seoul Natl. Univ.
- C301 **I 598.16** Serum Biomarkers of Dietary Fatty Acids Are Associated with Abdominal Obesity Measures in a Large Population-Based Cohort of Men and Women **Z. Alsharari, M. Marklund, M-L. Hellénus, F. Laguzzi, B. Gigante, K. Leander, P. Sjögren, T. Cederholm, U. de Faire and U. Risérus.** Uppsala Univ. and Karolinska Inst.
- C302 **II 598.17** Plasma Elaidic Acid Level as Biomarker of Industrial trans Fatty Acids and Risk of Weight Change: Report from the EPIC Study **V. Chajes, C. Biessy, P. Ferrari, I. Romieu and N. Slimani.** Intl. Agcy. for Res. on Cancer, Lyon.
- C303 **I 598.18** Maternal Fatty Acid Intake and Effects on Functional Connectivity in Neonates **K.F. Holton, D.A. Fair and J.T. Nigg.** Sch. of Educ., Teaching & Hlth., American Univ. and Oregon Hlth. & Sci. Univ.
- C304 **II 598.19** Maternal Serum Fatty Acids Are Positively Associated with Systolic Blood Pressure Changes during Pregnancy: Longitudinal Study **D.R. Farias, F. Rebelo, I. Eshriqui, J. Lepsch, T. Pinto, A. Franco-Sena, N. Lima and G. Kac.** Fed. Univ. of Rio de Janeiro.
- C305 **I 598.20** Possible In Vitro Artefacts Associated with the Collection and Processing of Blood for Omega-3 Fatty Acid Analysis **E.M. O'Reilly, M. Laidlaw, R.W. Butt and K.E. Keene.** Nutrasource Diagnostics Inc., Guelph, Canada.
- C306 **II 598.21** Dietary Fat Quality and Lipophilic Index among Mexican-American Adults with and without Metabolic Syndrome **M. Arias-Gastelum, A.H. Lichtenstein, N.R. Matthan and S. Vega-Lopez.** Sch. of Nutr. and Hlth. Promo., Arizona State Univ. and USDA at Tufts Univ.
- C307 **I 598.22** Trans Fatty Acids in Plasma, Serum, and Red Blood Cells **H.C. Kuiper and H.W. Vesper.** Ctrs. for Dis. Control and Prevent.
- C308 **II 598.23** Genetic Variation in the FADS Gene Family and Docosahexaenoic Acid (DHA) Levels in Randomized trial of DHA- Supplemented Mothers **C.J. Valentine, K. Dingess, A.M. Anderson, J. Kleiman, L. Rogers and A.L. Morrow.** Cincinnati Children's Med. Ctr. and Nationwide Children's Hosp., Columbus.

599. ENERGY AND MACRONUTRIENT METABOLISM: PROTEIN INTAKE AND HEALTH IMPLICATIONS**Poster***(Sponsored by: Energy & Macronutrient Metabolism RIS)*SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B*Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)*

- C309 **I 599.1** The Effects of Consuming High Protein Solid versus Beverage Breakfasts on Changes in Body Weight and Body Composition in Overweight, Breakfast Skipping Adolescents **J.A. Gwin and H.J. Leidy.** Univ. of Missouri-Columbia.
- C310 **II 599.2** Protein Status Modulates the Hedonic Value of Protein Meals in Rat **C. Chaumontet, I. Recio, N. Darcel, G. Fromentin and D. Tome.** AgroParisTech.
- C311 **I 599.3** The Effect of Breakfast Protein Source on Postprandial Hunger and Glucose Response in Women **C.M. Crowder, B.L. Neumann, D.L. Johnson and J.I. Baum.** Univ. of Arkansas.
- C312 **II 599.4** A Dual Functioning Extensively Hydrolyzed Casein Modulates Cytokine Secretion by Immune Cells and Insulin Responses from Beta Cells In Vitro **L. Brennan, N. Ben Larbi, J. Aarbiou, G. Gross, T. Lambers, E.A.F. van Tol, L. Collins, F. Fischer and C.E. Loscher.** University Col. Dublin; Dublin City Univ.; BioFocus, Leiden and Mead Johnson Pedita. Nutr. Inst., Nijmegen.
- C313 **I 599.5** Protein Sources, Nutrient Adequacy and Diet Quality **M.C. Karlsen, L.M. Troy, G. Rogers, J.T. Dwyer, N. McKeown and P.F. Jacques.** USDA at Tufts Univ.; Friedman Sch. of Nutr., Tufts Univ; Univ. of Massachusetts Amherst; Tufts Med. Ctr and ODS, NIH.

600. OBESITY: DIET, DEVICES, MEDICATIONS AND SURGERY**Poster***(Sponsored by: Obesity RIS)*SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B*Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)*

- C314 **II 600.1** Safety of Alternate Day Fasting and Effect on Disordered Eating Behaviors **K.K. Hoddy, C.M. Kroeger, J.F. Trepanowski, A. Barnosky, S. Bhutani and K.A. Varady.** Univ. of Illinois at Chicago.
- C315 **I 600.2** Quick Service Restaurant (Fast) Food and Obesity: A Systematic Review of Human Studies **A.J. Idigo, A.W. Brown, M.M. Jeansonne, K.P. Kell and D.B. Allison.** Univ. of Alabama at Birmingham.
- C316 **II 600.3** Effects of Roux-en-Y Gastric Bypass on Sugar-Induced Hypertriglyceridemia **A. Surowska, S. De Giorgi, F. Theytaz, V. Lecoultre, V. Campos, V. Giusti and L. Tappy.** Univ. of Lausanne and Broye Intercantonal Hosp.

C317 **I 600.4** Long-Term Health Related Quality of Life Outcomes of Patients Who Have Undergone Bariatric Surgery with the Biliary Pancreatic Diversion with Duodenal Switch **M. Nirmalraj and B. Khandalavala.** Univ. of Nebraska Med. Ctr.

C318 **II 600.5** Anti-obesity Effect of Solar Salt Produced in Korea on C57BL/6 Mice **K-Y. Park, J-H. Ju, J-L. Song and S-H. Mun.** Pusan Natl. Univ. and Kyungnam Col. of Info. and Technol., South Korea.

601. OBESITY: GUT MICROBIOME AND OBESITY**Poster***(Sponsored by: Obesity RIS)*SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B*Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)*

- C319 **II 601.1** Nopal Consumption Attenuates Biochemical Abnormalities and Microbiota Disbiosis in a Diet-Induced Obesity Model **M. Sanchez-Tapia, A.R. Tovar and N. Torres.** Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City.
- C320 **I 601.2** Pregnancy Body Weight and Neonate Gut Microbiota **N.T. Mueller, H.A. Goldani, A. Pizoni, U. Matte, I. Werlang, M.Z. Goldani, H. Shin and M.G. Dominguez-Bello.** Columbia Univ.; Fac. of Med., Hosp. Clin. of Porto Alegre, Brazil and NYU Sch. of Med.
- C321 **II 601.3** *Akkermansia muciniphila* and Gut Microbiota Richness Are Associated with Improved Metabolic Status after Calorie Restriction **M.C. Dao, A. Everard, J. Aron-Wisnewsky, N. Sokolovska, E.O. Verger, S.W. Rizkalla, J. Doré, P.D. Cani and K. Clément.** Inst. of Cardiometab. and Nutr, Paris; Catholic Univ. of Louvain, Belgium and INRA, Jouy-en-Josas.
- C322 **I 601.4** Maternal Obesity Alters Gut Microbial Ecology in Offspring of NOD Mice **M. Zhu, Y. Kang and M. Du.** Sch. of Food Sci., Washington State Univ.; Sch. of Food Sci., Univ. of Idaho and Washington State Univ.
- C323 **I 601.5** Dietary Fat Intake and Age Influence Gut Microbiota and Colonic Inflammation in C57BL/6J Mice **M-K. Sung, S.J. Kim, M-Y. Park and S-E. Kim.** Sookmyung Women's Univ. and Grad. Sch. of Educ., Soonchunhyang Univ., South Korea.
- C324 **II 601.6** Preterm Infant Gut Microbiome and Weight at 36 Weeks Corrected Gestational Age **D.H. Taft, D.V. Ward, N.J. Ollberding, K.R. Schibler, N. Ambalavanan, Z.T. Yu, D.S. Newburg, B.S. Davidson and A.L. Morrow.** Cincinnati Children's Hosp.; Univ. of Alabama at Birmingham and Boston Col.
- C325 **I 601.7** Relation between *Candida spp* in Dental Plaque and Nutritional Status in Kindergarten Children **P.N. Rodriguez, M.T. Mateo, M.V. Iglesias, J. Martinez Reinoso, F. Lifshitz, S. Molgatini and A.B. Argentieri.** Sch. of Dent., Univ. of Buenos Aires and Sansum Med. Res. Inst., Santa Barbara, CA.

602. OBESITY: CHRONIC DISEASES

Poster

(Sponsored by: Obesity RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B*Presentation time:* 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C326 **II 602.1** Diet Associations with Sleep and Fatigue among Truck Drivers: Baseline Results from the SHIFT Randomized Controlled Trial **S. Thompson, E. Hohn, B. Wipfli and R. Olson.** Oregon Hlth. & Sci. Univ. and DW Block Assocs. LLC, Bainbridge Island, WA.
- C327 **I 602.2** Effects of Obesity on Serum Cations Using Obese Zucker Rat Model **R. Hakkak, S. Korourian, S. Jagetia and A. Romani.** Univ. of Arkansas for Med. Sci.; Arkansas Children's Hosp. Res. Inst and Case Western Reserve Univ.
- C328 **II 602.3** Obesity Significantly Intensifies the Depressive Symptom among Adults with Neck or Back Pain **W. Lawrence, A. Badana, G. Barnett, J. Sexton, K. Oliver, J. Hogges and J. Zhang.** Jiann-Ping Hsu Col. of Publ. Hlth. at Georgia Southern Univ.
- C329 **I 602.4** Statistical Modeling Approaches with Taste Functioning and Central Adiposity in Women: Implications for Mining the New National Health and Nutrition Examination Survey (NHANES) Taste and Smell Protocol **S. Rawal, T.B. Huedo-Medina, H.J. Hoffman and V.B. Duffy.** Univ. of Connecticut and NIDCD, NIH.
- C330 **II 602.5** A randomized control trial of sugar-sweetened and artificially sweetened beverages and intrahepatic fat in overweight subjects **V. Campos, C. Despland, P. Schneider, V. Brandejsky, R. Kreis, C. Boesch and L. Tappy.** Univ. of Lausanne and Univ. of Bern.
- C331 **I 602.6** Effect of Defatted Pepper Seed Extracts on High-fat Diet-Induced Obesity in Mice **J. Sung and J. Lee.** Chungbuk Natl. Univ., South Kores.
- C332 **II 602.7** Monounsaturated Fatty Acid High-Fat Diets Impede Adipose IL-1 β Secretion and Insulin Resistance **H. Roche, O. Finucane, C. Lyons, A. Murphy, C. Reynolds, N. Healy, A. Tierney, M. Morine, J. Alcalá-Díaz, J. Lopez-Miranda, L. O'Neill and F. McGillicuddy.** University Col. Dublin; Trinity Col. Dublin; La Trobe Univ., Australia; Univ. of Trento, Italy and Univ. of Cordoba, Spain.
- C333 **I 602.8** Consumption of Acai Beverage (*Euterpe oleracea* Mart.) in Cardio-metabolic Syndrome **S. Simbo, H. Kim, J. Chrown, A. Roque, N. Banerjee, S.T. Talcott, R.B. Kreider and S.U. Mertens-Talcott.** Texas A&M Univ.
- C334 **II 602.9** Quinoa Protective Effects against Obesity-Induced Intestinal Inflammation **G. Noratto, R. Carrion-Rabanal, G. Medina, A. Mencia, I. Mohanty, D. Gonzalez and K. Murphy.** Washington State Univ. and Natl. Univ. of Tucuman, Argentina.
- C335 **I 602.10** Iodine Supplementation Reduces Elevated Total- and LDL-Cholesterol in Iodine-Deficient, Overweight Women: A Randomized, Placebo-Controlled Trial in Morocco **I. Herter-Aeberli, N. El Ansari, L. Chabaa, M. Cherkaoui and M.B. Zimmermann.** ETH Zurich and Univ. Cadi Ayyad, Morocco.
- C336 **II 602.11** The Novel Role of Vitamin D and Flavonoids in Reducing Risk of Obesity-Associated Breast Cancer **I.N. Sergeev.** South Dakota State Univ.

- C337 **I 602.12** The Effect of Mango Supplementation on Clinical Parameters of Pre-diabetic Individuals **J. Semkoff, S. Evans, S. Janthachotikun, H. Eldoumi, M. Mahmood, M. Meister, M. Payton, S. Peterson, P. Perkins-Veazie, S. Clarke, B. Smith and E. Lucas.** Oklahoma State Univ. and North Carolina State Univ.
- C338 **II 602.13** Under Reporting of Hypertension in Obese Teenagers **Y. Yeh, K. Brogan Hartlieb, S. Naar-King and C.K-L. Jen.** Wayne State Univ.; Florida Intl. Univ. and Wayne Sate Univ.
- C339 **I 602.14** MD2 May Mediate Free Fatty Acid-Induced Inflammation and Insulin Resistance **Q. Fang, Y. Pan and G. Liang.** Sch. of Pharmaceut. Sci., Wenzhou Med. Univ., China.
- C340 **II 602.15** Elevated Irisin Expression in NASH Livers **C.A. Nugent, S.S. Baker, W. Liu, L. Mastrandrea, R.D. Baker and L. Zhu.** Univ. at Buffalo, SUNY.
- C341 **I 602.16** Body Weight Status Are Associated with Biomarkers of Inflammation and Bone Turnover in Former Smokers **S.G. Lee, T.M. Vance, P. Hurbert, L. Xie, B. Kim, J. Lee, B.W. Boling, S-K. Lee and O.K. Chun.** Univ. of Connecticut; Univ. of Wisconsin-Madison and Univ. of Connecticut Hlth. Ctr.

603. CARIG: CAROTENOIDS AND HEALTH/
CAROTENOIDS AND RETINOIDS MOLECULAR
MECHANISMS OF ACTION

Poster

(Sponsored by: Carotenoid and Retinoid Interactive
Group (CARIG) RIS)SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B*Presentation time:* 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C342 **II 603.1** β -Cryptoxanthin and Its Cleavage Metabolite, 3-OH- β -Apo-10'-Carotenal, Can Inhibit LPS-Induced Inflammatory Responses in Human Bronchial Epithelial Cells **K-Q. Hu, J.R. Mein and X-D. Wang.** USDA at Tufts Univ.
- C343 **I 603.2** Lycopene Supplementation and Oxidation: A Metaregression Analysis of Lag Time to Absorption **C. Minto, M.G. Vecchio and D. Gregori.** Univ. of Padua and Zeta Res. Ltd., Trieste, Italy.
- C344 **II 603.3** Uncertain Effects of Beta-Carotene Supplementation on Oxidation: A Meta-Regression Analysis of Lag Time to Absorption **M.G. Vecchio, C. Minto and D. Gregori.** Zeta Res. Ltd., Trieste, Italy and Univ. of Padua.
- C345 **I 603.4** No Evidence of the Effects of beta-Carotene Supplementation on Reducing Risk of Type-II Diabetes: A Metanalysis **C. Minto, M.G. Vecchio and D. Gregori.** Univ. of Padua and Zeta Res. Ltd., Trieste.
- C346 **II 603.5** β -Carotene Levels Measured by Resonance Raman Spectroscopy: A Reproducibility Analysis in Colombian Adults **R. Ramirez-Velez and K. Gonzalez-Ruiz.** Univ. Santo Tomas and Univ. Manuela Beltran, Colombia.
- C347 **I 603.6** Lutein Accretion Corresponds to Activity of Metabolic Pathways during Brain Development **J.C. Lieblein-Boff, E.J. Johnson, A.D. Kennedy, C-S. Lai and M.J. Kuchan.** Abbott Nutr., Columbus; USDA at Tufts Univ. and Metabolon Inc., Durham, NC.

- C348 **II 603.7** Distribution of Lutein in Membranes of Rhesus Macaque Brain **E.S. Mohn, N.R. Matthan, M. Neuringer, N.A. Crivello, J.W. Erdman, M.J. Kuchan and E.J. Johnson.** USDA at Tufts Univ.; Oregon Hlth. & Sci. Univ.; Univ. of Illinois at Urbana-Champaign and Abbott Nutr., Columbus.
- C349 **I 603.8** Astaxanthin Plays Anti-inflammatory and Antioxidant Effects by Inhibiting NF κ B Nuclear Translocation and NOX2 Expression in Macrophages **C. Farruggia, Y. Yang, B. Kim, T. Pham, M. Bae, Y-K. Park and J-Y. Lee.** Univ. of Connecticut.

604. CARIG: BIOAVAILABILITY AND METABOLISM OF CAROTENOIDS AND VITAMIN A

Poster

(Sponsored by: Carotenoid and Retinoid Interactive Group (CARIG) RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C350 **II 604.1** Effects of Whole Egg Consumption on Carotenoids Absorption from Co-consumed, Carotenoids-Rich Mixed-Vegetable Salad **J.E. Kim, S.L. Gordon, M.G. Ferruzzi and W.W. Campbell.** Purdue Univ.
- C351 **I 604.2** A Lutein Nano-Emulsion Is More Effective than Regular Lutein in Protecting Cholesterol-Induced Liver Injury by Increasing Lutein Bioavailability in Guinea Pigs **G. Murillo, S. Hu, D. Aguilar, A. Missimer, J. Smyth, S. Gannon and M-L. Fernandez.** Univ. of Connecticut and Designs for Hlth. Inc., Suffield, CT.
- C352 **II 604.3** Production of Uniformly Labeled ^{13}C -Lutein and ^{13}C - α -Tocopherol In Vitro Using Carrot Cell Suspension Culture **J.W. Smith, R.B. Rogers, S. Jeon, S.S. Rubakhin, L. Wang, J.V. Sweedler, M.J. Kuchan and J.W. Erdman, Jr.** Univ. of Illinois at Urbana-Champaign and Abbott Nutr.
- C353 **I 604.4** β -Carotene Bioconversion Is Similar in Men and Women **G. Lietz, A. Oxley, P. Berry, J. Hesketh, F. Tourniaire, H. Park, M.H. Green and A.V. Boddy.** Newcastle Univ.; INRA, UMR 1260, Marseille; ICAN, Seoul and Penn State
- C354 **II 604.5** A Modified Isotope Dilution Equation Predicts Vitamin A Total Body Stores in Individuals **G. Lietz, A. Oxley, J.L. Ford and M.H. Green.** Newcastle Univ., U.K. and Penn State.
- C355 **I 604.6** Effects of Acute UVB on Retinoid Metabolism **K.L. Gressel, T.M. Oberyszyn and H.B. Everts.** The Ohio State Univ.
- C356 **II 604.7** Influence of Vitamin A Status on Serum Retinol and β -Carotene Concentrations Associated with Dark Green Leafy Vegetable Intake during Pregnancy in Nepal **J.L. Dorsey, K. Schulze, L. Wu, S.K. Khatri, S.C. LeClerq, P. Christian and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Nepal Nutr. Intervention Proj.-Sarlahi.
- C357 **I 604.8** Polysorbate-80 Coated β -Carotene (Encapsulated Polymeric) Nanoparticles Accumulate in Rat Lungs after Intravenous Injection **T. Miyazawa, K. Nakagawa, T. Harigae, R. Onuma, F. Kimura, T. Fujii and T. Miyazawa.** USDA at Tufts Univ. and Grad. Sch. of Agr. Sci., Tohoku Univ.

- C358 **II 604.9** Compared to Regular Lutein, a Lutein Nano-Emulsion Yields a More Atherogenic Lipoprotein Profile Associated with Higher Concentrations of Cholesterol in Adipose Tissue in Guinea Pigs **S. Hu, G. Murillo, D. Aguilar, A. Missimer, S. Gannon and M-L. Fernandez.** Univ. of Connecticut and Designs for Hlth., Suffield, CT.
- C359 **I 604.10** Evaluating Extraction Protocols for Quantifying Hepatic Retinol and Retinyl Esters **H. You and W.S. White.** Iowa State Univ.
- C360 **II 604.11** Development of a "Super-Kid" Model Based on Plasma [$^{13}\text{C}_{10}$]-Retinol Kinetics in Well-Nourished Mexican Infants **V. Lopez Teros, M.H. Green, J.L. Ford, H. Astiazaran-Garcia and G. Tang.** Univ. of Sonora, Mexico; Penn State; Ctr. for Food Res. and Develop. (CIAD), Hermosillo, Mexico and Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ.

605. CARIG: BIOFORTIFICATION OF STAPLE CROPS WITH MICRONUTRIENTS

Poster

(Sponsored by: Carotenoid and Retinoid Interactive Group (CARIG) RIS)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C361 **I 605.1** Consuming Iron-Biofortified Beans Reduces Time Spent in Discretionary Sedentary Activity in Iron-Depleted Rwandese Women Compared to Conventional Beans **S.V. Luna, M. Lung'aho, J.B. Gahutu and J.D. Haas.** Cornell Univ.; CIAT, Rwanda and Univ. of Rwanda Sch. of Med.
- C362 **II 605.2** Simulation of the Contribution of beta-Carotene Biofortified Rice on Vitamin A Intake among Women and Children in Bangladesh, Indonesia and Philippines **F.F. De Moura, I. Angeles-Agdeppa, S. Muslimatun, A. Atmarita, G. Gironella, M. Moursi and A. Carriquiry.** Intl. Food Policy Res. Inst., Washington, DC; Food and Nutr. Res. Inst., Philippines; SEAMEO RECFON Univs. Indonesia, Jakarta and Iowa State Univ.
- C363 **I 605.3** Quantifying the Bioefficacy of β -Carotene-Biofortified Sorghum Using a Mongolian Gerbil Model **H. You, Y. Zhang, Z-Y. Zhao, P. Che, M.C. Albertsen, K. Glassman and W.S. White.** Iowa State Univ. and DuPont Pioneer, Johnston, IA.
- C364 **II 605.4** Examining the Causal Effects of Changes in Iron Status on Brain and Attentional Functioning Using Structural Equation Modeling **M.J. Wenger, S.E. Rhoten, S.P. Scott, L.E. Murray-Kolb and J.D. Haas.** Univ. of Oklahoma; Cornell Univ. and Penn State.
- C365 **I 605.5** Effects of Consuming an Iron-Biofortified Bean on Behavioral and Electrophysiological Measures of Attention **M.J. Wenger, S.E. Rhoten, S.P. Scott, L.E. Murray-Kolb, M. Lung'aho, J-B. Gahutu and J.D. Haas.** Univ. of Oklahoma; Cornell Univ.; Penn State; Intl. Ctr. of Trop. Agr., Rwanda and Univ. of Rwanda.

- C366 **II 605.6** Effect of Style of Home Cooking on Retention and Bioaccessibility of Pro-vitamin A Carotenoids in Biofortified Pumpkin (*Cucurbita moschata* Duch.) Genotypes **C. Chitchumroonchokchai, E.M.G. Ribeiro, L.M.J. de Carvalho, F.F. de Moura, J.L.V. de Carvalho and M.L. Failla**. The Ohio State Univ.; Pharm. Col., Rio de Janeiro Fed. Univ.; HarvestPlus, Washington, DC and Embrapa Food Technol., Rio de Janeiro.
- C367 **I 605.7** The BETASNP2 Study: Effect of β -Carotene Formulation and rs6564851 on β -Carotene Plasma Responses **A. Oxley, I. Warnke, A. Wyss, W. Schalch and G. Lietz**. Newcastle Univ., U.K. and DSM, Nutr. Prods., Kaiseraugst, Switzerland.
- 606. DIETARY BIOACTIVE COMPONENTS: BIOAVAILABILITY, METABOLISM AND BIOMARKERS OF DIETARY BIOACTIVE COMPONENTS**
- Poster**
- (Sponsored by: Dietary Bioactive Components RIS)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)
- C368 **II 606.1** In Vitro Batch Fermentation Analysis of Wheat Dextrin and Partially Hydrolyzed Guar Gum – Fermentation Kinetics and Prebiotics Effects **J.L. Carlson, J. Slavin, P. Deng, K. Swanson and A. Hospattankar**. Univ. of Minnesota, Minneapolis; Univ. of Illinois at Urbana-Champaign and Novartis Consumer Hlth. Inc., Parsippany, NJ.
- C369 **I 606.2** Understanding Quercetin Kinetic Profile in Human Plasma from Multiple Clinical Studies Using Mixed Effects Modeling **D.A. Marsteller, J.V. St. Peter and M.A. Pirner**. Global R&D, PepsiCo Inc., New Haven.
- C370 **II 606.3** Attenuation of Inflammatory Markers in Plasma of Obese Mice by Caloric Restriction and Combined Curcumin and Piperine Supplementation **K. Nakagawa, T. Miyazawa, S.H. Kim, M.J. Thomas, F. Kimura, T. Miyazawa, J-M. Zingg, A. Azzi and M. Meydani**. USDA at Tufts Univ. and Grad. Sch. of Agr. Sci., Tohoku Univ.
- C371 **I 606.4** Bioaccessibility, Bioavailability and Antioxidant Stability of Phenolic Compounds Present in Mango (cv. 'Ataulfo') following an In Vitro Digestion and Microbial Fermentation **A.E. Quiros-Sauceda, J.F. Ayala-Zavala, H. Astiazaran-Garcia, J. Ornelas-Paz, A. Wall-Medrano, E. Alvarez-Parrilla and G. Gonzalez-Aguilar**. Ctr. for Food and Res. Develop., AC Sonora and Autonomous Univ. of Ciudad Juárez, Mexico.
- C372 **II 606.5** Effect of Korean Red Ginseng Water Extract on the Hepatic Fatty Acid and Cholesterol Synthesis in HepG2 Cells **M-S. Lee, S. Moon, S. Lee and Y. Kim**. Ewha Womans Univ., South Korea.
- C373 **I 606.6** Potato Phenolics Modulate Rate of Glucose Transport in a Caco-2 Human Intestinal Cell Model **S.E. Moser, I. Aragon, A. Furrer, J. Van Klinken, M. Kaczmarczyk, B-H. Lee, B. Hamaker and M.G. Ferruzzi**. Purdue Univ. and PepsiCo Global R&D.
- C374 **II 606.7** Evaluation of the Pathways Involved in the In Vivo Biotransformation of Tyrosol into Hydroxytyrosol **J. Rodríguez-Morató, P. Robledo, M. Farré and R. De la Torre**. Hosp. del Mar Med. Res. Inst., Barcelona; Pompeu Fabra Univ.; Physiopathol. of Obesity and Nutr., Madrid and Barcelona Autonomous Univ.
- C375 **I 606.8** Plasma Alkylresorcinols as a Biomarker for Whole Grain Intake and Predictor of Metabolic Syndrome Risk **M.R. MacArthur, S. Magnanti, R. Landberg and I.E. Lofgren**. Univ. of Rhode Island; Swedish Univ. of Agr. Sci. and Inst. of Environ. Med., Karolinska Inst.
- C376 **II 606.9** An Open-Label Study to Evaluate the Effect of 5,000 IU of Vitamin D3 Softgel on Serum 25-Hydroxyvitamin D Levels among Healthy Adults **S. Hirsh, L. Huber, K. Schmid, J. Woolger and S. Joyal**. Life Ext. Clin. Res. Inc., Ft. Lauderdale and Univ. of Miami.
- C377 **I 606.10** Tissue Bioavailability of Tart Cherry Anthocyanins **A. Kirakosyan, E.M. Seymour, P.B. Kaufman and S.F. Bolling**. Univ. of Michigan Hlth. Syst.
- C378 **II 606.11** Chronic Consumption of High Polyphenol Content Cranberry Beverage Improves Phenolic Acid and Flavonoid Bioavailability in Healthy Overweight Humans **L.L. Kimble, B.D. Mathison, D.L. McKay, C.O. Chen, J. Walsh, J.B. Blumberg, K.L. Kaspar, C. Khoo and B.P. Chew**. Sch. of Food Sci., Washington State Univ.; USDA at Tufts Univ. and Ocean Spray Cranberries Inc., MA.
- C379 **I 606.12** Detection of Intimal Macrophages in Atherosclerotic Lesions Using a CD36-Targeted Ligand Containing Nanoparticle **C.S. Dhanasekara, J. Zhang, S. Nie and S. Wang**. Texas Tech Univ.
- C380 **II 606.13** Profile of Gallic Acid Metabolites in Urine after the Intake of Mango (*Mangifera indica*, L.) cv. Keitt in Humans **R. Barnes, K. Krenek, S.M. Talcott and S. Talcott**. Texas A&M Univ.
- C381 **I 606.14** Safety Evaluation of Long-term Feeding of D-Psicose-Carrier-Complex for Rats **Y. Shirai and W. Kamimura**. Natl. Inst. for Materials Sci., Tsukuba and Univ. of Tokyo Hosp.
- C382 **II 606.15** Absorption and Biodistribution of Wheat Gluten Radiolabeled with Technetium (^{99m}Tc) in Blood, Liver and Visceral Adipose Tissue of Mice Fed on Gluten-Supplemented Diets **R.H. Freire, L.R. Fernandes, R.B. Silva, R.S. Araujo, V.N. Cardoso and J.I. Alvarez-Leite**. Fed. Univ. of Minas Gerais, Brazil.
- C383 **I 606.16** Alteration of Food intake, Inflammatory Response, and Insulin Resistance by Seaweeds with High-Fat Diet in C57BL/6N Mice **Y. Lee, J. Oh, A. Han and Y. Hwang**. Jeju Natl. Univ., South Korea.
- C384 **II 606.17** Bioavailability of Furocoumarins after Ingestion of Grapefruit or Grapefruit Juice **S.G. Lee, K. Kim, T.M. Vance, C. Perkins, A. Provatas, A. Qureshi, E. Cho and O.K. Chun**. Univ. of Connecticut and Warren Alpert Med. Sch. of Brown Univ.
- C385 **I 606.18** Effect of Hesperidin with and without a Nutrient Supplement on Bone Ca Retention in Postmenopausal Women Using ^{41}Ca Technology **B. Martin, L.D. McCabe, G.P. McCabe, G.S. Jackson, M-N. Horcajada, E. Offord-Cavin, M. Peacock, C. Macdonald-Clarke and C.M. Weaver**. Purdue Univ.; Nestle Res. Ctr., Lausanne and Indiana Univ. Sch. of Med.

- C386 **II 606.19** Tracking Isoflavones in Whole Soy Flour, Soy Muffins and Plasma after Consumption of Muffins by Healthy Adults **E.M.T. Padhi, A. Hawke, R. Liu, H. Zhu, A.M. Duncan, R. Tsao and D.D. Ramdath.** Agr. and Agri-Food Canada, Guelph and Univ. of Guelph.
- C387 **I 606.20** Pomegranate Juice Altered Lifespan and Intestinal Fat Deposition in *Ceanorhabditis elegans* Model Organism **J. Zheng, M. Wang, C. Gao, S.B. Heymsfield, R.J. Martin, M.J. Keenan, J.W. Finley, F.L. Greenway, F.M. Enright and Z. Li.** LSU Sch. of Nutr. and Food Sci.; LSU Col. of Sci. and Pennington Biomed. Res. Ctr., Baton Rouge.
- 607. DIETARY BIOACTIVE COMPONENTS: MECHANISMS OF ACTION AND MOLECULAR TARGETS OF DIETARY BIOACTIVE COMPONENTS**
- Poster**
- (Sponsored by: Dietary Bioactive Components RIS)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)
- C388 **I 607.1** A Natural Herbal Beverage Exhibits Significant Cytoprotection and Promotes Nrf-2 Activation in Cells **E. Gumprich, R. Kumar, A. Hussain, A. Sabarwal, A. Ramteke, S. Cho and G. Deep.** Isagenix Intl. LLC and Univ. of Colorado Sch. of Pharm. and Pharmaceut. Sci.
- C389 **II 607.2** Aqueous Cinnamon Extract Protects against Oxygen-Glucose Deprivation-Induced Damage in bEnd.3 Cells **B. Qin, A. Zhao, C. Liu and R. Anderson.** Univ. of Maryland Sch. of Med.; USDA, Beltsville; IN-Ingredients.com, TN and Jiangsu Province Hosp., Nanjing.
- C390 **I 607.3** Phenolic Extracts of Cranberry Positively Modulate Endogenous Antioxidant Defenses and Signalling Pathways against Oxidative Challenge **C. Khoo, M.A. Martin, S. Ramos, R. Mateos, L. Bravo, J. Marais and L. Goya.** Ocean Spray Cranberries Inc., Lakeville, MA and Inst. of Food Sci., Technol. and Nutr., CSIC, Madrid.
- C391 **II 607.4** Microbial Metabolite Butyrate Suppresses Murine Mast Cell Activation **H. Zhang, M. Du, Y. Xue, Q. Yang and M. Zhu.** Washington State Univ. and Univ. of Idaho Sch. of Food Sci.
- C392 **I 607.5** Bitter Melon Improves Glycemic Control and Inflammation in Adipose Tissue of Obese and Diabetic Rats **E. Chang, J.M. Choi, L. Kim and C-Y. Park.** Ewha Womans Univ. and Kangbuk Samsung Hosp., Sungkyunkwan Univ. Sch. of Med., South Korea.
- C393 **II 607.6** 1'-Acetoxychavicol Acetate Accelerates Human Skin Wound Healing **A. Mori, K. Sugawara, D. Tsuruta, I. Matsui-Yuasa and A. Kojima-Yuasa.** Grad. Sch. of Human Life Sci., Osaka City Univ. and Grad. Sch. of Med., Osaka City Univ.
- C394 **I 607.7** *t,t*-Farnesol as a Mevalonate-Derived Inducer of Murine 3T3-F442A Preadipocyte Differentiation **S. Torabi and H. Mo.** Texas Woman's Univ. and Byrdine F. Lewis Sch. of Nursing and Hlth. Professions, Georgia State Univ.
- C395 **II 607.8** The Combination of Docosahexaenoic Acid and Regorafenib Synergistically Inhibits Colon Cancer Cell Growth **X. Cai, G. Zhang and H. Xiao.** Univ. of Massachusetts Amherst.
- C396 **I 607.9** Use of a Fluorometric Microplate Assay to Assess the Activity of Prebiotics and Probiotics against Uropathogenic *E. coli* Adherence to Human Uroepithelial Cells **L.L. Kimble, B.D. Mathison and B.P. Chew.** Sch. of Food Sci., Washington State Univ.
- C397 **II 607.10** Assessment of the Activity of Prebiotics and Probiotics against *E. coli* O157:H7 Adherence to Human Colonocytes Using a Fluorometric Microplate Assay **L.L. Kimble, B.D. Mathison and B.P. Chew.** Sch. of Food Sci., Washington State Univ.
- C398 **I 607.11** Peptides in Common Bean Protein Hydrolysates Inhibit Molecular Target Enzymes in Type-2 Diabetes **L. Mojica and E. Gonzalez de Mejia.** Univ. of Illinois, Urbana.
- C399 **II 607.12** Neuroprotective Effects of Hexane- and Methylene Chloride-Soluble Fractions of *Salicornia herbacea* L. in Mouse Hippocampal HT22 Cells **M.S. Kim, J.Y. Seo, M.H. Kim, J.E. Woo, S.J. Kang, G.R. Jo, H-K. Ji, Z. Erdenebileg, J.H. Jang, J-S. Kim, H.J. Suh and J-S. Kim.** Sch. of Food Sci. and Biotechnol., Kyungpook Natl. Univ.; Podomaul Co. Ltd., Daegu and Gyeongbuk Nat. Color Indust. Inst., Youngcheon, South Korea.
- C400 **I 607.13** Molecular Analysis of Cholestyramine Treatment in Hamster Model Identified CYP51 as Cholestyramine-Responsive Gene **H. Huang, Z. Xie, W. Yokoyama, L. Yu and T.T.Y. Wang.** Univ. of Maryland College Park and USDA, Beltsville.
- C401 **II 607.14** Dietary Fat Composition on Postprandial Systemic Markers of Inflammation and Metabolism **J. Hollis, J. Lyte and N. Gabler.** Iowa State Univ.
- C402 **I 607.15** Influence of Spice and Grape Pomace Extracts on Migraine-Related Indicators In Vitro **M. Slavin, J. Bourguignon, K. Jackson and M-A. Orciga.** George Mason Univ.
- C403 **II 607.16** Piperlongumine Enhances Chemotherapy-Induced Pancreatic Cancer Cell Death **H. Dhillon and K. Reindl.** North Dakota State Univ.
- C404 **I 607.17** Bradford Hill Criteria and the Case for γ -Tocopherol as an Essential Dietary Nutrient in the Prevention of Nitrogen Oxide-Mediated Cellular Damage and Associated Chronic Diseases of Aging **R.V. Cooney and K.E. Schuller.** Univ. of Hawaii at Manoa.
- C405 **II 607.18** Shikonin Prevents Adipogenic Differentiation by Inhibiting Mir-34a **Y.J. Jang, J. Ahn, C-H. Jung and T.Y. Ha.** Korea Food Res. Inst.
- C406 **I 607.19** Gamma-Tocotrienol Inhibits Cytokine-Stimulated NF- κ B Activation by Inducing A20 and Modulating Sphingolipids **Q. Jiang, Y. Wang, N.Y. Park, A. Ma and Y. Jang.** Purdue Univ. and UCSF.
- C407 **II 607.20** Formononetin Enhances the Expression of Genes Related to Adipocyte Differentiation and Insulin Sensitivity **S-Y. Yu, Y. Choi, Y-I. Kwon, R. Wood and Y-C. Kim.** Univ. of Massachusetts Amherst and Hannam Univ., South Korea.

- C408 I 607.21 Quercetin Impacts ETC/OXPPOS Activities in Isolated Hepatic Mitochondria of Mice **X. Guo, L. Wu, S. Clarke and D. Lin.** Oklahoma State Univ.
- C409 II 607.22 Effect of Long-Term Supplementation of Selected Medicinal Herbs on Activity of Intestinal α -Glucosidase and Expression of SI-Complex in Rat Model **J-Y. Lee, Y-R. Kang, H-Y. Choi, S-H. Park, E-m. Park, M-H. Kang, H-D. Jang and Y-I. Kwon.** Hannam Univ. and Genofocus Inc., Daejeon.
- 608. DIETARY BIOACTIVE COMPONENTS: EFFECTS OF DIETARY BIOACTIVE COMPONENTS ON EXPERIMENTAL MODELS OF CHRONIC DISEASE RISK**
- Poster**
- (Sponsored by: Dietary Bioactive Components RIS)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C410 II 608.1 Effect of Caseolamina (*Cassia nomame*) Associated with Phaseolamine (*Phaseolus vulgaris*) Supplementation in Glicemia and Body Weight in Wistar Rats **A.M. Figueiredo, D.S.B. Vulcano and B.P.M. Rafacho.** Univ. do Sagrado Coração and Fac. of Med., São Paulo State Univ., Botucatu
- C411 I 608.2 BV-2 Microglial Cells Used in a Model of Neuroinflammation **K. Ackerman, J. Fiddler, T. Soh and S. Clarke.** Russell Sage Col., NY and Oklahoma State Univ.
- C412 II 608.3 Postprandial Hyperglycemia-Induced Vascular Endothelial Dysfunction Is Unaffected by a Green Tea Containing Starch Confection **T.N. Sapper, E. Mah, J. Ahn-Jarvis, Y. Vodovotz and R.S. Bruno.** The Ohio State Univ.
- C413 I 608.4 California Table Grape Consumption Reduces Adiposity, Hepatic Triglycerides, Lipogenic Gene Expression, and Abundance of Sulfidogenic Bacteria in Mice Fed Butter Fat **J. Baldwin, B. Collins, P. Wolfe, W. Shen, C-C. Chuang, W. Zhong, P. Cooney, H.R. Gaskins and M. McIntosh.** Univ. of North Carolina at Greensboro; Univ. of Illinois at Urbana-Champaign; Wake Forest Sch. of Med. and NCRC, Kannapolis, NC.
- C414 II 608.5 The Effects of Dietary Cinnamic Acid and *p*-Coumaric Acid on Glucose and Lipid Metabolism in Normal Rats Fed a High-Sucrose Diet **K. Kishida, K. Takeshima, Y. Ozaki and H. Ihara.** Kinki Univ. and Wakayama Med. Univ. Sch. of Med., Japan.
- C415 I 608.6 A 6-Month Chronic Toxicity Study on Green Tea Polyphenols in Middle-Aged Ovariectomized Rats **C. Shen, G. Brackee, K.T. Mitchell, X. Song, V. Finckbone, M.D. Tomison, J. Han and J-S. Wang.** Texas Tech Univ. Hlth. Sci. Ctr. and Univ. of Georgia.
- C416 II 608.7 Suppression of Obesity by Black Adzuki Beans (*Vigna angularis*) in High-Fat Diet Fed Obese Mouse Model **M. Kim, S-B. Song and Y. Cha.** Chonbuk Natl. Univ. and Natl. Inst. of Crop Sci., RDA, South Korea.
- C417 I 608.8 Antioxidant and Antiproliferation Effects of Some Egyptian Food Wastes Extracts on HepG2 Cells **K. Awad, A. Abdel Nabi and H.A. Awney.** Ministry of Hlth., Alexandria; Fac. of Agr., Alexandria Univ. and Inst. of Grad. Studies and Res., Alexandria Univ.
- C418 II 608.9 D-Xylose as a Sugar Complement Exerts Antidiabetic Effects in Streptozotocin-Nicotinamide-Induced Diabetic Rats **E. Kim, Y-S. Kim, K-M. Kim, S. Jung, S-H. Yoo and Y. Kim.** Ewha Womans Univ.; TS Corp., Incheon and Sejong Univ., South Korea.
- C419 I 608.10 Sensitive Imaging Techniques Demonstrate LCPUFA-induced Improvements of Brain Structure in Mildly Obesogenic Mice **M.H. Schoemaker, I.A.C. Arnoldussen, H.J. Noordman, V. Zerbi, P.Y. Wielinga, R. Kleemann, G. Gross, E.A.F. van Tol, T. Kooistra and A.J. Kiliaan.** Mead Johnson Pediat. Nutr. Inst., Nijmegen; TNO, Leiden and Radboud Univ. Med. Ctr., Netherlands.
- C420 II 608.11 Influence of Açai Supplementation in Cardiac Remodeling after Myocardium Infarction in Rats **A.M. Figueiredo, B.F. Polegato, A.C. Cardoso, R. Candido, B.P.M. Rafacho, P.P. Dos Santos, D.F. Batista, A.D. Gonçalves, K. Okoshi, P.S.A. Gaiola, L.A.M. Zornoff, M.F. Minicucci and S.A.R. Paiva.** São Paulo State Univ., Botucatu.
- C421 I 608.12 Tart Cherry Intake Reduces Gouty Inflammation in Rats **E.M. Seymour, A. Kirakosyan, J. Wolforth, R. McNish, N. Kondoleon and S. Bolling.** Univ. of Michigan.
- C422 II 608.13 The Soy Tofu By-product, Biji, Ameliorates High Fat Diet-Induced Obesity in C57BL/6J Mice **H.S. Kim, O.K. Yu, M.S. Byun and Y.S. Cha.** Chonbuk Natl. Univ., South Korea.
- C423 I 608.14 D-Xylose Suppresses Adipogenesis and Lipid Abnormalities in High-Fat Diet-Induced Obese Mice **E. Lim, J.Y. Lim, S.A. Jeong, J-H. Shin, P.R. Seok, S. Jung, S-H. Yoo and Y. Kim.** Ewha Womans Univ.; Eulji Univ.; TS Corp., Incheon and Sejong Univ., South Korea.
- C424 II 608.15 Consequences of Chronic Sweetener Intake on Leukocyte Apoptosis **J.A. Estrada, M.A. Rivas García, H.Jr. Sheykh Olya Trujillo and I. Contreras.** UAEM, Toluca, Mexico.
- C425 I 608.16 Cranberry Phenolic Compounds Decrease Fat Accumulation in *Caenorhabditis elegans* **Q. Sun, P. Shen, J. Yang and Y. Park.** Univ. of Massachusetts Amherst and Amherst Regional H.S.
- C426 II 608.17 Effect of Obesity on the Hepatotoxicity of High Dose Oral (-)-Epigallocatechin-3-Gallate **K.D. James and J.D. Lambert.** Penn State.
- C427 I 608.18 Strawberry and Raspberry Phenolics Reduce Fat Accumulation in *Caenorhabditis elegans* **P. Shen, Q. Sun and Y. Park.** Univ. of Massachusetts Amherst.
- C428 II 608.19 Effects of Early Administration of Conjugated Linoleic Acid on Development of Obesity in NescientBasic Helix-Loop-Helix 2 Knockout Mice **Y. Kim, D.J. Good and Y. Park.** Univ. of Massachusetts Amherst and VPI and State Univ.
- C429 I 608.20 Fermented Berry Beverage Phenolics Reduced Fat Mass and Fasting Blood Glucose in High-Fat Fed Mice **M. Johnson and E. Gonzalez de Mejia.** Univ. of Illinois, Urbana.
- C430 II 608.21 Pectin Enhances Efficacy of *Bifidobacterium infantis* against Disease Activity in Dextran Sulfate Sodium-Induced Colitis in Mice **L.L. Kimble, T. Nguyen, B.D. Mathison and B.P. Chew.** Washington State Univ.

- C431 I **608.22** Polyphenols Extracted from Grape Powder Induce Lipogenesis and Glucose Uptake during Differentiation of Murine 3T3-F442A Preadipocytes **S. Torabi and N.M. DiMarco**. Texas Woman's Univ.
- C432 II **608.23** Dietary Plant Lectins Affect Lifespan and Dopaminergic Neurons in *Ceanorhabditis elegans* Model Organism **M. Wang, A. Hockensmith, R.A. Laine, J.N. Keller, S.B. Heymsfield, C. Gao, J. Nguyen and J. Zheng**. LSU Sch. of Nutr. And Food Sci., Col. of Sci. and Pennington Biomed. Res. Ctr., Baton Rouge and Tulane Univ. Sch. of Med.
- C433 I **608.24** Beneficial Effects of a Nutritional Composition on Diabetic Risk Factors and Complications in LDLr^{-/-}. Leiden Mice **M.H. Schoemaker, E.A.F. van Tol, T. Kooistra, R. Kleemann and P.Y. Wielinga**. Mead Johnson Pediat. Nutr. Inst., Nijmegen and TNO, Leiden.
- C434 II **608.25** Dairy-Derived Bioactive Fatty Acids Improve Pancreatic β -Cell Function **J. Kraft, T.L. Jetton, B. Satish and D. Gupta**. Univ. of Vermont.
- C435 I **608.26** The Anti-inflammatory Effects of Wheat Germ Oil on Lipopolysaccharide-Activated Human Monocytic (THP-1) Cells **S. Janthachotikun, S. Peterson, J.L. Fiddler, S.L. Clarke, B. Stoecker, N. Dunford, B.J. Smith and E.A. Lucas**. Oklahoma State Univ.
- C436 II **608.27** *Nigella sativa* Influences GLUT4 through the AMPK Pathway **D. Acevedo, E. Varela, J. Guerra, J. Banu and S.M. Reyna**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- C437 I **608.28** Lower Weight Gain and Plasma and Liver Lipids in DIO Mice Fed Whole Grape Seed Flour Are Associated with Decreased Adipose Inflammatory Pathway Gene Expression **H. Kim, T. Arvik, J-W. Chon, S-Y. Nah, K-h. Seo, G.E. Bartley and W. Yokoyama**. Col. of Vet. Med., Konkuk Univ.; USDA, Albany, CA and Sonomaceuts. LLC, Santa Rosa, CA.
- C438 II **608.29** Green Tea Extract Attenuates NF κ B-Dependent Inflammatory Responses in Diet-Induced Obese Mice with Nonalcoholic Steatohepatitis by Lowering Expression of TNFR1 and TLR4 **J. Li, T.N. Sapper, K.E. Schill, C. Chitchumroonchokchai, M.V. Moller, E. Mah and R.S. Bruno**. The Ohio State Univ.
- C439 I **608.30** Myricetin Ameliorates Liver Steatosis in Diabetic Obese Mice **J-I. Kim, G-Y. Jin, S-J. Kang and A-Y. Lee**. Inje Univ., South Korea.
- C440 II **608.31** In Vivo Neuroprotective Effects of Cinnamon Bioactive Compounds in *C. elegans* and *D. melanogaster* **R.C. Stavinoha, Y. Gomada, B.Y. Jamison and D.A. Vatter**. Texas State Univ., San Marcos; Fukushima Med. Univ. and Village Farms Intl. Inc., Dallas.
- C441 I **608.32** Plant-Derived Bioactive Lipids Impact Glucose Homeostasis and Energy Metabolism in Mice **T.L. Jetton, M. Peshavaria, P. Bay, S. Rowlandson and J. Kraft**. Univ. of Vermont.
- C442 II **608.33** Chronic Intake of Wild Blueberry Extract and Powder Maintains Episodic-Like and Working Memory during Normal Aging in Mice **E. Fromentin, A. Krazem, N. Henkouss, M. Roller and D. Beracochea**. NATUREX-DBS, U.S.; Univ. of Bordeaux and NATUREX SA, FRANCE.
- C443 I **608.34** Probiotics Do Not Enhance Anti-hypertensive Effect of Blueberry Diets in Hypertensive Rats **L. He, C. Blanton, K. Gottschall-Pass and M.I. Sweeney**. Univ. of Prince Edward Island and Idaho State Univ.
- C444 II **608.35** Whole Cranberry Powder Promotes *Bifidobacterium infantis* Attenuation of Disease Activity in Dextran Sulfate Sodium-Induced Colitis in Mice **T. Nguyen, L.L. Kimble, B.D. Mathison and B.P. Chew**. Sch. of Food Sci., Washington State Univ. and Texas A&M Univ.
- C445 I **608.36** Synergistic Effects of Phenolic Mixtures in Human Cell Models of Aging **L. Fisher, T. Ianiro, F. Lau, H. Wang and B. Daggy**. Shaklee Corp., Pleasanton, CA.
- C446 II **608.37** In Vitro and In Vivo Protective Effect of *Artemisia capillaris* Extract on Osteoporosis through Regulation of Osteoclast Differentiation and Bone Resorption Activity **H-D. Jang**. Hannam Univ., South Korea.

Visit the Exhibits

March 29 – March 31

Exhibit Hours

Sunday – Tuesday

9:00 AM – 4:00 PM

Pathology

609. ENDOTHELIUM IN HEALTH AND DISEASE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45–13:45

- D362 **609.1** Anti-atherosclerotic Effect of Sinigrin in ApoE-Deficient Mice **Y.J. Jang and S. Pyo**. Sch. of Pharm., Sungkyunkwan Univ., South Korea.
- D363 **609.2** Ethanol Extract of *Pinus eldarica* Needle Reduces Atherosclerosis in ApoE-Deficient Mice **Y.J. Jang and Y.J. Jung**. Sch. of Pharm., Sungkyunkwan Univ., South Korea.
- D364 **609.3** Pneumococcal Protein PspA Facilitates *Streptococcus pneumoniae*-Induced Pyroptosis **Y.J. Jung and S. Pyo**. Sch. of Pharm., Sungkyunkwan Univ., South Korea.
- D365 **609.4** Wnt5a Signaling in Atherosclerosis, its Effect on OxLDL Uptake and Foam Cell Differentiation **I. Ackers, C. Szymanski, K.J. Duckett, K. McCall and R. Malgor**. Ohio Univ. Heritage Col. of Osteo. Med. and Ohio Univ.
- D366 **609.5** Septic Murine Pulmonary Microvascular Endothelial Barrier Dysfunction In vitro Is Regulated by TIMP3 **V. Arpino, L. Wang, R. Bird, C. Pape, S. Mehta and S.E. Gill**. Lawson Hlth. Res. Inst., London, ON; Schulich Sch. of Med. and Dent., Western Univ. and Schulich Sch. of Med. and Dent., Western Univ., Canada.
- D367 **609.6** Molecular Mechanism of FXa Inhibition by Cufaxapin, the Main Salivary Anticoagulant of the West Nile Virus Vector *Culex quinquefasciatus* **E. Calvo, A.C. Chagas, J.L. Ramirez and J.M.C. Ribeiro**. NIAID, NIH.
- D368 **609.7** Hemostasis in Epileptic Seizures **O. Sanyk, T. Zaporozhets, L. Sanyk and A. Bodulev**. Ukrainian Med. Stomatol. Acad., Poltava; Poltava Reg. Narcot. Dispensary and Hosp. Poltava-South, Ukraine.
- D369 **609.8** Effect of Recombinant Lubricin on Coagulation Parameters in Human Blood **J. Fareed, D. Hoppensteadt, O. Iqbal, S. Abro, P. Sweigert, E. Truitt, G. Jay and W. Hopkinson**. Loyola Univ. Med. Ctr. and Lubris, LLC.
- D370 **609.9** Dilute Russell's Viper Venom Clotting Time Is Useful for the Routine Monitoring of Newer Non-vitamin K Anticoagulants **M. Brayne, J. Kola, D. Hoppensteadt, O. Iqbal and J. Fareed**. Loyola Univ. Med. Ctr.
- D371 **609.10** Endothelial Glycocalyx-Mediated Nitric Oxide Production in Response to Selective AFM Pulling **A.M.T. Weber, R. Mathews and J.M. Tarbell**. City Col. of New York.
- D372 **609.11** Thrombomodulin Inhibits Tissue Factor-Mediated Thrombin Generation in Blood and Prothrombin Complex Concentrates **J. Fareed, D. Hoppensteadt, D. Syed, D. Kahn, M. Mosier and I. Kaul**. Loyola Univ. Med. Ctr.

610. BEYOND THE ENDOTHELIUM: VASCULAR WALL PATHOBIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM–1:45 PM

- D373 **610.1** The Intimal Alteration of Human Varicose Veins Is Associated with Oxidative Stress and Cyclooxygenase-2 Dependent Mechanisms **J.P. Velasco-Martin, A. Aguado, I. Mendez, G. España-Caparrós, M. Salaces, J. Regadera and A.M. Briones**. Autonomous Univ. of Madrid and Moncloa Univ. Hosp., Madrid.
- D374 **610.2** Correlates of Renal Atrophy in Murine 2 Kidney 1 Clip Hypertension **S. Kashyap, R. Ghossan, P.J. Zaia and J.P. Grande**. Mayo Clin.
- D375 **610.3** Role of PDZ4 Domain of PDZK1 in the Regulation of Cholesterol Metabolism via the Hepatic HDL Receptor SR-BI **O. Kocher, G. Birrane, J. Halford, R. Pal, R. Sheng, W. Cho, M. Penman, N. Elowe and M. Krieger**. Beth Israel Deaconess Med. Ctr.; MIT; Univ. of Illinois, Chicago and Broad Inst., Cambridge, MA.
- D376 **610.4** Bovine and Porcine Mucosal Heparins Exhibit Similar Biologic Profiles **J. Fareed, H. Nader, M. Lima, D. Hoppensteadt, J. Walenga, W. Jeske, E. Kumar, W. Raake and M. Bakhos**. Loyola Univ. Med. Ctr.; Fed. Univ. of São Paula and Res. Pharm. and Toxicol., Germany.
- D377 **610.5** In Vivo Tracking and Effects of SPIO-Labeled Mesenchymal Stem Cells in a Porcine Model of Abdominal Aortic Aneurysm **J.R. Li, D.H. Lee, D.K. Han, B. Rawal, K. Briley-Saeboe, V. Mani, V. Gillespie, R. Hajjar, Z. Fayad, R. Tadros and P. Faries**. Mount Sinai Hosp.
- D378 **610.6** Coronary Arteries Injury in a Model of Pulmonary Fat Embolism Syndrome **C.R. Patel, S. Alqalyoobi, D. Naji, B. Herndon, A. Poisner and A. Molteni**. Univ. of Missouri-Kansas City and Univ. of Kansas Med. Ctr.

611. LIVER PATHOBIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM–1:45 PM

- D379 **611.1** Development of a Pretreatment Strategy to Enhance the Efficiency of Hepatocyte Transplantation in Mice **Y.C. Hsu, M-N. Fan, Y.J. Huang, I-S. Yu, C-Y. Chen, Y-M. Wu and S-W. Lin**. Natl. Taiwan Univ. and Natl. Taiwan Univ. Hosp.
- D380 **611.2** Modeling Steatosis and Lipid-Mediated Cell Injury Using Induced Pluripotent Stem Cell-Derived-Hepatocytes **J. Ignatius Irudayam, D. Contreras, S.W. French and V. Arumugaswami**. Cedars-Sinai Med. Ctr. and David Geffen Sch. of Med., UCLA.

- D381 **611.3** The Allosteric Heat Shock Protein Inhibitor YM-01 Protects against Alcohol-Induced Growth Arrest **E. Ganapathy, R. Khachatoorian, H. Patel, V. Arumugaswami and S.W. French, Jr.** UCLA and Cedars-Sinai Med. Ctr.
- D382 **611.4** Increased Activity of the Complement System in the Liver of Patients with Alcoholic Hepatitis **H. Shen, B.A. French, H. Liu, B.C. Tillman and S.W. French.** Harbor-UCLA Med. Ctr.
- D383 **611.5** Suppressive Effects of Novel Oridonin Derivative CYD0625 on Activated Hepatic Stellate Cells **X. Wang, F.J. Bohanon, A.J. Kandathiparampil, C. Rastellini, C. Ding, Y. Ding, J. Zhou and R.S. Radhakrishnan.** Univ. of Texas Med. Branch.
- D384 **611.6** Mice Lacking β -Catenin in Liver Develop Hepatic Fibrosis in Response to Iron Overload **M. Preziosi, S. Singh, T. Ganz and S.P. Monga.** Univ. of Pittsburgh and UCLA.
- D385 **611.7** Anti-fibrotic Effects of Chinese Herbal Formula ALF in Mice **Z. Xin, K. Chi Man, K. Chun Hay, Y. Tai Wai, L. Clara Bik San, L. Ping Chung and F. Kwok Pui.** The Chinese Univ. of Hong Kong.
- D386 **611.8** Activating β -Catenin Mutations and AKT Synergize to Promote Lipogenic Liver Tumors In Mice **J. Tao, X. Li, S. Singh, X. Chen and S.P. Monga.** Univ. of Pittsburgh and UCSF.
- D387 **611.9** GPC3-CD81 Axis in the HCV Mediated Liver Carcinogenesis **Y. Xue, B. Bowen, A. Orr, K. Koral, M. Haynes, A. Bell, S. Paranjpe, W. Mars and G. Michalopoulos.** Univ. of Pittsburgh.

612. ENVIRONMENTAL AND TOXICOLOGICAL PATHOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D388 **612.1** IL-6 Production in Human Bronchial Epithelial Cells in Response to House Dust Mite Allergen **C.C. Lewis and H. Fischer.** Samuel Merritt Univ. and Children's Hosp. Oakland Res. Inst.
- D389 **612.2** Effects of Quercetin and α -Lipoic Acid on α -Cypermethrin-Induced Oxidative Stress in Rats **S.O. Rotimi, E. Ugwu, I. Essien, I.B. Adelani and O.A. Rotimi.** Covenant Univ., Nigeria.
- D390 **612.3** Carnitine Palmitoyltransferase 2 (CPT2) Inhibition in Rats and Dogs Resembles Inborn Human CPT2 Deficiency **M.C. De Vera Mudry, M. Festag, J-C. Hoflack and F. Crameri.** F. Hoffmann-La Roche Ltd., Basel.
- D391 **612.4** 1- Exposure to Ambient Ozone Affects Circulating Progesterone Levels and Ovulation in Mice **C.R. Caruso, N. Cabello, S. DiAngelo and P. Silveyra.** Penn State Col. of Med.
- D392 **612.5** Effects of Imidacloprid on Myogenesis in C2C12 Myoblasts **A. Rutherford, Y. Kim, F. Beppu and Y. Park.** Univ. of Massachusetts Amherst and Tokyo Univ. of Marine Sci. and Technol.
- D393 **612.6** Apratoxin-A Induces Pancreatic Toxicity **S. Akare, K. Condon, S. Eckley, K-C. Huang, Z. Chen, Y. Jiang, Y. Kotake, Y. Van Gessel and D. Hutto.** Eisai Inc., Andover, MA.

613. NEUROPATHOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D394 **613.1** Oxidative Damage Is Correlated with Mitochondrial Autophagy **G. Perry, E.A. Perry, P.I. Moreira, S. Correia, R.J. Castellani, X. Wang, H-g. Lee and X. Zhu.** Univ. of Texas at San Antonio; Case Western Reserve Univ.; Univ. of Maryland Sch. of Med. and Univ. of Coimbra, Portugal.
- D395 **613.2** Protein Expression of Alzheimer's Disease – and Reduced Hippocampal Volume-Risk Loci in Human Hippocampus **S.L. Adams, T. Norman, K. Tilton, S. Seshadri and I. Delalle.** Boston Univ. Sch. of Med. and New England Col. of Optom.
- D396 **613.3** The Landscape of Drug Discovery in Alzheimer's Disease: An Update on Research and Patenting Activity **E. Sohn and E-H. Sohn.** Korea Instn. of Sci. and Technol. Info., Seoul and Kangwon Natl. Univ., South Korea.
- D397 **613.4** Unbiased Measurements of Postnatal Cerebellar Cortical Growth Interpreted Quantitatively through Topological Constraints Suggest Prolonging of Cell Cycle Time in Superficial EGL Progenitors **J. Chang, M. Leung, H.N. Gokozan, P. Gygli, F.P. Catacutan, C. Czeisler and J.J. Otero.** The Ohio State Univ. Col. of Med. and The Ohio State Univ.
- D398 **613.5** Cyclin A2 Promotes DNA Repair and Neural Stem Cell Growth **P.E. Gygli, J.C. Chang, H.N. Gokozan, F.P. Catacutan, T.A. Schmidt, A. Griveau, W. Michowski, M. Wong, K. Palanichamy, P. Sicinski, C. Czeisler and J.J. Otero.** The Ohio State Univ.; UCSF and Dana-Farber Cancer Inst.
- D399 **613.6** Analysis of Glial Activation around Brain Metastases of Breast Tumors in a Mouse Model **S.A. Amico-Ruvio, Y. Shapovalov, C.E. Lamantia, S. Spielman, E.B. Brown and A.K. Majewska.** D'Youville Col., Buffalo and Univ. of Rochester.
- D400 **613.7** Regulation of Actin Interacting Protein Drebrin by Mutations in HSPB1 **M. Mata, X. Sun and D. Fink.** Univ. of Michigan and VA Healthcare Syst., Ann Arbor.
- D401 **613.8** Computational Modeling of a Cytokine Interaction Network in Microglia **W. Anderson, H. Makadia, J. Schwaber and R. Vadigepalli.** Thomas Jefferson Univ.
- D402 **613.9** Modeling Human MEGF10 Myopathy in *Drosophila melanogaster* **B. Matin, H. Blomquist, C. Chen, A.S. Kopin, P.B. Kang and I. Draper.** Tufts Univ., Boston; Boston Children's Hosp.; Tufts Med. Ctr. and Univ. of Florida Col. of Med.
- D403 **613.10** Visualization and Objective Quantification of Autonomic Circuitry in Mouse Area Postrema Using a Genetic Method **H.N. Gokozan, S. Corcoran, C. Czeisler, P.E. Gygli, F.P. Catacutan, F. Baig and J.J. Otero.** The Ohio State Univ.

Pharmacology

614. TOLERANCE AND DEPENDENCE: DRUGS OF ABUSE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D10 **614.1** Naltrexone-Precipitated Opioid Withdrawal and Morphine-Tolerance in Buprenorphine- or Methadone-Treated Mice **C.A. Paronis**. McLean Hosp./Harvard Med. Sch. and Northeastern Univ.

D11 **614.2** Mouse Cerebellar Neuronal Nitric Oxide Synthase Mediates Nicotine – THC Functional Antagonism and Cross-Tolerance **M.S. Dar**. Brody Sch. of Med. at East Carolina Univ.

D12 **614.3** The onset and Decay of Heterologous Tolerance to Morphine after Subcutaneous Injection for Varying Lengths of Time **B.G. Thompson, J.M. McKeel and D.A. Taylor**. Brody Sch. of Med. at East Carolina Univ.

D13 **614.4** **Withdrawn.**

D14 **614.5** Efficacy of Dopamine D3 Receptor Antagonist SR 21502 in Reducing Opioid Tolerance and Dependence **V. Eon, D. Giuvelis, S. Ananthan and E. Bilsky**. Univ. of New England and Southern Res. Inst., Burmingham.

D15 **614.6** Behavioral Analysis of Nicotine Self-Administration **S. Kohut and J. Bergman**. McLean Hosp., Harvard Med. Sch.

D16 **614.7** Convulsant effects of high efficacy synthetic cannabinoid JWH-018 in mice **K.D. Camper, C.O. Caperton, S. Tai and W.E. Fantegrossi**. Spelman Col., GA; Univ. of Arkansas at Little Rock and Univ. of Arkansas for Med. Sci.

615. BEHAVIORAL PHARMACOLOGY: GENERAL

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D17 **615.1** Central Amygdala PACAP in the Behavioral Stress Response **M.P. Seiglie, A. Iemolo, A. Blasio, P. Cottone and V. Sabino**. Boston Univ. Sch. of Med.

D18 **615.2** Use of Daniovision™ to Measure Activity in 3rd Instar *Drosophila melanogaster* Larvae **S. Graham, R.P. Rogers and R.H. Alper**. Univ. of Saint Joseph Sch. of Pharm., CT; Univ. of Saint Joseph and Wentworth Inst. of Technol., MA.

D19 **615.3** Knockdown of the D₂ Autoreceptor from the Ventral Tegmental Area Increases Temporal Impulsivity **K. Bernosky-Smith, Y. Qui, J-X. Li and C. Bass**. D'Youville Col. and Univ. at Buffalo, SUNY.

D20 **615.4** Effects of Cyclic Nucleotide Phosphodiesterase 2 Inhibition on Object Recognition Memory in Mice **L.M. Lueptow, Y. Xu and J.M. O'Donnell**. West Virginia Univ. and Univ. at Buffalo, SUNY.

D21 **615.5** Effects of Synthetic Cannabinoid JWH-018 and Phytocannabinoid Δ^9 -THC on Learning and Memory in Mice **C.O. Caperton, K.D. Camper, S. Tai and W.E. Fantegrossi**. Univ. of Arkansas at Little Rock; Spelman Col., GA and Univ. of Arkansas for Med. Sci.

D22 **615.6** Pharmacological Treatment(?) of Sleep Problems in a Swedish Pediatric Setting **U. Holmbäck and A. Forslund**. Uppsala Univ.

D23 **615.7** Effect of Repeated Exposure to Sleep Restriction on Interleukin 6 Levels in Humans **V.D. Bhatt, M. Diolombi, M. Haack and J. Mullington**. Beth Israel Deaconess Med. Ctr. and Harvard Med. Sch.

D24 **615.8** Selective Antagonism of mGlu5 Alters Sleep-Wake and Spectral EEG and Ameliorates Behavioral Abnormalities in a Rodent Model of Traumatic Stress **M. Nedelcovych, R.W. Gould, X. Gong, A. Felts, M. Grannan, A. Thompson, M. Ivarsson, K. Emmitte, C. Lindsley, J. Conn and C. Jones**. Vanderbilt Univ. and Univ. of Melbourne.

D25 **615.9** Disruption of Normal Sleep Cycles in SULT4A1^{Δ8/Δ8} Mutant Zebrafish **F. Crittenden and C.N. Falany**. Univ. of Alabama at Birmingham.

616. PAIN THERAPEUTICS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D26 **616.1** Meta-analysis of General Anesthesia on Total Knee Angioplasty and Total Hip Angioplasty **J.Y. Tsai**. Col. of Osteo. Med. of Pacific, Western Univ. of Hlth. Sci.

D27 **616.2** BU08028 Displays a Promising Therapeutic Profile as an Analgesic in Monkeys **H. Ding, P. Czoty, G. Cami-Kobeci, D. Sukhtankar, M. Nader, S. Husbands and M-C. Ko**. Wake Forest Sch. of Med. and Univ. of Bath.

D28 **616.3** *Ocimum basilicum* Essential Oil Complexed with β -Cyclodextrin Increases fos Protein Expression in CNS Areas and Produces Analgesic Profile **L.J. Quintans Júnior, S. Nascimento, A.A.S. Araujo, W. De Lucca Júnior, A. Antonioli, J. Quintans and L. Bonjardim**. Fed. Univ. of Sergipe, Brazil.

D29 **616.4** β -Caryophyllene-Complexed in β -Cyclodextrin Produces Antihyperalgesic Activity in Animal Model for Fibromyalgia **J.S. Quintans, L. Quintans Júnior, A.A.S. Araújo, R. Barreto and K. Sluka**. Fed. Univ. of Sergipe, Brazil and Univ. of Iowa.

D30 **616.5** Evaluation of the Anti-Inflammatory and Analgesic Activities of Leaf-Extracts of *Sterculia tragacantha* in Rats **M.O. Abatan and O. Mogbojuri**. Univ. of Ibadan, Nigeria.

D31 **616.6** A Guanidinium Group Containing Dietary Supplement Inhibits ASIC3 **A.S. Agharkar, R.N. Smith and E.B. Gonzales**. Univ. of North Texas Hlth. Sci. Ctr.

D32 **616.7** Anti-hyperalgesic Effects of Imidazoline I2 Receptor Ligands and Their Interactions with Opioids in a Rat Model of Inflammatory Pain **D.A. Thorn, Y. Zhang and J-X. Li**. Univ. at Buffalo and Res. Triangle Inst., NC.

- D33 **616.8** Effects of Incisional Pain on Food-Maintained Responding under Progressive Ratio Schedules of Reinforcement **E. Warner, R. Krivitsky, P. Atherton, T. Pitre, K. Cone, J. Lanpher, D. Giuvelis, E.J. Bilsky and G.W. Stevenson.** Univ. of New England and Univ. of New England Col. of Med.
- D34 **616.9** Combined Treatment with Morphine and Δ^9 -Tetrahydrocannabinol in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal **L.R. Gerak and C.P. France.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- D35 **616.10** Developing Burrowing as a Non-evoked Readout Assessment for Novel Analgesic Drug Efficacy **K. Lindros, D.N. Giuvelis and E.J. Bilsky.** Univ. of New England.
- D36 **616.11** Marble Burying: A Novel Measure of Murine Neuropathic Pain Depressed Behavior **J.L. Wilkerson, K-L. Hsu, M.J. Niphakis, M. van der Stelt, B.F. Cravatt and A.H. Lichtman.** Virginia Commonwealth Univ.; The Scripps Res. Inst. and Leiden Inst. of Chem., Netherlands.
- D37 **616.12** Effects of GAT107, an Allosteric Agonist and Positive Modulator of $\alpha 7$ Nicotinic Acetylcholine Receptors, on Chronic Inflammatory and Neuropathic Pain in Mice **D. Bagdas, J.L. Wilkerson, A.H. Lichtman, G.A. Thakur and M.I. Damaj.** Virginia Commonwealth Univ.; Uludag Univ., Turkey and Northeastern Univ.
- D38 **616.13** Behavioral Effects of the Novel Benzodiazepine Analog Methyl 8-ethynyl-6-(pyridin-2-yl)-4H-benzo[f]imidazo[1,5-a][1,4]diazepine-3-carboxylate (MP-III-024) **B.D. Fischer, B.Z. Hamade, M.M. Poe and J.M. Cook.** Cooper Med. Sch. of Rowan Univ., NJ and Univ. of Wisconsin-Milwaukee.
- D39 **616.14** Nicotine Increases Codeine Analgesia through the Induction of Brain CYP2D Central Activation of Codeine to Morphine **D.M. McMillan and R.F. Tyndale.** Ctr. for Addict. and Ment. Hlth., Toronto and Univ. of Toronto.

617. NEUROPHARMACOLOGY OF SPINAL CORD INJURY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D40 **617.1** B Cell-Targeted Therapy with Anti-CD20 Monoclonal Antibody Reduced Secondary Tissue Damage and Enhanced Behavioral Recovery following Experimental Spinal Cord Injury in Mice **S. Cuzzocrea, D. Impellizzeri, G. Bruschetta, M. Cordaro, R. Crupi and E. Esposito.** Univ. of Messina and Saint Louis Univ. Sch. of Med.
- D41 **617.2** Effect of Co-ultramicrosized Palmitoylethanolamide and Luteolin Association on Neurogenesis in a Mouse Model of Spinal Cord Injury **M. Cordaro, I. Paterniti, R. Siracusa, D. Impellizzeri, R. Crupi, G. Bruschetta, E. Esposito and S. Cuzzocrea.** Univ. of Messina and Saint Louis Univ. Sch. of Med.
- D42 **617.3** Inhibition of Poly(ADP-Ribose) Polymerase Activity Modulates Autophagy Induced by Experimental Spinal Cord Trauma **I. Paterniti, D. Impellizzeri, G. Bruschetta, M. Cordaro, R. Siracusa, S. Cuzzocrea and E. Esposito.** Univ. of Messina and Saint Louis Univ. Sch. of Med.
- D43 **617.4** Fumaric Acid Esters Attenuate Secondary Degeneration and Promote Functional Recovery following Experimental Spinal Cord Injury **E. Esposito, I. Paterniti, M. Cordaro and S. Cuzzocrea.** Univ. of Messina and Saint Louis Univ. Sch. of Med.
- D44 **617.5** Spinal Cord Injury in Rat – Therapeutic Effect of Pentadecapeptide BPC 157 **D. Perovic, G. Buljat, D. Kolenc, D. Drmic, S. Seiwerth and P. Sikiric.** Sch. of Med., Univ. of Zagreb, Croatia.

618. HETEROTRIMERIC G PROTEIN AND SECOND MESSENGER SIGNALING

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D45 **618.1** Small Molecule Inhibitors of Constitutively Active Gsa **R. Pals-Rylaarsdam, J. Carroll, V. Ceja-Ruiz, K. Turcic, E. Jenkins, R. Habbal, M. Raub, J. Cruz and E. Walters.** Benedictine Univ., IL and Rosalind Franklin Univ. of Med. and Sci.
- D46 **618.2** Towards the Identification of Small Molecule Inhibitors of the GIV-Gi Interaction as Potential Anti-metastatic Drugs **V. DiGiacomo, L.T. Nguyen, J.B. Blanco-Canosa and M. Garcia-Marcos.** Boston Univ. Sch. of Med. and IRB Barcelona.
- D47 **618.3** The Molecular Requirements for the G Protein betagamma-SNARE Interaction **Z. Zurawski, C.A. Wells, Y.Y. Yim, S. Alford and H. Hamm.** Vanderbilt Univ. and Univ. of Illinois at Chicago.
- D48 **618.4** Characterization of Small Molecule G $\beta\gamma$ Inhibitors in the Context of Inflammation **J.Y. To, J. Rangel-Moreno, T. Owen, J.H. Anolik and A.V. Smrcka.** Univ. of Rochester.
- D49 **618.5** Molecular Mechanisms of Phospholipase C β Regulation **A.M. Lyon, J.A. Begley, T.D. Manett and J.J. Tesmer.** Purdue Univ. and Univ. of Michigan.
- D50 **618.6** PI4P Hydrolysis Represents a General Mechanism for DAG Generation and PKC/PKD Activation **R. Gil de Rubio, S. Malik, L. Wang and A.V. Smrcka.** Univ. of Rochester.
- D51 **618.7** Identification of Small Molecule Inhibitors Selective for Type 1 Adenylyl Cyclase **T.F. Brust and V.J. Watts.** Purdue Univ.
- D52 **618.8** Epac2 Mediates Cyclic AMP-Dependent Growth Arrest in NS-1 Cells Independently of Rap1 **L.E. Eiden, M.V. Eiden and A.C. Emery.** NIMH, NIH.
- D53 **618.9** PAC1-Gs Coupling through AC6 Mediates NCS/Rapgef2-Dependent ERK Activation in Neuroendocrine Cells **A.C. Emery, M.V. Eiden and L.E. Eiden.** NIMH, NIH.
- D54 **618.10** Rgs8-16 Are Required for Energy Homeostasis in Pancreatic Cancer-Associated Malnutrition **Y. Zolghadri, O. Ocal and T.M. Wilkie.** Univ. of Texas Southwestern Med. Ctr.
- D55 **618.11** RGS4 Differentially Regulates Antidepressant and Locomotor Behaviors In Vivo **C. Nielsen, B. Shirvani, A. Baun, Y. Mao, J. DeVilbiss, L-A. Nyangau, L. Chung, R.R. Neubig, J.R. Traynor and J.N. Talbot.** Col. of Osteo. Med., Touro Univ. Nevada; Col. of Pharm., Roseman Univ. of Hlth. Sci.; Michigan State Univ.; Univ. of Michigan and Roseman Univ. of Hlth. Sci., NV.

- D56 **618.12** Regulator of G Protein Signaling 6, a Novel Suppressor of Bladder Carcinogenesis **J. Yang, L.T. Platt, B. Maity, S-R. Ibeawuchi, A. Stewart, J. Huang, S. Anderegg and R.A. Fisher.** Univ. of Iowa.
- D57 **618.13** Regulator of G Protein Signaling 14 Interacts with 14-3-3 via an H-Ras and G α i-Dependent Mechanism **K.J. Gerber, N.J. Seyfried and J.R. Hepler.** Emory Univ. Sch. of Med.
- D58 **618.14** Subcellular Localization and Oligomerization of R7 RGS Proteins: A Potential Mechanism of Regulating GPCR Signaling **J.K. Tayou, Q. Wang and V. Slepak.** Univ. of Miami Sch. of Med.
- D59 **618.15** RGS2 Protein Degradation Is Mediated by a Novel Cullin 4B/F-Box 44 E3 Ligase Complex **B. Sjogren, A.J. Storaska, S. Swaney and R.R. Neubig.** Michigan State Univ. and Univ. of Michigan.
- D60 **618.16** PKC Activation Leads to Increased RGS2 Protein Levels **L.M. Aschermann and B. Sjogren.** Michigan State Univ.
- D61 **618.17** Systematic Analysis of Yeast F-Box Proteins Reveals a New Role of Ubiquitination in Polarity Establishment **J.B. Sheetz, J.B. Kelley, S.M. Miller, J.H. Hurst, E.G. Young and H.G. Dohlman.** Univ. of North Carolina at Chapel Hill.

619. GENE EXPRESSION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D62 **619.1** NSAIDs Cause Significant Changes in Gene Expression in Small Intestinal Epithelial Cells **K. Silver and J. Lillich.** Kansas State Univ.
- D63 **619.2** Developmental Changes in DNA Methylation of CYP3A5 in Human Liver **C.A. Vyhlidal, C. Bi, R. Gaedigk, S.Q. Ye, S.F. Kingsmore and J.S. Leeder.** Children's Mercy Kansas City, MO.
- D64 **619.3** Sunitinib Induces Growth Inhibition and Apoptosis in Breast Cancer MDA-MB-231 Cells through FOXO3a Signaling Pathway **O.M. Belali, M.A. Ansari and H.M. Korashy.** Col. of Pharm., King Saud Univ.
- D65 **619.4** SPINK5 Expression in Keratinocytes **M. Katsuyama, N.A. Le, M. Demura, H. Tanii, Y. Ota, H. Katsuyama and K. Saijoh.** Kanazawa Univ. Sch. of Med.
- D66 **619.5** Fibroblast Growth Factor 21 Is a Novel Target Gene of Glucocorticoid Receptor **S.G. Vispute, P. Bu, Y. Le and X. Cheng.** Col. of Pharm. and Hlth. Sci., St. John's Univ.
- D67 **619.6** Metabolic and Immunologic Risk Factors for Sulfonamide Hypersensitivity in Retroviral Infection **Y.Y. Wong, B. Johnson and L. Trepanier.** Sch. of Vet. Med., Univ. of Wisconsin-Madison; Sch. of Pharm., Univ. of Wisconsin-Madison and Col. of Engin., Univ. of Wisconsin-Madison.
- D68 **619.7** Regulated Expression of the I Prostanoid Receptor Gene by Androgens: Combined Role for Serum Cholesterol **S.B. Eivers and B.T. Kinsella.** University Col. Dublin.
- D69 **619.8** Evolution of Transcriptional Regulation of Duplicated Fatty Acid-Binding Protein Genes by PPARs in Zebrafish: A Pharmacological Approach **R.B. Laprairie, E.M. Denovan-Wright and J.M. Wright.** Dalhousie Univ., Canada.
- D70 **619.9** Role of SLMAP Genetic Variants in Susceptibility of Diabetes and Diabetic Retinopathy in Qatari Population **R. Upadhyay, R.G. Crystal and H. Ding.** Weill Cornell Med. Col. in Qatar and Weill Cornell Med. Col.
- D71 **619.10** Proteomic Approach to Understanding the Mechanism of Action of New Pharmaceutical Molecules That Impinge on the Eukaryotic Translational Control **S. Peker, D. Ozel Demiralp and B.H. Aktas.** Ankara Univ. Inst. of Biotech.; Harvard Med. Sch. and Brigham and Women's Hosp.
- D72 **619.11** Interacting MicroRNA and mRNA Genes Identify Potential Therapeutic Targets for NSCLC **E.P. Black, M.J. Krentz, W. Wu and A. Stromberg.** Univ. of Kentucky.
- D73 **619.12** Inhibition of Micro-RNA 146a Expression in Lung Fibroblasts by Fluticasone Propionate, Salmeterol Xinafoate, and Related Agents **M.L. Toews, N.A. Schulte, J.K. Bang, S.I. Rennard and X. Liu.** Univ. of Nebraska Med. Ctr.
- D74 **619.13** Opposite Effect of TNF-Alpha and Activin A on CD69 Expression to Modulate Promoter Activity and Expression of Alpha-Globin and Zeta-Globin **H-M. Huang, Y-C. Li and C-W. Liu.** Col. of Med., Taipei Med. Univ.

620. NANOFORMULATIONS IN DRUG THERAPY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D75 **620.1** Nanoformulations of Carfilzomib for Improved Metabolic Stability and Anti-cancer Efficacy **L. Ao, D. Reichel, D. Hu, H-Y. Jeong, K.B. Kim, W. Lee and Y. Bae.** Univ. of Kentucky; Univ. of Illinois at Chicago and Seoul Natl. Univ. Col. of Pharm.
- D76 **620.2** Improvement of Drug Delivery Using Gold Nanoparticle and Berberine Associated to a New Hydrogel System **C.N. Lunardi, C. Rufino, H.R. Oliveira, W.M. Pinheiro, L. Biswaro, R.B. Azevedo and A.J. Gomes.** Univ. de Brasília.
- D77 **620.3** Tamoxifen Loaded in Methacrylate Nanoparticles Evaluated in Breast Cancer Tumor Cells Model **A.J. Gomes, S.S. Barros, C.L.V. Almeida, G.A. Joanitti, R.B. Azevedo and C.N. Lunardi.** Univ. de Brasília.
- D78 **620.4** Antithrombin Perfluorocarbon Nanoparticle Deposition Prevents Stent Thrombosis **R.U. Palekar, C. Vemuri, J.N. Marsh, B. Arif and S.A. Wickline.** Washington Univ. in St. Louis.
- D79 **620.5** The Evaluation of Bac7 Labeled Nanocarriers to Deliver Antiretrovirals as a Pre-exposure Prophylaxis Therapy for HIV Prevention **A. Nelson, D. Adler, D. Myers, Z. Szekely, X. Zhang and P.J. Sinko.** Rutgers Univ. and Rutgers Univ. Sch. of Pharm.
- D80 **620.6** Nanoparticle-Bound Cytolytic Peptide Prodrugs for Cancer Therapy **A.P. Jallouk, R.U. Palekar, H. Pan, P.H. Schlesinger and S.A. Wickline.** Washington Univ. in St. Louis.
- D81 **620.7** Engineering of Supramolecular Taxane Nanoparticles by Computationally Modeling Drug-Lipid Bilayer Interactions **A.A. Kulkarni, P. Pandey, P. Rao, A. Goldman, S. Ray and S. Sengupta.** Brigham and Women's Hosp., Harvard Med. Sch. and Natl. Chem. Lab., Pune, India.

- D82 **620.8** Application of a Platform Nanotechnology for Anti-NF- κ B siRNA Delivery to Metastatic Melanoma **H. Pan, K. Hou, S. Allen, M. Scott and S.A. Wickline**. Washington Univ. in St. Louis.
- D83 **620.9** Engineered Dry Powder Budesonide Particles for Improved Pediatric Inhalation Therapy **B.P. Sullivan, N. El-Gendy and C. Berkland**. Univ. of Kansas.
- D84 **620.10** Expression of GDNF throughout Rat Brain after Intranasal Delivery of hGDNF Plasmid Nanoparticles **A.E. Aly, B.T. Harmon, P.M. Shah, O. Sesenoglu-Laird, L. Padegimas, M.J. Cooper and B.L. Waszczak**. Northeastern Univ. and Copernicus Therapeut. Inc., Cleveland.
- D85 **620.11** Cerium Oxide Nanoparticles Treatment Ameliorates Sepsis-Induced Diaphragm Dysfunction **S. Asano, A. Ravikumar, N.D.P.K. Manne, G. Nandyala, B. Ma, M. Maheshwari, N. Nepal, V. Selvaraj, K.M. Rice and E. Blough**. Marshall Univ.
- D86 **620.12** Encapsulation Technology for Increased Portability of Cell-Based Biosensors **T. Curtis, N. Puoplo, E. Plante, C. Tison and B. Butler**. SUNY at Cortland and Luna Innovations Inc., NY.
- D87 **620.13** Cerium Oxide Nanoparticles Confer Protection against Severe Sepsis Induced Hepatic Inflammation and Injury in Sprague Dawley Rats **N. Manne, R. Arvapalli, N. Nepal, K. Rice and E.R. Blough**. Marshall Univ.
- D88 **620.14** Therapeutic Efficacy of Cerium Oxide Nanoparticles against Sepsis Induced Acute Lung Injury **R. Arvapalli, N.D.P.K. Manne, K.M. Rice and E.R. Blough**. Marshall Univ.

621. OXIDATIVE STRESS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D89 **621.1** In Vivo Evaluation of Two 5-Aminosalicylic Acid Derivatives Considered as Potential Therapeutic Agents **M. Gutierrez Sanchez, M.C. Rosales Hernandez, I.I. Padilla Martinez, J. Correa Basurto and J.E. Mendieta Wejbe**. ESM-IPN and UPIBI-IPN, Mexico City.
- D90 **621.2** Methylene Blue Protects the Liver from Steatohepatitis via AMPK Activation **H. Wu, S.Y. Shin, T.H. Kim and S.G. Kim**. Seoul Natl. Univ.
- D91 **621.3** Neuroprotective Effect of Flavonoids, via Up-regulating Nrf2-ARE Pathway, in MPP⁺-Induced PC12 Cells, as a Model of Parkinson's Disease **P. Kulkarni and K.E. Benzeroual**. Long Island Univ.
- D92 **621.4** Incretins Increase the Tissue Level of Endogenous Antioxidants in Experimental Diabetes Mellitus **E. Adeghate, M. Lotfy and J. Singh**. Col. of Med. & Hlth. Sci., United Arab Emirates Univ.; Col. of Sci., United Arab Emirates Univ. and Sch. of Forensic, Sci., Univ. of Central Lancashire.
- D93 **621.5** Effects of Ginger Juice Aflatoxin-Induced Oxidative Stress in Rats **S.O. Rotimi, I.B. Adelani, A. Okafor, W.O. Iyanda-Joel and O.A. Rotimi**. Covenant Univ., Nigeria.
- D94 **621.6** Effects of Quercetin and α -Lipoic Acid on Acetylcholine Esterase and Paraoxonase Activities in α -Cypermethrin-Treated Rats **S.O. Rotimi, B.B. Adelani and O.A. Rotimi**. Covenant Univ., Nigeria.
- D95 **621.7** In silico and In Vitro Evaluation of Benzothiazole Derivatives with Inhibitory Activity on 11-beta-Hydroxysteroid Dehydrogenase Type 1 **L.C. Cabrera Perez, I.I. Padilla Martinez, A. Cruz, J. Correa Basurto, M.C. Rosales Hernandez and J.J. Loera Pineda**. Sch. of Med., Natl. Polytech Inst.
- D96 **621.8** Sex Differences in Antioxidant Activity in Sub-chronic Low-Level Inorganic Mercury Exposure **A.D. Wusu, O.O. Ogunrinola, S.N. Olaitan, O.M. Balogun, O.O. Ojo and O. Ademuyiwa**. Lagos State Univ. and Fed. Univ. of Agr., Abeokuta, Nigeria.
- D97 **621.9** Protective Effects of Resveratrol against UVA-Induced Damage in ARPE19 Cells **C-F. Hung, C-M. Chan and C-C. Su**. Sch. of Med., Fu Jen Catholic Univ., Taiwan.
- D98 **621.10** Determination of the Effects of Nrf2 upon the Early Events of Jurkat T Cell Activation by Use of CRISPR-CAS9 Mediated Mutation **J.W. Zagorski, A.E. Turley, T.P. Maser and C.E. Rockwell**. Michigan State Univ.
- D99 **621.11** iNOS Contributes to Trichloroethene-Mediated Autoimmunity **G. Wang, J. Wang, M. Wakamiya, G.A.S. Ansari and M.F. Khan**. Univ. of Texas Med. Branch.
- D100 **621.12** Studies on the Synaptic Facilitation Effect of Hydrogen Peroxide in the Developing Neuromuscular Synapse **J-C. Liou and Y-C. Wu**. Natl. Sun Yat-sen Univ., Taiwan.
- D101 **621.13** FP Prostanoid Receptor Mediated Up-regulation of Hypoxia-Inducible Factor-1 α through Activation of Mitogen-Activated Protein Kinase and Reactive Oxygen Species Signaling Pathways **C.M. Sanchez, W. Xu, C-L. Chou and J.W. Regan**. Col. of Pharm., Univ. of Arizona and MD Anderson Cancer Ctr., Univ. of Texas.
- D102 **621.14** Inhibition of Sepiapterin-Mediated Formation of Dihydrobiopterin and Chemical Redox Cycling by Sulfa Drugs **S. Yang, Y-H. Jan, V. Mishin, J.R. Richardson, N.D. Heindel, D.E. Heck, D.L. Laskin and J.D. Laskin**. Rutgers Univ., Piscataway; Lehigh Univ. and New York Med. Col.
- D103 **621.15** Effects of Augmented O-GlcNAcylation on Activation and Differentiation of Macrophages **C.Z. Zanotto, V. Olivon, F. Mestriner, J. Alves Filho, F. Carneiro and R. Tostes**. Ribeirão Preto Med. Sch., Univ. of São Paulo.

622. PHASE II DRUG METABOLIZING ENZYMES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D104 **622.1** Very High Accuracy Prediction of UDP-Glucuronosyltransferase Sites of Metabolism **S.J. Swamidass and L. Dang**. Washington Univ. in Saint Louis.
- D105 **622.2** Identification of MicroRNAs Involved in the Regulation of Human UGT1A, UGT2B7 and UGT2B15 Gene Expression **I. Papageorgiou and M.H. Court**. Washington State Univ. Col. of Vet. Med.
- D106 **622.3** Metabolism of Opicapone, a Novel COMT Inhibitor: Characterization of In Vitro Glucuronidation **A.I. Loureiro, C. Fernandes-Lopes, M.J. Bonifácio, L.C. Wright and P. Soares-da-Silva**. BIAL-Portela & C^a, SA and Fac. of Med., Univ. of Porto.

- D107 **622.4** Triclosan Inhibits the Activity of Expressed Human Sulfotransferases towards Their Diagnostic Substrates **M.O. James, S. Ambadapadi and C.N. Falany**. Univ. of Florida and Univ. of Alabama at Birmingham.
- D108 **622.5** Cofactor Dependent Cooperation between Dimeric hSULT1B1 Subunits **Z.E. Tibbs and C.N. Falany**. Univ. of Alabama at Birmingham.
- D109 **622.6** Identifying the Structure-Function Activity of Human Cytosolic Sulfotransferase 1C4 **A.L. Guidry and C.N. Falany**. Univ. of Alabama at Birmingham.
- D110 **622.7** Metabolism of Opicapone, a Novel COMT Inhibitor, in the Rat: Characterization of In Vitro Sulfation **A.I. Loureiro, C. Fernandes-Lopes, L.C. Wright and P. Soares-da-Silva**. BIAL - Portela & C^a SA, Portugal and Fac. of Med., Porto.
- D111 **622.8** In Vitro Acetylation of Seven Anti-glaucoma Agents in Rat, Rabbit and Human Ocular and Liver S9 Fractions **J.L. Bushee, C.E. Dunne and U.A. Argikar**. Novartis, Cambridge, MA and Colorado State Univ.
- D112 **622.9** Glutathione Transferase Zeta 1 Inactivation by Dichloroacetate Differs in Rat Liver Cytosol and Mitochondria **M. Smeltz, G. Zhong, S. Jahn, L. Rowland-Faux, Z. Hu, P.W. Stacpoole and M.O. James**. Univ. of Florida.
- D120 **623.8** Role of Angiotensin II-Associated Mitochondrial Superoxide in Inhibiting Ferrochelatase Activity and Disrupting Heme Biosynthesis Regulation of Coronary Artery Soluble Guanylate Cyclase Expression **D. Patel, R. Alhawaj, M.R. Kelly, D. Sun and M.S. Wolin**. New York Med. Col.
- D121 **623.9** sGC Stimulator Efficacy Beyond Blood Pressure in Dahl-Salt Sensitive Model of Hypertension **C. Shea, S. Ranganath, G. Liu, D. Wachtel, P. Germano, J. Tobin, S. Rivers, J. Im, J. Sheppeck II, T. Nakai and J. Masferrer**. Ironwood Pharmaceut., Cambridge.
- D122 **623.10** The Effects of Central Delivery of a Positive Allosteric Modulator of GABA_A Receptors upon Stress and Hypertension in Schlager Hypertensive Mice **E. Stevenson, E. Johns, K. Jackson, R. Evans, F. Marques, P. Davern and G. Head**. Baker IDI Heart and Diabetes Inst.; Monash Univ. and Federation Univ., Australia.
- D123 **623.11** Ethanol Discontinuation Does Not Fully Reverse Its Chronic Effects on Blood Pressure, Heart Rate, and Their Variability in SHR: Diurnally-Unrelated Effects **M.M. El-Mas and A.A. Abdel-Rahman**. East Carolina Univ.

624. HYPOTENSION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

623. HYPERTENSION AND BLOOD PRESSURE REGULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D113 **623.1** Endocannabinoid GPR18 Receptor Activation Confers Cardiovascular Protection in Diabetic Rats **A.I. Ahmed and A.A. Abdel-Rahman**. East Carolina Univ.
- D114 **623.2** Salt-Sensitive Hypertension Is Associated with Reduced Urea Transporter B Expression in the Choroid Plexus and Increased Na⁺ Concentration in the Cerebrospinal Fluid **L. Guo, L. Sun, S. O'Rourke and C. Sun**. Jilin Univ., China and North Dakota State Univ.
- D115 **623.3** Endothelial Dysfunction in DOCA-salt Hypertensive Mice: A Role for nNOS-derived Hydrogen Peroxide **G.C. Silva, J.F. da Silva, T.F. Diniz, V.S. Lemos and S.F. Cortes**. Fed. Univ. of Minas Gerais, Brazil.
- D116 **623.4** Activation of the Prostanoid EP3 Receptor Mediates Central Nicotinic Acid-Evoked Pressor Response in Conscious Rats **S. Rezaq and A. Abdel-Rahman**. East Carolina Univ. Brody Sch. of Med.
- D117 **623.5** sGC Stimulation Results in Potent Anti-hypertensive Effects as a Stand-Alone or Combination Therapy in the Rat **J. Tobin, R. Jefferson, C. Shea, E. Solberg, K. Long, T. Nakai, J. Moore, J. Sheppeck II, P. Germano, J. Wakefield, K. Sykes, S. Rivers and J. Masferrer**. Ironwood Pharmaceut., Cambridge, MA.
- D118 **623.6** The Cardiovascular Effects Produced by Intracerebroventricular Microinjection of N/OFQ in Angiotensin II/High Salt Diet Rats **T. Nguyen, B. Hollister, C. Franklin and H. Gottlieb**. UIW Feik Sch. of Pharm., San Antonio.
- D119 **623.7** Midlife Ovariectomy Increases Blood Pressure in Long-Evans Rats and Is Attenuated by Transient or Continuous Estradiol Treatment **M.A. Zimmerman, S.N. Kashyap, E.H. Trimmer, J.M. Daniel and S.H. Lindsey**. Tulane Univ.
- D124 **624.1** Estrogen-Dependent Upregulation of the Renin Angiotensin System and Constitutive NOS Accounts for Ethanol Enhancement of Enalapril-Evoked Hypotension in Telemetered Female Rats **M.M. El-Mas and A.A. Abdel-Rahman**. East Carolina Univ.
- D125 **624.2** Involvement of Two Distinct Signalling Pathways in IGF-1-Mediated Central Control of Hypotensive Effects in Normotensive and Hypertensive Rats **C.-J. Tseng and P.-W. Cheng**. Kaohsiung Veterans Gen. Hosp., Taiwan.
- D126 **624.3** Intralipid Reverses Propofol-Mediated Hypotension in Rats **S.L. Bourque, S. Panahi, R. Mittal, C. Moher and F.S. Gragasin**. Univ. of Alberta.
- D127 **624.4** Central Pathways of MAPK_{p38} and MAPK_{JNK} Mediate TNF α /iNOS-Dependent Endotoxic Manifestations of Hypotension and Compromised Heart Rate Variability in Rats **M.Y. Sallam, S.M. El-Gowilly, A.-G.A. Abdel-Galil and M.M. El-Mas**. Fac. of Pharm., Alexandria Univ., Egypt.
- D128 **624.5** Atypical Antipsychotic Off Label Use: Should We Worry about Cardiovascular Complications? **J.D. Packer, K.L. Houseknecht and A.J. Davidoff**. Univ. of New England Col. of Osteo. Med., and Univ. of New England Col. of Pharm.
- D129 **624.6** Cerebral Bioenergetics in Hypovolemic Shock: Mechanistic Insights into the Efficacy of EF24 **G. Rao, X. Jun, A. Hussain, A. Hedrick and V. Awasthi**. Col. of Pharm., Univ. of Oklahoma Hlth Sci. Ctr.
- D130 **624.7** Therapeutic Potential of S43126 to Treat Select Patients with Type 2 Diabetes and Hypertension **L.P. Edwards, A. Manaenko, L. Crane, G. Baziard-Mouysset and C. Nunemaker**. Univ. of Texas Sch. of Dent.; Loma Linda Univ.; Univ. Paul Sabatier, Toulouse and Univ. of Virginia.

D131 **624.8** Effect of Pentoxifylline on the Hypertension in Insulin Resistance: Role of Low-Grade Inflammation **A. Azhar and H.M. El-Nassossy**. Fac. of Med., King Abdulaziz Univ.; Fac. of Pharm., Zagazig Univ., Egypt and Fac. of Pharm., King Abdulaziz Univ., Saudi Arabia.

625. ENDOTHELIAL CELL DYSFUNCTION

– GENERAL

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D132 **625.1** Role of Krüppel-Like Factor (Klf4) in Pulmonary Fibrosis **T. Perkins and K. Wary**. Univ. of Illinois at Chicago.
- D133 **625.2** cAMP-Signaling via EPAC1 Mediates Vascular Endothelial Cell Adaptation to Fluid-Shear Stress **S.N. Rampersad, F. Hubert, M.B. Umana, S. Freitag, N. Butler, P. Brzezinska, A. Wudwud and D.H. Maurice**. Queen's Univ., Canada.
- D134 **625.3** Myeloid Differentiation Factor-88 Deficiency Protects against Lipopolysaccharide-Induced Endothelial Dysfunction **S.P. Didion, J.D. Sims and Z.K. Baldwin**. Univ. of Mississippi Med. Ctr.
- D135 **625.4** Endothelial Focal Adhesion Kinase Transcriptionally Regulates S1P1 to Maintain Lung Vascular Barrier Function **P. Yazbeck and D. Mehta**. Univ. of Illinois at Chicago.
- D136 **625.5** Different Responses in CX3CL1/CX3CR1 and TNF- α /TNFRSF1A Signaling Pathways to Aspirin in Human Umbilical Vein Endothelial Cells **D. Szukiewicz and A. Stangret**. Med. Univ. of Warsaw.
- D137 **625.6** The Protective Role of Glutaredoxin-1 in Endothelial Barrier Regulation and Atherosclerosis **J. Han, R.A. Cohen and R. Matsui**. Boston Univ.
- D138 **625.7** P2Y2 Receptor Control of Tissue Factor Transcription in Human Coronary Artery Endothelial Cells: New AP-1 Site and Negative Regulator **Y. Liu, L. Zhang, C. Wang, S. Roy and J. Shen**. Auburn Univ.

626. ENDOTHELIAL CELLS AND INFLAMMATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D139 **626.1** Metformin Inhibits Endoplasmic Reticulum Stress & Attenuates Autophagy in Glucose Starved Microvascular Endothelial Cells **S.M. Samuel, S. Ghosh, H. Ding and C.R. Triggle**. Weill Cornell Med. Col. in Qatar.
- D140 **626.2** Simvastatin, Atorvastatin, and Pravastatin Equally Improve Cardiovascular Status in Diabetic Rats by Improving Endothelial Function, and Reducing Perivascular Fibrosis and Oxidative Stress **J. Quidgley, M.J. Crespo and N. Cruz**. Univ. of Puerto Rico Sch. of Med.

D141 **626.3** Increased Energy Expenditure Induced by Ptp1b Deletion in Proopiomelanocortin Neurons Leads to Inflammation and Endothelial Dysfunction **T. Bruder-Nascimento, K.K. Bence and E.J. Belin de Chantemele**. Georgia Regent Univ. and Univ. of Pennsylvania.

D142 **626.4** Elementary Ca²⁺ Release Events through IP3 Receptors in the Intact Endothelium **S.K. Sonkusare and M.T. Nelson**. Univ. of Vermont.

D143 **626.5** Neddylation Promotes Vascular Endothelial Dysfunction: A Role for Histone Deacetylases 2 and Arginase 2 **D. Pandey, D. Hori, J.H. Kim, D.E. Berkowitz and L. Romer**. Johns Hopkins Univ.

D144 **626.6** DNA-Dependent Protein Kinase Inhibition Blocks Asthma in Mice and Modulates Human Endothelial and CD4⁺T Cell Function without Causing SCID **K. Pyakurel, M. Ghonim, J. Ju, P. Rodriguez, M. Lammi, C. Davis, M. Abughazleh, A. Naura and H. Boulares**. LSU Hlth. Sci. Ctr., New Orleans.

D145 **626.7** Oroxylin A-Induced Endothelium-Dependent Constriction of Tail Arteries of Endotoxemic Hypotensive Rats **T-L. Tseng, M-F. Chen, C-H. Liu and T.J. Lee**. Buddhist Tzu Chi Gen. Hosp.; Inst. of Med. Sci.; Pharmacol&Toxicol; Tzu Chi Univ., Taiwan; Tzu Chi Ctr. of Vas Med. and So. Illinois Univ. Sch. of Med.

D146 **626.8** Tideglusib, an Allosteric Inhibitor of Glycogen Synthase Kinase-3 β Increases Angiogenic Activities of Endothelial Cells **J. Baruah and K.K. Wary**. Univ. of Illinois at Chicago.

627. VASCULAR SIGNALING - ENDOTHELIUM

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D147 **627.1** The Contribution of Adenosine Receptor Subtypes to Vascular Tone in Mouse Pudendal Artery **H. Labazi, S.L. Tilley, C. Ledent and S.J. Mustafa**. West Virginia Univ.; Univ. of North Carolina at Chapel Hill and Univ. Libre de Brussels.

D148 **627.2** Gender Difference in Coronary Endothelial Dysfunction in ApoE Knockout Mouse Atherosclerosis Model: Role of NO and A_{2A} Adenosine Receptor **X. Zhou, B. Teng and S.J. Mustafa**. West Virginia Univ.

D149 **627.3** Gravin Scaffolding Protein Mediates Signaling Involved in the Regulation of Hyperlipidemia and Atherosclerosis **Q. Fan, C.S. Wijaya, A. Diaz Diaz, H. Vo and B.K. McConnell**. Col. of Pharm., Univ. of Houston.

D150 **627.4** Differential Synergy with Nitric Oxide across a Panel of Soluble Guanylate Cyclase Stimulators **K. Long, K. Tang, R. Sarno, R. Solinga and J. Masferrer**. Ironwood Pharmaceut., Cambridge, MA.

D151 **627.5** ER- α Receptors Have More Prominent Depressor Role on Vasoconstrictive Sensitivity in Treated and Untreated Ovariectomized Rat Mesentery Artery **T. Akhayeva and G. Ozansoy**. Astana Med. Univ., Kazakhstan and Ankara Univ., Turkey.

D152 **627.6** Evaluation of the Cardiovascular Responses in Nicotinamide+Streptozotocin Diabetic Pithed Rats **D. Centurion, M. Torres-Gutierrez, E.J. Gutierrez-Lara and A. Sanchez-Lopez**. Cinvestav, Mexico City.

- D153 **627.7** ADAM 17 Regulates S1PR1 Surface Expression by Its Ectodomain Shedding Thereby Disrupting Endothelial Barrier Function **M.F. Uddin, S. Sukriti, B. Desai, A.B. Malik, A. Ludwig and D. Mehta.** Univ. of Illinois at Chicago and RWTH Aachen Univ., Germany.
- D154 **627.8** Increased Role for Large Conductance, Calcium-Activated K Channels (BK_{Ca}) in Endothelium-Dependent Relaxation of Nitrate Tolerant Mesenteric Arteries **M. Sane, A. Mughal, C. Sun and S. O'Rourke.** North Dakota State Univ.
- D155 **627.9** Shear Stress Potentiates TRPV4 Effects on Acetylcholine-Dependent Vasodilatation **W.G. Darby, S. Potocnik, M. Hollenberg, O.L. Woodman and P. McIntyre.** Sch. of Med. Sci., RMIT Univ., Australia and Univ. of Calgary, Canada.
- D156 **627.10** AP2M1 Induced Internalization of TRPC6 Regulates Calcium Influx **H. Piplani, S. Sukriti, T. Sharma, O.J. Meyer and D. Mehta.** Univ. of Illinois Col. of Med., Chicago.
- D157 **627.11** Cytochrome P-450 Epoxygenase 2J2 Modulates Adenosine Receptor-Mediated Vascular Response in Mouse Mesenteric Arteries **V.R. Yadav, D.C. Zeldin, S.J. Mustafa, S. Xie and M.A. Nayeem.** West Virginia Univ. and NIEHS, NIH, Research Triangle Park.
- D158 **627.12** Mechanisms of Uridine Adenosine Tetraphosphate (Up₄A)-Induced Contraction in Mice Aorta: Role of Thromboxane (TXA₂) and Purinergic Receptors (P₂R) **Z. Zhou, C. Sun, S. Tilley and S.J. Mustafa.** West Virginia Univ. and Univ. of North Carolina at Chapel Hill.
- D159 **627.13** Increased Endothelial Expression of Human Cytochrome P450 Epoxygenase 2J2 Positively Modulates Coronary Reactive Hyperemia in Isolated Mouse Heart **A. Hanif, D.C. Zeldin, J. Falck and M.A. Nayeem.** West Virginia Univ.
- D164 **628.5** Acid Inhibitors Exacerbate *H. pylori*-Induced Gastritis Both In Vitro and In Vivo **A. Yanaka.** Univ. of Tsukuba, Japan.
- D165 **628.6** The Role of Toll-Like Receptor 4 in Enteric Glia **S.M. Bhave, P. Brun, W.L. Dewey and H.I. Akbarali.** Virginia Commonwealth Univ.
- D166 **628.7** *Helicobacter heilmannii sensu lato*-Induced MALT Lymphoma Formation in Lacrimal Gland as well as Fundic Gland in C57BL/6 Mouse: Effect of Aprepitant **M. Nakamura, H. Matsui and T. Takahashi.** Sch. of Pharm., Kitasato Univ. and Kitasato Inst. for Life Sci., Kitasato Univ.
- D167 **628.8** A "Histodilutional Barrier" Formed in Gastric Mucosa by VEGF Pretreatment Protects Ethanol-Induced Hemorrhagic Gastric Erosions in Rats **X. Deng, X. Xiong and S. Szabo.** Univ. of California, Irvine and VA Med. Ctr., Long Beach.
- D168 **628.9** Inhibition of miR122a by *Lactobacillus rhamnosus* GG Culture Supernatant Increases Intestinal Occludin Expression and Protects Mice from Alcoholic Liver Disease **L. Liu, C. Zhao, C. McClain and W. Feng.** Univ. of Louisville.
- D169 **628.10** BPC 157 Counteracts Gastric Lesions after Bilateral Nephrectomy and Attenuates Deleterious Course in Rats **D. Drmic, M. Sucic, A. Zenko Sever, D. Kolenc, J. Suran, S. Seiwert and P. Sikiric.** Sch. of Med., Univ. of Zagreb, Croatia.
- D170 **628.11** P21-Activated Kinase, a Novel Drug Target for the Treatment of Postoperative Ileus **K. Uray, D. Bhattarai and C.S. Cox.** Univ. of Texas Med. Sch. at Houston.
- D171 **628.12** Chronic but Not Acute Exposure to Morphine Enhances nAChR Mediated Responses in Enteric Neurons **A. Gade, I.I. Damaj, W.L. Dewey and H.I. Akbarali.** Virginia Commonwealth Univ.
- D172 **628.13** HIV-1 Tat Sensitizes Enteric Neurons to Bacterial Proteins **J. Ngwainmbi, P. Brun, M. Kang, W. Dewey, K.F. Hauser and H.I. Akbarali.** Virginia Commonwealth Univ.
- D173 **628.14** Aggravation by Clopidogrel, an Antiplatelet Drug, of Antral Damage Induced by NSAID in Rats: A Prophylactic Effect of Antiulcer Drugs **K. Takeuchi, K. Yamasaki, C. Izuhara and H. Nishio.** Kyoto Pharmaceut. Univ. and Gen. Inc. Assn., Kyoto Res. Ctr. for GI Dis.

628. GI PHARMACOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D160 **628.1** Exendin Increases Gastric Acid Secretion in the Anesthetized Rat **M.K. Shadoan, D.L. Anderson, N. Rajpal, M.J. Numerick, S.W. Dennis and A.A. Young.** GlaxoSmithKline, Research Triangle Park.
- D161 **628.2** L-Type Calcium Channels Contribute to 5-HT₃-Receptor-Evoked CaMKII α and ERK Activation and Induction of Emesis in the Least Shrew (*Cryptotis parva*) **N.A. Darmani, T.E. Hutchinson, W. Zhong and S. Chebolu.** COMP, Western Univ. of Hlth. Scis.
- D162 **628.3** Transforming Non-ulcerogenic Stress Stimuli into Gastric Ulcerogenic Ones under the Circumstances of Inhibition of the Hypothalamic-Pituitary-Adrenocortical Axis **L. Filaretova, M. Myazina and T. Bagaeva.** Pavlov Inst. of Physiol., Russian Acad. of Sci., St. Petersburg.
- D163 **628.4** Regulation of Somatic Pain Sensitivity under the Circumstances of Indometacin-Induced Gastric Injury: Participation of Corticotropin-Releasing Factor **L. Filaretova, T. Bagaeva and N. Yarushkina.** Pavlov Inst. of Physiol., Russian Acad. of Sci.

629. CANCER BIOLOGY AND PREVENTION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D174 **629.1** WWOX Regulation of Cancer Stem Cell Sphere Formation **Y-A. Chen, P-Y. Chou, H-F. Chen and N-S. Chang.** Natl. Cheng Kung Univ., Taiwan; Natl. Taiwan Univ.; SUNY Upstate Med. Univ. and NYS Inst. for Basic Res. in Develop. Disabil.
- D175 **629.2** Evaluation of CCR1 Antagonists on CCL3-Mediated Receptor Internalization **A. Gilchrist and K.J. Cook.** Midwestern Univ., IL.
- D176 **629.3** Silibinin Inhibits Glioblastoma Cell Proliferation via Akt/S6/4EBP1 and Stat3 Signaling Pathways In Vitro **I. Us and K.E. Benzeroual.** Long Island Univ.

- D177 **629.4** Transglutaminase 2 as a Possible Chemotherapeutic Target in Glioblastoma Multiforme **A. Monteagudo, S. Gundemir, J. Keillor and G.V.W. Johnson.** Univ. of Rochester and Univ. of Ottawa.
- D178 **629.5** The Zinc Finger Transcription Factor Mds1-Evi1 Forms a Novel Protein Complex in MLL Leukemia **K. McGlynn, Y. Zhang and A. Perkins.** Univ. of Rochester Med. Ctr.
- D179 **629.6** Alterations in Uromodulin and Microtubule Associated Protein 7 in Human Renal Cell Carcinoma **A. Banes-Berceli, A. Polina, S. Singhal, J. Jammerino, M. Fulton, T. Geddes, B. Thibodeau, G. Wison and J. Hafron.** Oakland Univ. and William Beaumont Hosp., MI.
- D180 **629.7** Leishmanial Lipid Induces Apoptosis in Acute Myeloid Leukemia Cells via Regulating MAPK Signaling **N. Chatterjee and K. Das Saha.** CSIR-Indian Inst. of Chem. Biol., Kolkata.
- D181 **629.8** N-cadherin Upregulation and EMT Progression in As³⁺ and Cd²⁺-Transformed Urothelial Cells **E. Sandquist, S. Somji, D. Sens and S. Garrett.** Univ. of North Dakota Sch. of Med. and Hlth. Sci.
- D182 **629.9** Androgen Regulation of CXCR4/CXCR7 Chemokine Receptors: Disconnect between Transcription and Translation in Androgen-Responsive Prostate Cancer LNCaP Cells **L. Yu, L. Yu and T.T.Y. Wang.** Univ. of Maryland College Park and USDA, Beltsville.
- D183 **629.10** Dual Roles of Claudin-7 in Human Lung Cancer Cell Growth and Metastasis **D.H. Kim, Z. Lu, Q. Lu, M. Shea and Y-H. Chen.** East Carolina Univ.
- D184 **629.11** Paradoxical Roles of PARP-1 in Colon Inflammation and Tumorigenesis **A. Tarhuni, Y. Errami, A. El-Bahrawy, A. Al Khami, A. Naura, H. Brim, H. Ashktorab, P. Rodriguez, A. Ochoa and H. Boulares.** LSU Hlth. Sci. Ctr., New Orleans and Howard Univ.
- D185 **629.12** Opposite Angiogenic Outcome of Curcumin against Ischemia and Lewis Lung Cancer Models: In Silico, In Vitro and In Vivo Studies **X. Li.** Sch. of Basic Med. Sci., Peking Univ.
- D186 **629.13** Chemopreventative Properties of β -Blockers **K.M. Huang, K.H. Cleveland, A. Chang, S. Yeung, Y. Huang and B.T. Andresen.** Western Univ. of Hlth. Sci. and California State Polytech Univ., Pomona.
- D187 **629.14** Rosehip (*Rosa canina*) Extracts Prevent Cell Proliferation and Migration in Triple Negative Breast Cancer Cells **P. Cagle, T. Coburn, A. Shofoluwe and P.M. Martin.** North Carolina A&T State Univ.
- D188 **629.15** The Therapeutic Effect of Vitamin D₃ in Conjunction with Cathelicidin for Gastric Cancer **M. Li, W.K. Wu, L. Zhang, J. Shen, R.L. Chan, F.L. Chan and C.H. Cho.** The Chinese Univ. of Hong Kong.
- D189 **629.16** Identification of a Prostate Cancer Cell Proteinase Activated Receptor/MMP Signaling Axis **M.D. Hollenberg, K. Mihara, Y. Liu and R. Ramachandran.** Univ. of Calgary Cumming Sch. of Med., Canada.
- D190 **629.17** Dysfunctions of the Abdominal Aorta and Renal Arteries in a Mouse Model of Neurofibromatosis Type 1 **K. Jett, H. Chohan, J.Z. Cui, J.M. Friedman, C. van Breemen and M. Esfandiarei.** Univ. of British Columbia and Midwestern Univ., AZ.
- D191 **629.18** A Novel Peptide that Directs Chemotherapy against Breast Cancer Stem Cell **A.C. Lee, T-W. Lee, J. Yu, H-C. Wu and A.L. Yu.** Chung-Gung Mem. Hosp., Taoyuan; Genome Res. Ctr., Acad. Sinica, Taipei and Inst. of Nuclear Energy Res., Taoyuan, Taiwan.
- D192 **629.19** The Role of Neuropilin in Microglia during Glioma Progression **J.T. Miyachi, J.C. Nissen, D.L. Selwood and S.E. Tsirka.** Stony Brook Univ. and Wolfson Inst. for Biomed. Res., London.

Visit the Exhibits

March 29 – March 31

Exhibit Hours

Sunday – Tuesday

9:00 AM – 4:00 PM

Physiology

630. ANGIOGENESIS/ MICROVASCULAR REMODELING

Poster

(Sponsored by: The Microcirculatory Society)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B28 **630.1** Global Intracoronary Allogeneic Cardiosphere-Derived Cells Promote Functional Repair without Affecting Myocardial Perfusion in a Porcine Model of Acute Myocardial Infarction **B.R. Weil, A. Goelz, G. Suzuki, B.A. Palka and J.M. Canty, Jr.** Univ. at Buffalo and VA WNY Healthcare Syst.

B29 **630.2** Caloric Restriction Confers Anti-oxidative, Pro-angiogenic, and Anti-inflammatory Effects and Promotes Anti-aging miRNA Expression Profile in Cerebromicrovascular Endothelial Cells of Aged Rats **A. Csiszar, T. Gautam, D. Sosnowska, S. Tarantini, E. Banki, Z. Tucsek, P. Toth, G. Losonczy, A. Koller, D. Reglodi, C.B. Giles, J.D. Wren, W.E. Sonntag and Z. Ungavri.** Univ. of Oklahoma Hlth. Sci. Ctr.; Univ. of Pecs; Semmelweis Univ., Hungary and Oklahoma Med. Res. Fndn.

B30 **630.3** Age-Related Decline of Autocrine Pituitary Adenylate Cyclase-Activating Polypeptide Impairs Angiogenic Capacity of Rat Cerebromicrovascular Endothelial Cells **E. Banki, D. Sosnowska, Z. Tucsek, T. Gautam, P. Toth, S. Tarantini, A. Tamas, Z. Helyes, D. Reglodi, W.E. Sonntag, A. Csiszar and Z. Ungvari.** Univ. of Oklahoma Hlth. Sci. Ctr.; Univ. Pecs and Univ. of Pécs, Hungary.

B31 **630.4** Vascular Endothelial ACE Deletion Does Not Prevent 20-HETE-Dependent Vascular Remodeling **B. Shkolnik, V. Garcia, K.E. Bernstein, J.R. Falck and M.L. Schwartzman.** New York Med. Col.; Univ. of Texas Southwestern Med. Ctr. and Cedars-Sinai Med. Ctr.

B32 **630.5** Improved Recovery after Myocardial Ischemic Infarction by Copper Supplementation **P. Han, X. Zhou, W. Zhang, Q. Feng, Y. Xiao, X. Sun, X. Zhao, H. Fu and J.Y. Kang.** West China Hosp., Sichuan Univ. and Univ. of Louisville Sch. of Med.

B33 **630.6** Soluble Junctional Adhesion Molecule-B Inhibits Angiogenesis In Vitro **M.O. Carey, C.K. Pickworth, P-S. Tsou, B.A. Imhof, A.E. Koch and B.J. Rabquer.** Albion Col., MI; Univ. of Michigan and Univ. of Geneva.

B34 **630.7** Emerging Role of Epigenetic in Pulmonary Arterial Hypertension Right Ventricular Failure **F. Potus, G. Ruffenach, S. Provencher and S. Bonnet.** Laval Univ., Canada.

B35 **630.8** miR-126 at the Dawn of Angiogenic Defect Seen in PAH Right Ventricular Failure **F. Potus, C. Graydon, W. Ryan, E. Michelakis, S. Provencher and S. Bonnet.** Univ. Laval, Quebec and Univ. of Alberta.

B36 **630.9** Lysophosphatidic Acid Stimulation Does Not Induce a Lymphatic Identity along Blood Vessels in Intact Microvascular Networks Ex Vivo **R.S. Sweat, M.S. Azimi and**

W.L. Murfee. Tulane Univ.

B37 **630.10** Endothelial FoxO Proteins Regulate Obesity-Associated Skeletal Muscle Capillary Rarefaction **E. Nwadozi, E. Roudier, E. Rullman, T. Gustafsson and T.L. Haas.** York Univ., Canada and Karolinska Inst.

B38 **630.11** Characterization of Inflammatory Cell Response to Implanted Porous P-HEMA in the Dermis versus Subcutaneous Tissue **A. Boico, E.H. Cho, L. Liao, J. Register, A. Fales, N.A. Wisnewski, S. Pradhan, T. Vo-Dihn, G. Palmer and B. Klitzman.** Duke Univ. and Profusa Inc., South San Francisco.

B39 **630.12** p18 Regulates Tubulogenesis in the Pulmonary Endothelium through p38/mTOR-Dependent Pathway **H. Chichger, J. Braza, H. Duong, M. Stark and E.O. Harrington.** Alpert Med. Sch. of Brown Univ. and Providence VA Med. Ctr.

631. ATHEROSCLEROSIS/THROMBOSIS/PLATELETS

Poster

(Sponsored by: The Microcirculatory Society)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B40 **631.1** Longitudinal Effects of Menopausal Hormone Treatments on Platelet Characteristics and Cell-Derived Microvesicles **V.M. Miller, B.D. Lahr, K.R. Bailey, J.A. Heit, S.M. Harman and M. Jayachandran.** Mayo Clin. and Kronos Longevity Res. Inst. and Phoenix VA Hlth. Care Syst.

B41 **631.2** Cod Liver Oil Supplementation Effects on 2,3-Diphosphoglyceric Acid Blood Levels in Atherogenic Rabbits **E.L. Beard and E.A. Michals.** Loyola Univ., New Orleans.

B42 **631.3** Endothelial Glycocalyx and Apoptosis in Atherosclerosis **L.M. Cancel, E.E. Ebong and J.M. Tarbell.** City Col. of New York and Albert Einstein Col. of Med.

B43 **631.4** Tobacco Smoke and E-Vapor Initiate Kupffer Cell Inflammatory Responses **D.A. Rubenstein and W. Yin.** Stony Brook Univ.

B44 **631.5** Free Cholesterol-Induced Macrophage Proliferation via Peroxisome-Proliferator Activated Receptor Gamma and Cyclin E Signaling Pathway **X. Xu, X. Yuan, A. Zhang, N. Li, P-I. Li and F. Zhang.** Virginia Commonwealth Univ. Sch. of Med.

B45 **631.6** Exposure to E-Vapor Extracts Alters Platelet Aggregation, Adhesion and Activation **L. Chen, T. Wang, W. Yin and D.A. Rubenstein.** Stony Brook Univ.

B46 **631.7** Advanced Glycation End Products Alters Platelet Aggregation **I. Soaita, W. Yin and D.A. Rubenstein.** Stony Brook Univ.

B47 **631.8** Insulin-Like Growth Factor I Reduces Lipid Oxidation and Foam Cell Formation via Downregulation of 12/15-Lipoxygenase **S. Sukhanov, P. Snarski, C. Kim and P. Delafontaine.** Tulane Univ. Sch. of Med.

B48 **631.9** Novel Nickel Superoxide Dismutase Treatment Delays FeCl₃-Induced Arterial Thrombosis in Rats **Y-T. Sung**

- and **C-T. Chien**. Natl. Taiwan Normal Univ.
- B49 **631.10** Involvement of Mitochondrial DNA Oxidative Damage and Circulating Fragments in Early Stages of Atherogenesis **M.V. Ruchko, S. Sukhanov, O.M. Gorodnya, V.M. Pastukh, S.D. Danchuk, L.I. Rachek and M.N. Gillespie**. Univ. of South Alabama Col. of Med. and Tulane Univ. Hlth. Sci. Ctr.
- B50 **631.11** The Water Channel Aquaporin 1 Is Associated with Human Atherosclerotic Lesions and Attenuates Progression of Atherosclerosis in Male Mice Independent of Blood Pressure **J. Stubbe, P. Wintmo, S.H. Johansen, P.B.L. Hansen, J.S. Lindholt, L.M. Rasmussen, P. Bie and B.L. Jensen**. Univ. of Southern Denmark and Odense Univ. Hosp.
- B51 **631.12** N-Acetylcysteine Prevents In Vivo Oxidation of Native Low-Density Lipoprotein **Y. Cui, C.A. Narasimhulu, L. Liu, Q. Zhang, H. Hao, X. Li, Y. Xiao, J. Zhang, X. Xie, P.Z. Liu, G. He, L. Cui, S. Parthasarathy and Z. Liu**. The Ohio State Univ.; Univ. of Central Florida and Shandong Univ., China.
- B52 **631.13** Histones Stimulate Ultra-Large Von Willebrand Factor Release from Endothelium: A Potential Contributor to the Prothrombotic State in Sepsis **F.W. Lam, M.A. Cruz, K.S. Parikh and R.E. Rumbaut**. Baylor Col. of Med. and Michael E. DeBakey VA Med. Ctr.
- B53 **631.14** Flow Regulates Thrombin Generation Kinetics **W. Yin, K. Bond, M. Musillo and D.A. Rubenstein**. Stony Brook Univ.

632. INSTRUMENTATION

Poster

(Sponsored by: The Microcirculatory Society)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B54 **632.1** Optical Clearing Methods for Large Scale Studies of Renal Morphology **D. Unnersjö-Jess, L. Scott, H. Blom and H. Brismar**. Royal Inst. of Technol., Stockholm and Karolinska Inst., Solna.
- B55 **632.2** A Novel Approach for the Development and Characterization of a Large Animal Model of Traumatic Brain Injury **E. Sivieri, T. Rahman, T.H. Shaffer and M.R. Wolfson**. Temple Univ. Sch. of Med. and Nemours Fndn., Wilmington, DE.
- B56 **632.3** A Non-lethal Large Animal Model of Traumatic Lung Injury **E.M. Sivieri, T. Rahman, T.H. Shaffer and M.R. Wolfson**. Temple Univ. Sch. of Med. and Nemours Fndn., Wilmington, DE.
- B57 **632.4** Time to Reach Steady-State Resting Energy Expenditure in Healthy Adults Using Indirect Calorimetry **C.J. Popp, J. Tisch, W. Bridges, D.A. Traylor, N. Najm and E.D. Jesch**. Clemson Univ.
- B58 **632.5** Considerations for Pulse Wave Analysis: Side Selection and Peripheral Arterial Blood Pressure Calibration **J.S. Martin, A.R. Borges, J.B. Christy IV and D.T. Beck**. Quinnipiac Univ., CT and Univ. of Rhode Island.
- B59 **632.6** Associations between Plasma Antioxidant Capacity and Skeletal Muscle Antioxidant Gene Expression **J.L. Warren, H. Resuehr, S.T. Windham, B. Gower and G. Fisher**. Univ. of Alabama at Birmingham.
- B60 **632.7** Evaluation of Strength and Power Field Testing: A Pilot Study for Predicting Anaerobic Peak Power in Adult Males with Intellectual Disabilities **D.A. Traylor, J.B. Ryan, W. Bridges, C.J. Popp, N. Najm, M. Bohan Brown and E.D. Jesch**. Clemson Univ.

- B61 **632.8** Least Significant Change of Body Composition and Bone Mineral Density Measured by Dual Energy X-Ray Absorptiometry **N. Najm, C.J. Popp, D.A. Traylor and E.D. Jesch**. Clemson Univ.
- B62 **632.9** Design of a LabVIEW-Based Virtual Instrument for Langendorff-Prepared Isolated Heart Experiments **M.D. Olson and M.L. Riess**. Univ. of Minnesota, Minneapolis; VA Tennessee Valley Healthcare Syst. Med. Ctr., Nashville and Vanderbilt Univ.
- B63 **632.10** Maximizing the Max Test: A Method for Determining Cardiorespiratory Fitness and Dysfunction in Mice **J.M. Petrosino, S. Mauyra, A. Kalyanasundaram, J. Wilson, M. Periasamy and O. Ziouzenkova**. The Ohio State Univ. and Univ. of Tampa.

633. LYMPHATIC AND VENULAR FUNCTION

Poster

(Sponsored by: The Microcirculatory Society)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B64 **633.1** Involvement of HCN Channels in Diaphragmatic Lymphatic Pacemaking **D. Negrini, C. Marcozzi, E. Solari, A. Moriondo, E. Bossi, R. Cinquetti and M. Reguzzoni**. Univ. of Insubria, Italy.
- B65 **633.2** Estimation of Pressure Drop Required for Lymph Flow through Initial Collecting Lymphatics **S.A. Stewart, D.C. Sloas and W.L. Murfee**. Tulane Univ.
- B66 **633.3** TNF- α Inhibits Rat Mesenteric Lymphatic Pumping via Activation of the NF- κ B and Upregulation of iNOS **P-Y. von der Weid and Y. Chen**. Univ. of Calgary, Canada.
- B67 **633.4** Involvement of TRPM4 in Stretch-Induced Modulation of Lymphatic Pumping **P-Y. von der Weid, E-B. Cho, R.M. Kratofil and S.S. Lee**. Univ. of Calgary, Canada.

634. MICROCIRCULATORY INFLAMMATION

Poster

(Sponsored by: The Microcirculatory Society)

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B68 **634.1** Pretreatment of Human Polymorphonuclear Leukocytes with a New Carbon Monoxide-Releasing Molecule (CORM401) Inhibits PMN Migration across Vascular Endothelial Cells **K. Inoue, M. Woo, E. Patterson, R.F. Potter, A. Capretta, D.D. Fraser and G. Cepinskas**. Lawson Hlth. Res. Inst., London, ON and McMaster Univ., Canada.
- B69 **634.2** Anti-inflammatory Effects of Dipeptidyl Peptidase IV Inhibition in Heart Failure **T.A. Salles, C. Zogbi, T. Lima, F. Soriano and A.C. Girardi**. Med. Sch., Univ. of São Paulo.
- B70 **634.3** Effects of Arginine Vasopressin Deficiency on Innate Immunity in the Rat **A. Quintanar-Stephano, V. Viñuela-Berni, A. Organista-Esparza, M. Tinajero-Ruelas, E.P. Huerta-Carreón, K. Kovacs and I. Berczi**. Autonomous Univ. of Aguascalientes, Mexico and St. Michael's Hosp., Toronto.

- B71 **634.4** Insulin-Like Growth Factor I (IGF-1) Reduces Chemokines and Recruitment of Monocytes into Atherosclerotic Plaque: Potential Mechanism Mediating IGF-1-Induced Atheroprotection **S. Sukhanov, P. Snarski, Y. Higashi, S-Y. Shai and P. Delafontaine.** Tulane Univ. Sch. of Med.
- B72 **634.5** PMN Depletion Alters Ang-1:Ang-2 and Increases Tie2 Phosphorylation following Hemorrhagic Shock Priming for the Development of iARDS in Mice **J. Lomas-Neira, C-S. Chung, A. Ayala and Y. Chen.** Rhode Island Hosp./Brown Univ.
- B73 **634.6** miR155 Expression Is Increased by Inflammation and Modulates the Expression of CD11a in Monocytes **S. Syed, M.A. Amin and B.J. Rabquer.** Albion Col., MI and Univ. of Michigan.
- B74 **634.7** Homocysteine Elicits an Inflammatory Profile in Murine Macrophages through an EMMPRIN-Mediated Pathway **L.J. Winchester, S. Veeranki, S. Givvimani and S.C. Tyagi.** Univ. of Louisville.
- B75 **634.8** Platelet-Endothelial Association with Fibrinogen/Fibrin, Coupled with Oxidative Stress, Protein Nitrosylation, and Fibrosis May Underlie Pulmonary Endothelial Cell Dysfunction in a Mouse Model of Type 1 Diabetes **A.M. Roberts, R. Jagadapillai, J.T. Dixon, Y. Tan, L. Cai and E. Gozal.** Univ. of Louisville Sch. of Med.
- B76 **634.9** Caveolin-1 Is a Negative Regulator of Adam17 in Adipose Tissue Vascular Endothelium **H. Dou, M. Romero-Lucas and Z. Bagi.** Georgia Regents Univ.
- 635. MICROCIRCULATORY ISCHEMIA/ REPERFUSION/FREE RADICAL BIOLOGY**
- Poster**
(Sponsored by: The Microcirculatory Society)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM—3:00 PM*
- B77 **635.1** Ischemic Tolerance and Conventional Preconditioning Are Impaired by Chronic β_1 -Blockade **L.E. See Hoe, J.M. Schilling, A.R. Busija, D.M. Roth, H.H. Patel and J.N. Peart.** Griffith Univ., Australia; VA San Diego Healthcare Syst. and UCSD.
- B78 **635.2** Ascorbic Acid Supplementation: Influence of Delivery Method on Vitamin C Bioavailability and Capacity to Protect against Ischemia-Reperfusion Injury **J.L. Davis, H.L.R. Paris, J.W. Beals, S.E. Binns, G.R. Giordano, R.L. Scalzo, M.M. Schweder, E. Blair and C. Bell.** Colorado State Univ. and Empirical Labs, Fort Collins.
- B79 **635.3** The Cardioprotective Effects of a NOX1 Inhibitor, ML171, on Myocardial Ischemia/Reperfusion Injury **R. Remarcke, S. Patel, D. Stutzman, R. Ondrasik, I. Devine, H. Patel, W. Chau, S. Patel, C. Peters, E. Smith, C. Pang, R. Barsotti, L. Young and Q. Chen.** Philadelphia Col. of Osteo. Med.
- B80 **635.4** Methylene Blue Mitigates Ethanol Exacerbation of Ischemia-Reperfusion Injury of Cardiomyocytes and Brain Cells **M-g. Ryou, A. Winters, M.T. Robert and S. Yang.** Univ. of North Texas Hlth. Sci. Ctr.
- B81 **635.5** Preventing Nitration of Specific Tyrosine Sites in Adenine Nucleotide Translocase Differentially Protects against Cell Oxidative Stress Injury **M. Yang, W-M. Kwok, M. Bienengraeber, A.K.S. Camara, J.S. Heisner and D.F. Stowe.** Med. Col. of Wisconsin.
- B82 **635.6** Contrasting Effects of Ang II Receptors following Ischemia-Reperfusion in Ang II-Preconditioned Rat Hearts **R.E. Nuñez, M. Castro, S. Javadov and N. Escobales.** Univ. of Puerto Rico Sch. of Med.
- B83 **635.7** Hydrogen Peroxide-Induced Redox Homeostasis Regulation in Endothelial Cells **H. Patel, J. Chen and M. Kavdia.** Wayne State Univ.
- 636. MICROVASCULAR CELL SIGNALING**
- Poster**
(Sponsored by: The Microcirculatory Society)
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM—3:00 PM*
- B84 **636.1** A Role for Hydrogen Sulfide in Obesity-Dependent Microvascular Remodeling **J. Candela, G.V. Velmurugan, V.S. Lin, C.J. Chang and C. White.** Rosalind Franklin Univ. of Med. and Sci. and Univ. of California, Berkeley.
- B85 **636.2** Macrophages Cause Reduced Biosynthesis of Hydrogen Sulfide in the Obese Microvasculature **C. White, G.V. Velmurugan, V.S. Lin, C.J. Chang and J. Candela.** Rosalind Franklin Univ. of Med. and Sci. and Univ. of California, Berkeley.
- B86 **636.3** 3-Methylcholanthrene/Aryl-Hydrocarbon Receptor-Mediated Inactivation of eNOS through a RhoA/Akt-Dependent Mechanism **C-C. Chang and S-H. Juan.** Taipei Med. Univ. Col. of Med.
- B87 **636.4** Role of Endoplasmic Reticulum Stress and Thrombosis in Type 2 Diabetes-Induced Vascular Dysfunction **K. Ait Aissa, M. Kassan, M. Trebak, S. Belmadani and K. Matrougui.** Eastern Virginia Med. Sch.
- B88 **636.5** Recruitment of RGS5 Protein to Mechanically Activated AT₁R in Arteriolar VSMC **K. Hong, M. Li, G.A. Meininger and M.A. Hill.** Univ. of Missouri-Columbia.
- B89 **636.6** A Bioinspired Microfluidic Assay for Investigation of the Role of Protein Kinase C-delta on Leukocyte-Endothelial interactions in Sepsis **F. Soroush, P. Pandian, L. Kilpatrick and M.F. Kiani.** Temple Univ. and CFD Res. Corp., Huntsville, AL.
- B90 **636.7** Interaction of ROS and RNS with GSH and GSH/GPX Systems **J. Chen, B. Bhandar and M. Kavdia.** Wayne State Univ.

637. MICROCIRCULATION I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B91 **637.1** BAY 60-2770, an Activator of Soluble Guanylate Cyclase, Attenuates Postischemic Brain Injury in H129 WT Mice **M. Wang, W.Z. Wang, D.Z. Wang, A.W. Jones and R.J. Korthuis.** Univ. of Missouri-Columbia.
- B92 **637.2** Soluble Guanylate Cyclase Activation during Ischemic Injury in Mice Protects against Postischemic Inflammation at the Mitochondrial Level **D.Z. Wang, A.W. Jones, W.Z. Wang, M. Wang and R.J. Korthuis.** Univ. of Missouri-Columbia.
- B93 **637.3** Inward-Rectifier K⁺ Channels in Vascular Smooth Muscle Prevent Myogenic Tone Development in Mouse Bladder Arterioles **N.R. Tykocki, T.J. Heppner, A.D. Bonev and M.T. Nelson.** Univ. of Vermont.
- B94 **637.4** H₂O₂-Induced Dilation in Human Adipose Arterioles: Role of Smooth Muscle K⁺ Channels **Y. Nishijima and D.X. Zhang.** Med. Col. of Wisconsin.
- B95 **637.5** sCD40L -CD40/VLA- 5 Signaling Contributes to AngII-Induced Thrombosis and Inflammation **E.Y. Senchenkova, J. Russell, S. Vital, A. Yildirim and N. Granger.** LSU Hlth. Sci. Ctr., Shreveport.
- B96 **637.6** Transient Impairment in Endothelial Vasodilation following Excessive High-Volume Endurance Training in Collegiate Female Swimmers **G.P. Van Gulder and F.M. Wehl.** South Dakota State Univ.
- B97 **637.7** Vascular Collateralization Investigated in the Chorio-Allantoic Membrane **A.R. Pries, B. Reglin, W. Rong, B. Nitzsche, M. Maibier, T.W. Secomb and W. Xiang.** Charité; Univ. of Arizona and German Heart Ctr., Berlin.

638. VASCULAR PATHOBIOLOGY I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B98 **638.1** Overexpression of MnSOD Does Not Improve Endothelial Function in Hypercholesterolemic Mice **C.M. Roos, M.A. Hagler, B. Zhang, A.G. Richardson and J.D. Miller.** Mayo Clin and Univ. of Texas Hlth. Sci. Ctr., San Antonio.
- B99 **638.2** Assessment of Endoplasmic Reticulum Stress by Graded Sarcoplasmic Reticulum Ca²⁺ Store Depletion in Coronary Smooth Muscle **S.L. Dineen and M. Sturek.** Indiana Univ. Sch. of Med.
- B100 **638.3** Characterization of Intracellular Ca²⁺ Handling in Vascular Smooth Muscle Cells Isolated from Amputated Human Limbs **R.S. Bruning and M. Sturek.** Indiana Univ. Sch. of Med.
- B101 **638.4** Impairment of Vascular Function in a Mouse Model of Neurofibromatosis Type 1 **K. Jett, H. Chohan, J.Z. Cui, A.Y. Tehrani, J.M. Friedman, C. van Breemen and M. Esfandiarei.** Univ. of British Columbia and Midwestern Univ., AZ.

- B102 **638.5** Assessment of ¹⁸F-NaF Positron Emission Tomography Imaging for Early Coronary Artery Calcification **M.L. McKenney, P.R. Territo, A. Salavati, S. Houshmand, S. Persohn, Y. Liang, M. Alloosh, S.M. Moe, C.M. Weaver, A. Alavi and M. Sturek.** Indiana Univ. Sch. of Med.; Univ. of Pennsylvania; Roudebush VA Med. Ctr., Indianapolis and Purdue Univ.
- B103 **638.6** Cross-talk of Leptin and TSP-1 in Leptin-Induced Atherosclerosis **S. Sahu, R. Ganguly and P. Raman.** Northeast Ohio Med. Univ.
- B104 **638.7** Inhibitory Effect of *Xanthoceras sorbifolia* on TNF- α -Induced Vascular Dysfunction in Human Umbilical Vein Endothelial Cells **J.J. Yoon, Y.J. Lee, E.S. Choi, Y.M. Ahn, B.H. Han, D.G. Kang and H.S. Lee.** Wonkwang Univ., South Korea.
- B105 **638.8** Dietary Fats Shift Mechanisms Underlying Vasodilation to Acetylcholine **K. Lamping, P. Nelson, L. Coppey, M. Yorek and D. Nuno.** Univ. of Iowa and Iowa City VA Healthcare Syst.
- B106 **638.9** β -Amyloid Peptide-Induced Human Arteriole Endothelial Dysfunction Is Attenuated by Nanoliposomes **D. Guzman-Villanueva, J. Madine, S. Truran, H.A. Davies, C. Burciu, D.A. Franco, V. Weissig and R.Q. Migrino.** Phoenix VA Hlth. Care Syst.; Midwestern Univ., AZ and Univ. of Liverpool.
- B107 **638.10** Samchuleum Suppressed High Glucose-Induced Renal Proliferation and Fibrosis in Cultured Rat Mesangial Cells **J.J. Yoon, Y.J. Lee, E.S. Choi, M.G. Kim, B.H. Han, D.G. Kang and H.S. Lee.** Col. of Oriental Med., Wonkwang Univ.; Hanbang Body-Fluid Res. Ctr., South Korea and Brain Korea 21, Wonkwang Univ.
- B108 **638.11** Effects of Fermented Red Ginseng on High Fructose-Induced Metabolic Syndrome **M.C. Kho, Y.J. Lee, O.J. Kwon, S.H. Lee, D.G. Kang and H.S. Lee.** Wonkwang Univ., South Korea.
- B109 **638.12** Black Currant Suppresses Metabolic Syndrome Induced by High Fructose Diet **J.H. Park, M.C. Kho, H.Y. Kim, R. Tan, Y.J. Lee, D.G. Kang and H.S. Lee.** Wonkwang Univ., South Korea.

639. ANGIOGENESIS AND VASCULAR GROWTH I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B110 **639.1** The Effects of Bilirubin on Angiogenesis in Mice with Hindlimb Ischemia **Y. Ikeda, Y. Kanai, Y. Horinouchi, Y. Izawa-Ishizawa, Y. Kihira, L. Miyamoto, K. Ishizawa, K. Tsuchiya and T. Tamaki.** Univ. of Tokushima Grad. Sch., Japan.
- B111 **639.2** Piezo1 Integration of Vascular Architecture with Physiological Force **J. Li, B. Hou, K. Muraki, J. Ainscough and D. Beech.** Univ. of Leeds and Sch. of Pharm., Aichi-Gakuin Univ.
- B112 **639.3** Bcl-2 Expression in Endothelial Cells Impacts Retinal Vascularization and Choroidal Neovascularization **C.M. Sorenson, I.S. Zaitoun, S. Wang, R. Almomani, N. Jamali, R.P. Johnson and N. Sheibani.** Univ. of Wisconsin Sch. of Med. and Publ. Hlth.
- B113 **639.4** Characterization of Lung-Specific Angiogenesis **A. Mammoto, A. Jiang, E. Jiang and T. Mammoto.** Boston Children's Hosp.

- B114 **639.5** Melatonin Inhibits the Angiogenesis of Gastric Cancer by Nuclear Receptor **R. Zhou, R. Wang, J. Song, H. Zhang, J. Luo and H. Liu.** Sch. of Basic Med. Sci., Fujian Med. Univ., China.
- B115 **639.6** Expression of Thrombospondin-1 Modulates the Angioinflammatory Phenotype of Choroidal Endothelial Cells **N. Sheibani, P. Fei and C.M. Sorenson.** Univ. of Wisconsin-Madison.
- B116 **639.7** Placental Growth Factor and Vascular Endothelial Growth Factor Receptors Expression in the Placenta – Correlation with Maternal Blood Hemoglobin Level and Pregnancy Outcome **D. Szukiewicz, A. Stangret and M. Watroba.** Med. Univ. of Warsaw.

640. NITRIC OXIDE/CARBON MONOXIDE/ VASOACTIVE MOLECULES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B117 **640.1** Effects of Hydrogen Sulfide on Circulation **T. Sonobe and P. Haouzi.** Penn State Col. of Med.
- B118 **640.2** Sildenafil Improves Flow-Mediated Dilation in Adults with Cystic Fibrosis **R.A. Harris, N. Seigler, J. Thomas, K.T. McKie and C. Forseen.** Georgia Regents Univ.
- B119 **640.3** H₂S-Tolerant Fish Differentially Express Genes and Modify Mitochondrial Function to Maintain H₂S Homeostasis **J.H. Shaw, C.R. Henpita and M. Tobler.** Oklahoma State Univ. and Kansas State Univ.
- B120 **640.4** Sodium Nitrite Reduces Systolic Blood Pressure in Preeclampsia **V.H.G. Rizzi, J.S. Possomato-Vieira, G. Mendes, R.A. Nascimento, K.P. Silva, A.S. Pupo and C.A. Dias-Junior.** São Paulo State Univ.
- B121 **640.5** Hydrogen Sulfide Donor Attenuates Systolic Blood Pressure and Enhances Placentas Weights in Preeclampsia **J.S. Possomato-Vieira, V.H. Rizzi, K.P. Silva, R.A. Nascimento, G. Mendes, A.S. Pupo and C.A. Dias-Junior.** São Paulo State Univ.
- B122 **640.6** Electrophilic Nitro-fatty Acids Exert Cardioprotection against Hypertrophic Remodeling and Fibrosis in Pressure Overloaded Mice **L. Villacorta, Y. Guo, J. Zhang, K. Converso-Baran, F.J. Schopfer, B.A. Freeman and Y.E. Chen.** Univ. of Michigan and Univ. of Pittsburgh.
- B123 **640.7** Hydrogen Sulfide: A Novel Mediator in Adenosine A_{2A} Receptor-Induced Vasorelaxation **D.S. Ponnoth, M.A. Nayeem, S.L. Tilley, C. Ledent and S.J. Mustafa.** West Virginia Univ.; Univ. of North Carolina at Chapel Hill Sch. of Med. and Univ. Libre de Bruxelles.
- B124 **640.8** The Spatial Distribution of Nitric Oxide-Evoked cGMP Can Produce Biphasic Effects on Na⁺/H⁺ Exchanger-1 Activity in the Rat Ventricular Myocyte **M.A. Richards, D.J. Paterson, R.D. Vaughan-Jones and P. Swietach.** Univ. of Oxford.
- B125 **640.9** Resveratrol Attenuates Thromboxane-Prostanoid Receptor-Mediated Vasoconstriction via NO- and Endothelium-Independent Mechanisms **P.E. Holder, S.G. Denniss and J.W.E. Rush.** Univ. of Waterloo, Canada.

641. SHOCK

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B126 **641.1** In Vivo Effects of Platelet Apheresis on Oxygen Metabolism in Pigs **W.Z. Martini, C.M. Rodriguez, J.C. Richardson, A.P. Cap and M.A. Dubick.** U.S. Army Inst. of Surg. Res., Fort Sam Houston.
- B127 **641.2** Interrelationships between Platelet Activity and the Immunoinflammatory Response to Severe Injury **R.S. Morris, B.S. Schaffer, J.B. Lundy, H.F. Pidcoke, A.P. Cap and M.G. Schwacha.** U.S. Army Inst. of Surg. Res., Fort Sam Houston and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- B128 **641.3** Myocardial Calcium Handling Is Up-Regulated during the Spontaneous Resolution of Endotoxemic Cardiomyopathy in Mice **I.A. Hobai, J.C. Morse, D.A. Siwik and W.S. Colucci.** Boston Univ. Med. Ctr. and Massachusetts Gen. Hosp.
- B129 **641.4** Distinct Mechanisms Underlie Cardiomyocyte Contractile Dysfunction in Male and Female Endotoxemic Mice **I. Hobai, K. Aziz, D.A. Siwik and W.S. Colucci.** Boston Univ. Med. Ctr. and Massachusetts Gen. Hosp.
- B130 **641.5** Resuscitation with Whole Body Cooling Prevents Multiple Organ Damage after Hemorrhagic Shock in Rats **C-H. Wang, H-J. Lin, C-C. Hsu and H-S. Huang.** Chi Mei Med. Ctr., Tainan and Col. of Med., Natl. Cheng Kung Univ., Taiwan.
- B131 **641.6** Short-Term Mechanical Hyperventilation Does Not Improve Dynamic Cerebral Autoregulation in Patients with Septic Shock **R.M. Berg and R.R. Plovsing.** Rigshosp., Copenhagen.
- B132 **641.7** Coagulopathy after Polytrauma and Hemorrhage in Rats **D.N. Darlington, X. Wu and A.P. Cap.** U.S. Army Inst. of Surg. Res., San Antonio.
- B133 **641.8** Severe Polytrauma Leads to Acute Lung Injury in Rats **X. Wu, M.G. Schwacha, M.A. Dubick, A.P. Cap and D.N. Darlington.** U.S. Army Inst. of Surg. Res., San Antonio.

642. ENDOTHELIAL CELL BIOLOGY I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B134 **642.1** Age-Related Telomere Uncapping Occurs Independent of Telomere Shortening in Mouse Endothelial Cells **D.R. Machin, P.S. Dobson, S. Ghaffari, A.E. Walker, L.A. Lesniewski and A.J. Donato.** Univ. of Utah and VA Med. Ctr.
- B135 **642.2** Ammonia Stimulates Heme Oxygenase-1 Gene Expression in Human Endothelial Cells **W. Durante, X-m. Liu and K.J. Peyton.** Univ. of Missouri-Columbia.
- B136 **642.3** Role of Endothelial PPAR γ : Protection against Vascular Dysfunction Induced by IL-1 β **M. Mukohda, F.W. Quelle and C.D. Sigmund.** Univ. of Iowa.
- B137 **642.4** Signaling Magnitude of the G-Protein Coupled Bradykinin Receptor Depends on Flow: Role of the Glycocalyx **A.E. Jiménez, R. Espinosa and R. Rubio.** Autonomous Univ. of San Luis Potosi Sch. of Med., Mexico.

- B138 **642.5** Intermittent Fasting with a High Fat Diet Reveals the Contribution of Mitochondrial Free Radicals to the Endothelium-Dependent Relaxation of Mouse Aorta **C. Martel, A.M. Belanger, X. Luo, N. Trescases-Thorin and E. Thorin.** Montreal Heart Inst.
- B139 **642.6** Shear Stress Increases Sirtuin-1 Expression to Mediate Shear-Induced Autophagy in Endothelial Cells **L.D. Wang.** Tzu-Chi Univ., Taiwan.
- B140 **642.7** GLP-1 and Its Analogue Liraglutide Affects Human Endothelial Cell Signaling by Reducing VEGF-A Induced Ca²⁺ Signaling and Activating Protein Kinases **C. Rotboel, A.J. Hansen, K. Tritsarlis, J. Xu, C. Aalkjær and S. Dissing.** Univ. of Copenhagen, Panum Inst. and NovoNordisk A/S, Måløv.
- B141 **642.8** Monophosphoryl Lipid A Induces Endotoxin Tolerance in Endothelial Cells **R.J. Stark, S.R. Koch, F.S. Lamb and E.R. Sherwood.** Vanderbilt Univ.
- B142 **642.9** Rapamycin Activates TGF Receptor Independently of Its Ligands: Implications for Endothelial Dysfunction **T. Girao-Silva, A.A. Miyakawa, J.E. Krieger and E.R. Edelman.** Brigham and Women' Hosp., Harvard Med. Sch.; MIT and Hosp. of Fac. of Med., Univ. of São Paulo.
- B143 **642.10** C-Type Natriuretic Peptide as Mediator of an Endothelial Cell to Mast Cell Communication **M. Kuhn, B. Gassner, A. Rabenhorst, K. Hartmann and W. Chen.** Univ. of Wuerzburg and Univ. of Cologne.

643. PERIPHERAL CIRCULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B144 **643.1** Single LDL-Cholesterol Apheresis Treatment Does Not Improve Vascular Endothelial Function in Hypercholesterolemic Patients **K.D. Ballard, B.A. Taylor, J.E. Beam, E. Mah, Y. Guo, R.S. Bruno, D. Polk and P.D. Thompson.** Hartford Hosp.; The Ohio State Univ. and Brigham and Women's Hosp.
- B145 **643.2** The Cephalic Phase Responses of Celiac Artery Blood Flow and Gastric Motility to Oral Sweet Taste **K. Eguchi, H. Kashima, M.Y. Endo and Y. Fukuba.** Prefect. Univ. of Hiroshima.
- B146 **643.3** Cardiac Mechanoreceptor Activation in Humans: Evaluation by Phenylephrine and Norepinephrine **H. Sørensen, S. Ogoh, K. Sato, C. Siebenmann, P. Rasmussen, C. Lundby and N.H. Secher.** Univ. of Copenhagen; Toyo Univ. and Univ. of Zürich.
- B147 **643.4** Impaired Compensatory Responses to Hypovolemic Circulatory Stress in Women with Vasovagal Syncope **J. Skoog, M. Lindenberger, H. Zachrisson and T. Länne.** Linköping Univ. and County Council of östergötland, Linköping, Sweden.
- B148 **643.5** Acute Effects of an External Pneumatic Compression Device on Local and Systemic Resistance Vessel Reactivity and Limb Blood Flow **J.S. Martin and A.R. Borges.** Quinnipiac Univ., CT.

644. CORONARY CIRCULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B149 **644.1** Coronary Blood Flow Is Reduced by Doxorubicin: An Ultrasound Microscopic Study **S. Liu.** Univ. of Arkansas for Med. Sci.
- B150 **644.2** The Interaction between Fluid Wall Shear Stress and Solid Circumferential Strain Affects Endothelial Gene Expression **R.A. Amaya and J.M. Tarbell.** City Col. of New York.
- B151 **644.3** Aging Selectively Attenuates L-Type Calcium Currents in Resistance Coronary Arteries **F.A. Mansour, M.O. Hassan, A. A. Khan and S. Albarwani.** Col. of Med. and Hlth. Sci., Sultan Qaboos Univ., Oman.
- B152 **644.4** Increased Regional Pannexin1 Channel Expression Linked to Focal Ischemia Is Pro-arrhythmic during Stress **S. Huke, T.d.O. Faria, S. Bennuri, E. Chepurko, R.J. Gumina and B.C. Knollmann.** Vanderbilt Univ. Med. Ctr.
- B153 **644.5** Coronary Vascular Effects of Leptin and Calpastatin in Lean versus Obese Hearts **J.N. Noblet, A.G. Goodwill, D.J. Sassoon and J.D. Tune.** Indiana Univ. Sch. of Med.
- B154 **644.6** Different Roles for P2Y2 and P2Y6 Receptors in Large and Smaller Coronary Arteries **K.A. Haanes, S.S. Larsen, S. Syberg, N.R. Jorgensen, B. Robaye, J-M. Boeynaems and L. Edvinsson.** Copenhagen Univ. Hosp. and Free Univ. of Brussels.
- B155 **644.7** Effect of Adenosine on Coronary Blood Flow and Cardiac Function In Vivo Using Adenosine Receptor Knockout Mice **B. Teng, S.L. Tilley, C. Ledent and S.J. Mustafa.** West Virginia Univ.; Univ. of North Carolina at Chapel Hill and Univ. Libre de Bruxelles.
- B156 **644.8** Increased Endothelial Expression of Human Soluble Epoxide Hydrolase Negatively Modulates Coronary Reactive Hyperemia in Isolated Mouse Heart **A. Hanif, D.C. Zeldin and M.A. Nayeem.** West Virginia Univ.
- B157 **644.9** Inhibition of Soluble Epoxide Hydrolase Increases Coronary Flow and Improves Cardiac Work in Mice **J. Qin, H. Jiang, S. Kandhi, G. Froogh, C. Thompson, A. Huang and D. Sun.** New York Med. Col.; Shanghai Renji Hosp. of Shanghai Jiao Tong Univ. and First Affil. Hosp. of Soochow Univ., China.
- B158 **644.10** Role for DNA Damage and Epigenetic Signaling In Coronary Artery Diseases **J. Meloche, S. Henry, E. Tremblay, E. Charbonneau, S. Provencher and S. Bonnet.** Quebec Heart and Lung Inst. Res. Ctr.
- B159 **644.11** Drospirenone Potentiates the Endothelium-Dependent Vasodilation in Coronary Bed of Hypertensive Ovariectomized Rats **E.R.G. Claudio, M.V. Borgo, F.B. Silva, W.G. Romero, S.A. Gouvêa, M.R. Moyses, R.L. Santos, S.A. Almeida, P.L. Podratz, J.B. Graceli and G.R. Abreu.** Fed. Univ. of Espirito Santo, Brazil.

645. CEREBRAL CIRCULATION I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B160 **645.1** Non-invasive Measurement of Cerebral Vascular Compliance during Post-Exercise Ischemia **E.A.H. Warnert, E.C. Hart, K. Murphy and R.G. Wise.** Cardiff Univ. and Bristol Univ.
- B161 **645.2** Obstructive Sleep Apnea Attenuates the Cerebrovascular Circadian Clock and Rhythms in Vascular Function **D.J. Durgan, E.E. Lloyd and R.M. Bryan.** Baylor Col. of Med.
- B162 **645.3** Chronic Hypoxia Alters the Response of Fetal Ovine Middle Cerebral Arteries to Endothelin-1 **J. Silpanisong, D. Kim, J.M. Williams, O.O. Adeoye, R.B. Thorpe and W.J. Pearce.** Loma Linda Univ.
- B163 **645.4** Hydrogen Sulfide Is an Endogenous Cytoprotective Gaseous Mediator in Cerebral Circulation **J. Liu, C.W. Leffler and H. Parfenova.** Univ. of Tennessee Hlth. Sci. Ctr.
- B164 **645.5** Impaired Middle Cerebral Artery and Cerebrovascular Vasodilation in Healthy Aging **N.S. Coverdale, M.B. Badrov and J.K. Shoemaker.** Sch. of Kinesiol., Western Univ. and Western Univ., Canada.
- B165 **645.6** The Effect of an Acute Increase in Central Blood Volume on Hypercapnia-Induced Attenuation in Dynamic Cerebral Autoregulation **S. Ogoh, A. Hirasawa, J. Sugawara, H. Nakahara, S. Ueda, J.K. Shoemaker and T. Miyamoto.** Toyo Univ.; Natl. Inst. of Adv. Indust. Sci. and Technol.; Morinomiya Univ. of Med. Sci., Japan and Sch. of Kinesiol., Western Univ., Canada.
- B166 **645.7** L-2-Oxothiazolidine-4-Carboxylic Acid Mitigates the Thromboembolic Effects and Systemic Toxicity Induced by Subacute Exposure to Cadmium in Mice **M.A. Fahim, A. Nemmar, S. Singh, M. Shafiullah, J. Yasin and M.Y. Hasan.** Emirates Col. for Adv. Educ.
- B167 **645.8** Effects of Ageing on Gross and Cortical Cerebral Autoregulatory Upper Limits **E.L. Thompson, A.M. Coney and J.M. Marshall.** Sch. of Clin. and Exptl. Med., Univ. of Birmingham, U.K.
- B168 **645.9** Effect of Left Ventricular-Central Artery Coupling on Cerebrovascular Hemodynamics: Insights from Endurance Training Intervention **T. Tomoto, J. Sugawara, Y. Nogami, K. Aonuma and S. Maeda.** Univ. of Tsukuba; Natl. Inst. of Adv. Indust. Sci. and Technol. and Shonan Inst. of Technol., Japan.
- B169 **645.10** VAP-1 Blockade Prevents Subarachnoid Hemorrhage-Associated Cerebrovascular Dilating Dysfunction via Repression of a Neutrophil Recruitment-Related Mechanism **H. Xu, F.D. Testai, C. Paisansathan and D.A. Pelligrino.** Univ. of Illinois at Chicago.
- B170 **645.11** Effects of Aging on Nitric Oxide-Mediated Cerebrovascular Tone and Autoregulation **A.M. Coney, E.L. Thompson and J.M. Marshall.** Univ. of Birmingham.

646. CEREBROVASCULAR ABNORMALITIES IN HYPERTENSIVE DISEASE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B171 **646.1** Enhanced Serotonin-Mediated Carotid Vessel Constriction from the Fawn Hooded Hypertensive Rat **M.R. Pabbidi and G. Kaur.** Univ. of Mississippi Med. Ctr.
- B172 **646.2** Reduced Dilatory Capacity of Brainstem Parenchymal Arteries of Young Spontaneously Hypertensive Rats **D.N. Mayorov, S. Kasparov and J.F. Paton.** Sch. of Physiol. and Pharmacol., Univ. of Bristol.
- B173 **646.3** Severe Cerebrovascular Dysfunction in a Hypertensive Heart Failure Model **S.D. Brooks, S.C. Stanley, P. Chantler, R.W. Brock and J.C. Frisbee.** West Virginia Univ.
- B174 **646.4** Activation of the Central Renin-Angiotensin System Causes Selective Cerebrovascular Dysfunction **T.M. De Silva, C.M. Lynch, J.L. Grobe and F.M. Faraci.** Univ. of Iowa and Iowa City VA Hlth. Care Syst.
- B175 **646.5** Increased Cerebral Endothelial Transcytosis and Blood-Brain Barrier Permeability in "Slow Pressor" Angiotensin-II Hypertension **C. Iadecola, G. Faraco, D.A. Lane and J. Anrather.** Weill Cornell Med. Col.
- B176 **646.6** Cerebrovascular Abnormalities Supporting the Selfish Brain Hypothesis of Human Hypertension **E.C. Hart, J.C.L. Rodrigues, L.E.K. Ratcliffe, A.E. Burchell, N. Manghat, R.G. Wise, A.K. Nightingale and J.F.R. Paton.** Univ. of Bristol and Cardiff Univ.
- B177 **646.7** Placental Ischemia Impairs Cerebral Blood Flow Autoregulation and Increases Blood-Brain Barrier Permeability in Pregnant Rats **J.P. Warrington, F. Fan, S.R. Murphy, R.J. Roman, H.A. Drummond, J.P. Granger and M.J. Ryan.** Univ. of Mississippi Med Ctr.

647. HYPERTENSION I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B178 **647.1** Optimizing the Microfil Dye Perfusion Technique Will Allow for Rat Cerebral Vascular Network Analysis through uCT Image Quantification **M.A. McCarter, A. Balazs, J. Yarrow, J. Zubcevic and M.K. Raizada.** Univ. of Florida and University of Florida.
- B179 **647.2** Effects of Hyperandrogenemia on Cardiovascular and Metabolic Responses to Chronic Melanocortin-4 Receptor Blockade in Female SHR **J.M. do Carmo, A.A. da Silva and J.E. Hall.** Univ. of Mississippi Med. Ctr.
- B180 **647.3** The Probiotic Kefir Improves Cardiovascular Function in Spontaneously Hypertensive Rats **A.G.F. Friques, B.F. Klippel, M.A.S. Leal, I.C. Kalil, T.U. Andrade, T.M.C. Pereira, S.S. Meyrelles and E.C. Vasquez.** Vila Velha Univ.; Fed. Univ. of Espirito Santo and Emescam Col. of Med., Brazil.

- B181 **647.4** Mongolian Low Birth Weight Young Adults Have Higher Risk of Hypertension Compared with Han Chinese and Japanese Counterparts **S. Bao, H. Sato, K. Sasaki, E. Kanno and R. Maruyama.** Tohoku Univ. Grad. Sch. of Med.
- B182 **647.5** Upregulation of Orexin Receptor in Paraventricular Nucleus Promotes Sympathetic Outflow through Non-selective Cation Channel in Obesity **J-J. Zhou, S-R. Chen, F. Yuan, Y. Zhang and D-P. Li.** HeBei Med. Univ., and Univ. of Texas, M.D. Anderson Cancer Ctr.
- B183 **647.6** Endothelium-Dependent and -Independent Vasodilation in Women at Risk of Hypertension **R.E. Harvey, S.K. Laughlin-Tommaso, E.A. Stewart, T.B. Curry, M.J. Joyner and J.N. Barnes.** Mayo Clin.
- B184 **647.7** Development of Capabilities for Simultaneous Assessment of Pulmonary and Systemic Hemodynamics in Conscious Rat to Identify Therapies with Pulmonary Selectivity **H. Zhao, X. Shen, X. Hong, K.M. Small and J.B. Madwed.** Merck, Kenilworth, NJ.
- B185 **647.8** Carotid Artery IMT, Blood Pressure, and Fasted Glucose and Cholesterol Levels in Males and Females **C.M. Cromwell, J.M. Lenzo, J.E. Oakman, K.R. Aichele, M.P. Neal, N.L. Bye, L.N. Chavis, R.C. Evans, A.K. Getty, J.A. Hill, V.C. Louth, A.N. Perez, E.L. Santaniello, K.A. Thiele, T.R. Wisdo and D.L. Fearheller.** Ursinus Col., PA.
- B186 **647.9** 20-SOLA, a Novel Water Soluble 20-HETE Antagonist, Reduces Blood Pressure through Regulation of Vascular ACE Expression via an IKK Dependent Pathway **V. Garcia, B. Shkolnik, V. Pandey, J. Capdevila, J.R. Falck and M.L. Schwartzman.** New York Med. Col.; Univ. of Texas Southwestern Med. Ctr. and Vanderbilt Univ.
- B187 **647.10** Clinical Salt-Sensitive Hypertension Induced by Chronic Aortic Denervation in Rat Is Dependent on the Activation of Intrarenal RAS **M. Rodriguez-Martínez, J.F. López-Rodríguez, M.Z. Calvo-Turrubiarres, M.A. Casillas-Santana and I. Martínez-Mendoza.** Fac. of Med., Autonomous Univ. of San Luis Potosí, Mexico.
- B188 **647.11** Blood Pressure and Cardiovascular Health in College Students and Campus Faculty/Staff **J.M. Lenzo, C.M. Cromwell, J.E. Oakman, K.R. Aichele, M.P. Neal, A.N. Perez, K.A. Thiele, E.L. Santaniello, N.L. Bye, J.A. Hill, R.C. Evans, T.R. Wisdo, L.N. Chavis, A.K. Getty, V.C. Louth and D.L. Fearheller.** Ursinus Col., PA.
- B192 **648.4** Nonlinear Identification of the Total Baroreflex Arc **M. Moslehpour, T. Kawada, K. Sunagawa, M. Sugimachi and R. Mukkamala.** Michigan State Univ.; Natl. Cerebral and Cardiovasc. Ctr., Osaka and Grad. Sch. of Med. Sci., Kyushu Univ., Japan.
- B193 **648.5** Prolonged Walking Attenuates Hypersympathetic State In Swine with Bilateral Femoral Artery Occlusion **H. Yang, D.K. Bowles, M.H. Laughlin and R.L. Terjung.** Univ. of Missouri-Columbia.
- B194 **648.6** Effect of Carotid Body Chemoreceptor Inhibition on Cardiac Baroreflex Sensitivity in Resting Humans **D.P. Chantigian, M.C. Johnson, J.K. Limberg, M.J. Joyner and B. Johnson.** Univ. of Wisconsin-Madison; Mayo Clin. and Univ. at Buffalo.
- B195 **648.7** Methodological Considerations for Assessing Measures of Spontaneous Cardiac Baroreflex Sensitivity in Humans **I.L. Kent, S.W. Holwerda and P.J. Fadel.** Univ. of Missouri-Columbia.
- B196 **648.8** Baroreflex Sympatho-activation during Muscle Metaboreflex Activation Improves Blood Flow to the Ischemic Muscle **J. Kaur, M.D. Spranger, T.M. Machado, A.C. Krishnan, A. Alvarez and D.S. O'Leary.** Wayne State Univ. Sch. of Med.
- B197 **648.9** Baroreflex Impairment in a rat Model of Parkinson's Disease **M.T. Cavalleri, B.F. Barna, T.S. Moreira and A.C. Takakura.** Univ. of São Paulo.
- B198 **648.10** Electrical Stimulation of Carotid Sinus in Conscious Normotensive and Spontaneously Hypertensive Rats **G. Domingos, F.M. Santos-Almeida, L.E.V. Silva, D.P.M. Dias, C.A.A. da Silva, J.A. Castania, H.C. Salgado and R. Fazan.** Med. Sch. of Ribeirão Preto, Univ. of São Paulo.
- B199 **648.11** Sinoaortic Denervation Reduces the Complexity of Heart Rate Variability in Mice **L.E.V. Silva, F.L. Rodrigues, M. Oliveira, H.C. Salgado and R. Fazan.** Med. Sch. of Ribeirão Preto, Univ. of São Paulo.
- B200 **648.12** The Effect of Multiple Sclerosis on Carotid Baroreflex Latencies of Arterial Blood Pressure and Heart Rate **D.R. Allen, M. Huang, S.L. Davis and D.M. Keller.** Univ. of Texas at Arlington; Southern Methodist Univ. and Univ. of Texas Southwestern Med. Ctr.
- B201 **648.13** SOD1 Overexpression Alters Aortic Depressor Nerve Function but Does Not Protect against Impairment of Baroreflex Heart Rate Control in Chronic Intermittent Hypoxia Exposed Mice **J.T. Hatcher, H. Gu and Z. Cheng.** Univ. of Central Florida.

648. ARTERIAL BAROREFLEX FUNCTION AND BLOOD PRESSURE REGULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B189 **648.1** Baroreflex Function in Young Women with a Family History of Hypertension **K.N. Sebzda, E.L. Matthews and M.M. Wenner.** Univ. of Delaware.
- B190 **648.2** Aortic Depressor Response Is Blunted following Ovariectomy: Evidence for Involvement of Central but not Peripheral Afferent Pathways in Rat **G.C. Santa Cruz Chavez and J.H. Schild.** Indiana Univ.-Purdue Univ. Indianapolis.
- B191 **648.3** Non-targeted Effects of a Targeted Toxin **W.T. Talman, D. Nitschke Dragon and L-H. Lin.** Univ. of Iowa and VA Med. Ctr.

649. SYMPATHETIC CONTROL OF THE CIRCULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B202 **649.1** Role of Alpha 2-Adrenoceptors in Hemodynamic Instability in Rats under Cooling Stress **C-S. Tung, Y-P. Liu, P-L. Lee and C-J. Tseng.** Cheng Hsin Gen. Hosp., Taipei; Natl. Defense Med. Ctr., Taipei; Natl. Central Univ. and Kaohsiung Veterans Gen. Hosp., Taiwan.
- B203 **649.2** Post-junctional Adrenergic Neurotransmission Is Inhibited by Nitric Oxide in Humans **A.T. Del Pozzi, M.S. Medow and J.M. Stewart.** New York Med. Col.

- B204 **649.3** Effect of Ultrasonic Bone Stimulation of the Mastoid on Renal and Coronary Blood Flow in Humans **C.A. Ray, S.S. Park and C.L. Sauder**. Penn State Col. of Med.
- B205 **649.4** Role of Adenosine Receptors in Evoking Venous Distension Reflex in Humans **J. Cui, C.A. Blaha and L.I. Sinoway**. Penn State Col. of Med.
- B206 **649.5** Cyclooxygenase Inhibition Attenuates the Muscle Sympathetic Nerve Activity Responses to Venous Distension in Humans **J. Cui, P. McQuillan, C.A. Blaha and L.I. Sinoway**. Penn State Col. of Med.
- B207 **649.6** Chronic Heart Failure Blunts the Low Pressure Baroreflex Induced Biphasic Change of Sympathetic Nerve Activity **Y. Oga, T. Kishi, K. Saku, T. Kakino, A. Nishizaki, T. Arimura, K. Fujii, T. Tohyama, T. Nishikawa and K. Sunagawa**. Kyushu Univ. Grad. Sch. of Med. Sci.
- B208 **649.7** Ionotropic Glutamate Receptors Partially Mediate Pressor and Sympathoexcitatory Responses to Disinhibition of the RVLM after Sinoaortic Denervation and Contralateral RVLM Inhibition in Sedentary and Physically Active Rats **M.D. Dombrowski, T.A. Azar and P.J. Mueller**. Wayne State Univ. Sch. of Med.
- B209 **649.8** Assessment of Guanethidine-induced Neuronal Loss on Basal and Reflex Sympathetic Support of Blood Pressure and Heart rate in the Anesthetized Rat **M.R. Zahner, C-N. Liu, C.V. Okerberg and C.J. Soms**. Pfizer, Groton, CT.
- B210 **649.9** Augmentation of Functional Sympatholysis via Endothelial Signaling Is Independent of Nitric Oxide and Prostaglandins in Humans **C.M. Hearon, B.S. Kirby, A.R. Crecelius, G.J. Luckasen, D.G. Larson and F.A. Dinunno**. Colorado State Univ. and PVHS Med. Ctr. of Rockies, Loveland, CO.
- B211 **649.10** Paradigms of Cardiovascular Control in Response to Sympathetic Stimulation by Simulated Orthostatic Stress **A-S.G.T. Bronzwaer, J. Verbree, W.J. Stok, M.A. van Buchem, M.J.A.P. Daemen, M.J. van Osch and J.J. van Lieshout**. Univ. of Amsterdam; AMC Amsterdam; Leiden Univ. Med. Ctr. and Univ. of Nottingham.
- B212 **649.11** Impact of Aging on Aortic Wave Reflection during Lower Body Negative Pressure **A.C. Schneider, J.N. Barnes, M.J. Joyner and D.P. Casey**. Univ. of Iowa and Mayo Clin.
- B213 **649.12** Spectral Analysis of Barosensitive Neurons in the Rat Rostral Ventrolateral Medulla **D.J. Huereca, S.M. Barman and P.J. Mueller**. Wayne State Univ. Sch. of Med. and Michigan State Univ.
- B214 **649.13** Arterial Stiffening in Human Hypertension: Is There a Contribution of the Sympathetic Nervous System? **E. Prodel, T.C. Barbosa, A. Machado, D.E. Mansur, A.C.L. Nobrega and L.C. Vianna**. Fluminense Fed. Univ., Rio de Janeiro.

650. AUTONOMIC ADJUSTMENTS TO STRESS**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B215 **650.1** Developmental Exposure to Indoor Flame Retardants Disrupts Sympathetic and Hypothalamic-Pituitary-Adrenal Axis Activity in Osmotic Challenged Rats **R. Gutierrez, K. Spurgin, A. Prien and M. Curras-Collazo**. Univ. of California, Riverside.
- B216 **650.2** Nitrous Oxide Inhalation Attenuates an Increase in Muscle Sympathetic Nerve Activity during Cold Stress **K. Isono, Y. Okada, T. Mitsui, Y. Masuda and T. Ogasawara**. Matsumoto Dent. Univ., Japan.
- B217 **650.3** Mean Arterial Pressure and Wave Reflection during the Cold Pressor Test: the Influence of Trunk Fat **M.H. Harwood, T.R. Wakeham and J.J. Durocher**. Michigan Technol. Univ.
- B218 **650.4** Renal Denervation by Radiofrequency Ablation Attenuates Startle Responses Selectively in Rats with Exaggerated Stress Responsiveness **M.M. Knuepfer, L. Willingham and N. Hoffman-Schepers**. St. Louis Univ. Sch. of Med.

651. AUTONOMIC BALANCE: SYMPATHETIC AND PARASYMPATHETIC**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B219 **651.1** Intracardiac Ganglion Neuron Dysfunction in Type 2 Diabetes **Y. Li, J. Liu, D. Zhang, H. Tu and R.L. Muelleman**. Univ. of Nebraska Med. Ctr.
- B220 **651.2** Afferent Activity Is Greatly Increased by Spontaneous Phasic Contractions in Mouse Ex Vivo Urinary Bladder **T.J. Heppner, N.R. Tykocki and M.T. Nelson**. Univ. of Vermont.
- B221 **651.3** c-Fos Expression in Rat Periaqueductal Gray Induced by White Noise Sound Exposure **S. Koba, R. Inoue and T. Watanabe**. Tottori Univ. Fac. of Med., Japan.
- B222 **651.4** Vagal Nerve Stimulation Suppressed the Inflammatory Response in Chronic Heart Failure before Improving Hemodynamics **A. Nishizaki, K. Saku, T. Ide, T. Kishi and K. Sunagawa**. Kyushu Univ.
- B223 **651.5** An Examination of Long-Term Fluctuations in Arterial Pressure in the Prairie Vole **R. Lewis, B. Benjamin and J.T. Curtis**. Oklahoma State Univ. Ctr. for Hlth. Sci.
- B224 **651.6** Cardiac Vagal Afferent Response in Rats during Cardiac Contractility Modulation **J.N. Sengupta, P. Kannampalli, A. Belligoli, B. Rousso, S. Ben-Haim and D. Gutterman**. Med. Col. of Wisconsin and Impulse Dynamics Inc., Orangeburg, NY.

652. NCAR TRAINEE FEATURED TOPIC

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B259 **652.1** Changes in Directly Recorded Sympathetic Nerve Activity and Noradrenaline Spillover to the Heart and Kidney during Heart Failure **R. Ramchandra, S.G. Hood, T. Xing, G. Lambert and C. May.** Univ. of Melbourne; Baker Heart and Diabetes Inst., Melbourne and Univ. of Auckland.
- B260 **652.2** Restoration of Oxytocin Neuron Activity Prevents Hypertension Caused by Chronic Intermittent Hypoxia/Hypercapnia **H. Jameson, E. Cauley and D. Mendelowitz.** George Washington Univ.
- B261 **652.3** Effect of Carotid Body Resection on Baroreflex Control of Blood Pressure during Hypoglycemia **J.K. Limberg, J.L. Taylor, S. Dube, A. Basu, R. Basu, T.B. Curry, M.J. Joyner and E.A. Wehrwein.** Mayo Clin. and Michigan State Univ.
- B262 **652.4** P2X₃ Receptor-Mediated Chemoreceptor Hypersensitivity in Young Spontaneous Hypertensive Rats **D.J.A. Moraes, B.H. Machado, A.P. Ford and J.F.R. Paton.** Sch. of Med. of Ribeirão Preto, Univ. of São Paulo; Univ. of Bristol and Afferent Pharmaceut. Inc., San Mateo.
- B263 **652.5** PSD95 Coupling of NMDA Receptor Activation and Nitric Oxide Activity in the Hypothalamic PVN **M.E. Bardgett, M. Andrade, A.S. Calderon and G.M. Toney.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- B264 **652.6** Exogenous L-Arginine Restores Spontaneous Cardiac Baroreflex Sensitivity in Never-Treated Hypertensive Men **L.C. Vianna, I.A. Fernandes, T.C. Barbosa, L. Scharf, N.G. Rocha, N.H. Secher and A.C. Nóbrega.** Univ. of Brasília; Fluminense Fed. Univ., Brazil and Univ. of Copenhagen.
- B265 **652.7** Maternal Obesity and the Developmental Programming of Hypertension: The Role of Leptin in the Central Nervous System **J. Lim, S.L. Burke and G.A. Head.** Baker IDI Heart & Diabetes Inst., Melbourne and Monash Univ., Australia.
- B266 **652.8** Assessment of Neuronal Activity in the Rostral Ventrolateral Medulla of Conscious Rats **D.J. Huereca, C.K. Wong, J.A. Ingles, F. Ghoddoussi, B.A. Berkowitz, A.G. Holt and P.J. Mueller.** Wayne State Univ Sch. of Med. and John Dingell VA Med. Ctr.
- B267 **652.9** Premature Ventricular Contractions Trigger Nonbaroreceptor-Mediated Sympathetic Bursting **L.E.K. Ratcliffe, A.K. Nightingale, J.F.R. Paton and E.C. Hart.** Univ. of Bristol.
- B268 **652.10** Reduced Sympathetic Tone by Overexpression of K_v4.3 in the Rostral Ventrolateral Medulla of Rats with Heart Failure **B.K. Becker, H. Wang and I.H. Zucker.** Univ. of Nebraska Med. Ctr.
- B269 **652.11** Sympathetic Overactivity to the Liver: A Possible Contributor to Hepatosteatosis in Diet-Induced Obesity? **C.N. Young, D.A. Morgan, K. Rahmouni, A.L. Mark and R.L. Davisson.** Cornell Univ.; Univ. of Iowa and Weill Cornell Med. Col.
- B270 **652.12** Acetate Is an Active Metabolite of Ethanol: Increases Firing and Evokes Inward Currents through Activation of NMDA Receptors in RVLM Projecting CeA Neurons **A.D. Chapp, M. Huber, M. Gu, J.R. Carter and Q-H. Chen.** Michigan Tech Univ.
- B271 **652.13** Reconstitution of WKY with SHR Bone Marrow Alters Vascular Hemodynamics and Sympathetic Drive **M.M. Santisteban, F. Garcia-Pereira, N. Ahmari, J. Marulanda, R.D. Johnson, M.K. Raizada and J. Zubcevic.** Univ. of Florida.
- B272 **652.14** Treatment with Losartan Improves Baroreflexes in Obese Zucker Rats Coincident with Enhanced Response of Nucleus Tractus Solitarius to Increased Arterial Pressure **P. Chaudhary, A. Dohi and A.M. Schreihofner.** Univ. of North Texas Hlth. Sci. Ctr.
- B273 **652.15** Acute Oral Ingestion of Alcohol Modulates Muscle Sympathetic Neural Activity Differently in Caucasians and African Americans **I.T. Fonkoue, Q-H. Chen and J.R. Carter.** Michigan Technol. Univ.
- B274 **652.16** Insulin Resistance Impairs Arterial Stiffness and Peripheral Vascular Resistance in Metabolic Syndrome Patients **S. Rodrigues, F.X. Cepeda, A.C.B. Dutra-Marques, J.C. Carvalho, E. Toschi-Dias, C. Maki-Nunes, L.A. Bortolotto, V. Costa-Hong, M.U.P.B. Rondon, M.J.N.N. Alves, C.E. Negro and I.C. Tombetta.** Med. Sch., Univ. of São Paulo and Sch. of Phys. Educ. and Sports, Univ. of São Paulo.
- B275 **652.17** Self-Paced Slow Deep Breathing: Persistence of Effects on Vascular Function **K. Kelly, T.E. Dick, J. Lin, J. Moser and E.A. Wehrwein.** Michigan State Univ. and Case West Reserve Univ.
- B276 **652.18** The Effect of Multiple Sclerosis on Carotid Baroreflex Control of Heart Rate and Blood Pressure **M. Huang, D.R. Allen, D.M. Keller and S.L. Davis.** Southern Methodist Univ.; Univ. of Texas at Arlington and Univ. of Texas Southwestern Med. Ctr.
- B277 **652.19** Sympathetic Tone Differentially Regulates MHC-II Expression by Macrophages and Enteric Glia in the Gastrointestinal Tract **R.J. Vanderkamp, A. Chow, H. Garver, G. Fink and B. Gulbransen.** Michigan State Univ.
- B278 **652.20** Dissociating the Metabolic and Cardiovascular Effects of Leptin through mTORC1 Signaling **M. Rouabhi, B.B. Bell, D.A. Morgan and K. Rahmouni.** Univ. of Iowa.
- B279 **652.21** Neuron-Specific (Pro)renin Receptor Deletion Regulates Renin-Angiotensin Components and Contributes to the Amelioration of DOCA-Salt Hypertension **A. Ali, W. Li, M.N. Sullivan and Y. Feng.** Colorado State Univ.
- B280 **652.22** Chronic Salt-Loading Alters Pre-autonomic Neuropeptide Expression in the Paraventricular Nucleus **J.A. Smith, D. Pati, H. Hiller, L. Wang, J. Frazier, A. de Kloet and E. Krause.** Univ. of Florida.
- B281 **652.23** Lesion of the Area Postrema Reduces Cardiac Sympathoexcitation and Improves Cardiac Function in Heart Failure **Y. Abukar, C.J. Thomas, R. Ramchandra, S.T. Yao and C.N. May.** Univ. of Melbourne and La Trobe Univ., Australia.
- B282 **652.24** Selective Inhibition of the Adrenergic C1 Neurons Reduces the Hypoxic Ventilatory Response in Unanesthetized Rats **M.R. Malheiros-Lima, A.C. Takakura and T.S. Moreira.** Univ. of São Paulo.
- B283 **652.25** Ablation of Sympathetic Neurons Projecting to Mesenteric Blood Vessels Reduces Splanchnic Nerve Evoked Systemic Blood Pressure Increase: Widespread Projection of Prevertebral Neurons to the Mesenteric Circulation **B. Hammond and D. Kreulen.** Michigan State Univ.
- B284 **652.26** PVN Neuropeptide Y Contributes to the Sympathoexcitatory Effect of Leptin **Z. Shi, B. Li and V.L. Brooks.** Oregon Hlth. & Sci. Univ.

653. CHEMOREFLEX FUNCTION AND AUTONOMIC REGULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B285 **653.1** Age-Dependent Changes of CO₂ Chemoreflex and Blood Pressure in Juvenile and Adult Spontaneously Hypertensive Rats **A. Li and G. Nattie**. Dartmouth Geisel Sch. of Med.
- B286 **653.2** Acid Sensing Channel 1 in Astroglia Is Upregulated by Saporin **L-H. Lin, S. Jones and W.T. Talman**. Univ. of Iowa and VA Med. Ctr.
- B287 **653.3** Arterial Chemoreflex Function in Renovascular Hypertensive Rats **M.R. Melo, E.V. Lemes, S. Gasparini, M.R. Lauer, G.F.F. Speretta, J.V. Menani, D.S.A. Colombari, D.B. Zoccal and E. Colombari**. Sch. of Dent. of Araraquara-UNESP, Brazil.
- B288 **653.4** Sympathetic Axonal Recruitment during Severe Chemoreflex Stress in Humans **M.B. Badrov, C.W. Usselman and J.K. Shoemaker**. Western Univ., Canada.
- B289 **653.5** Effects of Exercise Training and Intermittent Hypoxia on Ventilatory Chemoreflex Sensitivity in Humans **U.A. Leuenberger, A. Ross, C. Sauder, C. Blaha and A. Cauffman**. Penn State Hershey Med. Ctr.
- B290 **653.6** Chemical Stimulation of the Arterial Chemoreflex Activates Neuroendocrine and Pre-sympathetic Corticotropin Releasing Hormone Neurons in the Paraventricular Nucleus of the Hypothalamus **K.M. Coldren, D.D. Kline, E.M. Hasser and C.M. Heesch**. Univ. of Missouri-Columbia.
- B291 **653.7** Acute Hypoxia Potentiates Cardiorespiratory Responses to Blockade of the Anti-oxidant Enzyme, Glutathione Peroxidase, in the Nucleus Tractus Solitarius **C.M. Heesch, J.G. Phaup, D.D. Kline and E.M. Hasser**. Univ. of Missouri-Columbia.
- B292 **653.8** Pressor Component of the Chemoreflex Response Is Not Mediated by P2 Purinergic Receptors in the A5 Area **A.S. Haibara and S.A. Zebal**. Fed. Univ. of Minas Gerais, Brazil.
- B293 **653.9** Hypoxia Activates Neurons in the Hypothalamic Paraventricular Nucleus that Project to the Nucleus Tractus Solitarius in the Brainstem **B.C. Ruyle, K.M. Coldren, E.F. Palmieri, C.M. Heesch and E.M. Hasser**. Univ. of Missouri-Columbia.

654. ENTERIC NERVOUS SYSTEM REGULATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B294 **654.1** Activation of Enteric Glia Contributes to Enteric Neuron Death in Inflammation **I. Brown, J. McClain, B. Patel and B. Gulbransen**. Michigan State Univ. and Sch. of Pharm. and Biomolec. Sci., Univ. of Brighton.

655. CENTRAL REGULATION OF FOOD INTAKE AND BODY WEIGHT

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B295 **655.1** CB1 Receptors into the Prelimbic Cortex Modulate Food Intake in Rats **A.A. Scopinho, L.B.M. Resstel and F.M.A. Corrêa**. Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.
- B296 **655.2** Fatty Acid Preference Is Differentially Mediated by Nutritional Status and Lingual CD36 in Obesity-Prone and Resistant Rats **S.D. Primeaux**. LSU Hlth. Sci. Ctr., New Orleans and Pennington Biomed. Res. Ctr.
- B297 **655.3** Central QRFP-26 in Female Rats: Effects on High Fat Intake, Meal Patterns and Hypothalamic Feeding Peptides **S.D. Primeaux, M.C. Lowe and H.D. Braymer**. LSU Hlth. Sci. Ctr., New Orleans and Pennington Biomed. Res. Ctr., Baton Rouge.
- B298 **655.4** Leptin in the Hindbrain Facilitates Phosphorylation of STAT3 in the Hypothalamus **B.N. Desai and R.B.S. Harris**. Med. Col. of Georgia, Georgia Regents Univ.
- B299 **655.5** Neonatal Growth Restriction Heightens Leptin-Evoked Arterial Blood Pressure and Renal Sympathetic Nerve Responses in Adult Mice **V. Peotta, D. Morgan, K. Rahmouni, V. Movva, K. Volk and R. Roghair**. Univ. of Iowa.
- B300 **655.6** Activation of Leptin's Signaling Cascade Results in the Endocytosis of Mu Opioid Receptors **M.J. Barnes**. Pennington Biomed. Res. Ctr., Baton Rouge.
- B301 **655.7** Physical Activity Motivation: Are Nucleus Accumbens Dopamine and Opioid Signaling Involved? **G. Ruegsegger, R. Toedebusch and F. Booth**. Univ. of Missouri-Columbia.
- B302 **655.8** Apelin Icv Infusion Blunts Brain ACE₂ Overexpression-Mediated Metabolic Abnormalities in Mice **H. Xia**. LSU Hlth. Sci. Ctr., New Orleans.
- B303 **655.9** Stimulation of 5-HT_{1A} Receptors of the PVN with Inhibition of HPA Axis on Feeding **M. Rito Domingo, V.E. López Alonso, K.A. Reyes Santos, G. Ambrocio Segundo, K. Cruz Garcia and J.M. Mancilla Díaz**. Natl. Autonomous Univ. of Mexico.
- B304 **655.10** Glycemic State Regulates Brain-Derived Neurotrophic Factor Responsiveness of Neurons in the Paraventricular Nucleus **W.C. Mclsaac and A.V. Ferguson**. Queen's Univ., Canada.
- B305 **655.11** Hypothalamic AgRP-mediated energy metabolism in skeletal muscle Is a critical regulatory system in feeding rhythm-induced insulin resistance **T. Shiuchi, A. Otsuka, S. Chikahisa, N. Shimizu and H. Sei**. Univ. of Tokushima Grad. Sch. and PRESTO, JST.
- B306 **655.12** Bardet-Biedl Syndrome Proteins in POMC Neurons are Required for Energy Homeostasis **D.F. Guo and K. Rahmouni**. Univ. of Iowa.

656. CNS SPINAL PLASTICITY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B307 **656.1** Early Spinal Cord Rewiring Revealed by Transcranial Magnetic Stimulation following C2 Partial Injury: Implication of the Crossed Phrenic Pathway **S. Vinit, M. Petitjean, E. Keomani, T.B. Deramaudt and M. Bonay.** Univ. de Versailles.
- B308 **656.2** Interdisciplinary Approaches of Transcranial Magnetic Stimulation Applied to a Respiratory Neuronal Circuitry Model **M. Petitjean, S. Vinit, E. Keomani, T.B. Deramaudt, V.M. Spruance, T. Bezdudnaya, M.A. Lane and M. Bonay.** Univ. of Versailles and Col. of Med., Drexel Univ.
- B309 **656.3** Evaluation of the Nrf2-mediated anti-oxidative and anti-inflammatory responses in phrenic motoneurons following C2 hemisection in adult rat **T.B. Deramaudt, S. Vinit, L. Efthimiadi, E. Keomani, M. Petitjean and M. Bonay.** Univ. of Versailles.
- B310 **656.4** Cervical Epidural Stimulation Elicits Evoked Potentials and Modulates Diaphragm EMG **E.A. Dale, P. Gad, H. Zhong, R.R. Roy and V.R. Edgerton.** UCLA.
- B311 **656.5** Plasticity in Diaphragm and Intercostal Motor Control in a Rat ALS Model **Y.B. Seven, N.L. Nichols and G.S. Mitchell.** Univ. of Wisconsin-Madison and Univ. of Florida.
- B312 **656.6** Cervical Spinal Contusion Injury Alters Membrane Expression of NKCC1 and KCC2 in Phrenic Motor Neurons: Impact of Repetitive Acute Intermittent Hypoxia **L. Allen, K. Braegelmann, S. Fischer, L. Sullivan, S. Springborn, E. Kopp, T. Baker-Herman and G. Mitchell.** Univ. of Wisconsin-Madison.
- B313 **656.7** Daily Acute Intermittent Hypoxia Enhances Inspiratory Activity in Non-diaphragm Breathing Muscles **J.G. Weltman, A.A. Navarrete-Opazo, R. Johnson and G.S. Mitchell.** Univ. of Wisconsin-Madison.
- B314 **656.8** Differential Roles of Mammalian Target of Rapamycin in Phrenic Long-Term Facilitation **B. Dougherty, D. Fields and G. Mitchell.** Univ. of Wisconsin-Madison.
- B315 **656.9** Adaptive Plasticity in the Spinal Control of Left-Right Coordination during Locomotion **A. Frigon, C. Dambreville, Y. Thibaudier, M-F. Hurteau, V. Kuczynski and E. Rhodes.** Univ. of Sherbrooke, Quebec.

657. BRAIN DEVELOPMENT AND AGING

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B316 **657.1** Novel Behavioral Assays to Model Neurodevelopmental Disorders in the *Xenopus laevis* Tadpole **C.M. Ramirez-Vizcarrondo, M. Hasan, J. Gu, A.S. Khakhalin and C.D. Aizenman.** Brown Univ.
- B317 **657.2** Reduced Regional Cerebral White Matter Perfusion in Middle-Aged Hispanic Adults **E.P. Pasha, T. Tarumi, M.M. Gonzales, M.E. Pearman, A.P. Haley and H. Tanaka.** Univ. of Texas at Austin.

- B318 **657.3** Alaskan Botanicals Influence Neuronal Aging **C.R. Scerbak, E. Vayndorf, C. McGill and B.E. Taylor.** Univ. of Alaska Fairbanks and Univ. of Alaska Anchorage.
- B319 **657.4** Impact of Prenatal Nicotine and Infection on Postnatal Development and Forebrain Gene Expression **E. Martin, M. Hernandez, M. Von Chamier, L. Reyes, M. Brown and L. Hayward.** Univ. of Florida.
- B320 **657.5** Mechanisms of Spontaneous Electrical Activity in the Developing Cerebral Cortex – Subplate Zone **M.B. Singh and S.D. Antic.** Univ. of Connecticut Hlth. Ctr.
- B321 **657.6** Computational Analysis of Cellular Environment during Neural Progenitor Cell Differentiation **A.S. Mahadevan, J.T. Robinson and A.A. Qutub.** Rice Univ.

658. CENTRAL REGULATION OF BODY FLUID HOMEOSTASIS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B322 **658.1** AVP Release Induced by Increased Intrarenal NaCl through Renal Afferent Nerves in Conscious Rats **Y. Kitagata, Y. Nagai, A. Yamaguchi, K. Obata, C. Abe and H. Morita.** Gifu Univ. Grad. Sch. of Med.
- B323 **658.2** Estradiol Replacement Attenuates Central Body Fluid Regulatory Responses to Hyperosmolality and Central Angiotensin II in Ovariectomized Rats **N. Omura, Y. Nishimura, A. Igarashi and A. Takamata.** Nara Women's Univ., Japan.
- B324 **658.3** Influence of Estrogen and 5-HT_{1A} Receptors in Electrolyte Balance and Endocrine in Ovariectomized Rats **F.V. Fonseca, A.S. Mecawi, I.G. Araujo, G.A. Pereira, J.R. Antunes and L.C. Reis.** Fed. Inst. of Rio de Janeiro; Fed. Rural Univ. of Rio de Janeiro and Univ. of São Paulo.
- B325 **658.4** Sympathetic and Respiratory Activities during Increases in Osmolarity in an In Situ Rat Preparation **E.F. Silva, M. Bassi, J.V. Menani, D.B. Zoccal, G.R. Pedrino, D.S.A. Colombari and E. Colombari.** Fed. Univ. of Goiania, Brazil and Sch. of Dent. of Araraquara, São Paulo State Univ.
- B326 **658.5** Osmotically-Induced Vasopressin Secretion Is Not Altered in Novel Knockout Rats Lacking Transient Receptor Potential Vanilloid (TRPV1) Channel **A.B. Tucker and S.D. Stocker.** Penn State Col. of Med.
- B327 **658.6** Renal Denervation Increases Renal Blood Flow Variability in Conscious Rabbits **A.M. Schiller, P.R. Pellegrino and I.H. Zucker.** Univ. of Nebraska Med. Ctr.
- B328 **658.7** Fructose Driven Vasopressin Secretion May Contribute to Chronic Kidney Diseases under Chronic Dehydration **Z. Song, M.L. Garcia and C. Roncal.** Univ. of Colorado Anschutz Med. Campus.

659. CONTROL OF BREATHING: RESPIRATORY PLASTICITY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B329 **659.1** Glia Inhibitor Blocks Ventilatory Acclimatization to Chronic Sustained Hypoxia **J.A. Stokes, Z. Fu and F.L. Powell.** UCSD.
- B330 **659.2** Effects of A₂a Receptors on the Hypoxic Ventilatory Response in Rats Exposed to Chronic Sustained Hypoxia **K.E. Basaran, E.A. Moya, Z. Fu and F.L. Powell.** UCSD and Erciyes Univ., Turkey.
- B331 **659.3** Relation between Diaphragm EMG and Ventilation in Rats Acclimatized to Hypobaric Sustained Hypoxia **E.A. Moya, S. Berruecos, Z. Fu and F.L. Powell.** UCSD.
- B332 **659.4** How Respiratory Muscle Training Affects Breathing in Individuals with Spinal Cord Injury **S.Z. Aslan, E.H. Brown, M.K. Chopra, B.E. Legg, G. Singh, S.C. Aslan and A.V. Ovechkin.** DuPont Manual H.S., Louisville and Univ. of Louisville.
- B333 **659.5** Mid-cervical Spinal Neuron Activity during Intermittent Hypoxia **K.A. Streeter, S.R. Patel, E.J. Gonzalez-Rothi, P.J. Reier, D.M. Baekey and D.D. Fuller.** Univ. of Florida.
- B334 **659.6** Anatomical Characterization of Phrenic Afferent Projections following Cervical Spinal Cord Injury **J. Nair, E. Gonzalez-Rothi, G. Armstrong, P. Reier and D. Fuller.** Univ. of Florida.
- B335 **659.7** Serotonergic Innervation of Spinal Interneurons Synaptically Coupled with Phrenic and Intercostal Motor Pools **E.J. Gonzalez-Rothi, H.H. Ross, G.T. Armstrong, K.A. Streeter, A.J. Cerreta, P.J. Reier and D.D. Fuller.** Univ. of Florida.
- B336 **659.8** Differential Inhibition of Bilateral Phrenic Bursting following Pulmonary Chemoreflex in Rats with Chronic Cervical Spinal Hemisection **K-Z. Lee.** Natl. Sun Yat-sen Univ., Taiwan.
- B337 **659.9** Assessment of Diaphragm EMG Activity Recovery following Upper Cervical Spinal Cord Injury **O.U. Khurram, R.M.S. Vasdev, G.C. Sieck and C.B. Mantilla.** Mayo Clin.
- B338 **659.10** Pontine A7 and A5 Noradrenergic Neuronal Groups Mediate Long-Term Facilitation of Hypoglossal Motor Activity Induced by Episodic Airway Obstruction **G. Song and C-S. Poon.** MIT
- B339 **659.11** Inflammation Enhances Spinal BDNF-Induced Phrenic Motor Facilitation **I.M. Agosto and G.S. Mitchell.** Univ. of Wisconsin-Madison and Univ. of Florida.
- B340 **659.12** 5HT₇ Receptor-Induced Phrenic Motor Facilitation Requires EPAC and mTORC1, but Not PKA Activity **D. Fields and G. Mitchell.** Univ. of Wisconsin-Madison.
- B341 **659.13** Sex Differences in Microglial Responses to Chronic Intermittent Hypoxia **R.S. Kimyon, S.M. Smith and J.J. Watters.** Univ. of Wisconsin-Madison.
- B342 **659.14** Astrocytes Mediate Short-Term Plasticity of Breathing **Y. Okada, K. Takeda, H. Someya, Y. Oku, F. Miwakeichi, M. Ishiguro, Y. Tamura and M. Pokorski.** Murayama Med. Ctr., Tokyo; Fujita Hlth. Univ.; Tokai Univ.; Hyogo Col. of Med.; Inst. of Statistical Math., Tokyo and Mossakowski Med. Res. Ctr., Polish Acad. of Sci., Warsaw.

- B343 **659.15** Intermittent Hypercapnia Produces Long-Term Changes of Phrenic and Renal Sympathetic Nerve Activities that Are Serotonin Dependent **M. Valic, Z. Valic, R. Pecotic, I. Pavlinac Dodig, I. Stipica and Z. Dogas.** Univ. of Split Sch. of Med., Croatia.
- B344 **659.16** Combined Effects of Intermittent Hyperoxia and Intermittent Hypercapnic Hypoxia on Respiratory Control **A.H. Millstrom, S.M. Kim, K. Asklof, A.B. McDonough and R.W. Bavis.** Bates Col., ME.

660. CONTROL OF BREATHING: RESPIRATORY-RELATED DISORDERS IN AGING AND NEURODEGENERATION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B345 **660.1** Relationship of Age to Respiratory Muscle Strength and Mortality in Mechanically Ventilated MICU Patients HL113494, HL112085 **G.S. Supinski and L.A.P. Callahan.** Univ. of Kentucky.
- B346 **660.2** Phrenic Long-Term Facilitation following Acute Intermittent Hypoxia Is NADPH Oxidase Independent in a Rat Model (SOD1^{G93A}) of ALS **N.L. Nichols and G.S. Mitchell.** Univ. of Wisconsin-Madison.
- B347 **660.3** Preferential Neuropathology in Respiratory-Related Motor Nuclei in Pompe Mice **S. Turner, M. ElMallah, D. Falk, B. Byrne and D. Fuller.** Univ. of Florida.
- B348 **660.4** Stretch Activation of Angiotensin II Type 1 Receptor Contributes to Ventilator-Induced Diaphragm Dysfunction **S. Hall, A.B. Morton, A.J. Smuder, M.P. Wiggs, K. Sollanek and S.K. Powers.** Univ. of Florida.
- B349 **660.5** The Diaphragm Challenged by Acid-Base Imbalance **R.S. Fitzgerald, S. Howell and C. Roussos.** Johns Hopkins Univ.; Univ. of So. California and Univ. of Athens.
- B350 **660.6** Respiratory Function in the Mdx Mouse Model of Duchenne Muscular Dystrophy: Role of Hypoxia, Stress and Immune Factors **D. Burns, J. Manning, D. O'Malley and K.D. O'Halloran.** Sch. of Med., University Col. Cork.
- B351 **660.7** Diaphragm Muscle Sarcopenia Is Present in Both Male and Female Mice **S.M. Greising, J.S. Medina, J.M. Stowe, C.B. Mantilla and G.C. Sieck.** Mayo Clin.
- B352 **660.8** A Novel Method to Quantify Diaphragm Muscle Fiber Type Clustering in the Context of Sarcopenia **A.K. Vasdev, S.M. Greising, J.S. Medina, G.C. Sieck and C.B. Mantilla.** Carleton Col., MN and Mayo Clin.
- B353 **660.9** A Novel Approach to Target Motoneurons Using Mesoporous Silica Nanoparticles **M.A. Gonzalez, J. Brinker, G.C. Sieck and C.B. Mantilla.** Mayo Clin. Col. of Med. and Univ. of New Mexico.
- B354 **660.10** Disordered Breathing in an Aged Model of Ischemic Stroke **D.K. Mulkey, A. Patrizz, X. Chen, A. Kolb and L.D. McCullough.** Univ. of Connecticut and Univ. of Connecticut Hlth. Ctr.
- B355 **660.11** Tauopathy in the Ponto-medullary Brainstem Nuclei of Aged Tau-P301L Mice **D. Stanic, T.G. Bautista, S.E. Jones and M. Dutschmann.** Florey Inst. of Neurosci. and Ment. Hlth., Parkville, Australia.

661. LUNG PHYSIOLOGY: ENDOTHELIAL CELL BIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B356 **661.1** Hypoxia Activates Extracellular Signal-Regulated Kinase via EGFR Activation in Human Pulmonary Microvascular Endothelial Cells **H.A. White, Y. Jin, L.G. Chicoine, B. Chen and L.D. Nelin.** Nationwide Children's Hosp. and The Ohio State Univ.
- B357 **661.2** TAK1 Signaling Downstream of PAR-1 in Endothelial Cells Restores Lung Vascular Barrier Integrity **D. Soni, A. DebRoy, D. Wang, S.M. Vogel and C. Tiruppathi.** Univ. of Illinois at Chicago.
- B358 **661.3** Hypoxic-Induction of Arginase II Is Associated with EGFR Activation and EGF Production **C.M. Pool, Y. Jin, B. Chen, Y. Liu and L.D. Nelin.** Nationwide Children's Hosp., The Ohio State Univ.
- B359 **661.4** The Src Family Tyrosine Kinases yes and src Have Divergent Effects on Cytokine-Induced Apoptosis in Pulmonary Endothelial Cells through Divergent Downstream Effects on PI3K and ERK Pathways **L.D. Nelin, Y. Jin, H.A. White, B. Chen and Y. Liu.** Nationwide Children's Hosp. and The Ohio State Univ.
- B360 **661.5** *Pseudomonas aeruginosa* Exoenzymes U and Y Induce a Transmissible Endothelial Tauopathy **K.A. Morrow, C.D. Ochoa, R. Balczon, L. Cauthen, M. Alexeyev, K.M. Schmalzer, D.W. Frank and T. Stevens.** Univ. of South Alabama; Univ. of Texas Southwestern Med. Ctr. and Med. Col. of Wisconsin.
- B361 **661.6** Heterogeneity of Pulmonary Endothelial Cyclic Nucleotide Response to *Pseudomonas aeruginosa* Infection **K.A. Morrow, R. Seifert, A.L. Britain, C.D. Ochoa, E.A. Cioffi, D.W. Frank, T.C. Rich and T. Stevens.** Univ. of South Alabama; Hannover Med. Sch., Germany; Univ. of Texas Southwestern Med. Sch. and Med. Col. of Wisconsin.
- B362 **661.7** Differential Focal Adhesion Kinase Expression Accounts for the Developmental Regulation of Pulmonary Artery Endothelial Cell Barrier Function **L. Ying, E.A. Barnes, C.M. Alvira and D.N. Cornfield.** Stanford Univ. Sch. of Med.
- B363 **661.8** MK2 Phosphorylates Caspase 3 and Regulates Nuclear Translocation of Cleaved Caspase 3 during LPS-Mediated Apoptosis **M. Damarla, L.F. Johnston, B. Kim, T.M. Kolb, R.L. Damico, M. Merchant, M. Rane, C. Machamer and P. Hassoun.** Johns Hopkins Univ. and Univ. of Louisville.
- B364 **661.9** Pyk2-Induced Tyrosine Phosphorylation of STIM1 at Y361 Residue Regulates Puncta Formation, Store-Operated Calcium Entry and Lung Vascular Permeability **M. Tauseef, T. Sharma, A. Malik and D. Mehta.** Univ. of Illinois at Chicago.

662. LUNG PHYSIOLOGY: PULMONARY HYPERTENSION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B365 **662.1** Activation of L-type Calcium Channels Influences Calcium Waves after Long-Term Hypoxia and Developmental Maturation **C. Shen, M. Romero, A. Brunelle, A. Dobyns, M. Francis, M.S. Taylor, L.D. Longo, C.G. Wilson and S.M. Wilson.** Loma Linda Univ. Sch. of Med. and Univ. of South Alabama Col. of Med.
- B366 **662.2** Acute Hypoxia and Ryanodine Receptor Activity in Pulmonary Arterial Myocytes of High Altitude Acclimatized Fetal and Adult Sheep **T. Yoo, M.R. Romero, J. Puglisi, D.M. Bers, L.T. Izu, L.D. Longo and S.M. Wilson.** Loma Linda Univ. Sch. of Med. and Univ. of California, Davis.
- B367 **662.3** Oxidative Stress and Ca²⁺ Sparks in Pulmonary Arterial Myocytes of High Altitude Acclimatized Sheep **E. Moral, M. Romero, J. Puglisi, D.M. Bers, L.T. Izu, L.D. Longo and S.M. Wilson.** Loma Linda Univ. Sch. of Med. and Univ. of California, Davis.
- B368 **662.4** Activation of Anoctamin-1 Causes Apoptosis of Pulmonary Vascular Endothelial Cells **A.M. Allawzi, A. Vang and G. Choudhary.** Providence VA Med. Ctr.; Brown Univ. and Brown Univ. Alpert Med. Sch.
- B369 **662.5** Decreased PGC-1 α -SIRT1 Signaling Leads to Impaired Angiogenesis in Persistent Pulmonary Hypertension of the Newborn **G.G. Konduri, E. Callan, A. Afolayan and R-J. Teng.** Med. Col. of Wisconsin.
- B370 **662.6** Stimulated Lymphocytes from Patients with *ARG1* Single Nucleotide Polymorphism rs2781666 Have Augmented NO Production in Hyperoxia **J.K. Trittman, Y. Jin, B. Chen and L.D. Nelin.** Nationwide Children's Hosp. and The Ohio State Univ.
- B371 **662.7** Proteomic Study Reveals Altered Carbamyl-Phosphate Synthetase I in Congenital Heart Disease-Associated Pulmonary Arterial Hypertension **X. Zhang, Q. Yang, J. Wang, Z-G. Liu, X-C. Liu and G-W. He.** Hangzhou Normal Univ. and Zhejiang Univ., China ; Chinese Univ. of Hong Kong and Oregon Hlth. & Sci. Univ.
- B372 **662.8** Quantitative Functional Cardiac Magnetic Resonance Imaging in Mice with Pulmonary Arterial Hypertension **E.C. Breen, M. Scadeng, F. Murray and T. Bigby.** UCSD; Univ. of Aberdeen, U.K. and VA San Diego Healthcare Syst.
- B373 **662.9** Lung ACE Is Not Involved in the Progression of Pulmonary Arterial Hypertension **S.R. Joshi and S.A. Gupte.** New York Med. Col.
- B374 **662.10** Secreted Klotho Augments the Therapeutic Potential of Mesenchymal Stem Cells for Monocrotaline-Induced Pulmonary Arterial Hypertension **R. Varshney, C. Wu, Q. Ali and Z. Sun.** Univ. of Oklahoma Hlth. Sci. Ctr.
- B375 **662.11** Acute Caspase Inhibition Attenuates Progressive Vascular Remodeling in Established Pulmonary Arterial Hypertension **C.M. Happé, R. Szulcek, N. Rol, I. Schalij, N. Westerhof, A. Vonk-Noordegraaf, F.S. De Man, G.P. van Nieuwe Amerongen and H.J. Bogaard.** VU Univ. Med. Ctr., Amsterdam.

- B376 **662.12** Differential Effects of Chronic Hypoxia on Basal and Agonist-Induced NO-Dependent Pulmonary Vasodilation in Neonatal Rats **J.R. Sheak, N.L. Jernigan, B.R. Walker and T.C. Resta.** Univ. of New Mexico.
- B377 **662.13** Aquaporin 1 Enhances Pulmonary Arterial Smooth Muscle Cell Migration and Proliferation via Regulation of β -Catenin **X. Yun, H. Jiang, N. Lai and L.A. Shimoda.** Johns Hopkins Med. Insts.
- B378 **662.14** HIF-1 α Expression Is Decreased and Contractility Is Enhanced in PASMCM from PAH Patients **E.A. Barnes, C. Chen, C.M. Alvira and D.N. Cornfield.** Stanford Univ.
- B379 **662.15** The Functional Coupling of CaSR and TRPC6 Contributes to Enhanced Proliferation in Pulmonary Arterial Smooth Muscle Cells **R.A. Fernandez, L. Jimenez-Perez, S. Song, H. Tang and J.X.-J. Yuan.** Univ. of Arizona.
- B380 **662.16** miRNA-29b Directly Downregulates K⁺ Channel Expression and Function in IPAH-PASMC **R.J. Ayon, N.M. Pohl, A. Yamamura, H. Yamamura, A. Makino and J.X.-J. Yuan.** Univ. of Arizona; Univ. of Illinois at Chicago; Col. of Pharm., Kinjo Gakuin Univ., Japan and Grad. Sch. of Pharmaceut. Sci., Nagoya City Univ.
- B381 **662.17** Raptor and Rictor Both Contribute to the Development and Progression of Pulmonary Arterial Hypertension **H. Tang, J. Chen, D.R. Fraidenburg, Y. Gu, J.G.N. Garcia, A. Makino and J.X.-J. Yuan.** Univ. of Arizona.
- B382 **662.18** Endothelial Dysfunction in Pulmonary Arterial Hypertension **K. Thambiayya.** Univ. of Illinois at Chicago.
- B383 **662.19** Differential Regulation of Pulmonary Endothelial Cell Response to Hypoxia by NF- κ B Family **H. Patel and M. Ahmed.** The Feinstein Inst. for Med. Res., Manhasset, NY.
- B384 **662.20** Role of FK506 Binding Protein 51 in Pulmonary Arterial Hypertension **A.A. Vasauskas and D.L. Cioffi.** Univ. of South Alabama.
- B385 **662.21** The Chaperone Protein Hsp90 Is Upregulated in Human Pulmonary Hypertension **G. Ruffenach, M. Le Guen, S. Chabot, S. Breuils-Bonnet, E. Tremblay, S. Provencher and S. Bonnet.** Laval Univ., Canada.
- B386 **662.22** Role for RUNX2/HDAC6 Axis in Pulmonary Arterial Hypertension **G. Ruffenach, S. Chabot, F. Potus, V. Tanguay, M. Vaillancourt, È. Tremblay, S. Breuils-Bonnet, S. Provencher and S. Bonnet.** Laval Univ., Canada.
- B387 **662.23** Role for Bromodomain-Containing Protein 4 in Pulmonary Arterial Hypertension **M. Vaillancourt, J. Meloche, G. Ruffenach, S. Provencher and S. Bonnet.** Quebec Heart and Lung Inst., Laval Univ.
- 663. KIDNEY DISEASE**
- Poster**
- SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:45 PM—3:00 PM
- B388 **663.1** Identification and Investigation of Mucin 1-Mediated Kidney Disease **B.A. Schuler, S.-W. Tsaih, E. Worthey, A. Kirby, C. Stevens, M.J. Daly and H.J. Jacob.** Med. Col. of Wisconsin and Harvard and MIT.
- B389 **663.2** Aquaporin-1 Retards Renal Cyst Development in Polycystic Kidney Disease by Inhibition of Wnt Signaling **W. Wang, F. Li, H. Zhou, A. Verkman and B. Yang.** Peking Univ. and UCSF.
- B390 **663.3** The Homeodomain Protein Cux1 Is Required for Cyst Development in an ADPKD Mouse Model **G. Vanden Heuvel, J. Wright, E. Andres, A. Woo, R. Baybutt and B. Paul.** Western Michigan Univ. Sch. of Med.; Wheaton Col., IL and Mayo Clin.
- B391 **663.4** Loss of Primary Cilia Induces the Appearance of a Non-selective Cation Channel in the Apical Membrane of Mouse CCD Principal Cells **T. Saigusa, Q. Yue, T.L. Thai, P.D. Bell and D.C. Eaton.** Med. Univ. of South Carolina and Emory Univ.
- B392 **663.5** Clomiphene Citrate Induced Kidney Injury in Female Albino Rat **H.A. Lamfon and N.A. Lamfon.** Umm AL-Qura Univ. and King Abullaziz Med. City/Natl. Guard Hlth. Affair, Saudi Arabia.
- B393 **663.6** Hypoxia-Induced Redistribution of OS-9 in Kidney Cells **R.S. Harris, C.D. Stanley and E.M. Ongeri.** North Carolina A&T State Univ.
- B394 **663.7** Systemic Increase in Serum- and Glucocorticoid-Inducible Kinase 1 Activity Potentiates Mineralocorticoid/NaCl-Induced Renal but not Cardiac Fibrosis **C. Sierra-Ramos, G. Hernandez, E. Salido and D. Alvarez de la Rosa.** Univ. of La Laguna, Tenerife, Spain.
- B395 **663.8** Elevated Aldosterone at Birth Predicts Renal Function Decline in Low Birth Weight Rats **N.B. Ojeda, B.T. Alexander and A. Bhatt.** Univ. of Mississippi Med. Ctr.
- B396 **663.9** Supervised and Unsupervised Learning Methods for the Automation of Glomerular Scoring **J.D. Bukowy, L.C. Evans, E. Broadway, A. Dayton and A.W. Cowley.** Med. Col. of Wisconsin.
- B397 **663.10** Lithium Potentiates Epithelial–Mesenchymal Transition in the Kidney through Induction of Matrix Metalloproteinase-9 **J.H. Ward, G.L. Swaim, J.L. Gooch and M.A. Blount.** Emory Univ. Sch. of Med.
- B398 **663.11** Reno-protective Effects of Plerixafor (AMD3100) in an Angiotensin II-Induced Chronic Kidney Injury Model **A.R. Nair, P.J. Ebenezer and J. Francis.** LSU, Baton Rouge.
- B399 **663.12** Regulation of Formyl Peptide Receptor 2 during Chronic Kidney Disease **R. Labes, H. Neymeyer, F. Saez, V. Reverte, J. Salazar, S. Bachmann and A. Paliege.** Charité, Berlin and Univ. of Murcia, Spain.
- B400 **663.13** Podocyte-Specific Deletion of Acid Ceramidase Predisposes Mice to Obesity-Induced Glomerular Injury **K.M. Boini, M. Xia, S.M. Conley, T.W. Gehr and P.-L. Li.** Virginia Commonwealth Univ.
- B401 **663.14** Role for Rictor/mTORC2 Signaling in Mediating TGF β 1-Induced Fibroblast Activation and Kidney Fibrosis **C. Dai.** Nanjing Med. Univ., China.
- B402 **663.15** Klotho Deficiency Causes Kidney Fibrosis via Activation of the Notch2 Signaling Pathway **Y. Xu and Z. Sun.** Univ. of Oklahoma Hlth. Sci. Ctr.
- B403 **663.16** A Novel Transgenic Mouse Model for Congenital Obstructive Nephropathy **A.J. Lee, N. Polgar, V.H. Lui, K.-K.A. Tamashiro, J.A. Napoli, J. Lipschutz and B. Fogelgren.** Univ. of Hawaii and Med. Univ. of South Carolina.
- B404 **663.17** Loss of α (E)-Catenin-Fscn2 Signaling Increases Cisplatin-Induced Apoptosis in Aged Kidney **X. Wang, L.A. Nichols, E.A. Grunz-Borgmann and A.R. Parrish.** Univ. of Missouri-Columbia.
- B405 **663.18** Twist2 Is a Novel Regulator of Renal Fibrosis **L.A. Nichols, E.A. Grunz-Borgmann and A.R. Parrish.** Univ. of Missouri-Columbia.

664. TRANSLATIONAL KIDNEY RESEARCH

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B406 **664.1** Human Mannose-Binding Lectin (MBL2) Inhibitor Prevents Renal Injury in a Novel Animal Model of Endemic Hemolytic Uremic Syndrome **M. Ozaki, B. Liu, R.I. Kushak, I.A. Rosales, Y. Kang, V.I. Pavlov, E.F. Grabowski and G.L. Stahl.** Brigham and Women's Hosp. and Massachusetts Gen. Hosp.
- B407 **664.2** Potential Mechanisms of Renoprotection in the Stenotic Kidney after Endothelin-Type A Receptor Antagonism: Podocytes, VEGF and sFlt-1 **A.R. Chade and T.W. Harvey.** Univ. of Mississippi Med. Ctr.
- B408 **664.3** Development of a Sensitive and Specific Urinary Plasmin Activity Assay **P. Svenningsen, A. Østergaard Søberg and B.L. Jensen.** Inst. of Molec. Med., Odense.
- B409 **664.4** Nanoparticle Interactions with Renal Epithelial Cells In Vivo **A.V. Nair, E.J. Keliher, A.B. Core, D. Brown and R. Weissleder.** Massachusetts Gen. Hosp. and Harvard Med. Sch.
- B410 **664.5** Characterizing Renal Dysfunction in the Face of Hypertension and Heart Failure **S.D. Brooks, J.C. Frisbee, P. Chantler, M. Olfert and R.W. Brock.** West Virginia Univ.

665. GENOMICS OF OBESITY, DIABETES, CARDIOVASCULAR, KIDNEY AND BEYOND

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B411 **665.1** Strain-Dependent Metabolic Phenotype Responses to Various Exercise Paradigms in Inbred Mice **J.J. Avila, S.K. Kim and M.P. Massett.** Texas A&M Univ.
- B412 **665.2** Use of AMP Protein Kinase as a Potential Molecular Marker to Investigate the Development of Obesity in Non-model Fish Species **M.A. Vides, P. Evans and Y. Kobayashi.** Fort Hays State Univ., KS.
- B413 **665.3** Stearoyl-CoA Desaturase mRNA in Channel Catfish: A Potential Molecular Marker to Investigate Development of Obesity Using Non-model Fish Species **C.S. Nash, P. Evans and Y. Kobayashi.** Fort Hays State Univ., KS.
- B414 **665.4** GABA A Receptor Gamma 3 Is a New Candidate Gene for Cardiovascular and Behavioral Disorders **J. Xia, S.N. Batchu, K. Donlon, A.N. Murashev and V.A. Korshunov.** Univ. of Rochester Med. Ctr.; St. Michael's Hosp., Univ. of Toronto and Shemyakin-Ovchinnikov Inst. of Bioorg. Chem., Russia.
- B415 **665.5** Seven Encapsulated and Nonencapsulated (iso)microRNAs in Human Samples Predict Coronary Atherosclerosis and Cardiac Events **A.M. James, S.A. Thomas, K. Rooney, A. Quyyumi, H. Wu, Z. Johnson and C.D. Searles.** Emory Univ. Sch. of Med.; Emory Univ. Sch. of Publ. Hlth. and Yerkes Primate Res. Ctr.

- B416 **665.6** Cardiac mRNA Expression in Inbred Rat Strains Divergent in Survival Time after Hemorrhage **H.G. Klemcke, J. Bynum and P.D. Bowman.** U.S. Army Inst. of Surg. Res., Fort Sam Houston.
- B417 **665.7** Genetic Fine-Mapping and Gene Identification of Adiposity Traits in Outbred Rats **L.C. Solberg Woods, H. He, K. Holl, J. Littrell, J. Prokop, M. Zagloul, G. Keele, B. Baur, J. Fox, M. Robinson, S. Levy and W. Valdar.** Med. Col. of Wisconsin; Univ. of North Carolina at Chapel Hill and HudsonAlpha Inst. for Biotechnol., Huntsville, AL.
- B418 **665.8** Identification of a Genomic Drug Target for Kidney Injury and Therapeutic Screening of Natural Products Derived Small Molecules **Z. Jia, D.S. Pasco, A.C. Johnson and M.R. Garrett.** Univ. of Mississippi Med. Ctr. and Univ. of Mississippi.
- B419 **665.9** Searching for the Genetic Basis and Mechanism of Nephrogenesis Defects in the HSRA Congenital Solitary Kidney Rat **X. Wang, A.C. Johnson, Z. Guo, Z. Jia and M.R. Garrett.** Univ. of Mississippi Med. Ctr.
- B420 **665.10** RNA Sequencing to Determine Gene Expression in Rat Nephron Segments **C. Yang, P. Liu, N. Zheleznova, A. Dayton and A.W. Cowley, Jr.** Med. Col. of Wisconsin.
- B421 **665.11** Gene Duplication and Sequence Variants of the *Rattus norvegicus* Y-Chromosome Can Alter Kidney Function **J.W. Prokop, J. Lazar, A.C. Underwood and H.J. Jacob.** Med. Col. of Wisconsin and Walsh Univ., OH.
- B422 **665.12** Left Ventricle Cardiac Fibroblast Transcriptome Regulation by Aldosterone In Vivo **J.P. Ball, M. Syed and D.G. Romero.** Univ. of Mississippi Med. Ctr.
- B423 **665.13** Analysis of Cardiorenal Physiological Dysfunction in a Mouse Model of Neonatal-Lethal Congenital Obstructive Nephropathy **V.H. Lui, A.J. Lee, N. Polgar, K-K.A. Tamashiro, J. Napoli, C.B. Walton and B. Fogelgren.** John A. Burns Sch. of Med., Univ. of Hawai'i at Manoa and John A. Burns Sch. of Med., Univ. of Hawai'i.
- B424 **665.14** Endurance Exercise and Selective Breeding for Longevity Extend *Drosophila* Healthspan by Overlapping Mechanisms **A.L. Sujkowski, B. Bazzell, K. Carpenter, R. Arking and R. Wessells.** Wayne State Sch. of Med.; Wayne State Univ. and Univ. of Michigan.
- B425 **665.15** Analysis of PTEN and ARID1A Expression in Endometriosis Disease Using RT-PCR Assay **J.A. Rosado-Alicea, P. Lopez, I. Flores, C. Ortiz, Y. Arias-Delfi and J.B. Monteiro.** Univ. of Puerto Rico Ponce and Ponce Hlth. Sci. Univ.
- B426 **665.16** The Effects of Genetic Background on Psychiatric Behaviors in CACNA1C +/- Mice **P. Stephens, L.J. Sittig and A.A. Palmer.** Morehouse Col., GA and Univ. of Chicago.
- B427 **665.17** Transcriptome Profiling of Human Prostate Cancer Cell Line LNCaP Treated with Individual Soy Isoflavones or Their Combination **C.H. Jang, C. Schmidt and C. Wu.** Univ. of Delaware.

666. RENAL TRANSPORT AND REGULATION I

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B428 **666.1** The Natriuretic Response to Acute K⁺ Intake
I.S. Jensen, C.K. Larsen, J. Leipziger and M.V. Sørensen. Aarhus Univ.
- B429 **666.2** Dietary Potassium, a Neglected Factor in Hypertension: Morphofunctional Evidence for Regulation of Cyclooxygenase-2 and Kallikrein by Potassium **C.P. Vio, D. Salas, A. Hernandez, P. Pedraza and C. Cespedes.** Pontifical Catholic Univ. of Chile, Sanantiago.
- B430 **666.3** Cell-Specific Regulation of BK Channel and WNK Kinases in Cortical Collecting Duct by Dietary K **R. Carrisoza, A. Subramanya, M. Carattino, T. Kleymann and L. Satlin.** Icahn Sch. of Med. at Mount Sinai and Univ. of Pittsburgh Sch. of Med.
- B431 **666.4** Regulation of Renal TRPV4 Activity by Dietary Potassium Intake Is Essential for the Maintenance of K⁺ Homeostasis **N. Boukelmoune, M. Mamenko, O. Zaika, R. O'Neil and O. Pochynyuk.** Univ. of Texas Hlth. Sci. Ctr. at Houston.
- B432 **666.5** The SGK1/NEDD4-2 Pathway Is Crucial in Regulating Renal Potassium Secretion **O. Staub, L. Al-Qusairi, D. Basquin, M. Stifanelli and J. Loffing.** Univ. of Lausanne and Univ. of Zurich.
- B433 **666.6** Reduced Renal K⁺ Excretion with Compensatory Hyperaldosteronism in K_{Ca}1.1 Channel β_2 -subunit KO Mice **C.K. Larsen, M.V. Sorensen, H.A. Praetorius and J. Leipziger.** Aarhus Univ., Denmark.
- B434 **666.7** Net K Secretion in Thick Ascending Limb in Mice on Low Na High K Diet **B. Wang, D. Wen, R.J. Cornelius, Y. Yuan, H. Li, J. Wang-France and S.C. Sansom.** Univ. of Nebraska Med. Ctr.
- B435 **666.8** Familial Hyperkalemic Hypertension KLHL3 Mutations Disrupt Binding of ROMK Endocytic Regulatory Protein ARH **O.M. Woodward, B. Kim, L. Fang and P.A. Welling.** Univ. of Maryland Sch. of Med.
- B436 **666.9** Familial Hyperkalemic Hypertension Proteins Form an Endocytic Switch for the Renal Excretory Channel, KCNJ1 **P.A. Welling, L. Fang, B. Kim, J.B. Wade and O.M. Woodward.** Univ. of Maryland Sch. of Med.
- B437 **666.10** Aldosterone Upregulates Tight Junction Expression of Claudin-4, Decreasing Paracellular Na⁺ Permeability in the Renal Cortical Collecting Duct **M. Rajagopal and A.S. Yu.** Univ. of Kansas Med. Ctr.
- B438 **666.11** AVP-Mediated Regulation of the Paracellular Permeability in the Thick Ascending Limb **A. Plain, R.D. Marques, N. Himmerkus, J.G. Leipziger and M. Bleich.** Christian Albrechts Univ., Germany and Aarhus Univ., Denmark.
- B439 **666.12** Claudin-2 Null Mice Reveal Increased Renal Transcellular Na Transport and Kidney Oxygen Consumption **L. Pei, G. Solis, W. Welch, M. Nguyen, N. Kamat, A. McDonough, A. Yu and L. Magenheimer.** Univ. of Kansas Med. Ctr.; Georgetown Univ. and Univ. of So. California.
- B440 **666.13** Claudin 3 CRISPR Knockout Mice are Healthy and Fertile **J.H. Kerr, J. El Andaloussi, Y. Yamanaka, A.K. Ryan and I.R. Gupta.** McGill Univ.; Res. Inst. of McGill Univ. Hlth. Ctr. and Goodman Cancer Res. Ctr., Montreal.
- B441 **666.14** A Common Signal Patch Drives AP-1 Dependent-Golgi Export of the Basolateral Kir Channels in the Distal Nephron **X. Li and P.A. Welling.** Univ. of Maryland Sch. of Med.
- B442 **666.15** Spinal Cord Injury Upregulates TRPM4 in the Urinary Bladder **F.A. Kullmann, J. Beckel, H. Nakagomi, A. Wolf-Johnston, C. Gauthier, A. Kanai and L.A. Birder.** Univ. of Pittsburgh.
- B443 **666.16** Hydrogen Peroxide Evokes Acute Calcium Influx in the Podocytes of Murine Glomeruli **D. Ilatovskaya, O. Palygin and A. Staruschenko.** Med. Col. of Wisconsin.
- B444 **666.17** TRPC3 Facilitates Adaptation of Collecting Duct Cells to Changes in Osmolality **M. Mamenko, O. Zaika, N. Boukelmoune, R.G. O'Neil and O. Pochynyuk.** Univ. of Texas Hlth. Sci. Ctr. at Houston.
- B445 **666.18** Urothelial EPAC: Novel Mediator in the Regulation of Bladder Capacity **H. Nakagomi, F.A. Kullmann, W. Ruiz, A. Wolf-Johnston, G. Apodaca and L.A. Birder.** Univ. of Pittsburgh.
- B446 **666.19** Decreased Surface NKCC2 Expression and Increased Urinary Excretion of Water and Ions in VAMP3 Knockout Mice **P.S. Caceres, M.Z. Haque and P.A. Ortiz.** Henry Ford Hosp. and Wayne State Univ.
- B447 **666.20** Tumor Necrosis Factor-Alpha Regulates NKCC2 and AQP2 Expression and Adaptation to High NaCl Intake **S. Hao, A. DelliPizzi, M. Hao, M.A. Knepper and N.R. Ferreri.** New York Med. Col. and NHLBI, NIH.
- B448 **666.21** Nitric Oxide Decreases the Permeability of the Paracellular Pathway in Thick Ascending Limbs by Elevating cGMP Levels and Activating PKG **C.M. Monzon and J.L. Garvin.** Case Western Reserve Univ.
- B449 **666.22** Truncated Variant of ASIC2b Confers Epithelial Sodium Channel Properties to ASIC2: Role in Nephrotic Syndrome **A. Doucet, A. Sassi, G. Brideau, L. Cheval, B. Vogt and M. Fila.** Cordeliers Res. Ctr., Paris; CHRU Montpellier and Univ. Hosp. of Bern.
- B450 **666.23** Insulin and IGF-1 Exert Distinct Actions on the Basolateral Electrolyte Fluxes in Principal and Intercalated Cells of the Collecting Duct **O. Zaika, M. Mamenko, N. Boukelmoune and O. Pochynyuk.** Univ. of Texas Hlth. Sci. Ctr. at Houston.
- B451 **666.24** The K⁺:Cl⁻ Cotransporter KCC4 Is Activated by Deacetylation Induced by the Sirtuin7 **A. Mercado, Z. Melo, A. Tovar, R. Rajaram, S. Cruz-Rangel, D. Ryu, N. Torres, O. Staub, G. Gamba and L. Noriega.** Ignacio Chávez Natl. Inst. of Cardiol.; Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City; Univ. of Lausanne and Fed. Polytech Univ. of Lausanne.
- B452 **666.25** Activation of a Novel Adaptive Mechanism Limits Renal Salt Wasting during Thiazide Inhibition of the Sodium Chloride Cotransporter **P.R. Grimm, S.M. Wall, E. Delpire and P.A. Welling.** Univ. of Maryland Sch. of Med.; Emory Univ. Sch. of Med. and Vanderbilt Univ. Sch. of Med.
- B453 **666.26** Role of NaDC1 in Control of Urinary Excretion of α -Ketoglutarate **K.S. Hering-Smith, J. Coleman-Barnett, W. Huang and L. Hamm.** Tulane Univ.
- B454 **666.27** A Renal Olfactory Receptor Aids in Glucose Handling in the Proximal Tubule **B.D. Shepard, L. Cheval, A. Doucet and J.L. Pluznick.** Johns Hopkins Univ. Sch. of Med. and Res. Ctr. des Cordeliers, Paris.
- B455 **666.28** The Effect of a Novel rBAT Mutation on the Expression and Function of System b⁰⁺ **S.J. Rice, N. Edwards, J.A. Sayer and D.T. Thwaites.** Newcastle Univ.

B456 **666.29** A Potential Role of Histone Methyltransferase, Dot1l, in Renal Regulation of Acid-Base Balance **N.L. Nakhoul, S. El-Dahr, K. Brown, M.T. Islam, A. Khan, K. Hering-Smith, L.L. Hamm and S. Abdounour-Nakhoul**. Southeast Louisiana VA and Tulane Univ. Sch. of Med.

667. RENAL YOUNG INVESTIGATOR, IMMUNE CELLS IN HYPERTENSION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B457 **667.1** Cardiovascular, Metabolic and Renal T-Cell Profile of Obese C57Bl6 Mice: Role of Renal Nerves **N. Asirvatham-Jeyaraj, J. Fiege, R. Han, J. Foss, A. Bartolomucci, M. Razzoli, B. Burbach, Y. Shimizu and J.W. Osborn**. Univ. of Minnesota, Minneapolis.

B458 **667.2** TLR3 Activation Preferentially Enhances IL-17F Expression in SHR Immune Cells **M.V. Singh, M.Z. Cicha, M.W. Chapleau and F.M. Abboud**. Carver Col. of Med., Univ. of Iowa and VA Med. Ctr.

B459 **667.3** Participation of Immune Cells in *Klotho* Deficiency-Induced Salt-Sensitive Hypertension **X. Zhou, H. Lei and Z. Sun**. Univ. of Oklahoma Hlth. Sci. Ctr. and Chongqin Med. Med. Univ., China.

B460 **667.4** Activated JAK-STAT Pathway by IL-6 Mediates Macrophage-Induced Angiotensinogen Augmentation in Renal Proximal Tubular Cells **R. Satou, R. O'Leary, K. Miyata and L.G. Navar**. Tulane Univ.

B461 **667.5** Female Sex Hormones Protect against Salt-Induced Increases in Immune System Activation in Dahl Salt-Sensitive Rats **C. Ebeledike, E. Ralph, J. Musall and J. Sullivan**. Georgia Regents Univ.

B462 **667.6** Placental Ischemia-Induced T_H17 Cells Mediate the Pathophysiology Associated with Preeclampsia **D.C. Cornelius, K. Wallace, L.M. Amaral, J.D. Scott, N. Campbell, A. Thomas, J. Moseley and B. LaMarca**. Univ. of Mississippi Med. Ctr.

B463 **667.7** N-Acetyl-Seryl-Aspartyl-Lysyl-Proline (Ac-SDKP) Delays the Development of Hypertension and Renal Damage in Systemic Lupus Erythematosus **P. Nakagawa, T-D. Liao, M.E. Worou, H. Basha, E.L. Peterson, B. Janic, X-P. Yang, N-E. Rhaleb and O.A. Carretero**. Henry Ford Hosp.

B464 **667.8** Time Course of Immune Cell Infiltration and Cytokine Production in the Kidneys of Dahl Salt-Sensitive Rats **G. Petrova and D. Mattson**. Med. Col. of Wisconsin.

B465 **667.9** 5/6 Nephrectomy Induces Changes in Immune and Inflammatory Gene Expression in the Left Ventricle **A.J. Kriegel, M.C. Casati, P. Liu and M. Liang**. Med. Col. of Wisconsin.

668. PH HOMEOSTASIS AND ACID-BASE BALANCE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B466 **668.1** Regulation of Sodium/Bicarbonate Co-transporter 1, NBCe1, in Murine Hippocampal and Cortical Astrocytes **M. Schroedl and E. Roussa**. Univ. of Freiburg, Germany.

B467 **668.2** Novel pH-Dependent Astrocyte-Neuron Crosstalk in Hippocampal CA1 Region, Not Observed after the Knockout of the Anion Exchanger 3 **A.I. Salameh and W.F. Boron**. Case Western Reserve Univ.

B468 **668.3** NH₃ Permeability versus CO₂ Permeability: Insights from Mathematical Modeling **R. Occhipinti and W.F. Boron**. Case Western Reserve Univ.

669. TRANSPORTERS FOR TRANSMITTERS, NUTRIENTS, METABOLITES AND DRUGS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B469 **669.1** On the Interaction of the Na/K -Pump ATPase with Pro-survival and Pro-apoptotic Bcl-2 Proteins **P.K. Lauf, T. Alqahtani, K. Flues, C. Maharjan and N.C. Adragna**. Boonshoft Sch. of Med., Wright State Univ.

B470 **669.2** Differentiation-Dependent Regulation of Intestinal Iron Absorption: Cell and Molecular Mechanisms **G.D. McLaren, K. Patel, H. Said, G.J. Anderson and H.M. Said**. Univ. of California Irvine/VA Med. Ctr. and QIMR Berghofer Med. Res. Inst., Brisbane.

B471 **669.3** Expression of Transporters for Amino Acids and Glucose, GH Receptor, HSP90 and Myosin in Different Tissues of Pigs after Chronic Exposure to High Ambient Temperature **A. Morales, M. Cota, N. Arce, A. Araiza and M. Cervantes**. Autonomous Univ. of Baja California Mexico.

B472 **669.4** Re-investigation into the Ligand Selectivity of OAT2 **A.G. Hotchkiss, M. Li, L. Ingraham and R.M. Pelis**. Dalhousie Univ., Canada.

Poster Presenters: Upload Your Poster

Where: E-Poster Counter, Lobby D

Deadline: Wed., April 1, 3:00 PM

Uploaded posters will be available online to all registered attendees following the meeting at

[www. experimentalbiology.org](http://www.experimentalbiology.org)

670. STEM CELLS, CELL GROWTH, DEVELOPMENT, DIFFERENTIATION AND AUTOPHAGY**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B473 **670.1** The Efficacy of Adipose-Derived Stem Cells Sheet in Preventing Pancreatic Fistula following Pancreas Body Transection in Rats **H. Kaneko, Y. Yokoyama, J. Yamaguchi, T. Yamamoto, R. Shibata, T. Kokuryo and M. Nagino.** Nagoya Univ. Grad. Sch. of Med.
- B474 **670.2** Activation of Cardiogenic Fate of C-kit⁺ Cardiac Progenitor Cells in Doxorubicin Induced Cardiotoxicity **W. Zhu, I. Bender, A. Yellamilli and J. van Berlo.** Univ. of Minnesota, Minneapolis.
- B475 **670.3** Recovery of Mesenchymal Stem Cells Homing to Rabbit Myocardial Ischemic Infarct Area by Cu-Microbubble Treatment **L. Zheng, W. Sun, X. Sun, L. Bai, N. Wang and J.Y. Kang.** West China Hosp., Sichuan Univ. and Univ. of Louisville Sch. of Med.
- B476 **670.4** Heme Oxygenase-1 Deficiency Promotes Embryonic Stem Cell Differentiation **S-F. Yet.** Natl. Hlth. Res. Insts., Miaoli, Cty., Taiwan.
- B477 **670.5** Angiotensin II-Induced Hypertension Impairs Hematopoietic Stem Cell Homing and Engraftment **S. Kim, C.R. Cogle and M.K. Raizada.** Univ. of Florida.
- B478 **670.6** Cellular Reprogramming of Epithelial Cells Leading to Conditional Immortalization Is Accompanied by Changes in Multiple Pathways **G. Upadhyay, R.I. Glazer, E.F. Petricoin, S. Jablonski, E. Krawczyk, G. Graham, A. Khurana and S.B. Ligaba.** Georgetown Univ. and George Mason Univ.
- B479 **670.7** Murine Circumvallate Papilla Taste Bud Organoid Development and Characterization of Stem/Progenitor Cell Cycle **E. Aihara and M.H. Montrose.** Univ. of Cincinnati.
- B480 **670.8** Mesenchymal Stem Cell Exosomes Transfer MicroRNA and Protect Injured Tubular Epithelial Cells **F.T. Borges, N. Schor and A. Novaes.** Fed. Univ. of São Paulo.
- B481 **670.9** Chemoprotective Natural Compounds Targeting DNA Damaged Stem Cell – the Cells of Origin of Colon Cancer **E. Kim, L.A. Davidson, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, N.D. Turner and R.R. Chapkin.** Texas A&M Univ.; Texas A&M and Texas A&M Hlth. Sci. Ctr.
- B482 **670.10** Demonstrating a Role for Nuclear APC in Intestinal Cellular Differentiation **M.A. Miller and K.L. Neufeld.** Univ. of Kansas.

671. CELL MIGRATION, CONTRACTILITY, CYTOSKELETON, AND ADHESION**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B483 **671.1** Maturation of the Human Bronchial Epithelial Cell Layer Causes a Jamming Transition, but Compression of the Layer, as in Bronchospasm, Causes Unjamming **J-A. Park, J.A. Mitchel, N.T. Qazvini, J-H. Kim, D. Bi, C.Y. Park, J.P. Butler, S.H. Randell, S.A. Shore, M.L. Manning, J.M. Drazen and J.J. Fredberg.** Harvard Sch. of Publ. Hlth.; Syracuse Univ. and Univ. of North Carolina at Chapel Hill.
- B484 **671.2** Mitochondria Orchestrate Chemotaxis of Neutrophils by Fueling Their Autocrine Purinergic Signaling Systems **Y. Bao, C. Ledderose, J. Zhang, A.F. Graf, E. Chong and W.G. Junger.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.; Paracelsus Med. Univ., Salzburg and Ludwig Boltzmann Inst. for Traumatol., Vienna.
- B485 **671.3** Inhibition of P2X7 Alters Wound-Induced Ca²⁺ Mobilization and Cytoskeletal Rearrangements **M.S. Minns, G. Teicher, C.B. Rich and V. Trinkaus-Randall.** Boston Univ. Sch. of Med.
- B486 **671.4** Extracellular Ubiquitin Modulates Cardiac Fibroblast Phenotype and Function **S.L.C. Scofield, C.R. Daniels, S. Dalal, M. Singh and K. Singh.** East Tennessee State Univ. and James H. Quillen VA Med. Ctr.
- B487 **671.5** Scleraxis Regulates the Cardiac Myofibroblast Phenotype **P. Roche, R. Bagchi, N. Aroutiounova and M.P. Czubryt.** St. Boniface Hosp. Res. Ctr. and Univ. of Manitoba.

672. MICROBIOME: CELLULAR INTERACTIONS BETWEEN HOST AND ORGANISMS**Poster**

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B488 **672.1** Metformin Alters Airway Epithelial Tight Junction Protein Abundance **J.P. Garnett, R. Patkee, A. Weekes, E.H. Baker and D.L. Baines.** St George's, Univ. of London.
- B489 **672.2** The *Pseudomonas aeruginosa* Virulence Factor Cif Inhibits the Generation of the Pro-resolving Lipid Mediator 15-epi Lipoxin A₄ **J.M. Bomberger, B.A. Flitter, E. Ono, K.L. Hvorecny, C.D. Bahl, D.R. Madden and B.D. Levy.** Univ. of Pittsburgh; Brigham and Women's Hosp., Harvard Med. Sch. and Geisel Sch. of Med. at Dartmouth.
- B490 **672.3** Subversion of Human Intestinal Mucosa Innate Immunity by a Crohn's Disease-Associated *E. coli* **A. Jarry, L. Crémet, N. Caroff, C. Bou-Hanna, J-M. Mussini, A. Reynaud, A.L. Servin, J-F. Mosnier, V. Liévin-Le Moal and C.L. Laboisse.** Univ. of Nantes; CHU Nantes and Univ. Paris Sud.

- B491 **672.4** Regulation of Myelination in the Prefrontal Cortex by the Gut Microbiota: Implications for Health and Disease **A.E. Hoban, R.M. Stilling, L. Desbonnet, F. Shanahan, T.G. Dinan, J.F. Cryan and G. Clarke.** University Col. Cork.
- B492 **672.5** Effects of Short Chain Fatty Acids on Glucose and Lipid metabolism in Adipocytes **S. Mora and R.D. Fullerton.** Univ. of Liverpool.

673. PHYSIOLOGY AND PATHOPHYSIOLOGY OF BARRIERS IN ENDOTHELIA, EPITHELIA AND THE BLOOD BRAIN BARRIER

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B493 **673.1** Increased Cerebrovascular Protein Transcytosis and Amyloid- β Deposition during Hyperfibrinogenemia Alter Short-Term Memory **N. Muradashvili, W. Rodriguez, C. Maldonado, S.C. Tyagi and D. Lominadze.** Univ. of Louisville.
- B494 **673.2** Expression of Claudin-2 in the Uroepithelium Increases Urinary Bladder Activity **N. Montalbetti, F.A. Kullmann, A.C. Rued, D.R. Clayton, H.S. Prakasam, W.G. Ruiz, G.L. Apodaca and M.D. Carattino.** Univ. of Pittsburgh Sch. of Med.
- B495 **673.3** Epac1 Regulates Intestinal Epithelial Barrier Function by Recruiting JAM-A via RAP2C-TNIK Signaling Pathway **I.A. Sheikh and M.H. Kazi.** Natl. Inst. of Cholera & Enteric Dis., Kolkata.
- B496 **673.4** ERK 1/2 Mediates H₂O₂-Induced Increase in Renal Epithelial Paracellular Permeability **S. Jaggi, A. Voronina, J. Axis and K. Amsler.** NYIT Col. of Osteo. Med.
- B497 **673.5** H₂O₂ Slows GFP-Occludin Dynamic Mobility into MDCK Cell Tight Junctions **K. Amsler, D. Janosevic and J. Axis.** NYIT Col. of Osteo. Med. and Indiana Univ. Sch. of Med.
- B498 **673.6** Pyruvate-Enhanced Cardiocerebral Resuscitation via Nrf2/ARE Pathway **G.F. Scott.** Univ. of North Texas Hlth. Sci. Ctr.

674. CARDIAC RESPONSES TO EXERCISE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B512 **674.1** Endurance Training Prevents, while High Intensity Interval Training Exacerbates, Molecular Markers of Heart Failure in Cardiac Muscle of Hypertensive Rats **T.M. Holloway, D. Bloemberg, M.L. da Silva, J. Simpson, J. Quadrilatero and L.L. Spriet.** Univ. of Guelph and Univ. of Waterloo, Canada.
- B513 **674.2** Exercise Performed at Different Times of the Day Has Different Effects on Ambulatory Blood Pressure, Heart Rate and Arterial Stiffness **L. Brito, R. Rezende, J. Cipolla-Neto and C. Forjaz.** Sch. of Phys. Educ. and Sport of Univ. of São Paulo and Inst. of Biomed. Sci., Univ. of São Paulo.

- B514 **674.3** The Role of TRPV1-Expressing Neurons in the Control of Heart Rate during Dynamic Exercise in Rats **H. Tsuchimochi, T. Inagaki and M. Shirai.** Natl. Cerebral and Cardiovasc. Ctr. Res. Inst., Suita, Japan.
- B515 **674.4** Influence of Circulating Catecholamines on Cardiovascular Function at Rest and during Exercise in Cystic Fibrosis **A.L. Bisch, S.E. Baker, C.M. Wheatley and E.M. Snyder.** Univ. of Minnesota and Mayo Clin.
- B516 **674.5** Sirtuins as Negative Regulators of Cardiac Fibrosis **S. Samant, S. Bindu, P. Ghorpade, V.B. Pillai and M.P. Gupta.** Univ. of Chicago.

675. ACUTE EXERCISE RESPONSES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B517 **675.1** Peripheral Immune Response to Marine Corps Martial Arts Training **J. Siedlik, J. Deckert, N. Gigliotti, M. Chan, S. Benedict, P.M. Gallagher and J.P. Vardiman.** Univ. of Kansas and Children's Mercy Hosps and Clins.
- B518 **675.2** Correlation of Body Mass Index and Cardiovascular Reactivity to Exercise Induced Stress in Young Adults **G. Mohesh, A. Prasath, P. Palanisamy, A. Vijayakumar and S. A. Shri Sathya Sai Med. Col. & Res. Inst., Ammapettai, India.**
- B519 **675.3** Using the Population Approach to Obtain Individual Estimates from Indirect Calorimetry **D.A. Marsteller, J.J. Del Campo, J.V. St. Peter and M.A. Pirner.** PepsiCo Inc., New Haven.
- B520 **675.4** Peroxisome Proliferator-Activated γ Coactivator-1 α (PGC-1 α) mRNA Expression Correlates Highly with mRNA Expression of Myosin Heavy Chain Isoforms in Resistance-Trained Men **N.A. Schwarz, M.B. Spillane and D.S. Willoughby.** Univ. of South Alabama and Baylor Univ.
- B521 **675.5** No Effects of the Menstrual Cycle Phases on the Urinary Levels of Urokinase Plasminogen Activator Receptor following Prolonged Exercise **N. Yasuda and T. Tanioka.** Intl. Pacific Univ., Okayama and Showa Univ., Tokyo.
- B522 **675.6** Androgen Mediated Leukocyte Responses to Acute Resistance Exercise **M.S. Fragala, J.R. Townsend, A.R. Jajtner, L.P. Oliveira, D.S. Willoughby, K.S. Beyer, A.M. Gonzalez, A.J. Wells, J.R. Hoffman, J.R. Stout and D.H. Fukuda.** Univ. of Central Florida and Baylor Univ.
- B523 **675.7** Pro-inflammatory Cytokines in Smokers and Non-smokers following Different Intensity of Exercises **D. Martinez, E. Medina, R.A. Valdez, L. Solis and K-S. Park.** Texas A&M Intl. Univ.
- B524 **675.8** Estrogen Source Influences Muscle Soreness and Recovery in Young Women **L.J. Anderson, L.L. Baker and E.T. Schroeder.** Univ. of So. California.
- B525 **675.9** Relationship of VO₂ with Cardiac Hemodynamics Improves during Exercise in Cystic Fibrosis Patients **E.H. Van Iterson, C.M. Wheatley, S.E. Baker and E.M. Snyder.** Sch. of Kinesiol., Univ. of Minnesota and Mayo Clin. Col. of Med.

- B526 **675.10** Comparison of Post-exercise Muscle and Neutrophil Transcriptomes Using Weighted Gene Co-expression Network Analysis **J. Peake, D. Sampson, J. Broadbent, A. Bulmer and O. Neubauer.** Queensland Univ. of Technol.; Griffith Univ., Australia and Univ. of Vienna.
- B527 **675.11** Type II Muscle Is More Susceptible to Contractile Activity-Induced Injury **Y-C. Lin, Y-M. Chih and C-n. Chen.** Chang Gung Univ., Taiwan.
- B528 **675.12** Rapid Onset Vasodilation Is Blunted with Aging: Evidence for Limb Specificity? **W.E. Hughes, D.P. Treichler, K. Ueda and D.P. Casey.** Univ. of Iowa.
- B529 **675.13** Effects of Exercise Intensity on Cortisol, Antioxidant, and DNA Damage in Smokers and Non-smokers **L.F. Ponte, R.A. Valdez, E. Medina, D. Martinez and K-S. Park.** Texas A&M Intl. Univ.
- B530 **675.14** The Caffeine Dose Response in Habitual Consumers Performing a 90-s Wingate Test **N.T. Smith, K.J. Ogden, A.B. Mininger, S.H. Kieffer and J.L. Haak.** Messiah Col., PA.
- B531 **675.15** Effects of Single-Dose Dietary Nitrate on Oxygen Consumption during and after Prolonged Submaximal Exercise in Healthy Humans **G.M. Kocoloski and A.R. Crecelius.** Univ. of Dayton.
- B532 **675.16** Adipose Triglyceride Lipase Deletion from Adipocytes, but not Skeletal Myocytes, Impairs Acute Exercise Performance in Mice **M.T. Sitnick, J.J. Dube, G. Schoiswohl and E.E. Kershaw.** Montclair State Univ. and Univ. of Pittsburgh.
- B533 **675.17** The Blood Pressure Lowering Effect of the Aqueous Calyx Extract of *Hibiscus sabdariffa* May Occur via a Sympathetic Nervous System Dependent Mechanism **F. Mojiminiyi, B. Aliyu, O. Oyeniran and I. Alex.** Col. of Hlth. Sci., Usman Danfodio Univ., Nigeria.
- B534 **675.18** The Profile of Exercise-Induced Neuronal Activation in Autonomic Control Nuclei Changes According to Thermoregulatory Phase **P.M. Lima, H.P. Santiago and C.C. Coimbra.** Fed. Univ. of Minas Gerais, Brazil.
- B535 **675.19** Blood Pressure Responses to Isometric Handgrip in Women with and without a History of Hypertensive Pregnancy **S.M. Ranadive, R.E. Harvey, V.M. Miller, M.J. Joyner and J.N. Barnes.** Mayo Clin.
- B536 **675.20** High versus Low Responders to Exercise: Role of Epigenetic Modifications in Altering *PGC1 α* Gene Expression and Intramyocellular Lipid Content in Skeletal Muscle **E.M. Taylor, J.D. Covington, J.E. Galgani, E. Ravussin, S. Bajpeyi and T.M. Henagan.** Purdue Univ.; Pennington Biomed. Res. Ctr., Baton Rouge; Univ. of Texas at El Paso and Pontifical Catholic Univ. of Chile.
- B537 **675.21** Quantifying Children's Self-Paced Physical Activity: Rethinking Accelerometer Calibration **A. Moghaddasadeh, V. Jamnik and A.N. Belcastro.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.
- B538 **675.22** Response of CAPN2 to Exercise Intensity and Total Energy Expenditure **A.N. Belcastro.** Sch. of kinesiol. and Hlth. Sci., York Univ., Canada.
- B539 **675.23** Metabolic Efficiency during Exercise in Patients with Overlap of Obstructive Sleep Apnea in Metabolic Syndrome **J.C. Carvalho, F.X. Cepeda, E. Toschi-Dias, S. Rodrigues, A.C.B. Dutra-Marques, C. Maki-Nunes, M.U.P.B. Rondon, M.J.N.N. Alves, A.M.F.W. Braga, G.L. Filho, C.E. Negrão and I.C. Trombetta.** Heart Inst. – Univ. de São Paulo and Sch. of Phys. Educ. and Sports, Univ. de São Paulo.
- B540 **675.24** Effects of Chemotherapy and Radiation Exposure on Brachial Artery Blood Flow during Dynamic Handgrip Exercise **K.D. Didier, L.K. Reiter, A.K. Ederer, J.T. Caldwell and C.J. Ade.** Univ. of Oklahoma.
- B541 **675.25** Alterations in Endothelial Function and Fractional O₂ Extraction in Long-Term Cancer Survivors Treated with Chemotherapy and Radiation **C.J. Ade, M.G. Brown, J.T. Caldwell, K.D. Didier, L.K. Reiter and A.K. Ederer.** Univ. of Oklahoma.
- B542 **675.26** Differential Response in Arterial Stiffness Measures between Obese and Normal Weight Individuals **T. Baynard, S.M. Ranadive, A.D. Lane, H. Yan, R.M. Kappus and B. Fernhall.** Univ. of Illinois at Chicago; Mayo Clin.; Univ. of Iowa and East Carolina Univ.
- B543 **675.27** Cerebral Blood Flow Velocity and Cognitive Function Preceding Post-exercise Syncope **D.C. Sieck, M.J. Luttrell, S.A. Romero, M.R. Ely and J.R. Halliwill.** Univ. of Oregon.
- B544 **675.28** Higher-Volume Resistance Exercise Preferentially Increases Androgen Receptor-DNA Binding and Canonical Wnt/ β -Catenin Signaling in Resistance-Trained Men **M.B. Spillane, N.A. Schwarz and D.S. Willoughby.** Univ. of South Alabama and Baylor Univ.
- B545 **675.29** The Affective Modulation of Exercise Task Performance: Rating the Urge-to-Stop **L. Touma, C. Martin, J. Smith, B. Kirby and P.W. Davenport.** Univ. of Florida.
- B546 **675.30** NFAT5 Expression in Circulating PBMCs Is a Potential Biomarker of Whole-Body Dehydration and Stress **C.X. Munoz, A.L. McKenzie, J.M. Bartley, L.J. Kunces, B.C. Creighton, A.N. Varanoske, L.E. Armstrong, C.M. Maresh and E.C. Lee.** Univ. of Connecticut and The Ohio State Univ.

676. CIRCADIAN AND BIOLOGICAL TIMEKEEPING

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B547 **676.1** Effect of Estradiol Replacement on Diurnal Sleep/Wake Pattern in Ovariectomized Rats Measured with a Subcutaneously Implanted Acceleration Sensor **A. Igarashi, N. Omura, M. Miura, N. Mima, Y. Nishimura, K. Mabuchi and A. Takamata.** Nara Women's Univ., Japan.

677. EXERCISE TRAINING RESPONSES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B548 **677.1** Vascular Adjusts Induced by Low Intensity Resistance Training **F.N. Macedo, T.R.R. Mesquita, V.U. de Melo, R.M. Santos, M.N.S. Santana, R.V. Santos, L.R. Oliveira, M.M. Mota, T.L.T.B. Silva, A.S. Barreto, M.R.V. Santos, S. Lauton-Santos and V.J. Santana-Filho.** Fed. Univ. of Sergipe, Brazil.

- B549 **677.2** Response Analysis of Hemodynamics Parameters to Tyramine Infusion Post-exercise Training in Spontaneously Hypertensive Rats **M.T. Miranda, R.C. Fonseca Pinheiro, M.S. Santos, A.J. Rocha, G.R. Mota, M. Marocolo Júnior and O. Barbosa Neto.** Fed. Univ. of Triângulo Mineiro.
- B550 **677.3** Effects of Telephone Intervention on Inflammatory Cytokines following Summer Lifestyle Intervention Program **L. Solis, L. Ponte, D. Martinez, D. Park and K-S. Park.** Texas A&M Intl. Univ. and J.B. Alexander H.S., Laredo.
- B551 **677.4** Effects of Aerobic Interval and Moderate Continuous Training on Left Ventricular Mechanics in Sedentary Men **Y-C. Huang and J-S. Wang.** Chang Gang Univ., Taiwan.
- B552 **677.5** Interval and Continuous Exercise Regimens Reduce Senescent T-Lymphocyte Subsets in Blood **C-H. Chou and J-S. Wang.** Chang Gang Univ., Taiwan.
- B553 **677.6** Different Effects of Interval and Continuous Exercise Regimens on Capacity of Mitochondria Oxidative Phosphorylation in Lymphocyte **S-C. Chang and J-S. Wang.** Chang Gang Univ., Taiwan.
- B554 **677.7** Effects of Normoxic and Hypoxic Exercise Regimens on Monocyte-Promoted Thrombin Generation in Sedentary Men **J-S. Wang.** Chang Gung Univ., Taiwan.
- B555 **677.8** The Unfolded Protein Response in Skeletal Muscle Adaptations to Exercise **J.M. Memme and D.A. Hood.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.
- B556 **677.9** Reliability and Validity of Ventilatory Threshold and Respiratory Compensation Point Determined by Near-Infrared Spectroscopy **T-C. Fu, T-Y. Mao and J-S. Wang.** Chang Gung Mem. Hosp.; Chang Gung Univ. Col. of Med.; St. Mary's Junior Col. of Med., Nursing and Mgmt. and Chang Gung Univ., Taiwan.
- B557 **677.10** Aerobic Interval Training Improves Mitochondrial Quality and Biogenesis of Circulating Lymphocytes in Sedentary Men **H-H. Tsai and J-S. Wang.** Chang Gung Univ., Taiwan.
- B558 **677.11** Four Weeks of Moderate Intensity Exercise on Levels of Cortisol, Antioxidant, and DNA Damage **R.A. Valdez, E. Medina, L. Ponte, Y. Koh and K-S. Park.** Texas A&M Intl. Univ. and Baylor Univ.
- B559 **677.12** Impact of Long-Term, Voluntary Exercise on Body Composition and Pulmonary Function in Female Sprague-Dawley Rats **C.J. Gordon, P.M. Phillips, K.A. Jarema, T.E. Beasley and A.F. Johnstone.** U.S. EPA, Durham, NC.
- B560 **677.13** Novel Protective Role of HSP72-Mediated Exercise Preconditioning against Spinal Cord Injury in Rats **M-T. Lin and C-P. Chang.** Chi Mei Med. Ctr., Tainan and Southern Taiwan Univ. of Sci. and Technol.
- B561 **677.14** A Study of Sports Injury and Sports Rehabilitation in Elite Golf Players **H.M. Jin, K.H. Kwak and H. Moon.** Kyonggi Univ. and Ewha Womans Univ., South Korea.
- B562 **677.15** Resistance Training with Instability Increase Levels of Spinal Inhibition and Decrease the Motor Symptoms of Parkinsonians **C. Silva-Batista, H. Kanegusuku, H. Roschel, E. Mattos, V. Tricoli, C. Forjaz and C. Ugrinowitsch.** Sch. of Phys. Educ. and Sport of Univ. of São Paulo.
- B563 **677.16** Effect of Resistance Training on Intermuscular Adipose Tissue in Older Adults at Risk of Mobility Limitations **S.B. Cook, A.R. Meyer, D.P. LaRoche and T.M. Manini.** Univ. of New Hampshire and Univ. of Florida.
- B564 **677.17** Aerobic Exercise Increases Parasympathetic Activity on BDNF Genetic Variant Val66Met Carriers **J.R. Lemos Junior, S.B.C. de Souza, R. Ribeiro Junior, R.G. Dias, M.S.M. Silva, C.R. Alves and I.C. Trombetta.** São Paulo's State Military Police; Heart Inst., Univ. of São Paulo Med. Sch.; Sch. of Phys. Educ. and Sports, Univ. of São Paulo and Univ. Nove de Julho, São Paulo.
- B565 **677.18** Relationship between Cortisol and Free Testosterone in Response to Exhaustive Endurance Exercise **A.R. Lane, T. Anderson and A.C. Hackney.** Univ. of North Carolina at Chapel Hill.
- B566 **677.19** The Study of Cardio-pulmonary Function, Anaerobic Power, and Body Composition According to Sports Type in High School Athletes **H.M. Jin, Y.J. Kim, H-R. Kang and H. Moon.** Kyonggi Univ. and Ewha Womans Univ., South Korea.
- B567 **677.20** Effective *Danio rerio* Endurance Exercise Training Model **K. Bronson, E. Freeman, M. Boller and K. Savage.** St. John Fisher Col., NY.
- B568 **677.21** Exercise Attenuates Age-Associated Reductions in Muscle Strength and Cardiorespiratory Fitness in Mice **G. Dillon, T. Drake and K. Huey.** Drake Univ.
- B569 **677.22** Enhanced Muscle Mass and Contractile Function Recovery via Resistance Training after VML Injury **T. Song, K. Lee and R.P. Farrar.** Univ. of Texas at Austin.
- B570 **677.23** Safety of Resistance Training with Elevated Arterial Stiffness **E. DeVallance, S. Fournier, K. LeMaster, K. Lee, D. Bonner, D. Donley and P.D. Chantler.** West Virginia Univ. Sch. of Med.
- B571 **677.24** Deep Water Exercise Training Is Associated with Decreased Arterial Stiffening in Women **C. Moore, S.F. Fournier, E. DeVallance, K. Lee, D. Bonner, D. Donley, L. Sherlock and P.D. Chantler.** West Virginia Univ. Sch. of Med.
- B572 **677.25** The Effects of Resistance Training on Carotid Stiffness in Patients with the Metabolic Syndrome: A Pilot Study **K. LeMaster, E. DeVallance, S. Fournier, K. Lee, D. Bonner, D. Donley and P.D. Chantler.** West Virginia Univ. Sch. of Med.
- B573 **677.26** Predicting Hypertensive Responses to Exercise in Women **K. LeMaster, E. DeVallance, S.F. Fournier, K. Lee, D. Bonner, D. Donley and P.D. Chantler.** West Virginia Univ. Sch. of Med.
- B574 **677.27** α -Actinin-3 Deficiency Is Associated with Increased Exercise Performance and Training-Induced Changes in Mitochondrial Respiration in Humans **X. Yan, N. Eynon, I.D. Papadimitriou, J. Kuang, O. Tirosh, L. O'Keefe, M. Anderson, K.N. North and D.J. Bishop.** Victoria Univ. and The Royal Children's Hosp., Melbourne.
- B575 **677.28** Comparison of Training Intensity versus Training Volume on Endocrine and Muscle Growth Changes in Trained Men **G.T. Mangine, A.M. Gonzalez, J.R. Townsend, A.J. Wells, A.R. Jajtner, D.H. Fukuda, M.S. Fragala, J.R. Stout, N.R. Ratamess and J.R. Hoffman.** Univ. of Central Florida and The Col. of New Jersey, Ewing.
- B576 **677.29** Exercise- and Kefir-Induced Internalization of the Anti-inflammatory Melanocortin 3 Receptor in Monocytes **V.P. Scott, K.V. O'Brien, C.A. Booneke, L.K. Stewart, L.A. Forney and T.M. Henagan.** Purdue Univ.; LSU AgCtr.; Univ. of Northern Colorado and Sch. of Kinesiol., LSU, Baton Rouge.
- B577 **677.30** *Drosophila* Exercise Training Requires Octopaminergic Neuron Activity **A.L. Sujkowski and R. Wessells.** Wayne State Univ. Sch. of Med.

- B578 **677.31** Daily Exercise May Alter Anti-oxidative Responses to Heat in Mouse Brain **K. Nagashima, K. Tokizawa, C. Obata, M. Tsunakawa and S. Marui.** Waseda Univ., Japan and Natl. Inst Occup. Safety Hlth., Kawasaki.
- B579 **677.32** Exercise Training Reduces Cardiac Dysfunction and Remodeling in Ovariectomized Rats Submitted to Myocardial Infarction **G.R. Abreu, S.A. Almeida, E.R.G. Claudio, V. Mengal, S.G. Oliveira, A.L.R.A. Carvalho, P.L. Podratz, E. Merlo, S.A. Gouvêa and J.B. Graceli.** Fed. Univ. of Espirito Santo, Brazil.

678. NEW INSIGHTS INTO THE PHYSIOLOGY AND PATHOPHYSIOLOGY OF DIVING AND HYPERBARIC ENVIRONMENTS

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B580 **678.1** Relationship between Exhaled Nitric Oxide and Hyperoxic Stress **D.M. Fothergill and P.K. Weathersby.** Naval Submarine Med. Res. Lab., Groton, CT.
- B581 **678.2** The Isolation of Volatile Organic Compounds as Noninvasive Early Markers of Pulmonary Oxygen Toxicity in Swine **A.L. Senese, W.A. Cronin, R.T. Mahon, D.P. Regis and A.A. Hall.** Naval Med. Res. Ctr. and Walter Reed Natl. Mil. Med. Ctr., Bethesda.
- B582 **678.3** Reduced Exercise Endurance after Repeated Long-Duration Oxygen Dives — Do Ventilatory Parameters Hint at a Cause? **B.E. Shykoff, E.R. Bergeron and J.P. Florian.** Navy Exptl. Diving Unit, Panama City, FL.
- B583 **678.4** Inhaled CO₂ and CO₂ Retention during Heavy Exercise Underwater **B.E. Shykoff and D.E. Warkander.** Navy Exptl. Diving Unit, Panama City, FL.
- B584 **678.5** Respiratory Monitoring System for Underwater Use **D.E. Warkander, H. Boone and B. Shykoff.** Navy Exptl. Diving Unit, Panama City, FL.
- B585 **678.6** Sex-Specific Heart Rate Responses to Apneic Manipulations in Young Healthy Subjects **J.A. Vela, C.W. Usselman, C.D. Bruce, R.J. Skow, M. Abrosimova, J.R. Pfoh, T.A. Day, M.H. Davenport and C.D. Steinback.** Univ. of Alberta and Mount Royal Univ., Calgary.
- B586 **678.7** Exposure to Hyperbaric Oxygen during Long-Duration, Repeated Exercise Dives Does Not Alter Cortisol Regulation **B.J. Conaty, B.E. Shykoff and J.P. Florian.** SUNY Sullivan and Navy Exptl. Diving Unit, Panama City, FL.
- B587 **678.8** Quantifying the Effects of Repeated Long-Duration Dives on Baseline Heart Rate Variability Measures **N.T. Berry, L. Wideman, C.K. Rhea, J. Labban, K.H. Chon, B.E. Shykoff, J. Haran and J.P. Florian.** Univ. of North Carolina at Greensboro; Univ. of Connecticut and Navy Exptl. Diving Unit, Panama City, FL.
- B588 **678.9** Where Have All the Bubbles Gone? **O.F. Barak, D. Madden, A.T. Lovering, K. Lambrechts, M. Ljubkovic and Z. Dujic.** Fac. of Med., Univ. of Novi Sad, Serbia; Univ. of Split Sch. of Med., Croatia; Univ. of Oregon and Univ. of Western Brittany Brest, France.
- B589 **678.10** Diving-Related Microparticle and Other Inflammatory Responses in Humans and Mice Are Inhibited by Ascorbic Acid **S.R. Thom, O. Barak, M. Yang, J. Bhullar, V.M. Bhopale, D. Madden and Z. Dujic.** Univ. of Maryland Sch. of Med. and Univ. of Split Sch. of Med., Croatia.

- B590 **678.11** ROS Production from Endothelial Cells during In Vitro Simulated Dives: Effects of Hydrostatic and Gas Pressures **M. Theron, Q. Wang, K. Lambrechts, A. Mazur, P. Buzzacott and F. Guerrero.** Univ. of Western Brittany, Brest.
- B591 **678.12** Free Radical Production Is Increased during Hyperoxia and Exacerbated by Hypercapnic Acidosis In CO₂-Chemosensitive Caudal Solitary Complex Neurons in Rat Medullary Slices **G.E. Ciarlone and J.B. Dean.** Univ. of South Florida.
- B592 **678.13** Effect of Hyperoxia on Central Nervous System Intercellular Communication Mediated by Tunneling Nanotubes **R. Ray, D. Kernagis, G.G. de Ridder and S.V. Pizzo.** Duke Univ.
- B593 **678.14** S-Nitrosoglutathione Reductase Null Mice Display Increased Brain Glutamic Acid Decarboxylase Activity and Seizure Resistance in Hyperbaric Oxygen **H.G. Gasier, L.G. Tatro, I.T. Demchenko, H.B. Suliman and C.A. Piantadosi.** Duke Univ. Med. Ctr.
- B594 **678.15** CT, PET and MRI in Experimental Barometric Physiology **K. Hansen, N.H. Schmidt and M. Pedersen.** Aarhus Univ., Denmark.
- B595 **678.16** The Effect of Remote Ischemic Conditioning on Bubble Formation in a Decompression Sick Rat Model **N.H. Schmidt, K. Hansen and M. Pedersen.** Aarhus Univ., Denmark.
- B596 **678.17** Effect of Simulated Air Dive and Decompression Sickness on the Plasma Proteome of Rats **F. Guerrero, V. Pichereau, J. Lautridou, P. Buzzacott, Q. Wang, S. Driad, A. Mazur, K. Lambrechts and M. Theron.** Univ. of Brest, France.
- B597 **678.18** What Can We Learn from Deep-Diving Elasmobranchs to Help Humans Adapt to Extreme Underwater Environments? **C. Ari, S. Decker, J. Ford and D.P. D'Agostino.** Univ. of South Florida.
- B598 **678.19** Long-Time Saturation Exposure Changes Gut Microbiota Composition and Intestinal Antimicrobial Defense in Mice **D. Xiang, B. Luo, Y. Fang, J. Xu, J. He, X. Chen and P. Chen.** Naval Med. Res. Inst., Shanghai; Second Military Med. Univ. and Shanghai Univ. of Sport.

679. RESPIRATORY RESPONSES TO EXERCISE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B599 **679.1** Type III-IV Muscle Afferents are NOT Required for a Normal Steady-State Exercise Hyperpnea in Healthy Subjects and Patients with COPD or Heart Failure **C-S. Poon and G. Song.** MIT.
- B600 **679.2** Gas Exchange Estimate of Pulmonary Capacitance Is Similar in Cystic Fibrosis Patients and Healthy Humans when Matched for Stroke Volume **A.J. Kasak, C.M. Wheatley, E.M. Snyder and S.E. Baker.** Univ. of Minnesota, Minneapolis; Mayo Clin. and The Mayo Clin.

680. ALTITUDE AND HYPOXIA

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B601 **680.1** Effects of Hypercapnic Exercise on the Severity of Hypobaric Hypoxia-Induced Pulmonary Injury **R.L. Sheppard and A. Hall**. Naval Med. Res. Ctr., Silver Spring, MD.
- B602 **680.2** Attenuating Heat Stroke Syndromes in Rats by Heat Shock Protein 72-Mediated Hypobaric Hypoxia Preconditioning **C-P. Chang, M. Chang and K-C. Niu**. Southern Taiwan Univ. of Sci. and Technol. and Chi Mei Med. Ctr., Taiwan.
- B603 **680.3** Hyperbaric Oxygen Preconditioning Attenuated High-Altitude Pulmonary Edema via Heat Shock Protein 70 Overexpression **H-J. Lin, C-P. Chang and M-C. Tsai**. Southern Taiwan Univ. of Sci. and Technol.; Chi Mei Med. Ctr. and Chung Shan Med. Univ., Taiwan.
- B604 **680.4** Effects of Temperature and Hypoxia-Reoxygenation on Mitochondrial Oxidative Capacity and Volume, *Oncorhynchus mykiss* **J.O. Onukwufor, D. Stevens, F. Kibenge and C. Kamunde**. Univ. of Prince Edward Island.
- B605 **680.5** Acute Activation of Carotid Chemoreceptors Increases Ventilatory Instability in Healthy Humans **W.W. Holbein, J.K. Limberg, T.B. Curry and M.J. Joyner**. Mayo Clin.

681. HYPOXIA AND ION CHANNEL, SYNAPTIC AND NETWORK FUNCTION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B606 **681.1** Non-transcriptional Role of HIF-2 α in Hypoxia-Evoked hERG K⁺ Channel Trafficking **J. Nanduri, S.A. Khan, N. Wang, G.L. Semenza and N.R. Prabhakar**. Univ. of Chicago and Johns Hopkins Univ. Sch. of Med.
- B607 **681.2** Carotid Body Response to Intermittent Hypoxia Requires Ca_v 3.2 T-Type Ca²⁺ Channels **V.V. Makarenko, J. Nanduri, A.P. Fox, G.K. Kumar and N.R. Prabhakar**. Univ. of Chicago.
- B608 **681.3** Chronic Intermittent Hypoxia Has State-Dependent Effects on Rhythmogenesis from the preBötzinger Complex **A.J. Garcia, M.A. Khuu and J.M. Ramirez**. Seattle Children's Res. Inst. and Univ. of Washington.
- B609 **681.4** Chronic Intermittent Hypoxia Impairs Neurogenesis and Alters Paired Pulse Synaptic Plasticity in the Dentate Gyrus of Hippocampus **M.A. Khuu, R. Hodge, J-M. Ramirez and A.J. Garcia III**. Seattle Children's Res. Inst. and Univ. of Washington.

682. HYPOXIA: TRANSMITTERS, SECOND MESSENGERS AND SIGNAL TRANSDUCTION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B610 **682.1** AMP-Activated Protein Kinase Is Necessary for Cardiorespiratory Adjustments during Hypoxia **S.A. Lewis, J. Moral-Sanz and A.M. Evans**. Univ. of Edinburgh Col. of Med. and Vet. Med.
- B611 **682.2** Protein Kinase G Regulated H₂S Governs Oxygen Sensing by the Carotid Body **G.K. Kumar, G. Yuan, Y-J. Peng, V.V. Makarenko, G. Raghuraman, J. Nanduri, C. Vasavda, M.M. Gadalla, S.H. Snyder and N.R. Prabhakar**. Univ. of Chicago and Johns Hopkins Univ. Sch. of Med.
- B612 **682.3** HIF-2 α Deficiency Induces Carotid Body Sensory Long-Term Facilitation **Y-J. Peng, J. Nanduri, S.A. Khan, N. Wang, G.L. Semenza and N.R. Prabhakar**. Univ. of Chicago and Johns Hopkins Univ.
- B613 **682.4** Altered Behavioral Performance in the Cell-Specific HIF-1 α and HIF-2 α Deficient Mice **K. Xu, X. Sun, T.S. Radford and J.C. LaManna**. Case Western Reserve Univ.
- B614 **682.5** Regulation of Insulin Metabolism by Intermittent Hypoxia: Molecular Mechanisms **J. Nanduri, N. Wang, S.A. Khan, G.L. Semenza and N.R. Prabhakar**. Univ. of Chicago and Johns Hopkins Univ. Sch. of Med.
- B615 **682.6** Enhanced Neurotrophin Signaling following Chronic Hypoxia Potentiates Catecholamine Release from Adrenal Chromaffin Cells **A.L. Scott, M. Zhang and C.A. Nurse**. McMaster Univ., Canada.
- B616 **682.7** Strain-Dependent Variations in Carotid Body O₂ Sensing: Role of CO-H₂S Signaling **Y-J. Peng, V.V. Makarenko, J. Nanduri, C. Vasavda, G. Raghuraman, G. Yuan, M.M. Gadalla, G.K. Kumar, S.H. Snyder and N.R. Prabhakar**. Univ. of Chicago and Johns Hopkins Univ.
- B617 **682.8** Hydrogen Sulfide and Hypoxia-Induced Changes in K2P3/9 (TASK) Current and [Ca²⁺]_i in Rat Carotid Body Glomus Cells **D. Kim, J. Wang, I. Kim and J.L. Carroll**. Chicago Med. Sch. and Arkansas Children's Hosp., Little Rock.

683. RESPONSES TO ACUTE OR CHRONIC HYPOXIA EXPOSURE AND ALTITUDE

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B618 **683.1** The Effects of Dietary Capsaicin on Ventilation in Aging Mice **A. Le, S.A. Ruby, C.M. Cunningham, M.C. Benson, K.C. DeRuisseau and L.R. DeRuisseau**. Le Moyne Col., NY and Syracuse Univ.
- B619 **683.2** Mouth Occlusion Pressure (P0.1) Provides Valuable Information in the Clinical Assessment and Follow-Up of Ventilatory Drive in Obstructive and Restrictive Lung Disease **D.J. De La Zerda and Y.M. Rovira**. UCSD.

- B620 **683.3** Influence of Moderate Altitude in Salivary Cortisol Levels in Third Year Medical Students of the National University of Trujillo, Peru **L.J. Fernández-Rodríguez, V.H. Bardales-Zuta and J.S. Hilarío-Vargas.** Antenor Orrego Private Univ. and Natl. Univ. of Trujillo, Peru.
- B621 **683.4** Effect of Acute Hypoxia at High Altitude on the Metabolism of Glucose in Medical Students of the Antenor Orrego Private University of Trujillo, Peru **L.J. Fernández-Rodríguez, V.H. Bardales-Zuta, C.E. Avalos-Alvarado, D.G. Palomino-Fernández, E.J. Lohmeyer and J.S. Hilarío-Vargas.** Antenor Orrego Private Univ., Peru; Albert Ludwigs Univ., Germany and Natl. Univ. of Trujillo, Peru.
- B622 **683.5** Short-Term Hypoxia Training Improves Anaerobic Performance in Amateur Women Boxers **R. Wang, Y. Hu, M. Fan, D.H. Fukuda, J.R. Stout and J.R. Hoffman.** Univ. of Central Florida; Beijing Sport Univ. and Univ. of Hong Kong.

684. GESTATION, FETAL, AND MAMMARY GLAND PHYSIOLOGY

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B623 **684.1** Impact of ATP1B4 Gene Co-option on Perinatal Development of Placental Mammals **N. Modyanov, I. de la Serna, N. Ahmad, L. Russo, N. Pestov and S. Najjar.** Univ. of Toledo Col. of Med. and Shemyakin-Ovchinnikov Inst. of Bioorg. Chem., Moscow.
- B624 **684.2** Transcriptomic Analysis of Neonatal Lamb Hearts after Maternal Hypercortisolemia Suggests Altered Triglyceride Synthesis **E.M. Richards, A. Antolic, C.E. Wood and M. Keller-Wood.** Univ. of Florida.
- B625 **684.3** Placental Transport of Nutrients and Fetal Metabolism in Intrauterine Growth Restricted Rats **I. Arguello, B.S. Hennington, B.T. Alexander and N.B. Ojeda.** Tougaloo Col. and Univ. of Mississippi Med. Ctr.
- B626 **684.4** Zn²⁺-Mediated Zn Transport Modulates Prolactin Stability and Secretion to Maintain Lactation **S. Lee and S.L. Kelleher.** Penn State Hershey Col. of Med. and Penn State.
- B627 **684.5** The Effects of Preterm Birth on Cerebral Pressure-Flow Dynamics **T. O'Donnell, B. MacRae, M. Berry and Y.-C. Tzeng.** Univ. of Otago, New Zealand.
- B628 **684.6** Adverse In Utero and Postnatal Environments Promote Hepatic Microvesicular Steatosis in Conjunction with Differential Alterations in Fatty Acid and Amino Acid Metabolism in Early Adulthood **O. Sarr, K. Dunlop, L. Zhao, I. Welch and T.R.H. Regnault.** Western Univ., Canada.
- B629 **684.7** Renal Angiotensin II Content in Neonates Is Influenced by the Salt Intake during Pregnancy **P.C.N. Seravalli, B.C. Zago, I.B. Oliveira, M.M. Veras and J.C. Heimann.** Univ. of São Paulo.
- B630 **684.8** Fine Particulate Matter in the Air within the Limits Recommended by WHO Alters Placental Structure **S.F. Soto, G.D. Marchesi, K.L. Lopes, M.M. Veras and J.C. Heimann.** Univ. of São Paulo.
- B631 **684.9** Nuclear and Cytosolic Expression of Placental PKM2 in Preeclampsia and Intrauterine Growth Restriction **C.A. Mejia, B.L. Bahr, P.R. Reynolds and J.A. Arroyo.** Brigham Young Univ.

- B632 **684.10** Inhibition of Trophoblast Invasion by the Growth Arrest-Specific 6 Protein **C.A. Mejia, A. Johnston, R. Lutz, J.A. Arroyo and P.R. Reynolds.** Brigham Young Univ.
- B633 **684.11** Cox2 Inhibition in Early Pregnancy Improves Adverse Outcomes in the BPH/5 Mouse Model of Preeclampsia **J.L. Sones, S.D. Butler, S.E. Shapiro, J. Cha, S.K. Dey and R.L. Davisson.** Col. of Vet. Med., Cornell Univ.; Cincinnati Children's Res. Fndn. and Weill Cornell Med. Col.
- B634 **684.12** Fetoplacental Vascular Resistance Is Elevated by Experimental Diabetes and Hypoxia **V. Hampl, P. Kafka, T. Kratzerová and O. Vajnerová.** Charles Univ. Second Fac. of Med. and Charles Univ. Third Fac. of Med., Czech Republic.
- B635 **684.13** The Flavonol Quercetin Modulates the Chemical Barrier of Innate Immunity in Endometrium **C. Deachapunya and S. Poonyachoti.** Fac. of Med., Srinakharinwirot Univ., Bangkok and Fac. of Vet. Sci., Chulalongkorn Univ., Bangkok.

685. NEUROENDOCRINOLOGY, HYPOTHALAMUS, REPRODUCTION, AND SEX HORMONES

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B636 **685.1** Effects of Coconut Water on Reproductive Functions in Danazol Treated Wistar Rats **O.T. Kunle-Alabi, O.O. Akindele, M.O. Oyovwi, M.A. Duro-Ladipo and Y. Raji.** Univ. of Ibadan, Nigeria.
- B637 **685.2** Factors Associated with Anastrozole-Induced Musculoskeletal Adverse Effects in Post-menopausal Breast Cancer Women: A Preliminary Report **M.B. Abubakar, V.M.K. Bhavaraju and S.H. Gan.** Univ. Sains Malaysia.
- B638 **685.3** Assessment of Aphrodisiac Effects of Methanol Extract of *Carpolobia lutea* Root in Male Rabbits **Y. Raji, A. Dare, O.T. Kunle-Alabi and O.O. Akindele.** Univ. of Ibadan, Nigeria.
- B639 **685.4** Effects of a Neonatal Immune Challenge on Reproductive Development and Associated Behaviors in Siberian Hamsters (*Phodopus sungorus*) **K.E. Sylvia and G.E. Demas.** Indiana Univ.
- B640 **685.5** Effects of Androgen on the Folic Acid-Induced Inhibitions of Endothelial Cell Proliferation and Migration **Y.-N. Huo, S.-D. Yeh and W.-S. Lee.** Grad. Inst. of Med. Sci., Taipei Med. Univ. and Taipei Med. Univ.
- B641 **685.6** Effects of Methotrexate on Serum Testosterone Level in Sleep-Deprived Male Wistar Rats **O.O. Akindele, O.T. Kunle-alabi, B.O. Oghenetega, D.H. Adeyemi and Y. Raji.** Univ. of Ibadan, Nigeria.
- B642 **685.7** Crosstalk between Retinoic Acid and Calcium Signaling Pathways Regulates Granulosa Cell Proliferation **J.L. Kipp, M. Demczuk, H. Huang and C. White.** Rosalind Franklin Univ. of Med. and Sci. and DePaul Univ.
- B643 **685.8** Conditional Knockout of the Androgen Receptor in Ovarian Theca Cells Reveals Altered Steroidogenesis in Aged Mice **Y. Chen, S. Childress, S. Andrisse and S. Wu.** Johns Hopkins Univ. Sch. of Med.
- B644 **685.9** In Vitro Effects of FBS and Ovarian Steroids on Osteoblast Viability **L.F.C. Brancaglão, V.M. Gonçalves, J.E. Lemos, N.F. Rocha, R. Aquino, A.C. Amaral and L.H. Montezor.** Univ. Ctr. of Araraquara, São Paulo.

- B645 **685.10** High High Fat Diet Alters Hormone Profiles and Reproductive Organs Mass **C.C. Soares da Silva, A.S. dos Santos, R.P. Gaspar Reis and C.C.A. Nascimento-Saba.** Univ. of Rio de Janeiro.
- B646 **685.11** Effect of Canola Oil on Bone Structure of Ovariectomized Rats **A.d. dos Santos, K.P. Albuquerque, G.L. Gonzalez, G.T. Boaventura, C.A.S. Costa and C.C.A. Nascimento-Saba.** Univ. of State of Rio de Janeiro and Fluminense Fed. Univ., Brazil.
- B647 **685.12** Role of Androgens in the Phenology of Male Arctic Ground Squirrels **M.M. Richter, B.M. Barnes and C.L. Buck.** Univ. of Alaska Fairbanks and Univ. of Alaska Anchorage.
- B648 **685.13** mTOR: A Possible Signaling Intermediate in the Leptin-Kisspeptin Pathway during the Pubertal Transition in Female Rats **W.D. Hall, T.L. Trevathan and T.D. Maze.** Lander Univ., SC.
- B649 **685.14** Single Molecule Analyses of Fluorescent Protein-Tagged FSHR Reveals Homodimerization and Specific Heterodimerization with LHR **J.E. Mazurkiewicz, M. Barroso, K. Herrick-Davis, A. Ulloa Aguirre, B. Lindau-Shepard, R. Thomas and J.A. Dias.** Albany Med. Col.; Res. Ctr. of Popul. Studies, Cuernavaca; NY State Dept. of Hlth. and Univ. at Albany.
- B650 **685.15** Perfluorooctanoic Acid-Induced Progesterone Synthesis Inhibition Is Associated with Decreased Expression of Steroidogenic Acute Regulatory Protein mRNA but Not p450 Side-Chain Cleavage mRNA in hCG-Stimulated mLTC-1 Cells **E.L. Miller, S.Y. Tadros and J.D. Cannon.** Georgia Regents Univ.
- B651 **685.16** Surgical Treatment of Phimosis with Congenital Epidermolysis Bullosa **V. Lozovoy, E. Lozovaya and A. Dosanova.** Med. Univ. of Astana, Kazakhstan.
- B652 **685.17** Diminished M Currents Contribute to Hyperactivity of Corticotrophin-Releasing Hormone Neurons in Acute Stress **J-J. Zhou, Y-G. Gao, T.A. Kosten and D-P. Li.** HeBei Med. Univ., China; Univ. of Texas, MD Anderson Cancer Ctr. and Univ. of Houston.
- B653 **685.18** Intranasal NPY Attenuates Development of Single Prolonged Stress-Triggered Impairments in Corticotropin-Releasing Hormone Mediated Pathways **E.L. Sabban, M. Laukova, L.G. Alaluf and L.I. Serova.** New York Med. Col.
- B654 **685.19** Cellular Localization of the (Pro)renin Receptor within the Paraventricular Nucleus of the Hypothalamus **D.J. Pioquinto, A.D. de Kloet, V. Rodriguez, H. Hiller, E.G. Krause and C. Sumners.** Univ. of Florida.

686. SCHOLANDER AWARD COMPETITION

Poster

SUN. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B655 **686.1** Investigating the Adaptive Role of Brain Mitochondria in a Mammalian Hibernator **M. Ballinger, C. Schwartz, J.A. Bjork and M.T. Andrews.** Univ. of Minnesota Duluth.
- B656 **686.2** Murine Pulmonary Slowly-Adapting Receptors: Putative Links to Neuroepithelial Body Hypoxia Chemoreception and the Calcium Sensing Receptor **N.J. Domnik, S.G. Vincent, R.J. MacLeod, E. Cutz and J.T. Fisher.** Queen's Univ., Canada; The Hosp. for Sick Children, Toronto and Univ. of Toronto.
- B657 **686.3** Huff and Puff or Shut'er Down: Hypoxia-Tolerant Mammals Respond Differently to Low Oxygen **Y.A. Dzal, M.E. Pamerter, P.A. Faure and W.K. Milsom.** Univ. of British Columbia and McMaster Univ., Canada.
- B658 **686.4** Control of Breathing and Adaptation to High-Altitude Hypoxia in Deer Mice (*Peromyscus maniculatus*) **C.M. Ivy and G.R. Scott.** McMaster Univ., Canada.
- B659 **686.5** Temperature Enhanced Extremity Lengthening Is Growth Rate Dependent **J. Kerby, M. Gray, H. Tamski, A. Heaberlin, N. Crow, G. Ion and M.A. Serrat.** Marshall Univ. Joan C. Edwards Sch. of Med.
- B660 **686.6** Thyroid Gland Remains Responsive to Thyroid Stimulating Hormone with Fasting Duration **B. Martinez, J.G. Soñanez-Organis, D.S. MacKenzie, D.E. Crocker and R.M. Ortiz.** Univ. of California, Merced; Univ. de Sonora, Mexico; Texas A&M Univ. and Sonoma State Univ.
- B661 **686.7** Cold-Acclimation Reduces CO₂ Sensitivity of Chemosensory Locus Coeruleus Neurons of American Bullfrogs, *Lithobates catesbeianus* **J.M. Santin and L.K. Hartzler.** Wright State Univ.
- B662 **686.8** Effects of Thyroid Hormone Manipulations on Growth and Metabolism of American Alligator Hatchlings **T.S. Sirsat, S.K. Sirsat, J. Crossley and E.M. Dzialowski.** Univ. of North Texas.
- B663 **686.9** Recruitment of Ankle Flexor and Extensor Muscles during Leg Movements in Chick Embryos **SY. Sun and N.S. Bradley.** Univ. of So. California.
- B664 **686.10** Understanding Intermolt Tracheal Changes Using Corrosion Casting **N.M. Ferrara and S.D. Kirkton.** Union Col., NY.
- B665 **686.11** Variation in Branchial Expression among *insulin-like growth-factor binding proteins (igfbps)* during Atlantic Salmon Smoltification **C.K. Fujimoto, S.K. Phipps-Costin, S.D. McCormick and J.P. Breves.** Skidmore Col., NY and U.S. Geol. Survey, Turners Falls, MA.
- B666 **686.12** Neuromodulator Permeability of a Ganglionic Sheath in the Lobster, *Homarus americanus* **L.J. Keller, A.E. Christie and P.S. Dickinson.** Bowdoin Col., ME and Univ. of Hawaii at Mānoa.
- B667 **686.13** Girth to Height Ratio Is Inversely Correlated to Plasma Glucose to Insulin Ratio, a Measurement of Insulin Resistance, in Horses **D.J. McCannon, C. Luedke, K. Jones and K.M.S. Johnson.** Beloit Col. and Elkhorn Vet. Clin. Ltd., WI.
- B668 **686.14** Changes in Grasshopper Jumping Muscle during Intermolt Development **M.W. Olson and S.D. Kirkton.** Union Col., NY.
- B669 **686.15** Hepatic Insulin-Like Growth Factor Binding Protein Transcriptional Responses to Fasting in Atlantic Salmon **S.K. Phipps-Costin, C.K. Fujimoto, S.D. McCormick and J.P. Breves.** Skidmore Col., NY and Conte Anadromous Fish Res. Ctr., Turners Falls, MA.
- B670 **686.16** Pulmonary Mechanics of High-Altitude Waterfowl **J.M. York, B. Chua and W.K. Milsom.** Univ. of British Columbia.

MONDAY, MARCH 30

Across Societies – Experimental Biology

687. TEACHING, LEARNING AND TESTING IN THE BIOLOGICAL AND BIOMEDICAL SCIENCES II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education

Presentation time: 12:30 PM–2:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2015 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for **Monday only**.

- T41 **687.1** The Role of Pre-recorded Lecture to Replace Live-Lecture on Student Performance **R.M. Hadgu, S.H. Huynh, K. Lee, M.R. Albert, M. Rehman, Z. Mussig, C. Gaebelein and C. Gopalan.** St. Louis Col. of Pharm.
- T42 **687.2** Co-teaching the Basic Sciences: Does It Really Influence Student Outcomes? **M.W. Lee and M.B. Gaard.** Univ. of Central Florida Col. of Med.
- T43 **687.3** So You Flipped It? **D.L. Osborne and H.F. Janssen.** Paul L. Foster Sch. of Med., Texas Tech Univ. Hlth. Sci. Ctr.-El Paso.
- T44 **687.4** Use of a Learning Management System and Related Technology to Improve Physiology Classroom Teaching **S. Mulrone, J. Whitney and A. Myers.** Georgetown Univ.
- T45 **687.5** The Flipped Classroom Model Improves Undergraduate Test Performance in Human Physiology **A.G. Goodwill.** Indiana Univ. Sch. of Med. and Indiana Univ. Purdue Univ. at Indianapolis.
- T46 **687.6** Higher Order Thinking Is Required in an Anatomy and Physiology Course Utilizing the Flipped Model **L.R. DeRuisseau, B.N. Binion, T.A.C. Willman and A.S. Bidwell.** Le Moyne Col., NU and Henninger H.S., Syracuse.
- T47 **687.7** The Impact of Using a Clicker System and Online Homework on Teaching Effectiveness and Student Learning Experience **D. Shaw.** Univ. of Tennessee at Martin.
- T48 **687.8** A Flipped Classroom Using Screen-Capture Video **D.J. McCann.** Gonzaga Univ., WA.
- T49 **687.9** Collaborative Learning in the Undergraduate A&P Classroom **K.M. Mathis and D.P. Schauer.** Univ. of Cincinnati Clermont Col. and Univ. of Cincinnati Col. of Med.
- T50 **687.10** Increasing Knowledge Retention through Self-Regulation in Medical Students **M.A. Johannessen and K. Winston.** Ross Univ. Sch. of Med., Dominica; Lake Erie Col. of Osteo. Med. and The Commonwealth Med. Col., PA.
- T51 **687.11** The Advantages of Self-Testing Vary with Familiar versus Unfamiliar Kinesiology Information **J. Dobson and M.B. Yarbrough.** Georgia Southern Univ.
- T52 **687.12** Motivate Your Students with Collaborative Group Testing **R.N. Cortright, H.L. Lujan, B.M. Langworthy, R.H. Harrison and S.E. DiCarlo.** East Carolina Univ. and Wayne State Univ. Sch. of Med.
- T53 **687.13** Early Intervention Is Preferable to Remediation: The Level of Intrinsic Motivation Predicts Academic Success for Male but Not Female Medical Students **R.A. Augustyniak, P. Guilford, A.Z. Ables, H.L. Lujan, R.N. Cortright and S.E. DiCarlo.** Edward Via Col. of Osteo. Med., SC; Wayne State Univ. Sch. of Med. and East Carolina Univ.
- T54 **687.14** Faculty and Student Perspectives on Formative Feedback and Its Role in Learning **K. LaBell and J.D. Kibble.** Univ. of Central Florida.
- T55 **687.15** The Use of Triggers during High Fidelity Patient Simulations in Medical Physiology to Develop Non-cognitive Skills and Integrate Physiology **J.M. Reinemann, K. LaBell and D.M. Harris.** Univ. of Central Florida Col. of Med.
- T56 **687.16** High Fidelity Patient Simulations in Medical Physiology Improve Non-cognitive Skills in First Year Medical Students **D. Harris, C. Bellew, A. Asmar, J. Cendan and T. Johnson.** Univ. of Central Florida.
- T57 **687.17** A Structured Program for Increasing Medical Student Commitment to Engage in Scientific Research on Hispanic Health Issues **M.J. Crespo, A. Facundo, M. Vera and K. Merced.** Univ. of Puerto Rico Sch. of Med.
- T58 **687.18** Angiography: How to Change Clinical Anatomy Teaching to Scholarships in Education **P. Klinkhachorn, J. Lucas, J. Battin and P. Klinkhachorn.** West Virginia Univ. Hlth. Sci. Ctr.
- T59 **687.19** Strategies To Teach Physiology in an Era of Declining Lecture Attendance **A.J. Lechner.** Saint Louis Univ. Sch. of Med.
- T60 **687.20** Teaching Plasma Osmolarity versus Colloid-Osmotic Pressure in Medical Physiology **F.K. Johnson, M.B. Babos and M.P. Seaman.** Lincoln Mem. Univ.-DeBusk Col. of Osteo. Med.
- T61 **687.21** Development of Clinical Pathophysiology Lectures for Physician Assistant Students **M.P. Seaman and F.K. Johnson.** Lincoln Mem. Univ. DeBusk Col. of Osteo. Med.
- T62 **687.22** Correlation between Hands-On Activities and Transfer Skills on Assessments **S. Anjur.** Illinois Math. and Sci. Acad.
- T63 **687.23** Ahead of Its Time: An Innovative Obstetric Simulator in 18th Century France **T.L. Witt.** Germanna Community Col., VA.
- T64 **687.24** The Effect of Rubric Delivery Method and Additional Written Comments on Future Lab Report Performance **S. Dawson and G. Wilds.** Univ. of Oregon.
- T65 **687.25** Technical Writing for Introductory Science Courses – Proficiency Building for Majors and Non-majors **R.M. Hannah and M. Lisi.** Univ. of Maine at Presque Isle and Univ. of Maine at Augusta.
- T66 **687.26** Cooperation at the Molecular Level Affects Your Performance and Health **A.J. Frelich.** Univ. of Delaware.
- T67 **687.27** Modeling Enzyme Activity **J. Hay.** Suffolk County Community Col., NY.
- T68 **687.28** The Use of POGIL Teaching Strategy Increases Student Learning of Basic Pharmacology Concepts **R.P. Soltis.** Drake Univ.
- T69 **687.29** Student Evaluation of Case Studies **A. Jagadeesh, M. Volodymyr, O. Bolgova, L. Maroun and S.K. Rajasekaran.** St. Matthews Univ., Cayman Islands and Eastern Virginia Med. Sch.

- T70 **687.30** Breath-Holding: Simple Demonstrations of Complex Physiology **R.J. Skow, J.E. Fuller, C.D. Bruce, T.A. Day and C.D. Steinback.** Univ. of Alberta and Mount Royal Univ., Calgary.
- T71 **687.31** The Drosophila Ovary as a Laboratory Model for Introducing the Genetic and Cellular Basis of Cell Migration **M.A.F. Daggett and L.L. Dobens.** Missouri Western State Univ. and Univ. of Missouri-Kansas City.
- T72 **687.32** Pairing of a Major Research University and an HBCU Institution to Promote Minority Student Access to Careers in Cancer Research **P.M. Heidger, D.M. Lubaroff, K.A. Baskerville, D.J. Swinton and D.L. Morman.** Univ. of Iowa and The Lincoln Univ., PA.
- T73 **687.33** An Introduction to Critiquing Primary Literature in an Undergraduate Physiology Course **C.L. Williams.** Univ. of California Irvine.
- T74 **687.34** Exploring the Correlation between Intrinsic Fluorescence and Protein Aggregation **C. Bennett, S. Alibeik and P. Valverde.** Wentworth Inst. of Technol., Boston.
- T75 **687.35** Optimizing Nutrition Education in the Special Supplemental Nutrition Program for Women, Infants, and Children **Y. Greenblatt, S. Gomez, G. Alleman, K. Rico, D.A. McDonald and M. Hingle.** Univ. of Arizona.

688. COMPUTERS IN RESEARCH AND TEACHING**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education

Presentation time: 12:30 PM–2:30 PM

Recognizing that techniques and issues related to teaching and the use of computers in research and teaching crosses all biomedical disciplines, EB 2015 has combined education posters from all participating societies. Please note: Posters are on display Sunday through Tuesday. Presentation time is for **Monday only.**

- T1 **688.1** Microbiological Investigation of Waters of Lake Përlepnica during Winter Season 2013 **M. Ismaili, F. Rashiti, Y. Kurteshi and N. Sahiti.** Fac. of Nat. Sci., Univ. of Prishtina, Albania.
- T2 **688.2** Intra-nuclear MMP-3 Controls Transcription of HSP70 Gene through Interaction with Heterochromatin Proteins **T. Eguchi and S. Calderwood.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.
- T3 **688.3** Impact of Co-enrollment in Computer-Based Human Physiology Virtual Laboratory on Students' Final Lecture Course Grade: A Follow-up Study **A.R. Crecelius and J. Keller.** Univ. of Dayton.

Anatomy**689. ANATOMY EDUCATION: FACTORS AFFECTING STUDENT PERFORMANCE****Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education & Teaching**Education**

Presentation time: 12:30 PM–2:15 PM

- D201 **689.1** Do Spatial Skills Affect Performance in Health Professional Schools? **D. Peterson and J. Holliday.** Northeast Ohio Med. Univ.
- D202 **689.2** Tracking Academic Achievement: Is Medical Student Visuospatial Ability Impacted by Undergraduate Anatomy Education? **C. Smith, Y. Mahmoud, J. Thanesan and C. Bradshaw.** Brighton and Sussex Med. Sch., Univ. of Sussex.
- D203 **689.3** The Influence of Spatial Ability on High and Low Order Anatomy Examination Questions **T.S. Phelps, N. Nguyen, A.C. Edmondson and C.M. Martin.** Med. Col. of Georgia at Georgia Regents Univ. and OhioHlth., Columbus.
- D204 **689.4** Quantification of Pattern Recognition Skills Acquisition in Histology Using an Eye-Tracking Device: First-Step toward Evidence-Based Histology Education **J.E. Kahl, P.M. Carry and L.M.J. Lee.** Univ. of Colorado Sch. of Med. and Colorado Sch. of Publ. Hlth., Univ. of Colorado.
- D205 **689.5** Knowing Your Limits: How a Time Constraint May Impact Spatial Reasoning **V.A. Roach, J. Kryklywy, D. Mitchell and T.D. Wilson.** Western Univ., Canada.
- D206 **689.6** Medical Student Grit and Performance in Gross Anatomy: What Are the Relationships? **E. Fillmore and R. Helfenbein.** Indiana Univ. Sch. of Med. and Sch. of Educ., Loyola Univ., MD.
- D207 **689.7** Physiological Correlates of Memory in a Classroom Environment **C. Nagle, M. Tat, B. Frustace, R. Deason, A. El-Shaar, A. Iyer, A. Gherbmichael, E. Wang, S. Flannery, A. Budson and A. Zumwalt.** Boston Univ. Sch. of Med.
- D208 **689.8** Exploring the Inner Working of Anatomy Learning: An Interdisciplinary Approach **J.L. Eastwood, A. Maltese, J. Deleeuw, J. Danish, R. Goldstone and B. Motz.** Stephens Col., MO and Indiana Univ.
- D209 **689.9** Using Deep Thought Processing for Better Learning Outcomes on Human Cadavers: A Pilot Study **M.W. Gribbin.** Liberty Univ., VA.
- D210 **689.10** How Confident Are You? Using Knowledge Confidence to Learn Anatomy **L. Nelson and S. Webster.** Col. of Med., Swansea Univ., U.K.
- D211 **689.11** Dissonance among Learning Modality Interest and Achievement in Anatomical Instruction **K. Alsup, M. Derstine and G.M. Fox.** Univ. of Michigan.
- D212 **689.12** Use of Gaze Tracking and EEG to Measure Short- and Long-Term Learning by Medical Gross Anatomy Students **A.A. El-Shaar, C. Nagle, M. Tat, A.C. Zumwalt and A. Budson.** Boston Univ. Sch. of Med.

690. ANATOMY EDUCATION: ASSESSMENT

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D213 **690.1** Is There a Perfect Assessment for Undergraduate Medical Student Including Anatomy Examination? **A. Mustafa**. Univ. of Edinburgh.
- D214 **690.2** Using Generalizability Analysis to Establish Guidelines for Designing Horizontally Integrated Anatomy Assessments **J.N. Byram, J.A. McAteer, M.F. Seifert and A.B. Wilson**. Indiana Univ. Sch. of Med.
- D215 **690.3** Problem-Based Learning Curriculum and Assessment of Anatomical Knowledge: Kuwait University Experience **K.M. Khan, H. Al-Hussaini and A. Mohammed**. Kuwait Univ.
- D216 **690.4** Assessment-Driven Learning: The Use of Clinically Integrated Questions in the Anatomy Laboratory Practical Exam **J. Hanna, R. Scopa Kelso, A.R. Thompson, P. Ward and K. Wines**. West Virginia Univ. Sch. of Med.
- D217 **690.5** Are Clinical Vignette Questions Harder than Traditional Questions in Gross Anatomy Course? **Y. Lu, M.L. Conway, A.R. Sinning, J.C. Lynch and M.N. Lehman**. Univ. of Mississippi Med. Ctr.
- D218 **690.6** Student Performance in Gross Anatomy Is Correlated with Dissection Exposure **M.A. Pizzimenti, N.J. Pantazis, A. Sandra, D. Hoffmann, S. Lenocho and K.J. Ferguson**. Univ. of Iowa.
- D219 **690.7** Analysis of Written Exam Items with or without Reference Pictures **A. Notebaert**. Univ. of Mississippi Med. Ctr.
- D220 **690.8** Analysis of Image-Based and Text-Based Medical Gross Anatomy Exam Questions Administered Using Examsoft **S.R. Williams, A. Notebaert, R. Darling and A. Sinning**. Univ. of Mississippi Med. Ctr.
- D221 **690.9** The Effect of Image Quality on Anatomy Learning **C.H. Mackinnon, B. Fenesi, L. Cheng, K.M. Lucibello, J.A. Kim and B.C. Wainman**. McMaster Univ., Canada.
- D222 **690.10** **Withdrawn.**
- D223 **690.11** The Role of Medical Student's Feed Back in Undergraduate Gross Anatomy Teaching **M.K. Anand, U. Gaur, C.J. Lakhani, M. Chudhari and P. Sarvanan**. Gujarat Adani Inst. of Med. Sci., India and Univ. of West Indies, Barbados.
- D224 **690.12** Examination of the Quality and Effectiveness of Peer Feedback and Self-Reflection Exercises among Medical Students **B.M. Byrd, C.M. Martin, C.A. Nichols and A.C. Edmondson**. Med. Col. of Georgia at Georgia Regents Univ.
- D225 **690.13** Analysis of the Quality, Themes, and Reliability of Faculty versus Student Feedback following Student Group Presentations in a Medical School Curriculum **D.M. Melton, A.C. Edmondson and C.A. Nichols**. Med. Col. of Georgia at Georgia Regents Univ.
- D226 **690.14** Evaluation of the Impact of Peer Teaching within the Gross Anatomy Laboratory on Student Academic Performance **K.L. Wheeler, C.M. Martin and A.C. Edmondson**. Med. Col. of Georgia at Georgia Regents Univ.

691. ANATOMY EDUCATION: INTEGRATING CLINICAL INFORMATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D227 **691.1** Transition Journey: Conventional Teaching to Integrated Teaching in Third World Countries **P. Potaliya and S. Ghatak**. All India Inst. of Med. Sci., Jodhpur.
- D228 **691.2** Effective Medical Education Resource Design and Integrative Learning: A Lesson in Autosomal Recessive Polycystic Kidney Disease **F.P. Gonzales, M.D. Post and L.M.J. Lee**. Univ. of Colorado Sch. of Med. and Univ. of Colorado, Aurora.
- D229 **691.3** Medical Gross Anatomy: Interdisciplinary Efforts to Increase Active Learning through Collection and Histological Assessment of Biopsies **D.L. Davies and C.M. Quick**. Col. of Med., Univ. of Arkansas for Med. Sci.
- D230 **691.4** Does the Use of Clinical Vignettes in Anatomy Education Increase Clinical Knowledge? A Survey of Congenital Cytomegalovirus Knowledge among Medical and Allied Health Students **K.M. Muldoon and G. Demmler-Harrison**. Midwestern Univ., AZ and Baylor Col. of Med.
- D231 **691.5** Simulating the Multi-disciplinary Care Team Approach: Enhancing Student Understanding of Anatomy through Interprofessional Sessions with Ultrasound **M.T. Luetmer, B.A. Cloud, J.W. Youdas, W. Pawlina and N. Lachman**. Mayo Clin.
- D232 **691.6** Pre-clinical Anatomy Education: An Ideal Environment for Learning Clinical Communication Skills **M. Lazaus, J. Dos Santos and P. Haidet**. Penn State Col. of Med., Milton S. Hershey Med. Ctr.
- D233 **691.7** Changing the Course: Evaluation of a Novel Pedagogical Approach to Clinical Musculoskeletal Anatomy Education **A.S. Rascoe, D. Anderson, K. Black and M. Lazarus**. Penn State Col. of Med.
- D234 **691.8** Improving Anatomical Knowledge through Interactive Modules on the OB/GYN Clinical Clerkship **A. Guloosian, J.M. Krapf, K. Brown, G. Butera, E. Goldman and R.A. Jurjus**. George Washington Univ. Sch. of Med. & Hlth. Sci. and George Washington Univ.
- D235 **691.9** Using Echocardiography as a Promising Adjunctive Teaching Tool for Cardiac Anatomy and Physiology **M.A. Eladi, A. Elmoselhi and M. Seif Allah**. Sharjah Col. of Med. and Sharjah Univ. Hosp., UAR.
- D236 **691.10** Scan When You Can: Using Open Ultrasound Practice Sessions as a Venue to Encourage Interprofessional Education **M.T. Glavin, B.A. Cloud, A. Bhagra, N. Lachman and W. Pawlina**. Mayo Med. Sch.; Mayo Grad. Sch. and Mayo Clin.
- D237 **691.11** Continuing Medical Education Learning Module for the Primary Care and Emergency Medicine Physicians: Musculoskeletal Assessment of the Knee and Shoulder Joints **K. Hines and E. Aagaard**. Univ. of Colorado Denver, Aurora.

- D238 **691.12** Anatomy in the Performance of a Lower Extremity Fasciotomy before and after Training **E. Garofalo, S. Shackelford, V. Shalin, K. Pugh, H. Chen, J. Pasley, B. Sarani, S. Henry, M. Bowyer and C. Mackenzie.** Univ. of Maryland Baltimore; Univ. of Maryland Med. Ctr.; Wright State Univ.; George Washington Univ. Hosp. and Uniformed Svcs. Univ. of Hlth. Sci.
- D239 **691.13** Simulation-Based Training Improves Non-technical Skills of General Surgery Residents: A Pilot Study **N. Nguyen, J.O. Elliott, W.D. Watson and E. Dominguez.** OhioHlth. and Riverside Methodist Hosp., Columbus.
- D240 **691.14** Effectiveness of Simulation-Based Training in Aneurysm Diagnosis and Coiling in Cerebral Angiography **O. Zaika, N. Nguyen, M. Boulton, R. Eagleson and S. de Ribaupierre.** Univ. of Western Ontario and OhioHlth. Learning, Columbus.
- D241 **691.15** The Evaluation of Learning Curves in Novice Laparoscopists: Incorporating Direct Visualization into the Simulation Training Program **M.T. Dawidek, V.A. Roach and T.D. Wilson.** Western Univ., Canada.
- D242 **691.16** The Anatomical Basis of Acupuncture: Past, Present, and Future **K. Gana.** New York Chiropractic Col.

692. ANATOMY EDUCATION: IMAGING MODALITIES IN ANATOMY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D243 **692.1** Ultrasound – an Essential Part of the Anatomy Educator Toolkit? **D.F. Royer.** Univ. of Colorado Sch. of Med., Aurora.
- D244 **692.2** Improving Longevity of Gelatin Ultrasound Trainers **B. Icceton and D.F. Royer.** Univ. of Colorado Anschutz Med. Campus and Univ. of Colorado Sch. of Med.
- D245 **692.3** The Impact of Ultrasound Education in Medical Gross Anatomy on Student Experience during Clinical Rotations **K. Zoll, M. Arseneaux, T. Atieh, D. Beatty, T. Kondrashova and P. Kondrashov.** Kirksville Col. of Osteo. Med., A.T. Still Univ.
- D246 **692.4** Use of a Rotating Gross Dissection-Clinical Training Schedule to Incorporate Ultrasound Training in a Medical Anatomy Course **H. Ressetar, J. Minardi and B. Palmer.** West Virginia Univ. Sch. of Med.
- D247 **692.5** Google Glass: Integrating Ultrasound with Anatomy **V. Lee, E. Bollinger and A. Shoujaa.** Texas Tech Univ. Hlth. Sci. Ctr.
- D248 **692.6** Evaluating the Use of Ultrasound as a Tool for Teaching Anatomy **A. Dilley and C. Smith.** Brighton and Sussex Med. Sch.
- D249 **692.7** Adaptation of an Internet-Based DICOM Viewer for Use with the Medical Imaging Resource Center – Teaching File System **Y. Carter, A. McKenzie, J. Costa and B. Burbridge.** Col. of Med., Univ. of Saskatchewan and Info. Communications Technol., Univ. of Saskatchewan.

- D250 **692.8** A Step by Step Visual Guide to Using the Sectra Visualization Table for 1st and 2nd Year Medical Students **D. Barrack, D. Horn and B. Benninger.** Western Univ. of Hlth. Sci., OR.
- D251 **692.9** Axial Image Orientation in Anatomy Disciplines: Clinical View Not Anatomical View **T.H. Champney.** Univ. of Miami Miller Sch. of Med.
- D252 **692.10** Un-embalmed Cadaveric Computed Tomography Imaging for Use in Undergraduate Anatomy Education **N. Tollemache, M. Johnston, T. Clifford and C. Smith.** Brighton and Sussex Med. Sch. and Brighton and Sussex Univ. Hosps.
- D253 **692.11** Creating 3D Virtual Anatomic Models of Vasculature and Skull from Computed Tomography Arteriograms **D. Cui, A.D. Smith, J.C. Lynch and M.N. Lehman.** Univ. of Mississippi Med. Ctr.
- D254 **692.12** Anatomy and Additive Manufacturing: Imaging Methods and 3D Printing in Anatomy Education and Research **J.W. Adams, J.F. Bertram and P.G. McMenamin.** Monash Univ., Australia.
- D255 **692.13** Toward the Development of an Accurate 3D Human Body Model Implemented in a Real-Time, Interactive Application to Enhance Anatomy Teaching **M. Poyade, L. Clunie, B. McGeough, A. Lysakowski, P. Rea and P. Anderson.** Glasgow Sch. of Art; Col. of Med., Vet. and Life Sci., Univ. of Glasgow and Univ. of Illinois at Chicago.
- D256 **692.14** From the Slices to the Loaf: Using 3-D Design and Printing Software to Enhance Learning and Interpretation of 3-D Structures within MRI Slices and the Clinical Application to Diagnostic Imaging **R.W. Sikes, A. Markowski, C. Fraley, S.H. Kim, K. McAdow, K. Overmyer, S. Rate and R. Smith.** Northeastern Univ.

693. ANATOMY EDUCATION: EDUCATIONAL OUTREACH PROGRAMS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D257 **693.1** Cadavers as Educators: An Innovative Approach to Health Behavior and Preventable Disease Education **E. Stauder, J. Swartz, S. Stevens, M. Huerta and T. Hoagland.** Med. Col. of Wisconsin.
- D258 **693.2** Effects of Dissection Experience on Student Application to Allied Health Programs **M.A. Carroll.** DeSales Univ., PA.
- D259 **693.3** Anatomy Academy: A Catalyst for Personal Growth and Development in Undergraduate Pre-professional and Medical Students **K.S. Steed, H. Wilson-Ashworth and J.J. Wisco.** Brigham Young Univ.; Utah Valley Univ. and Univ. of Utah.
- D260 **693.4** Anatomy Outreach: Long-Term Investment in the Future of Medicine **B.J. Schindel, P. Narcisse, E. Minko, A.S. Pagano and S. Marquez.** SUNY Downstate Med. Ctr. and NYU Sch. of Med.

- D261 **693.5** Student Experience and Impact of Participation in the Samuel Merritt University Community Service Honor Society **M. Allen, L.B. Peck, C. Elliott and B. Puder.** Samuel Merritt Univ., CA.
- D262 **693.6** Encouraging Puerto Rican High School Students to Pursue a STEM Career through an Anatomy & Neurobiology Outreach **M. González-Solá and M.G. Rosario-Canales.** Univ. of Puerto Rico, Med. Sci. Campus.
- D263 **693.7** Training Better Medical Students: A 2015 Update of The Graduate Medical Sciences Master's Program at Texas Tech University Health Sciences Center **B.L. Schneider and V.H. Lee.** Texas Tech Univ. Hlth. Sci. Ctr.
- D264 **693.8** Impact of a Pre-course and Real-Time Dissection Demonstrations on Student Learning in Veterinary Gross Anatomy **C. Sparks, J. Taboada, A.J. Daniel and M.A. McNulty.** LSU Sch. of Vet. Med.
- D265 **693.9** Assessment of Gross Anatomy Boot Camp on First Year Medical Student Performance **P.J. Herling, B.T. Mohseni, N. Shirley and J. Leo.** Lincoln Mem. Univ.-DeBusk Col. of Osteo. Med.
- D266 **693.10** An Exploration of Learner-Centered Teaching and the Impact on Physical Therapy Students Teaching a High School Anatomy Summer Program **D. Callier, T. Chambless and K. Bruzzini.** Maryville Univ. of St. Louis.

694. ANATOMY EDUCATION: EDUCATING FUTURE ANATOMISTS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D267 **694.1** Impact of Clinical Anatomy League of University of São Paulo Medical School (FMUSP) on motivation and performance of anatomy learning **L.L.R. Iuamoto, T.M. Nogueira, B.L.A. Souza, J.C.S. Ribeiro, F. Hojaij, F.E. Akamatsu, M. Andrade and A.L. Jacomo.** Univ. of São Paulo.
- D268 **694.2** Implementation and Evaluation of Anatomy Teaching Associate Program **V. Makeeva and D. Resuehr.** Univ. of Alabama at Birmingham Sch. of Med.
- D269 **694.3** The Anatomy Training Programme – What Have We Learnt? **T. Wilkinson, D. Heylings and C. Smith.** Univ. of Dundee; Norwich Med. Sch., Univ. of East Anglia and Brighton and Sussex Med. Sch., Univ. of Sussex.

695. ANATOMY EDUCATION: META-ANALYSIS LITERATURE REVIEW

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Education & Teaching

Education

Presentation time: 12:30 PM—2:15 PM

- D270 **695.1** Embryology in the Medical Curriculum: The Perceptions and Opinions of Current Anatomy Faculty **K.M. Cassidy.** Indiana Univ.
- D271 **695.2** Exposing the Gaps: A Review of Anatomy Education Literature **C.J. Traser, L.A. Hoffman, J.J. Brokaw and A.B. Wilson.** Indiana Univ. Sch. of Med., Indianapolis and Indiana Univ. Sch. of Med., Fort Wayne.

696. BONES, CARTILAGE AND TEETH: ANATOMY AND MORPHOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D272 **696.1** Obstetrical Implications of Sexual Dimorphism in Hominoid Os Coxae **S. Costa and K.L. Lewton.** Boston Univ. Sch. of Med.
- D273 **696.2** Mitosis in Secretory Ameloblasts **R. Hogg, T. Smith, A. Sanchez, K. Bly and S. Gografe.** Florida Gulf Coast Univ.; Slippery Rock Univ. and Florida Atlantic Univ.
- D274 **696.3** A Comparative Assessment of Hard Palate Thickness Using Micro-CT and Gross Cadaveric Measurements: Implications for the Safe Placement of Orthodontic Miniscrews **J. Phillips, C. Bourassa, H. Almadhoun, Y. Hosein, M. Johnson, K. Willmore, A. Tassi and K. Galil.** Western Univ., Canada.
- D275 **696.4** Is Carnivoran Skull Morphology Dependent on Predatory Style? **E.W. Dewar, E. Kallamata, B.J. Murray, M.M. Hartnett and A. Sood.** Suffolk Univ., MA.
- D276 **696.5** Femoral Neck Anteversion: Estimation in Bones of South Indian Origin and Clinical Significance **A. Krishnamurthy, G. Chettiar and V. Saralaya.** Kasturba Med. Col., Manipal Univ., India.
- D277 **696.6** Phenotypic Analysis of Long Bones in Pannexin 3 Knockout Mice Using a Geometric Morphometric Approach **D. Caskenette, D.W. Laird, S. Penuela, T. Wilson and K. Willmore.** Univ. of Western Ontario.
- D278 **696.7** Quantifying the Shape of the Greater Sciatic Notch using Elliptical Fourier Analysis **J.N. Byram, K.E. Latham and S.P. Nawrocki.** Indiana Univ. Sch. of Med. and Univ. of Indianapolis.
- D279 **696.8** Is Skull Shape Related to Aggressive Displays in Pinnipeds? **E.W. Dewar, C.A. Crocker, A.V. Bauchiero and J.P. Livingstone.** Suffolk Univ., MA.

697. BONES, CARTILAGE AND TEETH: CRANIOFACIAL

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:15 PM

- D280 **697.1** The Clinical Significance of Nasal Index in Ethno-Racial Specific Rhinoplasty **T.M. Otobo and R. Tarimobo-Otobo**. Niger Delta Univ. and Univ. of Benin.
- D281 **697.2** Inbred Background Effects on Craniofacial Shape Dymorphology in Mice with Spry Deletions **C.J. Percival, V. Mushegyan, D-K. Tran, O.D. Klein and B. Hallgrímsson**. Univ. of Calgary, Canada and UCSF.
- D282 **697.3** Canthal and Cephalic and Indexes of Children with Homozygous Sickle Cell Disease in Port-Harcourt **A.E. Ligha**. Niger Delta Univ.
- D283 **697.4** Genome-Wide Association Study of Dental Arch Form and Occlusal Relationships in the Mixed Dentition Stage **S.F. Miller, J.R. Shaffer, M.L. Marazita, S.M. Levy, J.J. Warren, J.K. Hartsfield and L.M. Moreno**. Univ. of Iowa; Univ. of Pittsburgh and Univ. of Kentucky.
- D284 **697.5** Developmental Patterns of the Face in Perinatal Primates: A Micro-CT and Histology Study **C.M. Ficorilli, V.B. DeLeon, M.N. Muchlinski, E.E. Powell, C.J. Bonar, C.J. Vinyard and T.D. Smith**. Slippery Rock Univ.; Univ. of Florida; Univ. of Kentucky; Johns Hopkins Univ.; Dallas Zoo and Northeast Ohio Med. Univ.
- D285 **697.6** Bilateral Duplication of the Foramen Spinosum: Implications for the Surgical Management of Neurofibromatosis Type II and Intracranial Aneurysms **J.M. Laslo, L.M. Cyrus and M.J. Zdilla**. West Liberty Univ., WV.
- D286 **697.7** A Case Report of Bilateral Carotico-clinoid Foramina and a Unilateral Accessory Optic Canal: Implications for Anterior Clinoidectomy **L.M. Cyrus, J.M. Laslo, H.W. Lambert and M.J. Zdilla**. West Liberty Univ. and West Virginia Univ. Sch. of Med.
- D287 **697.8** Bilateral Asymmetry of the Foramen Ovale: Neurosurgical Implications **L.M. Cyrus, J.M. Laslo and M.J. Zdilla**. West Liberty Univ., WV.
- D288 **697.9** Osteocyte Morphology in the Primate Craniofacial Skeleton **L.C. Smith, Y. Ren, J. Feng and P.C. Dechow**. Texas A&M Univ. Baylor Col. of Dent.
- D289 **697.10** Biomechanical Differences between Inner and Outer Layers of the Parietal Cortical Bone **U. Zapata and Q. Wang**. EAFIT Univ., Colombia and Mercer Univ., GA.
- D290 **697.11** The Foramen Magnum as a Determinant of Sex in a Series of Jamaican Crania **K.S. Garvey-Ramocan and M.T. Gardner**. Fac. of Med. Sci., Univ. of the West Indies, Jamaica.

698. BONES, CARTILAGE AND TEETH: EXERCISE, BIOMECHANICS; BIOENGINEERING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:15 PM

- D291 **698.1** In Vivo Reference Point Indentation Variability in Skeletally Mature Inbred Mice **A. Srisuwananukorn, M.R. Allen, D.M. Brown, J.M. Wallace and J.M. Organ**. Indiana Univ. Sch. of Med.
- D292 **698.2** Mechanical Effects of Fine-Wire Climbing on the Hindlimb Skeleton of Mice **J.E. Joll, B. Vickery, J.E. Rupert, K.C. Biro, J.M. Wallace, C.D. Byron and J.M. Organ**. Indiana Univ. Sch. of Med.
- D293 **698.3** Apoptosis in Bone of Diabetic Rats Treated with Low Intensity Laser **J.P. Silva, V.deP.S. Fazan, D.P. Tirapelli, J.A. Thomazini and L.F. Tirapelli**. Med. Sch. of Ribeirão Preto, Brazil.

699. BONES, CARTILAGE AND TEETH: MOLECULAR MECHANISMS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:15 PM

- D294 **699.1** Collagen XXIV Null Mouse Bones Are Not Osteoporotic Due to an Insufficiency of Osteoblastogenesis Factors **M.K. Gordon, Z.E. Lu, P. Zhou, J.Y.L. Jeon, R.A. Hahn, D.R. Gerecke, F. Ramirez and K.K. Svoboda**. Ernest Mario Sch. of Pharm., Rutgers Univ.; Icahn Sch. of Med. at Mount Sinai and Baylor Col. of Dent., Texas A&M Hlth. Sci. Ctr.

700. BONES, CARTILAGE AND TEETH: DEVELOPMENT

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:15 PM

- D295 **700.1** A Histological and Molecular Analysis of Tooth Regeneration in *Monodelphis domestica* **E.M. Popa, A. Alghadeer, N. Anthwal, M. Gaete and A.S. Tucker**. King's Col. London and Pontifical Catholic Univ. of Chile, Santiago.
- D296 **700.2** Dentition Influences Shape of Oral Jaws in Fish **C.L. Hammer, A.D.S. Atukorala and T.A. Franz-Odenaal**. Mount Saint Vincent Univ., Canada.
- D297 **700.3** Hoxd11 Influences Growth Plate Organization in the Mammalian Pisiform **K.M. Kjosness, J.E. Hines and P.L. Reno**. Penn State.

701. BONES, CARTILAGE AND TEETH: EVOLUTION AND ANTHROPOLOGY**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D298 **701.1** Covariation among Elements of the Bony Torso in Anthropoid Primates **C.V. Ward, S.J. Peacock, Z. Winkler and S.D. Maddux.** Univ. of Missouri-Columbia.
- D299 **701.2** A New Hypothesis: Were Neanderthals Susceptible to High Rates of Otitis Media? **A.S. Pagano, C.D. Bluestone, S. Marquez and J.T. Laitman.** NYU Sch. of Med.; Icahn Sch. of Med. at Mount Sinai; NY Consortium for Evol. Primatol.; Univ. of Pittsburgh Med. Ctr. and SUNY Downstate Col. of Med.
- D300 **701.3** Three-Dimensional Functional Morphology of the *Australopithecus afarensis* Fourth Metatarsal **S. Kuo, W.H. Kimbel, D.C. Johanson, K.A. Congdon and C.V. Ward.** Univ. of Missouri-Columbia; Arizona State Univ. and Southern Utah Univ.
- D301 **701.4** Analysis of the Stapes of Krapina Neandertals **C.A. Hill, J. Radovicic, D.W. Frayer and F. McGechie.** Univ. of Arizona Col. of Med.-Phoenix; Croatian Museum of Nat. Hist.; Univ. of Kansas and Arizona State Univ.
- D302 **701.5** Sexual Dimorphism in the Birth Canal and Non-obstetric Pelvis among Anthropoids: Effects of Cephalopelvic Proportions **E.A. Moffett and C.V. Ward.** Univ. of Missouri-Columbia.

702. BONES, CARTILAGE AND TEETH**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D303 **702.1** Treating Bone Quality in Chronic Kidney Disease **C. Newman, M. Hammond, J. Wallace, N. Tian, N. Chen, S. Moe and M. Allen.** Indiana Univ. Sch. of Med.; Purdue Univ. and Indiana Univ.-Purdue Univ. Indianapolis.
- D304 **702.2** Adipocytic Templating of Bone Matrix Deposition in Osteoarthropathies **A.M. Taylor, C. Platt, P.J.M. Wilson, L.R. Ranganath, J.A. Gallagher and A. Boyde.** Med. Sch., Lancaster Univ., U.K.; Univ. Hosp. Aintree, Mersey NHS Trust, Liverpool; Univ. of Liverpool and Queen Mary Univ. of London.
- D305 **702.3** Is the Shape of the Proximal Femur a Risk Factor for Degenerative Processes of the Hip and Hip Fracture? A New Approach Based on Geometric Morphometrics Methods **H. May and F. Rühli.** Sackler Fac. of Med., Tel Aviv Univ. and Fac. of Med., Univ. of Zurich.
- D307 **702.5** Dietary Protein Restriction and FGF21 Influence Bone Morphology **M.A. McNulty, T. Laeger, D.C. Albarado and C.D. Morrison.** LSU Sch. of Vet. Med. and Pennington Biomed. Res. Ctr., Baton Rouge.

- D308 **702.6** The Post-surgical Stability of the Nitinol Shape Memory Staple in Orthopaedics **A. Shenoy, S.L. Gordon, W. Hayes, S. Saha and S. Marquez.** SUNY Downstate Med. Ctr.
- D309 **702.7** Identifying Mechanisms and Evolutionary Implications of Mechanosensitive Growth in the Embryonic Limb Skeleton **A.S. Pollard, B. Charlton, I.M. McGonnell and A.A. Pitsillides.** Royal Vet. Col., London.
- D310 **702.8** Thyroid Hormone Receptor Regulation of Tooth Development in Newts **Y. Miwa, M. Sunohara and I. Sato.** Nippon Dent. Univ. at Tokyo.
- D311 **702.9** Cartilage or Bone? Collagens in "Cartilaginous" Fish Skeletons Answer an Old Question **M. Dean, M. Blumer, R. Seidel, E.-J. Pechriggl and K. Lyons.** Max Planck Inst.; Med. Univ. Innsbruck and California State Univ. Long Beach.
- D312 **702.10** Association between the Shapes of Hindlimb Bone Articular Faces and Locomotor Behaviors in Artiodactyls **E.W. Dewar, O.R. Grocott and M.C. Leclerc.** Suffolk Univ., MA.
- D313 **702.11** Tooth Replacement in an Anatomical Context: Studies in the Zebrafish **A. Huysseune and J. Crucke.** Ghent Univ., Belgium.

703. ANATOMY: NEURAL**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Neurobiology**Neurobiology**

Presentation time: 12:30 PM—2:15 PM

- D314 **703.1** A Histological Examination of the Ovarian Ganglia and Prehypogastric Ganglion of the Aortic Plexus in Females **T.S. Beveridge, M. Johnson, A. Power, N.E. Power and B.L. Allman.** Western Univ. and London Hlth. Sci. Ctr., Canada.
- D315 **703.2** A Histological Examination of the Lumbar Sympathetic Trunk **N.M. Mintz, T.S. Beveridge, M. Sandig, M. Johnson and B.L. Allman.** Western Univ., Canada.
- D316 **703.3** Innervation of the Psoas Major Muscle **L.E. Sanders, J. Guan, D.A. Morton and M.A. Mahan.** Univ. of Utah.
- D317 **703.4** Morphological Variation in the Communicating Branch between the Lateral and Medial Plantar Nerves **S.E. Tilden, J.P. Gravenstreter, S.N. Michalak and M.T. Bee.** Univ. of Detroit Mercy and Oakland Univ., MI.
- D318 **703.5** Deltoid Muscle: Patterns of Innervation from Axillary Nerve **L.B. Lima, A.M. Itezerote, F. Hojaij, M. Andrade, A.L. Jacomo and F. Akamatsu.** Univ. of São Paulo.
- D319 **703.6** Anatomical Study of the "Three in One" Pectoral Block: A New Analgesia Method for Breast Surgery **M. Labrousse, E. Bozier, J. Robert, Y. Renard, C. Avisse and H. Ludot.** Univ. of Reims Champagne-Ardenne and Ctr. Hosp. Univ., Reims.
- D320 **703.7** Landmarks of the Glossopharyngeal Nerve for Head and Neck Surgeries **S. Morrill, V. Mehta, M. Cosetti and M. Glover.** LSU Hlth. Shreveport and LSU Hlth. Sci. Ctr., New Orleans.
- D321 **703.8** Innervation to Mandibular Gingiva **G.T. Dorius, L. Fandino, L. Sanders, C. Clayton, K. Edmunds, V.R.N. Labinpuno, A.T. Nixon, J.J. Wisco and D.A. Morton.** Univ. of Utah and Brigham Young Univ.

D322 **703.9** Relation between the Conduction Velocity of Nerve Fibers, Micro-anatomical Parameters and the *Divine Proportion* ($\Phi=1.618$)—A new Paradigm **J.A. Bonatto-Costa, L.D.G.R. Thomaz, G.R. Goulart, L.L. Xavier, A.O. Rocha and D. De Campos**. Fed. Univ. of Sci. and Hlth. of Porto Alegre; Pontifical Catholic Univ. of Rio Grande do Sul, Brazil and Univ. of Santa Cruz do Sul.

D323 **703.10** A Study of Unmyelinated Afferent Axons in the Suburothelium in Women with Urinary Stress Incontinence **B. Abtahi, K. Venner, M. Groves and S. Elneil**. Natl. Hosp. for Neurol. and Neurosurg., London and University Col. of London.

704. NEUROBIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Neurobiology

Neurobiology

Presentation time: 12:30 PM—2:15 PM

D324 **704.1** Calcitonin Gene-Related Peptide Elicits Mouse Taste Buds to Release Serotonin **A. Huang and S. Wu**. Southern Illinois Univ. Sch. of Med.

D325 **704.2** Unexpected Cone Position in 6-Hydroxydopamine-Treated Dark-Adapted Goldfish Retina **S. Thapa and W.H. Baldrige**. Dalhousie Univ., Canada.

D326 **704.3** Immunohistochemical Protocol to Identify Glial Fibrillary Acid Protein in the Dorsal Horn of the Spinal Cord **G.A.R. Silva, L.S. Sanada, N.L.B. Machado, E.C. Carmo, A.L. Oliveira and V.P.S. Fazan**. Sch. of Med. of Ribeirão Preto and Univ. of Campinas, Brazil.

D327 **704.4** An Immunohistochemistry Protocol to Identify Substance P Neurons **A.L.B. Simões, C.S. Carvalho, L.S. Sanada, N.L.B. Machado, E.C. Carmo, I.J. Llewellyn-Smith and V.P.S. Fazan**. Sch. of Med. of Ribeirão Preto, PR and Flinders Univ., Australia.

D328 **704.5** Identification of Substance P Immunoreactive Axons in the Aortic Depressor Nerve of Normotensive Wistar Rats **C.S. Carvalho, J.A. Castania, H.C. Salgado, I.J. Llewellyn-Smith and V.P.S. Fazan**. Sch. of Med. of Ribeirão Preto, Brazil and Flinders Univ., Australia.

D329 **704.6** ProBDNF Negatively Stimulates the Neuronal Precursor Cells Differentiate into Mature Neurons in Rat DRG **W. Ma, J. Wang, J. Ru, T. Luo, D. Wang, X. Li, T. Wang, L. Li and J. Guo**. Kunming Med. Univ. and First People's Hosp. of Yunnan Province, China.

D330 **704.7** Notoginsenoside R1 Promotes SGC7901 Apoptosis by Up-regulating the ProNGF Signaling Pathway **J. Yang, W. Ma, B. Du, J. Cheng, J. Guo and L. Li**. First People's Hosp. of Yunnan Province and Kunming Med. Univ., China.

D331 **704.8** Plasma Autoantibodies from Human Diabetic Depression Patients Inhibit Neurogenesis and Induce Depression-Like Behavior in Mice **Joseph.A Behnke, Janet Alder, Smita Thakker-Varia and Mark.B Zimering**.

705. NEUROBIOLOGY: BEHAVIOR; NEUROPSYCHIATRIC DISORDERS; DISEASE; AGING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Neurobiology

Neurobiology

Presentation time: 12:30 PM—2:15 PM

D332 **705.1** Obstacle Height and Divided Attention Affects Obstacle Crossing in People with Parkinson's Disease **L.K. Smith, M. Hunt, L.E. Dibble, A. Merryweather and K.B. Foreman**. Univ. of Utah.

D333 **705.2** Vestibular and Proprioception Deficits in Adults with Controlled Diabetes Mellitus II Causes Postural Control Instability **M.G. Rosario, D. Dunbar and A. Ortiz**. Univ. of Puerto Rico and Texas Woman's Univ.-Houston.

D334 **705.3** Effects of Acute Insulin Treatment in the Recurrent Laryngeal Nerve Myelinated Fiber Morphometry in Experimental Diabetes **V.A.A. Mendes, G.A.R. Silva, J.A. Castania, H.C. Salgado and V.P.S. Fazan**. Sch. of Med. of Ribeirão Preto, Brazil.

D335 **705.4** Diabetes Impairs Visual Function and Reduces Cytoprotective Nrf2 Protein Content in Retinas of Rats **Z. Nasralah and A.J. Barber**. Penn State Col. of Med.

D336 **705.5** Preventing Alzheimer's Pathology in a Preclinical Mouse Model **P.A. Shaw**. Icahn Sch. of Med. at Mount Sinai.

D337 **705.6** A Cerebral Clearance Pathway for Amyloid β **A.W.J. Morris, C.A. Hawkes, R.O. Weller and R.O. Carare**. Univ. of Southampton Fac. of Med. and Open Univ., U.K.

D338 **705.7** The Effects of Methylene Blue on Autophagy and Apoptosis in MRI-Defined Normal Tissue, Ischemic Penumbra and Ischemic Core **C. Zhou, Z. Jiang, J. Lu, K. Wang and T.Q. Duong**. Peking Univ. Hlth. Sci. Ctr. and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

D339 **705.8** Panax Notoginseng and Ginsenoside-Rg1 Contribute to Down-regulation of P-Glycoprotein Level after the Cerebral Ischemia/Reperfusion in Rats **L. Yang, J. Li, X. Wang, J. Yu, B. Chen and Z. Guo**. Kunming Med. Univ., China.

D340 **705.9** Aortic Depressor Nerve Myelinated Fiber Distribution in Spontaneously Hypertensive Rats during Aging **M.M. Amorim, J.A. Castania, H.C. Salgado and V.P.S. Fazan**. Sch. of Med. of Ribeirão Preto, Brazil.

D341 **705.10** Satiety and Reward: Dichotomy of Cocaine- and Amphetamine-Regulated Transcript Peptide's Function during Binge Eating **A.P. Bharné, C.D. Borkar, N.K. Subhedar and D.M. Kokare**. RTM Nagpur Univ., India and Indian Inst. of Sci. Educ. and Res., Pune.

D342 **705.11** Extended Cocaine Access Results in a Distinct Epigenetic Alterations to the Homer2 Gene in the Dorsal Medial Prefrontal Cortex **K.L. Ploense, A. Carr, D. Baker-Andresen, X. Li, Y. Sun, T.W. Bredy and T.E. Kippin**. Univ. of California, Santa Barbara; Queensland Brain Inst., St. Lucia, Australia; UCLA and Univ. of California, Irvine.

D343 **705.12** Combination of Sub-effective Doses of NMDA and D1 Dopamine Receptor Antagonists Impairs Executive Function in Rats **S.J. Desai, B.L. Allman and R. Rajakumar**. Univ. of Western Ontario.

D344 **705.13** Thymoquinone Inhibits Neurodegeneration and Enhances Neurogenesis in Kainic Acid-Induced Middle-Aged Wistar Rat Model of Temporal Lobe Epilepsy **S.A. Brito, N. Kilarkaje and M.S. Rao.** Fac. of Med., Kuwait Univ.

706. NEUROBIOLOGY: BRAIN

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Neurobiology

Neurobiology

Presentation time: 12:30 PM—2:15 PM

D345 **706.1** The Effects of Clinical, and Sub-clinical mTBI on Cognitive Function in Varsity Athletes **D.N. Brewer, T.D. Wilson and A.M. Owen.** Western Univ., Canada.

D346 **706.2** Technical Approach for Visualization of the Arterial and Venous Brain Vasculature **R. Tonnelet, M. Perez, M. Krebs, J-M. Arnoux, M. Labrousse and M. Braun.** Univ. of Lorraine Med. Fac. and Univ. of Reims-Champagne Med. Fac., France.

D347 **706.3** A Dismantled Human Brain in Papier-Mâché by Auzoux, Circa 1870: Description and Tri-dimensionnal Photographical Reconstruction **P.P. Le Floch-Prigent and J-B. Gillot.** Versailles Univ. Med. Sch. and Sci. Library, Briex/Gillot, Paris 6th.

D348 **706.4** The “Analytical” Brain by Auzoux, an Anatomical Model in Papier-Mâché, Circa 1870: Description and Photographical Tri-dimensional Reconstruction **P.P. Le Floch-Prigent and J-B. Gillot.** Versailles Univ. Med. Sch. and Sci. Library, Briex-Gillot, Paris 6th.

D349 **706.5** Expression of Tyrosine Hydroxylase in the Anterior Lobe of the Human Pituitary Gland: A Possible Local Autocrine/Paracrine Role in the Regulation of Pituitary Hormone Secretion **C.M. D’Assumpcao, C. Carranza, J. Banno and G.M. Nagy.** Ross Univ. Sch. of Med., Dominica.

D350 **706.6** Delineating the Cellular Hierarchy of Glioblastoma and Gliosarcoma for Identification of Therapeutic Targets **F. Hassiotou, M. Jackson, T. Seymour and A. Nowak.** Sch. of Chem. and Biochem., Univ. of Western Australia and Sch. of Med. and Pharmacol., Univ. of Western Australia.

D351 **706.7** Cellular Identification of Doublecortin Positive Immature Neurons in Monkey Cortex **N. Heyworth, S. Calderazzo, M. Kyada and D. Rosene.** Boston Univ. Sch. of Med.

D352 **706.8** Diminished Ang-2 Expression and Microvascular Density in COX-2 Knockout Mouse Cerebral Cortex in Moderate Hypobaric Hypoxia **G.F. Benderro, K. Xu and J.C. LaManna.** Case Western Reserve Univ.

D353 **706.9** Mapping Cortical Plasticity following Noise Exposure Using c-Fos Immunoreactivity **P.V. Sirek, S.T. Fitzpatrick, A. Schormans, R.N. Rajakumar and B.L. Allman.** Western Univ., Canada.

D354 **706.10** The Effect of Noise Exposure on Inhibitory Neurotransmission in the Auditory, Visual and Multisensory Cortices in Rats **S.T. Fitzpatrick, P.V. Sirek, A. Schormans, R.N. Rajakumar and B.L. Allman.** Western Univ., Canada.

D355 **706.11** Using an Optical Clearing Technique for Visualizing the Midbrain Cholinergic System in Mice **A. De Santis-Smith, T. Conciatori, B. Allman, K. Rogers and S. Schmid.** Western Univ., Canada.

707. NEUROBIOLOGY: NEURONAL AND SPINAL CORD DEGENERATION, REPAIR AND REGENERATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Neurobiology

Neurobiology

Presentation time: 12:30 PM—2:15 PM

D356 **707.1** Characterization of Neural Stem/Progenitor Cells in the Brain of the Leopard Gecko (*Eublepharis macularius*) **A.G.C. Macdonald, R. McDonald, E.A.B. Gilbert and M.K. Vickaryous.** Univ. of Guelph, Canada.

D357 **707.2** Repairing Injured Optic Nerve of Rat with Several Therapies **J. Xu, F. Liu, J. Xie, R. Wang, J. He, A. Qi, W. Cao, J. Sun, T. Xu and J. Yuan.** Second Military Med. Univ., Shanghai.

D358 **707.3** Ultrastructural Changes in the Optic Nerve after Injury and Neurotrophic Factor Treatment **G.S. Vega, J.M. Blagburn and R.E. Blanco.** Univ. of Puerto Rico, Sch. of Med.

D359 **707.4** Retinoic Acid and Retinal Ganglion Cell Survival after Optic Nerve Injury **M.V. Duprey-Diaz, J.M. Blagburn and R.E. Blanco.** Univ. of Puerto Rico.

D360 **707.5** Beneficial Effect of (-)-Epigallocatechin-3-Gallate on Sciatic Nerve Crush Injury: Stereological Analysis **W.M. Renno, K.M. Khan and L. Benov.** Fac. of Med., Kuwait Univ.

D361 **707.6** Crushed Sciatic Nerve Treated with Latex Protein Associated with Low-Level Laser: Long-Term Functional Study **F.J. Dias, I-s. Watanabe, M.M. Iyomasa, C-N. Joaquim, J.P.M. Issa and V.P.S. Fazan.** Ribeirão Preto Med. Sch. ; Ribeirão Preto Dent. Sch., USP and Inst. of Biomed. Sci.

708. NEUROBIOLOGY: NEUROPROTECTION AND NEUROIMMUNOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Neurobiology

Neurobiology

Presentation time: 12:30 PM—2:15 PM

D362 **708.1** Identification of a Resilient Population of Axotomized Motoneurons within the Mouse Facial Motor Nucleus **R.M. Meadows, J.L. Muldoon, M.M. Haulcomb, T. Behrs, N.D. Schartz, D.N. Olmstead, R.J. Batka, V.M. Sanders and K.J. Jones.** Indiana Univ. Sch. of Med.; Richard L. Roudebush VA Med. Ctr.; Loyola Univ. Med. Ctr. and The Ohio State Univ.

D363 **708.2** Investigation of the Role of CD4⁺ T cells and Interleukin-10 in Immune-Mediated Neuroprotection **D.N. Olmstead, V.M. Sanders and K.J. Jones.** Indiana Univ. Sch. of Med.; Richard L. Roudebush VA Med. Ctr. and The Ohio State Univ.

D364 **708.3** Improved Functional Recovery following Spinal Cord Compression in Rats Treated with Losartan Is Associated with Reduced T Cell Influx into the Injury Site **T.B. Jones, E.A. Robbins, A. Hanyu-Deutmeyer and C.B. Jones.** Arizona Col. of Osteo. Med. and Col. of Hlth. Sci., Midwestern Univ., AZ.

D365 **708.4** Modulation of MAP2 and Tau following Alpha Lipoic Acid Supplementation Ameliorates Arsenic-Induced Adverse Effects in Developing Rat Cerebellum **P. Dhar, P. Kaushal and R.D. Mehra.** All India Inst. of Med. Sci., Delhi.

D366 **708.5** Thymoquinone Protects Neurons and Astrocytes in Hippocampal Primary Cell Culture from Lead Toxicity **M.S. Rao and S. Shivanandan.** Fac. of Med., Kuwait Univ.

D367 **708.6** Neuroinflammation and Brain Antioxidant Levels in Ethanol Leaf Extract of *Nauclea latifolia* and *Artemisinin-Combination Therapy* in Swiss Mice Infected with *Plasmodium berghei* **ANKA I. Edagha, G. Ekanem, U. Ekanemesang, B. Etuknwa and A.N. Aquaisua.** Univ. of Uyo, Nigeria; Obong Univ., Nigeria and NYU.

Biochemistry and Molecular Biology

709. CHROMATIN STRUCTURES AND DYNAMICS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

A1 **709.1** Regulation of Mitochondrial Biogenesis and Activity by Histone Acetylation **D.M. Rogerson, L. Galdieri, T. Zhang, R. Lleshi and A. Vancura.** St. John's Univ., NY.

A2 **709.2** Intrauterine Growth Restriction Disrupts Nucleosome Positioning at a Growth Hormone Response Element in the Insulin-Like Growth Factor 1 Gene **R.A. McKnight, C.W. Callaway, X. Yu, J.E. Wiedmeier, R.H. Lane and C. Fung.** Univ. of Utah and Med. Col. of Wisconsin.

A3 **709.3** Evaluation of Bias Associated with High Multiplex Target-Specific Pre-amplification **K.A. Petro, S.T. Okino, M. Kong and Y. Wang.** Bio-Rad Labs., Hercules, CA.

A4 **709.4** The Role of Histone H1 in *S. cerevisiae* **R. Leicher, S. Schilit and S. Holmes.** Wesleyan Univ.

A5 **709.5** Genetic Effects of Low-Dose Ionizing Radiation on the Chaffinch (*Fringilla coelebs*) in Chernobyl **M. Owens, A. Bonisoli-Alquati, A.P. Møller and T.A. Mousseau.** Univ. of South Carolina and Univ. Paris-Sud.

A6 **709.6** CTCF Protein Recruits Centromeric Protein CENP-E to the Centromeric Regions through Unusual CTCF Binding Sites **T. Xiao, P. Wongtrakoongate, C. Trainor and G. Felsenfeld.** NIDDK, NIH.

A7 **709.7** Construct of RNAi Plasmids and Their Application for the Study of Meiotic Proteins through RNA Interference **J. Hope and K. Hillers.** California Polytech State Univ., San Luis Obispo.

A8 **709.8** Nucleosome Dynamics around a DNA Double Stranded Break during Repair by Gene Conversion **M. Tsabar, W.M. Hicks and J.E. Haber.** Brandeis Univ. and Harvard Med. Sch.

A9 **709.9** Investigating the Molecular Genetics of Alcohol Dependence: SWSN-9 Influences Acute Functional Tolerance Development in *C. elegans* **M.K. Austin, G.M. Blackwell, L.D. Mathies and J.C. Bettinger.** Virginia Commonwealth Univ.

A10 **709.10** Characterization of DNA Dioxxygenase TET1 Promoter Structure and Activity **L-J. Juan.** Genomics Res. Ctr., Acad. Sinica, Taipei.

710. DNA STRUCTURES AND PROTEINS THAT INTERACT WITH THEM

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

A11 **710.1** Untethering Glucocorticoid Receptor-Mediated Transcriptional Repression of Inflammatory Genes **E.A. Rye and E.A. Ortlund.** Emory Univ. Sch. of Med.

A12 **710.2** New Insights into DNA Binding and Dimerization Dynamics of *E. coli* Histone -Like Protein HU **K. Arora and P. Guptasarma.** IISER Mohali, Punjab.

A13 **710.3** Multi-color, Live Cell CRISPR-Based 3-D Mapping of the Human Nuclear Genome **H. Ma, A. Neseri, P. Reyes-Gutierrez, S. Zhang, S.A. Wolfe and T. Pederson.** UMass Med. Sch. and Univ. of Central Florida.

A14 **710.4** Improving Biofuel Production with Metagenomics and Synthetic Biology **E. Witt, K. Forsberg, T. Ellison and G. Dantas.** Washington Univ. in St. Louis.

A15 **710.5** Population Health of Horseshoe Crabs (*Limulus polyphemus*) at Harvested and Unharvested Beaches in South Carolina **R. Walsh, T. Darden and J. Robinson.** Minnesota State Univ. Moorhead and Col. of Charleston.

A16 **710.6** Measurement and Detection of Mitochondrial DNA Deletions in Irradiated Human Cell Lines **S. Gautam, M. Gulfo, R. O'Donnell and W. Pogozelski.** SUNY Geneseo.

A17 **710.7** Examining KIT, EDNRB, MITF, PMEL17, MLANA Genes to Determine the Genetic Basis of Equine Deafness **A.M. Achimovich, K.A. Innamorati and K.A. Lipsett.** Gettysburg Col. and Drexel Univ. Col. of Med.

A18 **710.8** Mechanisms of Cytotoxicity for Bifunctional Epoxide Alkylating Agents **S.C. Redstone, D.T. Ahern, P.B. Scott, P.M. Le and J.T. Millard.** Colby Col., ME.

A19 **710.9** Salt-Induced Changes to the Stability of Poly(dA:dT) Tract DNA and Implications for Nucleosome Formation **J. Jensen and D. Grilley.** Univ. of Wisconsin-La Crosse.

A20 **710.10** Improving Spider Phylogeny Using 18S Ribosomal DNA Secondary Structure Modeling **V.B.W. Faso and J.C. Spagna.** William Paterson Univ.

- A21 **710.11** Evaluation of Real Time – PCR as a Tool for Diagnosis of *Schistosoma mansoni* in a Low Transmission Area, Montes Claros, Minas Gerais, Brazil **L.M.V. Siqueira, E. Oliveira, L. Gomes, C. Senra Souza, A. Rabello and P.M. Zech Coelho**. René Rachou Res. Ctr.-FIOCRUZ, Belo Horizonte, Brazil.
- A22 **710.12** Multiple Pathways Mediate Thyroid Hormone Receptor Nuclear Import **L.A. Allison, V.R. Roggero, L.E. Parente, J. Zhang and R.C. Dziedzic**. Col. of William and Mary, VA.
- A23 **710.13** Thymine DNA Glycosylase: The Excised Base Is Not Retained in the Enzyme-Product Complex **S.S. Malik, E. Pozharisky, K. Varney and A.C. Drohat**. Univ. of Maryland Sch. of Med.
- A24 **710.14** α_{2A} -Adrenergic Receptor: Expression in Insect Cells and Detection of Phosphorylation **M.J. Varney, A. Hebert, J. Vijay, J. Kaszubowski, J. Beer, R. Donahue and R. Sterne-Marr**. Siena Col., NY.
- A25 **710.15** Flexibility of Terminal Cytidines in Ca²⁺ Form B-DNA **Z. Luo and Z. Dauter**. NCI, NIH.
- A26 **710.16** Synthesis and Anti-cancer Activity of Benzisoxazolo[2,3-a]azinium Tetrafluoroborates **J.R. Murakami, C. Harvey, A. Huang, K. Bufkin, J.M. Hanna and T.F. Sumter**. Winthrop Univ., SC.
- A27 **710.17** Purification of DNA from Chicken Embryos to Characterize Genetic Sequences **U. Kadiyala, S.R. Smith and M.A. Benore**. Univ. of Michigan Dearborn.
- A28 **710.18** Synthesis and Characterization of Deoxyribonucleic Acid Aptamers for β -D-Glucan Carbohydrates **N.J. Webster and C.E. Rohlman**. Albion Col., MI.
- A29 **710.19** Lack of Glucocorticoid Receptor Hypersensitivity-Related Polymorphisms in an Undergraduate Population **E. Leibovitz and B.D. Cohen**. Union Col., NY.
- A30 **710.20** Variability in *HSP90AB1* and *HSP90AA1* Are Not Correlated with Phenotypic Differences in Glucocorticoid Receptor-Mediated Response or Subcellular Hsp90 Localization **T.M. Forst, R.M. Lassalle-Klein, R.S. Knox and P.J.M. Murphy**. Seattle Univ.
- A31 **710.21** Investigation of FSH Responsiveness in a Granulosa Cell Line **S. Zeltsman and B.D. Cohen**. Union Col., NY.
- A32 **710.22** Increased Renal Expression of Toll-Like Receptor-4 in Guanylyl Cyclase/Natriuretic Peptide Receptor-A Gene-Disrupted Female Mice **V.R. Gogulamudi, U. Subramanian, I. Mani and K.N. Pandey**. Tulane Univ. Hlth. Sci. Ctr.
- A33 **710.23** Human PrimPol: A Novel Mechanism of Antiviral Toxicity **A.C. Mislak and K.S. Anderson**. Yale Univ.
- 711. RNA EXPRESSION AND POSTTRANSCRIPTIONAL REGULATORY EVENTS II**
- (Poster Session I scheduled on Sunday)
- Poster**
- MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:05 PM–1:35 PM
- A34 **711.1** T4 Factor Involved in Phage-Induced Host mRNA Degradation **D. Qi, Y. Otsuka and T. Yonesaki**. Grad. Sch. of Sci., Osaka Univ. and Sch. of Med., Dokkyo Med. Univ.
- A35 **711.2** The Role of Multifunctional RNA Binding Protein OsTudor-SN in Affecting Storage Protein RNA Transport and Seed Morphology in Rice **H-L. Chou, T. Kumamaru and T.W. Okita**. Washington State Univ. and Kyushu Univ.
- A36 **711.3** Insights into Spliceosomal Activation from Conformational Dynamics of the U4/U6 di-snRNA **A.A. Hoskins, M. Rodgers and D. Brow**. Univ. of Wisconsin-Madison.
- A37 **711.4** The mRNA Binding Protein AUF1 Controls the Regenerative Potential of Activated Skeletal Muscle Stem Cells **D.M. Chenette, A. Cadwallader, B. Olwin and R. Schneider**. NYU Sch. of Med. and Univ. of Colorado Boulder.
- A38 **711.5** The Regulation of TIA-1 Binding to RNA by pH Conditions **I. Diaz-Moreno, S.M. Garcia-Mauriño, R. Del Conte, J. Angulo, B.G. Karlsson, M. Gorospe, J. Wilce and I. Cruz-Gallardo**. Univ. of Seville, CSIC; Univ. of Florence; Sch. of Pharm., Univ. of East Anglia, U.K.; Univ. of Gothenburg; NIA, NIH, Baltimore and Monash Univ., Australia.
- A39 **711.6** Investigation of How the *Saccharomyces cerevisiae* Lsm2-8 Proteins Bind to the 3' End of U6 snRNA **H. Liao, E.J. Montemayor, J. Hardin, Y. Kondo, K. Nagai, D.A. Brow and S.E. Butcher**. Univ. of Wisconsin-Madison and MRC Lab. of Molec. Biol., Cambridge.
- A40 **711.7** Structural Characterization of nc886, a Cellular Non-coding RNA Regulator of the Antiviral Kinase PKR **B.M. Calderon and G.L. Conn**. Emory Univ.
- A41 **711.8** The tRNA Methylome of *Trypanosoma brucei*, the Causative Agent of African Sleeping Sickness **J.C. Lazatin, L.M. Chen, S.A. Ackerman, J. Wang, E. Valentine, A. Mandarano and K.T. Militello**. SUNY at Geneseo and NYS Ctr. of Excellence in Bioinformat. and Life Sci.
- A42 **711.9** Structure and Function of the HTLV-1 *pro-pol* Frameshift Site **D.P. Chadeayne, S. Davis, S. GreyEyes, A. Knewitz, J. Stelmaszek and K.D. Mouzakis**. Fort Lewis Col., CO.
- A43 **711.10** Determination of the HTLV-1 *pro-pol* Frameshift Site Secondary Structure **K.M. Durnford, E.G. Chapman, A.L. Atene, A.J. Broad, J.T. McKenzie, D.L. Yeager, J.S. Kieft and K.D. Mouzakis**. Fort Lewis Col., CO and Univ. of Colorado Sch. of Med., Aurora.

- A44 **711.11** ADAR1-Mediated RNA Editing, a Novel Mechanism Controlling Phenotypic Modulation of Vascular Smooth Muscle Cells **J. Fei and S. Chen**. Univ. of Georgia.
- A45 **711.12** Study of Methyltransferase RmB in *E. coli* **J.D. Pritts and E. Zilinskas**. Roanoke Col., VA.
- A46 **711.13** Stability of p53 Isoforms in MCF7 Cells **Z.M. Connelly and L.M. Carastro**. Univ. of Tampa.
- A47 **711.14** The Impact of mRNA Structures Regulating Transcription Attenuation on Bacterial Fitness **M.M. Meyer and A.M. Babina**. Boston Col.
- A48 **711.15** Genetic Deletion of an Instability Motif in the Tetratrapolin (TTP) Transcript Increases TTP mRNA Stability and Protein Expression and Provides Protection against Inflammatory Diseases **S. Patial and P.J. Blackshear**. NIEHS, NIH, Research Triangle Park.
- A49 **711.16** Identification of Determinants that Govern Processive and Efficient Selenocysteine Incorporation **S. Shetty and P. Copeland**. Rutgers Robert Wood Johnson Med. Sch.
- A50 **711.17** Investigating Functional Roles of *RPS3* in RNA Damage **K.A. Limoncelli, C. Merrih, N. Rhind, A. Korostelev and M.J. Moore**. UMass Med. Sch. and Univ. of Washington.
- A51 **711.18** The Developmentally Important RNA-Binding Protein, Zygote Arrest, Regulates mRNA Translation **J.M. Cook and A. Charlesworth**. Univ. of Colorado Denver.
- A52 **711.19** Investigating the Role of Threonylcarbamoyl Adenosine in HIV-1 Replication In Vivo **M.E. Kirkland, V. Venketaraman and M.A. Swairjo**. Grad. Col. of Biomed. Sci., Western Univ. of Hlth. Sci. and Col. of Osteo. Med. of Pacific, Western Univ. of Hlth. Sci.
- A53 **711.20** Investigating and Quantitating RNA Binding to Nanoparticles for Potential Use in Gene Therapy **J. Pescador, B. Rodriguez, C. Maeder, G. Beall and K. Lewis**. Texas State Univ. and Trinity Univ., TX.
- A54 **711.21** Modifications Modulate Anticodon Loop Dynamics and Codon Recognition in *E. coli* tRNA^{Arg1,2} **K.L. Sarachan, W.A. Cantara, J.L. Spears, H. DeMirci, F.V. Murphy IV, S.V. Ranganathan, A. Chen and P.F. Agris**. Univ. at Albany, SUNY; SLAC Natl. Accelerator Lab., Menlo Park and NE-CAT/ Cornell Univ., Argonne Natl. Lab.
- A55 **711.22** The Role of miR-450a in Oral Squamous Cell Carcinoma Carcinogenesis **E-W. Hsing, S-G. Shiah, J-R. Hsiao, P-C. Lyu and J-Y. Chang**. Natl. Hlth. Res. Inst., Miaoli; Natl. Tsing Hau Univ. and Natl. Cheng Kung Univ., Taiwan.
- A56 **711.23** Structural Insights into Ribosome Structure and Translation Regulation **A.A. Korostelev, E. Bah, C.S. Koh, R. Madireddy, E. Svidritskiy and Y. Zhang**. UMass Med. Sch. and Mayo Clin. Col. of Med.
- A57 **711.24** Role of Nuclear Factor TDP-43 in Amyotrophic Lateral Sclerosis and Frontotemporal Dementia **E. Buratti**. ICGEB Trieste, Italy.
- A58 **711.25** Characterization of a Set of Caulobacter Crescentus Transcription Factors Deletion Strains and Their Role in the Oxidative Stress Response **C.N. Peterson, B. Perchuk, D. N'Gadjaga, K. Gora and M. Laub**. Suffolk Univ., MA and MIT.
- A59 **711.26** Characterization of the Small Splicing Protein Dib1, a Component of the U4/U6-U5 snRNP **C.A. Hernandez, A. Lucas and C. Maeder**. Texas State Univ.; Carnegie Mellon Univ. and Trinity Univ., TX.
- A60 **711.27** Thermodynamic Examination of the U6 ISL RNA Bulge **D. Lewis, N. Grover and A. O'Connell**. Colorado Col.
- A61 **711.28** Rnp1p Plays a Role in P-Body Assembly in *S. cerevisiae* **K.E. Mackay and S.P. Segal**. Winona State Univ., MN.
- A62 **711.29** Observing Compensatory Effects of RyR2, NCX and SERCA Down-regulation in Neonatal Cardiomyocytes Using siRNA **A. Brambila and D. Monroe Robinson**. San Diego State Univ.

712. INTRINSICALLY DISORDERED PROTEINS, IDPS: PROTEIN FOLDING AS A REGULATORY PHENOMENON II

(Poster Session I scheduled on Sunday;
Poster Session III scheduled on Tuesday)

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A63 **712.1** Diversification of a Bacterial ADP-Ribosyltransferase **V.M-H. Sung and S. Kallert**. Massachusetts Gen. Hosp.; Harvard Med. Sch., Harvard Univ. and Univ. of Tubingen.
- A64 **712.2** HSF4 Promotes Human Lens Epithelial Cells G1/S Arrest through Stabilizing p53 **H. Mi and G. Meng**. Huazhong Univ. of Sci. and Technol., China.
- A65 **712.3** An Intrinsically Disordered Low Complexity Domain Is Required for U1-70K Self-Association **I.J. Bishof, I. Diner and N.T. Seyfried**. Emory Univ.
- A66 **712.4** Intrinsic Structural Disorder Observed in the Cell Cycle Regulatory GTPase Nucleostemin **T.H. Daman and V.L. Robinson**. Univ. of Connecticut.
- A67 **712.5** Elucidation of the Role of Glyceraldehyde-3-Phosphate Dehydrogenase Interaction with Mutant Huntingtin for Mitochondrial Elimination in Huntington's Disease **S. Hwang, M-H. Disatnik and D. Mochly-Rosen**. Stanford Univ. Sch. of Med.
- A68 **712.6** Characterization of the Oligomeric Transition of *E. coli* γ -Glutamylcysteine Ligase **E. Wiese, K. Diederichs and B.S. Kelly**. Gustavus Adolphus Col., MN.
- A69 **712.7** A Novel Mechanism to Control Cell/Tissue Specific Activities of Glucocorticoid Receptor **R. Kumar and S.H. Khan**. The Commonwealth Med. Col., PA.
- A70 **712.8** The Intrinsically Disordered C-Terminal Domain Triggers Nucleolus Localization and Protein Interactions of Poly(A)-Specific Ribonuclease **Y-B. Yan and G-J. He**. Sch. of Life Sci., Tsinghua Univ., China.
- A71 **712.9** Construction of p53 Protein Tetramer Structure **C. Carpenter**. Vassar Col.
- A72 **712.10** Probing Disordered Region Influence on Pdx1 Binding to Natural Promoters and Near-Consensus Sites **M. Bastidas and S.A. Showalter**. Penn State.

- A73 **712.11** Changes in Water Availability or Molecular Crowding Induce Folding in Intrinsically Disordered Stress Proteins from Plants **A.A. Covarrubias, C.L. Cuevas-Velazquez, L.Y. Rivera-Najera, D.F. Rendon-Luna, G. Saab-Rincón, M.A. Martínez-Yamout, H. Dyson and C. Amero.** Biotechnol. Inst., UNAM, Cuernavaca; The Scripps Res. Inst. and UAEM, Autonomous Univ. of Mexico State, Cuernavaca.
- A74 **712.12** Structural Bioinformatics and Molecular Dynamics of p53 Tumor Suppressor Protein **K.M. Thayer, B.R. Slaw, I. Han and T. Quinn.** Vassar Col., NY.
- A75 **712.13** Investigating the Structural Basis of the CTD Code **E.B. Gibbs and S.A. Showalter.** Penn State.
- A76 **712.14** An Intrinsically Disordered Region of MBD2 Both Recruits the Histone Deacetylase Core Complex of NuRD and Modifies Kinetics of DNA Binding **D.C. Williams, M. Desai and G.D. Ginder.** Univ. of North Carolina at Chapel Hill and Virginia Commonwealth Univ.
- A77 **712.15** Binding of F-Actin to the Cardiac Myosin Binding Protein C (MYBPC3) M Domain **C.J. Patton, H. Van, M. Hoffman, S. Dhe-Paganon and R.J. Gilbert.** Northeastern Univ. and Dana-Farber Cancer Inst.
- A78 **712.16** Order-to-Disorder Transitions in BECN1 Regulate Autophagy **S. Sinha, Y. Mei, K. Glover, M. Su, A. Ramanathan and C. Colbert.** North Dakota State Univ. and Oak Ridge Natl. Lab.
- A79 **712.17** Wide-Angle X-Ray Solution Scattering Studies of Slow Correlated Motions in Proteins **L. Makowski and H. Zhou.** Northeastern Univ.
- A80 **712.18** Investigation of Copper Exchange between the Avian Egg Proteins Riboflavin Binding Protein, Phosvitin and Vitellogenin **J.I. Matchynski, M.A. Benore, A.W. Chamoun and S.R. Smith.** Univ. of Michigan Dearborn.
- A81 **712.19** Total Mutagenesis and the Effects on the MDM2-p53 Interaction **G.A. Beyer and K.M. Thayer.** Vassar Col., NY.
- A82 **712.20** Fragment-Based Drug Discovery Targeting KEAP1/Nrf2 Binding **M. Zhong, A. Lynch, S. Jehle, D. Kozakov, S. Vajda, K. Allen and A. Whitty.** Boston Univ.
- A83 **712.21** Disulfide-Mediated Stabilization of the I κ B Kinase Binding Domain of NF- κ B Essential Modulator **L. Zhou, A. Yeo, C. Ballarano, U. Weber, K. Allen, T. Gilmore and A. Whitty.** Boston Univ.
- A84 **712.22** Molecular Dynamics of DNA Mechanical Contributions of Various Promoter Sequences in p53 Complexes Motivated by a Novel Additive Binding Energy Model **I.S. Han and K.M. Thayer.** Vassar Col., NY.
- A85 **712.23** Structural Point Mutations of p53 Protein and Their Effects on the Zinc Coordination Complex **T.R. Quinn and K.M. Thayer.** Vassar Col., NY.
- A86 **712.24** Characterization of the Readout Mechanism and the L1 Loop's Role in the p53 Tumor Suppressor Protein Binding Event via Molecular Dynamics Simulations **B.R. Slaw and K.M. Thayer.** Vassar Col.
- 713. MOLECULAR CHAPERONES: MECHANISM AND FUNCTION**
- Poster**
- MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:55 PM—2:25 PM*
- A87 **713.1** Modulation of Hsp70 Interactions with Co-chaperones via Phosphorylation **H. Zhang, C. McGlone, K. George, K. Makaroff, K. Cottingham, J.C. Nix, J. Schisler and R.C. Page.** Miami Univ.; Lawrence Berkeley Natl. Lab. and Univ. of North Carolina at Chapel Hill.
- A88 **713.2** Hsp90, Hsp60 and HSF-1 Genes Expression in Muscle, Heart and Brain of Thermally Manipulated Broiler Chicken **M.B. Al-Zghoul.** King Faisal Univ., Saudi Arabia.
- A89 **713.3** Naturally Occurring Single Nucleotide Mutations Alter the Function of a Highly Conserved Hsp70 Gene in Humans **K. Hess, M.C. Siracusa and N. Nikolaidis.** California State Univ. Fullerton.
- A90 **713.4** Hijacking the Host Cell's Protein Homeostasis Network to Potentiate Influenza Evolution **A. Phillips, E. Nekongo and M. Shoulders.** MIT.
- A91 **713.5** Specificity of the Yeast Auxilin Homolog Swa2 in [URE3] Prion Propagation Is Solely Determined by the TPR Domain **J.K. Hines, E.M. Troisi, M.E. Rockman and E.E. Oliver.** Lafayette Col., PA.
- A92 **713.6** Comparative Chaperone Activities of Trigger Factors from Mesophilic and Psychrophilic Bacteria **A.V. Baranova, O.E. Melkina, I.I. Goryanin, G.B. Zavilgelskiy and J.G. Wall.** Res. Inst. for Genet. and Selection of Indust. Microorg., Moscow; Sch. of Nat. Sci., Natl. Univ. of Ireland and George Mason Univ.
- A93 **713.7** Nucleotide Dependency of Endogenous Hsp90 Chaperone Protein Machinery and Its Association with Baculovirally Expressed Glucocorticoid Receptor **D.M. Molenda, G.T. Kaemingk and P.J.M. Murphy.** Seattle Univ.
- A94 **713.8** Combined Inhibition of Hsp90 and Heme Oxygenase-1 Induces Apoptosis and Endoplasmic Reticulum Stress in Melanoma **I. Barbagallo, R. Parenti, L. Vanella, A. Zappalà, C. Castruccio Castracani and G. Li Volti.** Univ. of Catania, Italy.
- A95 **713.9** A Highly Charged Region in the Middle Domain of Plant ER-Localized HSP90 Is Required for ER Stress Resistance **R. Zhao, L.P. Chong, Y. Wang, N. Gad, N. Anderson and B. Shah.** Univ. of Toronto.

714. CHANNELS AND TRANSPORTERS: WHAT'S NEW IN MEMBRANE TRANSPORT PROTEINS II

(Poster Session I scheduled on Sunday)

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A96 **714.1** Characterisation of Whole-Cell Properties in Chondrocytes from an In Vitro Model of Arthritis **R. Lewis, W. Jones, M. Wegg and R. Barrett-Jolley.** Univ. of Surrey Sch. of Vet. Med and Univ. of Liverpool.
- A97 **714.2** Expression and Purification of Rickettsial Outer Membrane Protein B **B-E. Choi, A. Abeykoon, C.C. Chao, G. Wang, M. Gucek, W.M. Ching, P.B. Chock, S. Buchanan and D.C.H. Yang.** Georgetown Univ.; NIDDK, NIH; Naval Med. Res. Ctr., Silver Spring and NHLBI, NIH.
- A98 **714.3** Differential Ankyrin G Binding of Voltage-Gated Sodium and KCNQ2/3 Potassium Channels Is Mediated by an Overlapping N-Terminal Binding Site **M. Xu and E. Cooper.** Baylor Col. of Med.
- A99 **714.4** Regulation of the Human Ether-a-go-go Related Gene (hERG) Potassium Channel by Nedd4 Family Interacting Proteins **Y. Kang, J. Guo, T. Yang, W. Li and S. Zhang.** Queen's Univ., Canada.
- A100 **714.5** Shear Stress Potentiates the Activation of TRPV4 by GSK1016790A **P. McIntyre, S. Baratchi, J. Almazi, F.J. Tovar-Lopez, W. Darby and A. Mitchell.** Sch. of Med. Sci., RMIT Univ. and Sch. of Elect. and Comp. Engin., RMIT Univ., Australia.
- A101 **714.6** Dimer Intermediate in the Assembly of Influenza A M2 Transmembrane Domain in Lipid Membranes **E.R. Georgieva, P.P. Borbat, H.D. Norman and J.H. Freed.** Cornell Univ. and Cornell Univ. Sch. of Engin.
- A102 **714.7** An Investigation of the Impact of NHE1 Phosphorylation on Steady-State Intracellular pH **D. Hasle, J.J. Provost and M.A. Wallert.** Univ. of San Diego and Minnesota State Univ. Moorhead.
- A103 **714.8** Hypoxia Reduces Mature HERG Channels through Calpain Up-regulation and Activation **S.M.L. Lamothe and S. Zhang.** Queen's Univ., Canada.
- A104 **714.9** Proteolytic Digestion Reveals Novel Insights into the Kv1.5 Structure-Function Relationship **A.M.A. Hogan-Cann and S. Zhang.** Queen's Univ., Canada.
- A105 **714.10** Binding Determinates of Sodium Hydrogen Exchanger 1 for Calcineurin Homologous Protein Isoforms 1 and 2 **D.S.M. Jevaghn, C.N. Marshall, M.A. Wallert and J.J. Provost.** Univ. of San Diego and Minnesota State Univ. Moorhead.
- A106 **714.11** Scorpion Toxin BeKm-1 Blocks Low K⁺-Induced Endocytosis of Cell-Surface Human Ether-a-go-go Related Gene Channels **X. Han, J. Guo, W. Li and S. Zhang.** Queen's Univ., Canada.
- A107 **714.12** Unique Sensitivity to Extracellular Proteases and Peptide Protection of the HERG Potassium Channel **S. Zhang, J. Guo, S.M. Lamothe, A. Hogan-Cann, Y. Kang and T. Yang.** Queen's Univ., Canada.

- A108 **714.13** A Low Affinity Cavb4a/Rem2 Interaction Is Required for Inhibition of Cav2.1 Ca²⁺ Currents **X. Xu, F. Zhang, G.W. Zamponi and W.A. Horne.** Michigan State Univ. and Cumming Sch. of Med., Univ. of Calgary, Canada.
- A109 **714.14** Construction of a Tryptophan-less P-Glycoprotein by Directed Evolution for Mapping Drug Binding Sites **D.J. Swartz and I.L. Urbatsch.** Texas Tech Univ. Hlth. Sci. Ctr.
- A110 **714.15** Characterization of a Dihydropyridine-Insensitive Ca_v1.3 Channel **Y. Wang, A.E. Salyer, T. Li and G.H. Hockerman.** Purdue Univ.

715. LIPIDS - IN VIVO DYNAMICS, PROTEIN PARTNERS AND SIGNALING II

(Poster Session I scheduled on Sunday)

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A111 **715.1** Monitoring the Dynamic Change of Inositol Lipid Pools upon EGFR and M₃R Activation in Live Cells **J.T. Toth, G. Gulyas, D.J. Toth, L. Hunyady, T. Balla and P. Varnai.** Semmelweis Univ. and NICHD, NIH.
- A112 **715.2** Role of Cholesteryl Ester (CE) Hydrolase Mediated Mobilization of Intracellular CE in Regulating Inflammatory Activation **S. Ghosh, Q. Tang, D. Logothetis and J. Wang.** VCU Med. Ctr., Richmond.
- A113 **715.3** Ceramide-Enriched Secreted Microvesicles as a Mediator of Cytotoxic Synergy between TNF- α and IFN- γ in Oligodendrocyte Cell Death **M. Podbielska, Z. Szulc, E.L. Hogan, A. Bielawska and N.R. Bhat.** Med. Univ. of South Carolina and Inst. of Immunol. and Exptl. Therapy, Polish Acad. of Sci.
- A114 **715.4** Spatiotemporal Activation of Yeast Lipin Pah1 and Phospholipid Remodelling during Lipid Droplet Formation **A.D. Barbosa, H. Sembongi, G-S. Han, W-M. Su, G. Carman and S. Siniossoglou.** Univ. of Cambridge; Rutgers Ctr. for Lipid Res. and Rutgers Univ.
- A115 **715.5** Plasticity of the Human Plasma Lipidome Is Genetically Influenced and Associated with Type 2 Diabetes in Mexican American Families **H. Kulkarni, P.J. Meikle, M. Mamtani, G. Wong, J.M. Weir, C.K. Barlow, T.D. Dyer, L. Almasy, M.C. Mahaney, A.G. Comuzzie, R. Duggirala, J. Blangero and J.E. Curran.** Texas Biomed. Res. Inst., San Antonio and Baker IDI Heart and Diabetes Inst., Melbourne.
- A116 **715.6** 12/15-Lipoxygenase-Dependent ROS Production Is Required for Diet-Induced Endothelial Barrier Dysfunction **R. Chattopadhyay, A. Tinnikov, E. Dyukova, N.K. Singh, S. Kotla, J.A. Mobley and G.N. Rao.** Univ. of Tennessee Hlth. Sci. Ctr., Memphis and Univ. of Alabama at Birmingham.
- A117 **715.7** Regulation of TGF-Beta Receptor Signaling and Cell Migration by Ceramide Metabolism **S. Gencer, C.E. Senkal, S. Ponnusamy, N. Oleinik, S.P. Selvam, M. Dany and B. Ogretmen.** Med. Univ. of South Carolina.
- A118 **715.8** Antitumor 1-Nitroacridine, C-1748, Decreases Pro-survival Autophagy and Induces Accumulation of Lipid Droplets Resulting in Apoptosis of Panc-1 Pancreatic Cancer Cells **B. Borowa-Mazgaj, A. Skwarska, E. Augustin, S. Pyrek, Z. Mazerska and A. Radomska-Pandya.** Gdansk Univ. of Technol. and Univ. of Arkansas for Med. Sci.

- A119 **715.9** Phosphatidylinositol Phosphates Modulate STAR4 Sterol Transfer between Membranes **D.B. Iaea and F.R. Maxfield**. Weill Cornell Med. Col.
- A120 **715.10** Walnuts Rearrange the Lipid Mediator Composition of Lipoproteins Independent of Changes in Fatty Acid Precursors **G.C. Shearer, J.W. Newman, R.R. Holt, C.L. Keen and R.M. Hackman**. Penn State; USDA, Davis and Univ. of California, Davis.
- A121 **715.11** Differential Regulatory Response for the $\Delta 9$ Desaturase in *Saccharomyces cerevisiae* Based on Fatty Acid Species and Membrane-Altering Conditions **M. Ochs, C. Schriemer and V. McDonough**. Hope Col., MI.
- A122 **715.12** Cordycepin Inhibits LPS-Induced Inflammatory Responses by Modulating NOD-Like Receptor Protein 3 Inflammation Activation **J. Yang, Y. Li, L. Zhang and H. Zhou**. VCU; China Pharmaceut. Univ., Nanjing and McGuire VA Med. Ctr., Richmond.
- A123 **715.13** Differing Functions of Liver and Intestinal-Fatty Acid Binding Proteins: Examination of the LFABP/IFABP Double Knockout Mouse **A.M. Gajda, Y.X. Zhou, S. Kodukula, A. Lackey, A. Pappas, L.B. Agellon and J. Storch**. Rutgers Univ. and Sch. of Diet. and Human Nutr., McGill Univ.
- A124 **715.14** Cholesterol Trafficking for Steroid Biosynthesis in MA-10 Mouse Tumor Leydig Cells **S. Jagannathan, S. Chebbi, F. Hullin-Matsuda, T. Kobayashi and V. Papadopoulos**. McGill Univ. and RIKEN Adv. Sci. Inst., Wako.
- A125 **715.15** Regulation of Lipid Droplet Formation by Group IVA Phospholipase A_2 **J. Balsinde, C. Guijas, J.P. Rodríguez, J.M. Rubio and M.A. Balboa**. CSIC – Univ. of Valladolid, Spain.
- A126 **715.16** Distinct Roles of Apolipoprotein A1 and Lecithin-Cholesterol Acyltransferase in Lipopolysaccharide-Induced Inflammation **P.I. Petropoulou, J.F.P. Berbée, A. Hatziri, I. Karagiannides and K.E. Kypreos**. Univ. of Patras.
- A127 **715.17** Oral Administration of a Ketone Ester Regulates Blood Cholesterol in Rats and Humans **M.F. Kemper, R. Pawlosky, M.T. King, C. Wainwright, K. Clarke and R.L. Veech**. NIAAA, NIH, Rockville; Univ. of Oxford and St Vincent's Clin., Sydney.
- A128 **715.18** Lipin-1 Links Lipid Signaling with Inflammation **M.A. Balboa, C. Meana, G. Lordén and J. Balsinde**. CSIC – Univ. of Valladolid, Spain.
- A129 **715.19** **Withdrawn**.
- A130 **715.20** Reverse Effect of Coconut Water on Lipidomics of Low Level Cadmium-Induced Rat **O.O. Ogunrinola, A.D. Wusu, B.O. Adu, B.O. Elemo and O. Ademuyiwa**. Lagos State Univ. and Fed. Univ. of Agr., Nigeria.
- A131 **715.21** Profiling of Lipids Expression along the Rostral and Caudal Axis after Spinal Cord Injury: Matrix-Assisted Laser Desorption/Ionization Approach **A.T. Adam, M. Salzet and S. Devaux**. Montclair State Univ. and Univ. Lille 1
- A132 **715.22** Cellular Mechanisms by Which Alcohol Promotes HIV Protease Inhibitor-Induced Liver Lipotoxicity **M. Hinton, W. Pandak, P. Hylemon and H. Zhou**. VCU and McGuire VA Med. Ctr.
- A133 **715.23** Inflammatory Caspase-1 Activation and VEGFR-2 Signaling Regulate Each Other in Lipid-Stimulated Endothelial Cells **J. Lopez-Pastrana, L. Ferrer, R. Cueto, E. Choi, H. Wang and X-F. Yang**. Temple Univ. Sch. of Med.
- A134 **715.24** Phospholipase D2 Regulation of MT1-MMP Membrane Trafficking Promotes Breast Cancer Metastasis **G. Du, Z. Wang, F. Zhang, C. Rog, M. Lu, J. Peng and G. Di Paolo**. Univ. of Texas Hlth. Sci. Ctr. at Houston; St. Jude Children's Res. Hosp. and Columbia Univ. Med. Ctr.
- A135 **715.25** Phosphoinositide Binding to ErbB3-Binding Protein 1 Contributes to Its Nucleolar Localization **A.E. Lewis, T. Karlsson and A. Altankhuyag**. Univ. of Bergen.
- A136 **715.26** A Study on *Manduca sexta* Perilipin 2: Cloning, Developmental Expression and Characterization of the Recombinant Protein **X. Chen, S. Firdaus, S. Daniel, A. Howard, J. Soulages and E. Arrese**. Oklahoma State Univ.
- A137 **715.27** Knockdown of Cardiolipin Synthase in Human Brain Microvessel Endothelial Cells Modulates Blood Brain Barrier Transport Properties **H.H. Nguyen, Y. Wang, D.W. Miller and G.M. Hatch**. Univ. of Manitoba.
- A138 **715.28** An Allosteric Network in LRH-1 Mediates Phospholipid-Driven Gene Regulation **J.A. Kohn, P.M. Musille, B.R. Kossmann, I.N. Ivanov and E.A. Ortlund**. Emory Univ. and Georgia State Univ.
- A139 **715.29** Tapping the Power of Plasma Lipidome to Improve Hypertriglyceridemic Waist as a Predictor of Future Type 2 Diabetes **M. Mamtani, P.J. Meikle, H. Kulkarni, G. Wong, J.M. Weir, C.K. Barlow, T.D. Dyer, L. Almasy, M.C. Mahaney, A.G. Comuzzie, R. Duggirala, J. Blangero and J.E. Curran**. Texas Biomed. Res. Inst., San Antonio and Baker IDI Heart and Diabetes Inst., Melbourne.
- A140 **715.30** Adipocyte-Breast Cancer Cell Interactions: Preventive Effects of Omega-3 Fatty Acids **A. Aljawadi, M. Ouertani, N. Siriwardhana, S. Scoggin, L. Gollahon, S. Dharmawardhane and N. Moustaid-Moussa**. Texas Tech Univ.
- A141 **715.31** Decreasing Phosphatidylcholine on the Surface of the Lipid Droplet Alters Protein Binding **E.C. Townsend, A. Hains, E. Brown, C. Rickertsen, K. Kharbanda and L. Listenberger**. St. Olaf Col., MN and VA Nebraska-Western Iowa Hlth. Care Syst., Omaha.
- A142 **715.32** Exogenous Arachidonic Acid Mediates Permeability of Human Brain Microvessel Endothelial Cells through Prostaglandin E_2 Activation of EP_3 and EP_4 Receptors **S. Dalvi, H.H. Nguyen, N. On, R.W. Mitchell, H.M. Aukema, D.W. Miller and G.M. Hatch**. Univ. of Manitoba.
- A143 **715.33** Single Molecule Dynamics of Lipid Bilayer Associated PTEN **A. Gericke, R.K. Harishchandra, A.M. Bryant, A.H. Ross and B.E. Neumann**. Worcester Polytech Inst. and UMass Med. Sch.
- A144 **715.34** Sphingosine Kinase 1 Mediates Transmembrane Calcium Entry via Store-Operated Calcium Channel **H.M. El-Shewy, P.C. Wilson and L.M. Luttrell**. Med. Univ. of South Carolina.
- A145 **715.35** Specificity and Competitive Cation Association to Phosphatidylinositol-4,5-Bisphosphate Model Membranes **E.E. Kooijman, W. Wang, G. Singh, I. Kuzmenko, D. Vaknin and Z.T. Graber**. Kent State Univ.; Iowa State Univ. and Argonne Natl. Lab.
- A146 **715.36** Ionization Properties of the Enigmatic Plant Lipid DGPP **G.A. Bazilevich, K.M. Budge, S. Rapovy, H. Khalifa, Y.T. Koukounas, Z.T. Graber and E.E. Kooijman**. Kent State Univ.

- A147 **715.37** Absorption of Molecular Forms of Dietary Docosahexaenoic acid (DHA) and Their Potential to Provide DHA to the Brain **P.V. Subbaiah, K.J. Dammanahalli, P. Yang, P. Malhotra, J. Bi, J.M. O'Donnell and W. Alrefai**. Univ. of Illinois at Chicago and Jesse Brown VA Med. Ctr.
- A148 **715.38** The PHO4 Transcription Factor Regulates Triacylglycerol Metabolism under Low Phosphate Conditions in *Saccharomyces cerevisiae* **K.K. Yadav, N. Singh and R. Rajasekharan**. Central Food Technol. Res. Inst., Mysore, India.
- A149 **715.39** Macrophage Mitochondrial Energy Status Regulates Cholesterol Efflux and Is Enhanced by Anti-Mir33 in Atherosclerosis **D. Karunakaran, B. Thrush, M. Geoffrion, E. Ramphos, M. Nguyen, P. Shangari, M. Harper, K. Moore and K. Rayner**. Ottawa Heart Inst.; Univ. of Ottawa and NYU.
- A150 **715.40** Amino Acid Deprivation Increases Lipid Accumulation in HepG2 Hepatoma Cells through Repression of Histone Deacetylase 3 **H. Wang, K. Hess, H.M. Guetterman, H. Chen and Y-X. Pan**. Univ. of Illinois at Urbana-Champaign.
- A151 **715.41** The G Protein-Coupled Receptor TGR5 Plays a Protective Role against the Development of Non-alcoholic Fatty Liver Disease **K. Jadhav and Y. Zhang**. Kent State Univ. and Northeast Ohio Med. Univ.
- A152 **715.42** Role of Macroautophagy in Anti-cancer Effects of the Novel Sphingolipid, Enigmol **S.G. Mays, A.S. Bushnev, M.T. Baillie, H. Yi, D.C. Liotta and J.A. Petros**. Emory Univ. and Atlanta VA Med. Ctr.
- A153 **715.43** Characterization of Two Inositol Hexakisphosphate Kinases, *AtVIP1* and *AtVIP2*, in *Arabidopsis* **S.P. Williams, E. Land, J. Donahue, P. Rangarajan, M. Mandal, I. Perera and G. Gillaspay**. Virginia Tech and North Carolina State Univ.
- A154 **715.44** Identification of Pathways for the Uptake of Coenzyme Q in *Saccharomyces cerevisiae* **K.C. Quinn, A.M. James, M.P. Murphy, G.S. Payne and C.F. Clarke**. UCLA and Univ. of Cambridge.
- A155 **715.45** Effects of Small Red Bean Powder on Lipid Metabolism and Antioxidant Capacity in High Cholesterol and High Fat Diet Induced Nonalcoholic Fatty Liver Disease Mice **S. Kim and H. Kim**. Sookmyung Women's Univ., South Korea.
- A156 **715.46** The Lipid Kinase PIKfyve Controls Lysosome Gene Transcription **C.H. Choy, M.A. Gray, Y. Li and R.J. Botelho**. Ryerson Univ., Canada.
- A157 **715.47** Aging Yeast Cells Are Fat! **D. Kanagavijayan, M. Srinivasan and R. Rajasekharan**. CSIR-Central Food Technol. Res. Inst., Bangalore.
- A158 **715.48** Protective Role of Phosphatidic Acid in the Cellular Response to Lysophosphatidylcholine Analogues **S. Ganesan, P. Fernandez Murray, C. McMaster and V. Zarembeg**. Univ. of Calgary and Dalhousie Univ., Canada.
- A159 **715.49** Ubiquitin Ligase IDOL Inhibitors for Treating Hypercholesterolemia **J. Marblestone, J. Wu, J. LaRocque, S. Agarwal, M. Kodrasov, J. Weinstock, S. Kumar, M. Mattern and D. Sterner**. Progenra Inc., Malvern, PA.
- A160 **715.50** Inositol Depletion Perturbs the Vacuolar-ATPase: A Novel Mechanism of Action of Valproate **R.M. Deranieh, Y. Shi, M. Tarsio, P.M. Kane and M.L. Greenberg**. Wayne State Univ.
- A161 **715.51** CD36 Deficiency Reduces Obesity-Associated Inflammation and Oxidative Stress in Heart **T. Hajri, M. Gharib, H. Tao and T.V. Fungwe**. Hackensack Univ. Med. Ctr.; Vanderbilt Univ and Howard Univ.
- A162 **715.52** Lysophosphatidylcholine Counteracts LPS-Induced Nitric Oxide Production through the Activation of PKC Zeta and Induction of the M2 Macrophage Phenotype **M.A.C. Silva-Neto, I.C.F. Moreira, A.B. Carneiro, L.D.B. De Melo, N.C. Miguel, S. Seabra, R. DaMatta, A.H. Lopes and G.C. Atella**. Fed. Univ. of Rio de Janeiro; Fndn. Oswaldo Cruz; Fed. Inst. of Sci. and Technol., Rio de Janeiro; UEZO – State Univ. Ctr. Fndn. of West Zone and Univ. Estadual do Norte Fluminense.

716. BIOCHEMICAL PHARMACOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A163 **716.1** Evaluating 2-O, 3-1 Desulfated Heparin (ODSH) Dosing for Radiation Combined Burn Injury **A. Islam, D.L. Bolduc, M. Zhai, S.S. Hobbs and J.M. Swift**. Uniformed Svcs. Univ. of Hlth. Sci.
- A164 **716.2** The Effects of Kolaviron, a Natural Flavonoid from the Seeds of *Garcinia kola* on LPS-Induced Inflammation in Macrophages **S.O. Abarikwu**. Univ. of Port Harcourt, Nigeria.
- A165 **716.3** Discovery of Isoindolo[2,1-a]Quinazoline Derivatives as Anti-hepatitis C Virus Agents by Suppressing HCV-Associated Inflammation **D. Manvar, N. Kaushik-Basu, S. Kulkarni and T. Talele**. Rutgers Univ., New Jersey Med. Sch. and Col. of Pharm. and Hlth. Sci., St. John's Univ.
- A166 **716.4** Evaluation of the Antimicrobial Activities from Secondary Metabolites in Plant Families (Boraginaceae, Fabaceae, Lamiaceae, and Lauraceae) **K. Compean and R. Ynalvez**. Texas A&M Intl. Univ.
- A167 **716.5** Specification of Novel Compound E121's Mechanism of Action **S. Drummond, M. Manzoor, A. Cramer, I. Edafiogho and D. Soldato**. Univ. of Saint Joseph Sch. of Pharm.
- A168 **716.6** Oxidation of Salicylic Acid and Aspirin by Human Cytochromes P450 **C.A. Sedgeman, M. Bojic and F.P. Guengerich**. Vanderbilt Univ.
- A169 **716.7** The Determination of the Biological Activity of Three South Texas *Fabaceae* Leaf Extracts **P. Palacios and R. Ynalvez**. Texas A&M Intl. Univ.
- A170 **716.8** MD-2 as the Target of a Novel Small Molecule, L6H21, in the Attenuation of LPS-Induced Inflammatory Response and Sepsis **G. Liang, Y. Wang, G. Chen and Q. Fang**. Wenzhou Med. Univ., China.
- A171 **716.9** Differential Effects of Nanoparticle Surface-Functionalization on the Polarization Profiles of M1 and M2 Macrophages **T. Syrovets, K. Haas, C. Loos, A. Musyanovych, V. Mailänder, K. Landfester and T. Simmet**. Ulm Univ. and Max Planck Inst. for Polymer Res., Mainz.

- A172 **716.10** Protective Mechanism on Gastric Lesion of Sennoside A and Sennoside B **I.Y. Hwang, S.Y. Lee, Y.A. Sohn, S.W. Kim, S.Y. Kim, A. Moon and C. Jeong.** Col. of Pharm., Duksung Women's Univ. and Innov. Drug Ctr., Duksung Women's Univ., South Korea.
- A173 **716.11** SCH 66712 and EMTTP Are the First Potent Mechanism-Based Inactivators of Both Human CYP2D6 and CYP3A4 **R. Fujiwara, A.K. Bolles, E.D. Briggs, A.A. Nomeir and L.L. Furge.** Kalamazoo Col. and Amin Nomeir Pharmaceut. Consulting LLC, Milford, NJ.
- A174 **716.12** Interactions of Human CYP2D6 Polymorphisms with the Mechanism-Based Inactivator SCH 66712 **S.M. Glass, V.M. Osorio, R. Fujiwara, M.J. Glista, P.W. de Waal and L.L. Furge.** Kalamazoo Col.
- A175 **716.13** Cyclopentenyl Cytosine Promotes Endothelial Protection by Inducing Smooth Muscle Re-differentiation in Vascular Remodeling **R. Tang, G. Zhang and S. Chen.** Univ. of Georgia.
- A176 **716.14** Warfarin Metabolite Profiles Reveal the Importance of Factors on Patient Dose-Responses to Anticoagulant Therapy **D.L. Pouncey, J.H. Hartman, G. Boysen, E.S. Smith and G.P. Miller.** Hendrix Col.; Univ. of Arkansas for Med. Sci. and Central Arkansas Veterans Hosp. Syst.
- A177 **716.15** Role of Cardiac miR-208a in Nebivolol-Mediated Signaling **A. Mahmood, R. Gul, C. Luck and L. Pulakat.** Univ. of Missouri-Columbia; Harry S. Truman Mem. Veterans' Hosp. and King Saud Univ.
- A178 **716.16** Antioxidant Enzymes Activities and Lipid Peroxidation of Aqueous Extracts of Selected Vegetables in Isoproterenol-Induced Myocardial Infarction in Male Wistar Albino Rats **J.E. Okpuzor and T.F. Salisu.** Univ. of Lagos, Nigeria.
- A179 **716.17** Development of a Nonradioactive Steroid Receptor Ligand Binding Assay Using Fluorescence Polarization for Studying Hsp90-Mediated Chaperone Protein Activity **N. Manlove, J.M. Walden and P.J.M. Murphy.** Seattle Univ.
- A180 **716.18** Identification of Counterfeit TB Treatment Drugs **E. May and S. Williams.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol.
- A184 **717.4** Protein Polyphosphorylation of Lysine Residues by Inorganic Polyphosphate **C.M. Azevedo and A. Saiardi.** University Col. London.
- A185 **717.5** PADlock Cryptanalysis: A Bayesian Approach to Identifying Trends in the Post-translational Modification Deimination **J.S. Olson, J. Church and J. Grant.** Univ. of Wisconsin-Stout.
- A186 **717.6** S-Glutathionylation Promotes HSP90 Degradation under Oxidative Stress **Y.-Y. Shih and C.-H. Lin.** Inst. of Biol. Chem., Acad. Sinica, Taiwan.
- A187 **717.7** Deciphering the Functional O-GlcNAc Subproteome **M.R. Martinez, A. Pandey and N.E. Zachara.** Johns Hopkins Univ.
- A188 **717.8** Defining the Mechanism of O-GlcNAc Signaling in Stress-Induced Autophagy and Cardioprotection **K. Fahie, M. McCartin, M. Wolfgang and N. Zachara.** Johns Hopkins Univ. Sch. of Med.
- A189 **717.9** Arkadia Mediates Sumoylation-Dependent Stabilization of Nrf2 **D.J. McIntosh, T.S. Walters and I.J. Arinze.** Meharry Med. Col. and Meharry Med. Col.
- A190 **717.10** SUMO-Binding Sites in Mouse Nrf2: Impact on the Transcriptional Activity of Nrf2 **T.S. Walters, D.J. McIntosh and I.J. Arinze.** Meharry Med. Col.
- A191 **717.11** Regulation of the Hsp70 BiP Molecular Chaperone Activities by Glutathiolation **J. Wang and C. Sevier.** Cornell Univ.
- A192 **717.12** Generation and Characterization of a Stable Inducible O-GlcNAcase Cell Line **A.O. Maduka, J.A. Groves and N.E. Zachara.** Univ. of Maryland Baltimore County and Johns Hopkins Univ. Sch. of Med.
- A193 **717.13** Structural Dynamics of the NSD Family Histone Methyltransferases **K.E. Teichert, R.E. Iacob, R. St. Pierre, M. Isohey, S. Chen, J. Paulk, J.R. Engen and J.E. Bradner.** Northeastern Univ.; Dana-Farber Cancer Inst.; Broad Inst., Cambridge and Harvard Med. Sch.
- A194 **717.14** Sweet Tooth of a Glucose Transporter: GLUT1 C-Terminal Phosphorylation and O-GlcNAcylation Effect in Breast Cancer Cell Lines **G.P. Padilla-Meier and S. Mishra.** Univ. of Manitoba.
- A195 **717.15** Targeting Citrullination in the Injured Retina **J.W. Wizeman, A.P. Nicholas and R. Mohan.** Univ. of Connecticut Hlth. Ctr. and Univ. of Alabama at Birmingham.
- A196 **717.16** Protein Arginine Methylation of Tubulin Beta Decreases Binding of Taxol in Neuro2a Cells **S.C. Piller, N.K. Jwad, L. Hejazi, R. Gamsjaeger and N.J. Sucher.** Univ. of Western Sydney and Roxbury Community Col., MA.
- A197 **717.17** Exploring the Importance of Dimerization for DJ-1 Function through Engineered Domain Fusions **S.C. Hansen, J. Lin and M.A. Wilson.** Univ. of Nebraska-Lincoln.
- A198 **717.18** Redox Control of Protein Arginine Methyltransferase 1 Activity **J. Hevel, Y. Morales, D.V. Nitzel, O.M. Price and S. Gui.** Utah State Univ.
- A199 **717.19** Mechanism of Nicotinamide Riboside as an Aid to Weight Loss **C. Brenner, B.J. Weidemann, S.A.J. Trammell, J.J. Coon, L. Yu, M.E. Migaud and J.L. Grobe.** Univ. of Iowa; Queens Univ. Belfast and Univ. of Wisconsin-Madison.
- A200 **717.20** Targeting the SUMO E1-E2 Enzyme Interaction in *Plasmodium falciparum* **K. Reiter, J. Bosch and M.J. Matunis.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.

717. MECHANISTIC IMPACTS OF POSTTRANSLATIONAL MODIFICATIONS II

(Poster Session I scheduled on Sunday)

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A181 **717.1** Cysteinylation of the ALS-Associated Protein SOD1 Confers Resistance to Oxidation **J. Auclair, D. Ringe, G. Petsko and J. Agar.** Brandeis Univ. and Northeastern Univ.
- A182 **717.2** O-GlcNAcylation Modifies the Metastatic Properties of Prostate Cancer Cells **X. Liu, S.M. Mooney and G.W. Hart.** Johns Hopkins Univ. Sch. of Med.
- A183 **717.3** N-Chlorination, a Reversible Post-translational Modification that Activates Chaperone Function in RidA **A. Müller, S. Langklotz, N. Lupilova, K. Kuhlmann, J.E. Bandow and L.I.O. Leichert.** Ruhr Univ. Bochum.

718. MOLECULAR MECHANISMS OF INFECTION AND IMMUNITY II

(Poster Session I scheduled on Sunday
Poster Session III scheduled on Tuesday)

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A201 **718.1** Benzoylcegonine, a Major Cocaine Metabolite, Enhances HIV-1 Integration and Replication in Immune Cells **A.B. Addai, J. Pandhare and C. Dash.** Meharry Med. Col.
- A202 **718.2** Structural and Functional Features of Recognition by Toll-Like Receptors **R. Jerala.** Natl. Inst. of Chem., Ljubjana, Slovenia.
- A203 **718.3** Effects of Bacterial Endotoxins on the Toxicity of Extracellular Histones to Mammalian Cells **D.S. Burris, L. Sharma and L.L. Mantell.** St. John's Univ. Col. of Pharm. and Allied Hlth. Professions.
- A204 **718.4** Splicing Factor SON Mediates Macrophage Susceptibility to Intracellular Pathogens **D.J. Gregory, I. Kramnik and L. Kobzik.** Harvard Sch. of Publ. Hlth. and Boston Univ.
- A205 **718.5** Effects of Landscape Fragmentation, Habitat, and Vegetation on Abundance of *Ixodes scapularis* as a Lyme Disease Carrier in Essex County, Massachusetts **S. Kruguer, S. Mason, G. Keller and J. Topp.** Gordon Col. and Endicott Col., MA.
- A206 **718.6** A Non-human Primate Model for *Yersinia pestis* Infection: Metabolomic Analysis Pilot Study **A. Gautam, S.A. Miller, A. Hoke, R. Hammamieh and M. Jett.** U.S. Army Ctr. of Envrn. Hlth. Res., Frederick, MD and The Geneva Fndn., Tacoma, WA.
- A207 **718.7** The Surfactant Protein A Receptor SP-R210, Variant Mediates Infection and Resolution of Influenza A Virus in the Lung **L. Yang, S. Hu, E.S. Halstead and Z.C. Chroneos.** Penn State Col. of Med.
- A208 **718.8** Macrophage Liver Kinase B1 Interacts with IKK β and Inhibits Inflammatory Signaling in Response to LPS **Z. Liu and M-h. Zou.** Univ. of Oklahoma Hlth. Sci. Ctr.
- A209 **718.9** Mapping the DNA and RNA Binding Domains of the HIV Restriction Factor APOBEC3G **H.C. Smith, W. McDougall, B. Polevoda, A. Friedman, R. Bennett and R. Stewart.** Univ. of Rochester and OyaGen Inc., Rochester.
- A210 **718.10** Fluorescent Labeling of the Carbohydrate Backbone of Peptidoglycan to Track Degradation In Vivo **Y. Wang and C. Leimkuhler-Grimes.** Univ. of Delaware.
- A211 **718.11** Effect of Pathway-Interconnectors in SEB-Induced Apoptosis Related Events in Human PBMCs **W. Mills, A. Wampfler, K. Rothschild, K. Gilman and C. Mendis.** Univ. of Wisconsin-Platteville.
- A212 **718.12** Function of KpsS, KpsC, and NeuE in *Escherichia coli* K1 Polysialic Acid Biosynthesis **V. Thon, D. Peterson, J. Vionnet and W.F. Vann.** FDA, Silver Spring, MD.
- A213 **718.13** cAMP Signaling: An Important Event Facilitating Survival and Infectivity of *Leishmania* **A. Biswas, A. Bhattacharya, A. Vij and P.K. Das.** CSIR-Indian Inst. of Chem. Biol., Kolkata.
- A214 **718.14** Molecular Screening for Antagonists of HIV-1 Viral Infectivity Factor Enables Drug Discovery **J.D. Salter, R.P. Bennett, G.A. Morales and H.C. Smith.** OyaGen Inc., Rochester; Cogent Professionals, Indianapolis and Univ. of Rochester.
- A215 **718.15** Visualization of Bcl-2 Family Proteins (Bik and BAK) Interactions Using Fluorescence Microscopy **D. Kumarjiguda, C. Normand and J. Roeklein-Canfield.** Simmons Col., MA.
- A216 **718.16** Analysis of Mutant Constructs of Human Bik and their Interaction with KSHV vBCL-2 **C. Normand, D. Kumarjiguda and J. Roeklein-Canfield.** Simmons Col., MA.
- A217 **718.17** Free Actin Impairs Macrophage Bacterial Defense: Reversal by Plasma Gelsolin **C.M. Ordija, T.T. Chiou, M. de Oliveira Valdo, Z. Yang, G.M. DeLoid and L. Kobzik.** Harvard T.H. Chan Sch. of Publ. Hlth.
- A218 **718.18** M1 Protein from GAS Protects against Histone Killing **S. Döhrmann, C.N. LaRock, E.L. Anderson, B.K. Ryali, P. Ghosh and V. Nizet.** UCSD.
- A219 **718.19** Structural and Physical Properties of the Hepatitis C Virus 1406 TCR and NS3₁₄₀₆₋₁₄₁₅/HLA-A2 pMHC Complexes **Y. Wang and B. Baker.** Univ. of Notre Dame.
- A220 **718.20** HCV-Host Cell Interactions: Role of Ebp-1 in Hepatitis C Virus Replication **P. Mishra, U. Dixit, A.K. Pandey and V.N. Pandey.** Rutgers Biomed. and Hlth. Sci., Newark.
- A221 **718.21** Role of the U2AF Homology Motif in Human Tat-SF1 as a Cofactor for HIV-1 Splicing **S. Loerch and C.L. Kielkopf.** Univ. of Rochester.
- A222 **718.22** RNA-Seq Reveals Differential hnRNP-RNA Interactions during VSV Infection **A.S. Davidson, D.S. Lyles and R.W. Alexander.** Wake Forest Univ. and Wake Forest Sch. of Med.
- A223 **718.23** Neuraminidase Enhances *Pseudomonas aeruginosa* Secretome Disruption of the Rat Pulmonary Microvascular Endothelial Cell Monolayer **A.K. McClinton, D.L. Cioffi and E.A. Cioffi.** Univ. of South Alabama.
- A224 **718.24** Decidual Macrophages as an Ex Vivo Model to Study Active HIV-1 Viral Reservoir **E.M. Albino, L.J. Godoy, C.M. Ortiz, F. Ramirez and M.D. Hill.** and Hosp. Episcopal San Lucas, PR.
- A225 **718.25** Respiratory Syncytial Virus Infection Downregulates Antioxidant Enzyme Expression by Triggering Nrf2 Degradation **N. Komaravelli, B. Tiang, T. Ivanciuc, A.R. Brasier, R.P. Garofalo and A. Casola.** Univ. of Texas Med. Branch.
- A226 **718.26** Pathogenetic Pathways of Aberrant O-Glycosylation of IgA1 in an Autoimmune Disease, IgA Nephropathy **J. Novak, K. Takahashi, H. Suzuki, K. Yamada, C. Reily, T. Stewart, H. Ueda, S. Hall, Z. Moldoveanu, M. Raska, B.A. Julian and M.B. Renfrow.** Univ. of Alabama at Birmingham.

719. EXTRACELLULAR MATRICES IN HEALTH AND DISEASE I

(Poster Session II scheduled on Tuesday)

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A227 **719.1** Three-Dimensional Collagen IV and Hormone Prolactin Regulate Breast Cancer Cell Invasion: Role of PAK1 and Matrix Metalloproteinases **M. Diakonova, P. Oladimeji and L. Rider.** Univ. of Toledo.
- A228 **719.2** Endothelial Deficiency of the Extracellular Matrix Protein CCN1 Alters Developmental and Pathological Angiogenesis **B. Chaqour, I. Krupska, L. Yan, L. Lau, M.B. Grant and H. Chintala.** SUNY Downstate Med. Ctr.; Univ. of Illinois at Chicago; Indiana Univ. and
- A229 **719.3** Extracellular Matrix Fibronectin Attenuates PDGF-Induced Intracellular Calcium Release **C.S. Farrar and D.C. Hocking.** Univ. of Rochester.
- A230 **719.4** miR-625# and miR-206 Participate to the Cellular Response to Matrix Rigidity **M. Rio, C. Dina, P.F. Busson, N. Bélaadi, G. Loirand and C. Guilly.** INSERM, Nantes.
- A231 **719.5** Trimeric G Protein Activation by the Non-receptor Protein GIV/ Girdin Is Required for Integrin Signaling **A. Leyme, L. Perez-Gutierrez, L.T. Nguyen and M. Garcia-Marcos.** Boston Univ.
- A232 **719.6** Fibroblast-Macrophage Interactions: Regulation by Modification of Extracellular Matrix **A. Mazur, T. Kelly and S.R. Post.** Univ. of Arkansas for Med. Sci.
- A233 **719.7** MAP1S-Enhanced Autophagy Alleviates Tissue Fibrosis and Sustains Mouse Survival under Stress Imposed by LC3-Induced Overexpression of Fibronectin **L. Liu.** Texas A&M Hlth. Sci. Ctr., Houston and College Station.
- A234 **719.8** Mechanobiology of the Extracellular Matrix: Learning from Articular Cartilage **S. Kearns and M. Das.** Rochester Inst. of Technol.
- A235 **719.9** Diet-Induced Vascular Remodeling Produces a Shift in Collagen Fiber Angle Distribution in a Mouse Model of Atherosclerosis **S.R. Watson, P. Liu, E.A. Pena, M.A. Sutton, J.F. Eberth and S.M. Lessner.** Univ. of South Carolina.
- A236 **719.10** Bioethanol Production: Optimization of Pretreatment Condition of Sugarcane Bagasse **M.N. Igwo-Ezikpe, O.A. Odumade, O.A. Ayanshina and M.O. Babalola.** Univ. of Lagos Col. of Med.
- A237 **719.11** From the ECM to Thrombosis: A New Role for the Matrix Enzyme Lysyl Oxidase **S. Matsuura, R. Mi, A. Eliades, P. Toselli, J. Thon, J. Italiano, P.C. Trackman, N. Papadantonakis and K. Ravid.** Boston Univ. Sch. of Med.; Brigham and Women's Hosp., Harvard Med. Sch. and Boston Univ. Henry M. Goldman Sch. of Dent. Med.
- A238 **719.12** Cargo Receptor Traffics Many Matrix Proteins Out of the Endoplasmic Reticulum by Binding to N-Terminal IleProVal-Like Motif **Y. Yin, M.R. Garcia, A. Novak and L.W. Fisher.** NIDCR, NIH.
- A239 **719.13** Selective Up-regulation and Activation of Matrix Metalloproteinase 11 Non-autonomous Cell Death and Pathological Dysfunctions upon Loss of Ran-Binding Protein 2 **P.A. Ferreira, H. Patil and K. Cho.** Duke Univ. Med. Ctr.
- A240 **719.14** Hypoxia Affects Cell Migration and Wound Healing by Altering Basal Lamina Proteins and Focal Adhesion Turnover **O.E. Onochie and V. Trinkaus-Randall.** Boston Univ. Sch. of Med.
- A241 **719.15** Matricellular Protein Cyr61 Is a Key Mediator of Platelet-Derived Growth Factor-Induced Cell Migration **M-Z. Cui, F. Zhang, F. Hao, D. An, L. Zeng and X. Xu.** Univ. of Tennessee, Knoxville.
- A242 **719.16** Creating a 3D Matricellular Environment to Promote Islet Expansion for Diabetes Therapy – the Role of SPARC Family Proteins **K.P. Vilorio, C. Ryall, A. Dandagama, S. Asher, F. Lhaf, A. King, P. Jones, H. Kocher, L. Jones and N. Hill.** Kingston Univ. London; King's Col. London and Barts and London Sch. of Med. and Dent., Queen Mary Univ. of London.
- A243 **719.17** Investigating Laminin- $\alpha3\beta3\gamma2$'s Potential Role in Epithelial-to-Mesenchymal Transition in Pulmonary Epithelia **J.A. David, B.A. Blakeney and R.L. Heise.** Virginia Commonwealth Univ.
- A244 **719.18** Integrin Dysregulation as a Driver of Matrix Remodeling in a Model of Congenital Muscular Dystrophy **A. Accorsi, T. Mehuron, A. Kumar, Y. Rhee and M. Girgenrath.** Sargent Col., Boston Univ.
- A245 **719.19** Characterizing Fibrosis in Mouse Kidney Using Fluorescence Lifetime and Second Harmonic Generation Imaging Microscopy in Unilateral Ureteral Obstruction Model **E. Dobrinskikh, S. Ranjit, J. Montford, A. Dvornikov, A. Lehman, R.A. Nemenoff, E. Gratton, M. Levi and S.B. Furgeson.** Univ. of Colorado Anschutz Med. Campus and Univ. of California, Irvine.
- A246 **719.20** SUN2 Accumulation Contributes to Vascular Smooth Muscle Cell Alterations Induced by Matrix Rigidity **N. Bélaadi, G. Chadeuf, L. Nguyen, M. Rio, G. Louarn, G. Loirand and C. Guilly.** INSERM, Nantes and CNRS, Univ. of Nantes.
- A247 **719.21** The Role of Complement and the Extracellular Matrix in Early Stage Macular Degeneration **R. Fernandez-Godino, E.A. Pierce and D.L. Garland.** Massachusetts Eye and Ear Infirm., Harvard Med. Sch.
- A248 **719.22** CXCL12/SDF-1 Stimulates Megakaryocyte β -1,4-Galactosyltransferase 1 Activity to Enhance Platelet Production In Vivo **S. Giannini, M. Adelman, A. Jurak Begonja and K.M. Hoffmeister.** Brigham and Women's Hosp. and Harvard Med. Sch. and Univ. of Rijeka, Croatia.

720. ENZYME EVOLUTION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A249 **720.1** Exploiting Non-canonical Amino Acids to Alter Enzyme Substrate Specificity **C.L. Windle, A.S. Nelson, A.R. Pearson and A. Berry.** Univ. of Leeds and Univ. of Hamburg.
- A250 **720.2** Identification and Characterization of a Group of Polymorphic, Single Domain Peptidoglycan Hydrolases of the NlpC/P60 Superfamily in Dust Mites **V.H. Tang, G.A. Stewart and B.J. Chang.** Sch. of Pathol. and Lab. Med., Univ. of Western Australia.
- A251 **720.3** De Novo Protein Provides Life-Sustaining Enzymatic Function in Auxotrophic *E. coli* **A. Mularz, B. Smith and M. Hecht.** Princeton Univ.
- A252 **720.4** Protein Engineering of Coenzyme-A-Dependent Aldehyde Dehydrogenase for Commercial Scale 1,4-Butanediol Production in *Escherichia coli* **A.M. Shah, W. Liu, B. Kinley, M. Kuchinskas, K. Chan, B.A. Steer, J. Li and H. Yim.** Genomatica, San Diego.
- A253 **720.5** Physiological Characterization of Arginine Kinase Found in *Caenorhabditis elegans* **M.R. Chin and D.J. Simonis.** The Col. of Wooster.
- A254 **720.6** Conservation of Lipid Storage Droplet Proteins in Evolution of *Animalia* **J. Bowman and J.T. Tansey.** Otterbein Univ., OH.
- A255 **720.7** Altering Caspase Specificity Using an Intracellular Directed Evolution Approach **D.J. MacPherson, M. Hill, P. Wu and J.A. Hardy.** Univ. of Massachusetts Amherst.

721. ENZYME INHIBITION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A256 **721.1** *Loranthus micranthus* Leaves Extract Attenuates Risk Factors of Cardiovascular Disease in Fructose Fed Rats **E.O. Ajani, O.O. Ogunlabi and B.O. Adegbesan.** Kwara State Univ. and Olabisi Onabanjo Univ.
- A257 **721.2** Effect of Curcumin and Silymarin in Combination Exerts Synergistic Inhibition of Colon Cancer Cell Proliferation **A. Montgomery, N. Daniel and U. Ezekiel.** Saint Louis Univ.
- A258 **721.3** Selective and Bioavailable Inhibitors of Collagen Prolyl 4-Hydroxylase **J.D. Vasta, K.A. Andersen and R.T. Raines.** Univ. of Wisconsin-Madison.
- A259 **721.4** Inhibition of Human Acetylcholinesterase by Enantiomers of V-Type Chemical Warfare Nerve Agents and Analogs **M.V. Boeri, S.A. Kasten and D.M. Cerasoli.** U.S. Army Med. Res. Inst. of Chem. Defense, Aberdeen Proving Ground, MD.
- A260 **721.5** Inhibitor Development against Aspartate- β -Semialdehyde Dehydrogenase – A Novel Target for Drug Development **B. Thangavelu, A.G. Pavlovsky, P. Bhansali and R.E. Viola.** Univ. of Toledo.

- A261 **721.6** Antibacterial Evaluation of 2-oxo-4-(Phenylamino)-2H-Chromene-3-Carbaldehyde **S.R. Govori, S. Spahiu and A. Haziri.** Univ. of Prishtina.
- A262 **721.7** Phosphorylated Acetylcholinesterase: Probing the Mechanism of a Small Molecule Reactivator **C.L. Cadieux, H. Wang, Y. Zhang, J. Koenig, T-M. Shih, J. McDonough, J. Koh and D.M. Cerasoli.** U.S. Army Med. Res. Inst. of Chem. Defense, Aberdeen Proving Ground, MD and Univ. of Delaware.
- A263 **721.8** Curcumin Inhibits DLD-1 Colorectal Cancer Cell Proliferation by Modulating MicroRNA and Tumor Suppressor Gene Expression **T.A. Adeyeni, K. Vattathara, R. Duggirala, V. Selvamani and U.R. Ezekiel.** Saint Louis Univ.
- A264 **721.9** AraL from *Bacillus subtilis*, a Phosphatase Member of the Nitrophenyl Phosphatase Family of the HAD Superfamily **J.T. Armeli, M. Madaio, J. Hill and S. O'Handley.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol.
- A265 **721.10** An A_p Aase/mRNA Decapping Nudix Hydrolase from *Mycobacterium leprae* **P. Zhu, T. DiDonato and S. O'Handley.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol.
- A266 **721.11** A Phosphoglycolate Phosphatase Virulence Factor from *Staphylococcus aureus* **J.S. Edwards, A. Gehret and S. O'Handley.** Rochester Inst. of Technol. and Natl. Inst. for the Deaf, Rochester.
- A267 **721.12** Pharmacological Properties of *Anthocleista vogelii* against CCl_4 Induced Toxicity **O.O. Iroanya, T.D. Oduola, M.U. Akagha and E.O. Oladunjoye.** Univ. of Lagos.
- A268 **721.13** Biological Evaluation of Structurally Simplified Staurosporine Analogs on Protein Kinase C Inhibition **P. Mowery and E.T. Pelkey.** Hobart and William Smith Cols.
- A269 **721.14** Biological Evaluation of Simplified Analogs of Protein Kinase C Inhibitor Staurosporine **C. Rolph, E.T. Pelkey and P. Mowery.** Hobart and William Smith Cols.
- A270 **721.15** Targeted Inhibitors of P-Glycoprotein Overcome Multidrug Resistance in Human Cancer Cell Lines **C.A. Follit, F.K. Brewer, J.G. Wise and P.D. Vogel.** Southern Methodist Univ.
- A271 **721.16** Evaluating p97 Inhibitor Analogues for Their Domain-Selectivity and Potency against the p97-p47 Complex **L. Gui, X. Zhang, C. Fang, D.R. Moen, D. Wang and T-F. Chou.** Harbor-UCLA LA BioMed.
- A272 **721.17** Chemoresistance-Induced Epithelial-Mesenchymal Transition of a Colorectal Cancer Cell Line **A.M. Martino, K. San, N. Daniel and U. Ezekiel.** Saint Louis Univ.
- A273 **721.18** Evaluation of the Polyketide GEX1A as a Potential Lead for Niemann-Pick Type C Disease **E.A. Granatosky, J.R.E. Pickering, D.C. Stevens and R.E. Taylor.** Univ. of Notre Dame.
- A274 **721.19** Deciphering Differential Distortion of Purine Substrates by Human and *Plasmodium falciparum* HGPRT **V. Karnawat, S. Gogia, H. Balaram and M. Puranik.** Indian Inst. of Sci. Educ. and Res., Pune; Natl. Ctr for Biol. Sci., Bangalore and Jawaharlal Nehru Ctr. for Adv. Sci. Res., Bangalore.
- A275 **721.20** Enhancement of Glutathione Synthesis Is Implicated in the Hepatoprotective Effects of Silymarin against Acetaminophen **Y.C. Kim, D.Y. Kwon and C.W. Ahn.** Col. of Pharm., Seoul Natl. Univ.

- A276 **721.21** Synthesis and Characterization of Triazine-Based Chemical Probes **K.S. Cole, R. Banerjee, N.J. Pace and E. Weerapana**. Boston Col.
- A277 **721.22** Targeting the AKT Pathway in Glioma by Using Bioinformatics Tools **K. Bardhi, K. Bardhi, P.A. Craig and H.J. Bernstein**. Rochester Inst. of Technol. and Dowling Col., NY.
- A278 **721.23** An α -Acetoxy-Tirucallic Acid Isomer Inhibits Akt/mTOR Signaling and Induces Oxidative Stress in Prostate Cancer Cells **M. El Gafaary, B. Büchele, T. Syrovets, C.Q. Schmidt and T. Simmet**. Ulm Univ.
- A279 **721.24** Assembly and Application of Phospholipid Nanodiscs for the Study of P-Glycoprotein **M.D. McClean, F.K. Brewer, J.G. Wise and P.D. Vogel**. Southern Methodist Univ.
- A280 **721.25** Mechanism-Based Inhibition of P-Glycoprotein **F.K. Brewer, C.A. Follit, M.D. McClean, P.D. Vogel and J.G. Wise**. Southern Methodist Univ.
- A281 **721.26** Inhibition of *Neisseria meningitidis* Group X N-Acetylglucosamine-1-Phosphotransferase by Donor Substrate Analogues **E. Cottman-Thomas, S. Ming, L. Tedaldi, G. Wagner, Y. Chen, X. Chen, C. Cai, R. Linhardt and W. Vann**. FDA, Silver Spring,; King's Col. London; Univ. of California, Davis and Rensselaer Polytech Inst.
- A282 **721.27** Substrate Specificity in Lysine Deacetylases **T.B. Toro, K.A. Nichols, D.S. Garrett and T.J. Watt**. Xavier Univ. of Louisiana.
- A283 **721.28** Vimentin Phosphorylation Underlies Corneal Myofibroblast Sensitivity to Withaferin A **P. Bargagna-Mohan, L. Lei, A. Thompson, C. Shaw and R. Mohan**. Univ. of Connecticut Hlth. Ctr.
- A284 **721.29** Synthesis and Evaluation of Substituted Coumarin Derivatives as Inhibitors of Monoamine Oxidase B **I.A. Kieffer and E.L. Oduaran**. Roger Williams Univ.
- A285 **721.30** Kinetic Studies Examining the Inhibitory Potential of Compounds Selected Using a Computationally Derived Active Site Model of Glutamate Racemase from *S. pneumoniae* **O. Dinsmore, E. Wells, D. Krall, A. Stockert and T. Mahfouz**. Ohio Northern Univ.
- A286 **721.31** Internal Abstraction of Dynemicin A: A QM/MM Approach **A.W. Beane, A. Jaini, B.R. Miller and C.A. Parish**. Univ. of Richmond.
- A287 **721.32** The Effect of a Sulforaphane and Maitake Mushroom Extract Combination on the Expression of NAD(P) H:Quinone Oxidoreductase 1 and Glutathione S-Transferase theta-1 **S.A. Erwin, S.L. Ownby, L.P. Slider and G.A. Cornblatt**. Nutramax Labs Inc., Edgewood, MD.
- A288 **721.33** Isolation of Lysyl Oxidase from Human Umbilical Cord **N.B. Pestov, T.V. Korneenko, N.V. Shidlovskaya, V.A. Petrukhin and N.N. Modyanov**. Shemyakin-Ovchinnikov Inst. of Bioorganic Chem.; Moscow Reg. Res. Inst. of Obstet. and Gynecol. and Univ. of Toledo Col. of Med.
- A289 **721.34** Expression and Purification of A Potential Antifolate Target, Dihydrofolate Reductase from *B. malayi* **K. Sanchez, U. Gubler, J.J. Siekierka and N.M. Goodey**. Montclair State Univ.
- A290 **721.35** Combinatorial In Silico Drug-Lead Optimization for Targeted Inhibitors of P-Glycoprotein **K. Olengue, J.W. McCormick, P.D. Vogel and J.G. Wise**. Southern Methodist Univ.
- A291 **721.36** Oligomeric Regulation of Ribonucleotide Reductase by Antileukemic Nucleotides **S. Wisitpitthaya, Y. Fu, M. Li, R. Weiss and Y. Aye**. Cornell Univ. and Weill Cornell Med. Col.
- A292 **721.37** A QM/MM Investigation of the Antitumor Drug Neocarzinostatin **Q.A. McKoy, B.R. Miller and C.A. Parish**. Univ. of Richmond.
- A293 **721.38** Ginnalins and Maplexins from Maple Species Inhibit the Formation of Advanced Glycation Endproducts **H. Ma, W. Liu, L. Frost, D. Niesen, T. Yuan, J.A. Dain and N.P. Seeram**. Univ. of Rhode Island and Marshall Univ.
- A294 **721.39** Biochemical Reactivities of 1,2-Dehydro-N- β -Alanyldopamine and the Mode of Action of Bioactive 1,2-Dehydrodopyl Peptides **H. Barek, J. Evans and M. Sugumaran**. Univ. of Massachusetts Boston.
- A295 **721.40** Novel β -Carboline-Quinazolinone Hybrid as Antileishmanial Agents: Targeting *Leishmania donovani* Trypanothione Reductase **S.S. Chauhan and P.M.S. Chauhan**. Central Drug Res. Inst., Lucknow, India.
- A296 **721.41** Exposure to Phosphodiesterase Inhibitors Impairs Physiological Processes in Juvenile Nematodes **K.D. Schuster, W.B. Danquah, V.M. Williamson and R.H. Cote**. Univ. of New Hampshire and Univ. of California, Davis.
- A297 **721.42** *Moringa oleifera*'s Whole Methanolic Extract Attenuates Levels of Pro-inflammatory Markers in the Cervix of Preterm Labor Mice Models **C. Colicchio, T. Ohashi, A. Brunson, C. Sloboda, J. Emrani, J. Idassi, S. Jesmin and C. Mowa**. Appalachian State Univ.; North Carolina A&T State Univ. and Univ. of Tsukuba.
- A298 **721.43** Whole Ethanolic *Moringa oleifera* Leaf Extract Exerts Anti-bacterial Activities against *Escherichia coli* Comparable to Tetracycline and Ciprofloxacin **B.E. Smith, J. Emrani, J. Idassi, S. Jesmin, L. Chimuka and C. Mowa**. Appalachian State Univ.; North Carolina A&T State Univ.; Univ. of Johannesburg; Univ. of Tsukuba Sch. of Med. and Univ. of Witwatersand, South Africa.
- A299 **721.44** Identifying Activators of the Mobile Element L1 Endonuclease **J. Meyers, L. Darthard, G. Servant, V. Strevia and C. DeFreece**. Xavier Univ. of Louisiana; Tulane Univ. and Boston Children's Hosp.
- A300 **721.45** Synthesis, Cytotoxicity, and DNA-Binding Studies of the Natural Product Eudistomin U **J. Giulietti, P. Tate, C. Roggero, S. Mulcahy and B. Cho**. Providence Col. and Univ. of Rhode Island.
- A301 **721.46** Characterizing Inhibitors of the Human Mobile Element L1 Endonuclease **L. Darthard, J. Meyers, G. Servant, V. Strevia and C. DeFreece**. Xavier Univ. of Louisiana; Tulane Univ. and Boston Children's Hosp.
- A302 **721.47** Irreversible Inhibitors of Bovine Aortic Lysyl Oxidase **F.T. Greenaway, K. Peng, E. Severson, S. Mool and C.E. Jakobsche**. Carlson Sch. of Chem. and biochem., Clark Univ.
- A303 **721.48** Anti-inflammatory Effects of Extracts from a Bioenergy Crop, Switchgrass, in Cultured Adipocytes **R. Garrison, S. Scoggin, N. Siriwardhana, N. Labbé, B. Ownley, K. Gwinn, D. D'Souza and N. Moustaid-Moussa**. Texas Tech Univ. and Univ. of Tennessee, Knoxville.

722. ENZYME KINETICS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A304 **722.1** Isolation and Purification of *Entamoeba histolytica* Alcohol Dehydrogenase 2 Enzymatic Activities and Inhibition by Pyrazoline Derivatives **J.A. Leitao, E. Oduaran, L. Rossi and A. Espinosa**. Roger Williams Univ.
- A305 **722.2** A Biophysical Analysis of Asp Cyclization Coupled to Peptide Bond Cleavage **M.W. Koulopoulos, Z.T. T., J.N. Reitter and K.V. Mills**. Col. of the Holy Cross.
- A306 **722.3** Relating Intein Flexibility to the Temperature Dependence of Activity **A.E. Yakely, A.A. Bonano, M.V. Jaramillo, J.E. Williams, J.N. Reitter and K.V. Mills**. Col. of the Holy Cross.
- A307 **722.4** Structure and Activity of Inteins from *Pyrococcus abyssi* and *Pyrococcus horikoshii* **M.V. Jaramillo, J.E. Williams, J.N. Reitter and K.V. Mills**. Col. of the Holy Cross.
- A308 **722.5** Protein Function Prediction Using ProMOL and PyMOL **K.N. Hart, T.M. McKay, W. Tedla-Boyd, J.L. Mills, H.J. Bernstein and P.A. Craig**. Rochester Inst. of Technol. and Dowling Col., NY.
- A309 **722.6** A Fluorimetric Readout Reporting the Kinetics of Nucleotide-Induced Human Ribonucleotide Reductase Oligomerization **Y. Fu, H. Lin, S. Wisitpitthaya, W.A. Blessing and Y. Aye**. Cornell Univ.
- A310 **722.7** Gemcitabine Is a Competitive Inhibitor of Cytidine-5'-Triphosphate Synthase that Induces Enzyme Filament Polymerization **G.D. McCluskey and S.L. Bearne**. Dalhousie Univ., Canada.
- A311 **722.8** Kinetic Characterization of the α -2,9 Polysialyltransferase of *Neisseria meningitidis* **S. Ming, D. Peterson and W.F. Vann**. FDA, Silver Spring, MD.
- A312 **722.9** Peptide Bond Cleavage through Asparagine Cyclization **Z.T. Giaccone, J.N. Reitter, A. Steeves, H. Kulik and K. Mills**. Col. of the Holy Cross, MA and MIT.
- A313 **722.10** Identification of the Binding Site for Ammonia in GMP Reductase **T. Yao, M. Rosenberg and L. Hedstrom**. Brandeis Univ.
- A314 **722.11** The General Base for the Thymidylate Synthase Catalyzed Proton Abstraction **A.K. Ghosh, J.D. Krueger, Z. Islam and A. Kohen**. Univ. of Iowa.
- A315 **722.12** Bacterial Cytochrome *c* Peroxidases: Insight into the Structure-Function Relationship **K.A. Walsh, K. Sullivan, K.E. Frato and S.J. Elliott**. Boston Univ.
- A316 **722.13** Kinetic Analysis of the Processivity of Human Cytochrome P450 17A1 **E. Gonzalez, L.D. Nagy and F.P. Guengerich**. Vanderbilt Univ.
- A317 **722.14** Biodiesel Production via Methanol Tolerant Lipase Transesterification from *Proteus mirabilis* in Methyl Acetate **J.W. Altier, A.N. McDonnell, D. Carey and S. Witherow**. Univ. of Tampa.
- A318 **722.15** Restoration of Enzymatic Activity Of Energy Related Proteins in Traumatic Brain Injured Rats following the Administration of gamma-Glutamylcysteine Ethyl Ester **B. Rice, T. Reed, R. Sowell and C. King**. Eastern Kentucky Univ. and Univ. of Pittsburgh.

723. SMALL MOLECULE TOOLS FOR BIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A319 **723.1** Protein gRAFTing: A RAFT Polymerization Strategy for Grafting-to and Grafting-from Proteins **C. McGlone, R. Falatach, J.C. Nix, S. Al-Abdul-Wahid, J.A. Berberich, D. Konkolewicz and R.C. Page**. Miami Univ. and Lawrence Berkeley Natl. Lab.
- A320 **723.2** Characterization of a Small-Molecule Modulator of IRE1 α Activity **J. Salami-Oyenuga, K. Raina and C. Crews**. Yale Univ.
- A321 **723.3** Development of a Caged Cysteine-Reactive Probe for Characterizing Physiological Reactivity of Cysteine **M. Abo and E. Weerapana**. Boston Col.
- A322 **723.4** Synthesis and Evaluation of Novel Photoisomerizable Small Molecules as Chemical Tools **A.J. Engdahl and C.N. Streu**. St. Mary's Col. of Maryland.
- A323 **723.5** Specific Induction of Golgi Stress by Targeted Protein Destabilization **Y.V. Serebrenik and C.M. Crews**. Yale Univ.
- A324 **723.6** Bupristatins Inhibit BubR1-Dependent Signaling by Interrogating BubR1-CENP-E Interaction **X. Liu, Y. Huang, W. Wang, Y. Zhang, M. Yan, N. Du, Z. Wang, X. Ding and X. Yao**. Morehouse Sch. of Med.; Anhui Key Lab. for Cell. Dynamics & Chem. Biol., Hefei and Beijing Univ. for Chinese Med.
- A325 **723.7** Identification and Synthesis of *D. athabasca* Cuticular Hydrocarbons **C.E. Bebernitz, J.D. Kehlbeck, T. Harvey and R. Yukilevich**. Union Col., NY.
- A326 **723.8** CoREST in Peace: Dual Action Inhibitors of Histone Deacetylase and Lysine Specific Demethylase **J.H. Kalin, M. Wu, D. Hayward, L. Wang, J.M. Roberts, P. Prusevich, W.W. Hancock, J.E. Bradner, B. Ryu, R.M. Alani and P.A. Cole**. Johns Hopkins Univ.; Boston Univ.; Univ. of Pennsylvania and Dana-Farber Cancer Inst.
- A327 **723.9** Proton Transfer to Flavin Stabilizes the Signaling State of the Blue Light Receptor Plant Cryptochrome **T. Kottke, A. Hense, E. Herman and S. Oldemeyer**. Bielefeld Univ., Germany.
- A328 **723.10** Improving the Uptake of L-Telluromethionine by *Escherichia coli* DL41(DE3) through the Use of Enhanced Chemically Defined Media **B. Cooper, V. Sublett and J.O. Boles**. Tennessee Tech Univ.
- A329 **723.11** A Comparative Study of Different Protein Immobilization Methods for the Construction of an Efficient Nano-structured Lactate Oxidase-CNT-Biosensor **M. Pagan, D. Suazo, N. del Toro and K. Griebenow**. Univ. of Puerto Rico-Rio Piedras Campus.
- A330 **723.12** Functional Analysis of *Plasmodium falciparum* Genome Using Morpholino-Based Tools **A. Garg, V. Kumar, D. Wesolowski, S. Altman and C.B. Mamoun**. Yale Univ. Sch. of Med. and Yale Univ.
- A331 **723.13** Incorporating Unnatural Amino Acids into the Protein Coat of Adeno-associated Virus as New Tools for Virology and Therapeutics **R.E. Kelemen and A. Chatterjee**. Boston Col.

- A332 **723.14** Expanding the Utility of Sulfonated Fluorophores In Cellulo **A. Choi, S.M. Pauff and S.C. Miller.** Umass Med. Sch.
- A333 **723.15** An Optimized Viral Delivery System to Expand the Genetic Code in Mammalian Cells **Y. Zheng and A. Chatterjee.** Boston Col.

724. PROTEIN PHOSPHORYLATION AND DEPHOSPHORYLATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A334 **724.1** Myocardial Afadin Prevents Cardiac Dysfunction in Chronic Pressure-Overloaded Mice **H. Ogita and D.P. Zankov.** Shiga Univ. of Med. Sci., Japan.
- A335 **724.2** Identification of Env7 Phosphorylated Residues **E. Garfinkle and E. Gharakhanian.** California State Univ., Long Beach.
- A336 **724.3** Biophysical Characterization of Interaction between the Thioredoxin-Binding Domain of Protein Kinase ASK1 and Reduced Thioredoxin **T. Obsil, D. Kosek, S. Kylarova and V. Obsilova.** Fac. of Sci., Charles Univ. and Inst. of Physiol., Acad. of Sci., Czech Republic.
- A337 **724.4** PCTAIRE Kinase 3/Cyclin Dependent Kinase 18 Is Activated through Association with Cyclin A and/or Phosphorylation by Protein Kinase **A.S. Matsuda, K. Kominato, A. Tsuji and K. Yuasa.** Univ. of Tokushima Grad. Sch.
- A338 **724.5** Defining the Tetramodular Dimer Structure of Laforin in Glycogen Metabolism and Lafora Disease **M.K. Brewer, M. Raththagala, M.W. Parker, L. Hellman, B.D. Turner, K.D. Auger, S. Chakravarthy, P. Sanz, C.W. Vander Kooi and M.S. Gentry.** Univ. of Kentucky; Univ. of Notre Dame; Illinois Inst. of Technol. and CIBERER, CSIC, Valencia, Spain.
- A339 **724.6** Erbin-Mediated Regulation of Colon Cancer **P.D. Stevens, Y-A. Wen, X. Li and T. Gao.** Univ. of Kentucky.
- A340 **724.7** Reciprocal Regulation of Abl Kinase by Crkl Y251 and Abi1 Controls Cell Motility and Invasion in Glioblastoma **S. Kumar, L. Kotula and R.B. Birge.** Rutgers Univ. and SUNY Upstate Med. Univ.
- A341 **724.8** Structure and Function of ADCK3, an Ancient Mitochondrial Protein Involved in Coenzyme Q Biosynthesis **I.E. Johnson, J. Stefely, A. Reidenbach and D. Pagliarini.** Univ. of Wisconsin-Madison.
- A342 **724.9** Spatiotemporal Analysis of the Role that Protein Kinase A Phosphorylation Plays in Gap Junction Assembly **G. Sosinsky, G. Cavin, J. Solan, M. Kunkel, A. Newton, P. Lampe and A. Cone.** UCSD and Fred Hutchinson Cancer Ctr., Seattle.
- A343 **724.10** Isoform Specificity and Phosphorylation Site Specificity for 14-3-3 Protein Binding to Tyrosine Hydroxylase Studied by Fluorescence Anisotropy and Chemical Cross-Linking **S. Daubner, E. Vogt, E. Cruz and A. Rodriguez.** St. Mary's Univ.
- A344 **724.11** DUSP5 Functions in a Feedback Loop to Suppress Angiotensin-Dependent Smooth Muscle Cell Proliferation and Pulmonary Arterial Hypertension **B.S. Ferguson, K.M. Demos-Davies, M.A. Cavasin, H.N. Horita, M. Weiser-Evans, R.H. McKnight, R.H. Lane and T.A. McKinsey.** Univ. of Colorado Denver, Aurora; Univ. of Utah and Med. Col. of Wisconsin.
- A345 **724.12** Exploring the Structural Basis for Negative Cooperativity in the Phosphagen Kinase Superfamily **G.J. Cooperwood, M. Aryal, B. Van Houten, D.M. Fraga and M. Snider.** The Col. of Wooster.
- A346 **724.13** Structural Mechanism of Laforin Function in Glycogen Dephosphorylation and Lafora Disease **M.U. Raththagala, M.K. Brewer, A.R. Sherwood, M.W. Parker, C.W. Vander Kooi and M.S. Gentry.** Univ. of Kentucky.
- A347 **724.14** Sequential Phosphorylation of SIKE by TBK1 **J.E. Bell, T. Kerckhove, S-H. Kim and J. Bell.** Univ. of Richmond and Univ. of San Diego.
- A348 **724.15** PP2A Phosphatase Regulates Autophagy in Budding Yeast **M.W. Talukdar, M.Y. Akter, A. Kondo and T. Ushimaru.** Grad. Sch. of Sci. and Technol., Shizuoka Univ., Japan.
- A349 **724.16** Self-Phosphorylation Primes JNK2 for Activation by MKK4 in Glioblastoma and Non-small Cell Lung Carcinoma **T.S. Kaoud and K.N. Dalby.** Univ. of Texas at Austin and Minia Univ., Egypt.
- A350 **724.17** Pin1-Mediated Sp1 Phosphorylation by CDK1 Increases Sp1 Stability and Decreases its DNA Binding Activity during Mitosis **J-J. Hung and H-C. Yang.** Natl. Cheng-Kung Univ., Taiwan.
- A351 **724.18** Molecular Characterization and Phosphorylation Site Mapping of the *Arabidopsis* CRINKLY4 Receptor-Like Kinase **S. Shah, M.R. Meyer and A.G. Rao.** Iowa State Univ.
- A352 **724.19** *Gsk3a* Is Essential for Sperm Function and Male Fertility **R. Bhattacharjee, S. Goswami, A.P. Popkie, C.J. Phiel, D. Kline and S. Vijayaraghavan.** Kent State Univ.
- A353 **724.20** Optogenetic Control of EphB Signaling in Dendrites **C. Locke, Q. Yang, A. Taslimi, C. Tucker, Y. Wu and J. Yu.** Univ. of Connecticut Hlth. Ctr. and Univ. of Colorado Denver, Aurora.
- A354 **724.21** c-Jun N-terminal Kinase (JNK₁) Binds and Phosphorylates Endothelial Nitric Oxide Synthase at S116, Differentiating It from p38 and ERK-Mediated Regulation **A.L. Caldara, C.A. Chrestensen, J.C. Salerno and J.L. McMurry.** Kennesaw State Univ.
- A355 **724.22** Activation and Decay Kinetics of the RET Receptor Tyrosine Kinase **S. Li, T.C. Ikezu and A. Whitty.** Boston Univ.
- A356 **724.23** Using Small Molecule Inhibitor to Identify Zipper-Interacting Protein Kinase Substrates in Smooth Muscle Contraction Signaling Pathway **A. Al-Ghabkari, M.P. Walsh and J.A. MacDonald.** Univ. of Calgary, Canada.
- A357 **724.24** Development of a Luciferase Reporter Gene Assay for Artemin-induced RET Signaling **J.M. Chow, S. Rauch, M. Huestis and A. Whitty.** Boston Univ.
- A358 **724.25** The Tyrosine Kinase Domains of the Insulin and IGF1 Receptors Are Functional Dimers in the Activated State **M.Z. Cabail, S. Li, E. Lemmon, M. Bowen, S. Hubbard and T. Miller.** Stony Brook Univ. and NYU Sch. of Med.
- A359 **724.26** Casein Kinase 1 Alpha Promotes Nuclear Entry of PERIOD and Represses CLOCK Transcriptional Activity in the *Drosophila melanogaster* Circadian Clock **V.H. Lam, Y.H. Li, K.A. Murphy, R.S. Kwok and J.C. Chiu.** Univ. of California, Davis.
- A360 **724.27** A Newly Uncovered PPK Regulatory Protein Isoform in Maize Catalyzes Regulatory Phosphorylation but not Dephosphorylation of PPK **C.J. Chastain.** Minnesota State Univ. Moorhead.

725. CANCER METABOLISM: WARBURG AT 90

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A361 **725.1** Investigating the Use of Targeted Therapies for Triple-Negative Breast Cancer **W. Bindeman, A.B. Redwood, B. Lukose and H. Piwnica-Worms**. St. Olaf Col. and Univ. of Texas MD Anderson Cancer Ctr.
- A362 **725.2** Differential Effects of FAK and FGFR Inhibitors on Motility and Proliferation of L1-Positive versus L1-Negative Glioblastoma Cells **H.J. Anderson and D.S. Galileo**. Univ. of Delaware.
- A363 **725.3** Role of Cytochrome *c* Phosphorylation in Regulation of Respiration and Apoptosis **G. Mahapatra, A. Varughese, J. Qinqin, I. Lee, A. Salomon and M. Huttemann**. Wayne State Univ. Sch. of Med.; Brown Univ. and Col. of Med., Dankook Univ., South Korea.
- A364 **725.4** Emerging Targets for Network-Based Therapy: End of a Long Futile Campaign Striking Heads of a Hydra **P. Ghosh**. UCSD.
- A366 **725.6** Modulation of Ovarian Cancer Cell Metabolism via Pyruvate Kinase M2 and Glucose Deprivation **J. Justiniano, R. Garrity, A. Gonzalez and Y. Wan**. Providence Col.
- A367 **725.7** Hypoxia-Induced Carbonic Anhydrase IX Facilitates Lactate Transport in Human Breast Cancer Cells by Non-catalytic Interaction **H.M. Becker, S. Jamali, M. Klier, L.F. Barros, R. McKenna and J.W. Deitmer**. Univ. of Kaiserslautern; Centro de Estudios Científicos (CECS) and Univ. of Florida.
- A368 **725.8** The Impact of Calcineurin B Homologous Protein Isoform 2 Expression on Non-small Cell Lung Cancer Cell Function under Hypoxic Conditions **S. Buchholz, S. Sieverding, J.J. Provost and M.A. Wallert**. Minnesota State Univ. Moorhead and Univ. of San Diego.
- A369 **725.9** Calcineurin B Homologous Protein Isoform 2 Expression and Function in Low Serum Conditions in Non-small Cell Lung Cancer Cells **C. Wallert, J. Fox, J.J. Provost and M.A. Wallert**. Minnesota State Univ. Moorhead and Univ. of San Diego.
- A370 **725.10** Evaluating a Dichloroacetate and Metformin Combination in a Mouse Model of Metastatic Cancer **N.P. Ward, A.M. Poff, A.J. Van Putten, T.N. Seyfried and D.P. D'Agostino**. Univ. of South Florida and Boston Col.
- A371 **725.11** Expression Modulation of Different S6Ks Isoforms in Prostate Cancer Cell Lines Leads to Alterations in Proliferation, Migration and Chemotherapy Resistance **L.B. Freitas, I.C.B. Pavan, C.L. Amaral, M.C. Bajgelman and F.M. Simabuco**. Univ. of Campinas and Brazilian Biosci. Natl. Lab., Campinas.
- A372 **725.12** GTP Metabolism Regulates Cancer Cell Invasion **M.A. Nikiforov and A. Bianchi-Smiraglia**. Roswell Park Cancer Inst.
- A373 **725.13** Ketosis and Hyperbaric Oxygen Metabolic Therapy Elicits Potent Anti-cancer Effects In Vitro and In Vivo **A. Poff, N. Ward, T. Seyfried and D. D'Agostino**. Univ. of South Florida and Boston Col.
- A374 **725.14** Carbonic Anhydrase Expression in TNBC Breast Cancer Cells and Human Tumor Grafts **Z. Chen, C. Tu, E. Wilkinson, D.N. Silverman, C. Heldermon and S.C. Frost**. Univ. of Florida.
- A375 **725.15** Metabolic Actions of Metformin in Cancer Cells and a Distinction of Metformin from the Effects of Rotenone, a Mitochondrial Complex I Inhibitor **R. Parakhia, A. Parras, S. Gadhia, F. Barile and R. Ochs**. St. John's Univ., NY.
- A376 **725.16** Defining the Role of Arylsulfatase B (N-Acetylgalactosamine 4-Sulfatase) in Cellular Metabolism **S. Bhattacharyya, L. Feferman and J.K. Tobacman**. Univ. of Illinois at Chicago and Jesse Brown VA Med. Ctr.
- A377 **725.17** Investigation of the Interaction and Role of CHP1 and CHP2 with NHE1 in Lung Fibroblasts **L. Kiefer, M.A. Wallert and J.J. Provost**. Univ. of San Diego and Minnesota State Univ. Moorhead.
- A378 **725.18** Association of IDH1 Gene R132H Mutation and Increased Tumor HIF1- α and Serum VEGF Levels in Primary Glioblastoma Multiforme **H.H. Aydin, C. Yalaza, H. Ak, M.S. Cagli, E. Ozgiray and S. Atay**. Ege Univ. Sch. of Med., Turkey.
- A379 **725.19** Unsaturated Fatty Acids Stimulate Tumor Growth through Stabilization of β -Catenin **J. Ye, H. Kim, C. Rodriguez-Navas, R.K. Kollipara, P. Kapur, J. McDonald, J. Brugarolas and R. Kittler**. Univ. of Texas Southwestern Med. Ctr.
- A380 **725.20** Mycoplasma Infection Enhances the Immunological Activation and the Warburg Effect of Metastatic Tumor Cells **R.E. Flores, L. Shelton, A.K. Brown, L. Taus, F. Glover and T.N. Seyfried**. Boston Col. and Human Metabolome Technol. America, Boston.
- A381 **725.21** Tip60 Overexpression Exacerbates Chemotherapeutic Drug Treatment in Breast, Pancreatic, and Lung Cancer Cell Lines **P. Ravichandran and D.S. Ginsburg**. Long Island Univ.
- A382 **725.22** Acetoacetate Is a Metabolic Inhibitor of Cancer Growth **E.J. Fine, R.D. Feinman and A. Miller**. Albert Einstein Col. of Med. and SUNY Downstate Med. Ctr.
- A383 **725.23** LOXL2 Expression in HCT116 Cells under Normoxia Is Regulated by ROS and HIF Signaling **I. Okkelman, R. Dmitriev, A. Zhdanov and D. Papkovsky**. Sch. of Biochem. and Cell. Biol., University Col. Cork.
- A384 **725.24** Impact of Calcineurin Homologous Protein and NHE1 on Lung Cancer Cell Adaptation to Hypoxia and Serum Deprivation **W.T. Cottle, M.A. Wallert and J.J. Provost**. Univ. of San Diego and Minnesota State Univ. Moorhead.
- A385 **725.25** Calcineurin Homologous Protein 2 Expression in Non-small Cell Lung Cancer **M.F. Tran, M.J. Cain, M.A. Wallert and J.J. Provost**. Univ. of San Diego; Mater Dei H.S., San Diego and Minnesota State Univ. Moorhead.
- A386 **725.26** Pro-tumorigenic Effects of Hydrogen Sulfide on Normal Colonic Fibroblasts and Colorectal Cancer-Associated Fibroblasts **C. Chao, A. Dikmen, C. Coletta, L. Pang, C. Szabo and M. Hellmich**. Univ. of Texas Med. Branch.
- A387 **725.27** The Warburg Effect as a VDAC-Hexokinase-Mediated Electrical Suppression of Mitochondrial Energy Metabolism **V.V. Lemeshko**. Natl. Univ. of Colombia, Medellin.
- A388 **725.28** Acid Gradient across Plasma Membrane can Drive Phosphate-Bond Synthesis in Cancer Cells: Acidic Tumor Milieu Can Act as a Potential Energy Source **G. Dhar, S. Sen and G. Chaudhuri**. UCLA.
- A389 **725.29** Targeting 6-Phosphofructo-2-Kinase/Fructose-2,6-Bisphosphatase-4 in Cancer **S. Telang, J. Trent, J. Chesney and J. Clark**. Univ. of Louisville.
- A390 **725.30** Impaired Mitochondrial Protein Synthesis in Head and Neck Squamous Cell Carcinoma **E.C. Koc, E. Haciosmanoglu, A. Wolf, P.P. Claudio and H. Koc**. Marshall Univ. Sch. of Med. and Marshall Univ. Sch. of Pharm.

726. HOMEOSTASIS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A392 **726.1** Resveratrol Fails to Protect from Lipid Peroxidation and Cell Viability Loss in a Chronologically Aged GPX2 Mutant of *S. cerevisiae* **C.G. Flores-Ledesma, M. Canizal-Garcia, M. Moreno-Jimenez, M. Morales-Solorio, R. Montoya-Perez, L.A. Madrigal-Perez, A. Saavedra-Molina and C. Cortes-Rojo.** Univ. Michoacana de San Nicolás de Hidalgo, Mexico.
- A393 **726.2** Butyrate Alters mRNA and Protein Levels of Tumorigenic Chemokines in U937 Leukemic Cells **S.R. Pulliam and S.E. Adunyah.** Meharry Med. Col.
- A394 **726.3** Tributyltin Decreases Secretion of Interleukin 6 from Human Immune Cells **W.J. Wilburn, S. Brown and M. Whalen.** Tennessee State Univ.
- A395 **726.4** Hexabromocyclododecane and Tetrabromobisphenol A Alter Secretion of Interferon Gamma from Human Immune Cells **H.M. Almughamsi and M. Whalen.** Tennessee State Univ.
- A396 **726.5** Disruption of *Scube2* Impairs Indian Hedgehog-Mediated Osteoblast Differentiation **Y.-C. Lin, Y.-T. Yan and R.-B. Yang.** Natl. Defense Med. Ctr.; Inst. of Biomed. Sci., Acad. Sinica and Natl. Yang-Ming Univ., Taipei.
- A397 **726.6** Hepatoma-Derived Growth Factor Acts in Ovarian Cancer via Distinct Intracellular and Extracellular Mechanisms **K. Giri, C.M. Pabelick, P. Mukherjee and Y.S. Prakash.** Mayo Clin. Mayo Grad. Sch.; Mayo Clin. and Univ. of Oklahoma Hlth. Sci. Ctr.
- A398 **726.7** Effects of Tributyltin Exposures on Interleukin 1 Beta Secretion and Production from Human Immune Cells **S. Brown and M. Whalen.** Tennessee State Univ.
- A399 **726.8** Induction of Endogenous Interleukin 1 Alpha Limits to One Cycle the Proliferative Response to FGF 1. **Prudovsky, A. Poole, E. Cooper and D. Kacer.** Maine Med. Ctr.
- A400 **726.9** The APP Interactome: Identifying Targets in Alzheimer's Disease **M.J. Glucksman, K.D. Philibert, R.A. Marr and E.M. Norstrom.** RFUMS/Chicago Med. Sch. and DePaul Univ., Chicago.
- A401 **726.10** Heart-Specific Overexpression of FOXO Ameliorates Performance Decline through Enhanced UPS Processing in Aging *Drosophila* **A.C. Blice-Baum, M.C. Viswanathan, B.J. Mullinax, A.C. Zambon, G. Kaushik, A.J. Engler, R. Bodmer and A. Cammarato.** Johns Hopkins Univ.; UCSD and Sanford-Burnham MRI.
- A402 **726.11** Investigating the Role of Antioxidants in Protecting *Saccharomyces cerevisiae* from Oxidative Damage **N. Thompson-Van Hook and S. Mordan-McCombs.** Franklin Col. of Indiana.
- A403 **726.12** Investigation of Cysteamine as a Potential Antioxidant Supplement in TRX1 Yeast Mutants **A. Hendershot and S. Mordan-McCombs.** Franklin Col. of Indiana.
- A404 **726.13** Elderly Rat Heart Shows Long-Lasting Impairment of Oxidative Balance after Forced Exercise at Early Age **G.R.F. Braz, A.A. Pedroza, S. Sousa, A.C. Lopes de Morais, R.F. Mendes-da-Silva, L.A. Costa, M. Batista-de-Oliveira-Hornsby and C. Lagranha.** Fed. Univ of Pernambuco-Acad. Ctr. of Vitoria and Fed. Univ of Pernambuco, Brazil.

- A405 **726.14** Genotoxic and Cytotoxic Assessment of Hydromethanolic Extract of *Senna alata* Leaf **O.A. Adebessin, O.O. Iroanya, S.O. Aderonke, J.E. Okpuzor and P.G. Odeigah.** Univ. of Lagos.
- A406 **726.15** Increase on Catabolic Efflux by Resveratrol in *Saccharomyces cerevisiae* Is Nullified in *snf1Δ* strain **L.A. Madrigal-Perez, C. Martinez-Ortiz, A. Carrillo-Garmendia, J.M. Zamudio-Bolaños, M.A. Soto-Villagomez, A.K. Padilla-Perez, M.I. Cornelio-Martinez, J.C. Gonzalez-Hernandez, C. Cortes-Rojo and M. Ramos-Gomez.** Higher Technol. Inst. of Cd. Hidalgo; Morelia Inst. of Technol.; Univ. Michoacana de San Nicolás de Hidalgo and Autonomous Univ. of Queretaro, Mexico.
- A407 **726.16** Alteration of p-PKM2 by UV Radiation and H₂O₂ in Human Keratinocytes **R. Garrity, A.E. Gonzalez, J. Justiniano and Y. Wan.** Providence Col.

727. NEUROBIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A408 **727.1** Effects of Pelvic and Hypogastric Nerves Axotomy on Androgen, Adrenergic and Cholinergic Receptors in the Rat Prostate **M.K. Serrano, M. Del Carmen Aguirre, D. Herrera-Covarrubias, D.A. Muñoz, G.E. Aranda-Abreu and M.E. Hernandez.** Univ. of Veracruz, Mexico.
- A409 **727.2** Impacts of Granulocyte-Colony Stimulating Factor Combined with Erythropoietin on Neural Regeneration after Traumatic Brain Injury in Rats **H. Duan, C. Hao, G. Lu, S. Li, S. Wang and Y. Liu.** First Clin. Col. of Shanxi Med. Univ.
- A410 **727.3** Calcyon Regulates Axonal Transport of P14K11a Vesicles in Cultured Rat Sensory Neurons **Z. Roth, L. Shi and D. Smith.** Univ. of South Carolina.
- A411 **727.4** Colocalization of CHL1 and ROBO1 during Embryonic Development of Mouse Brain **A.G. Wright, S. Sohail and D.T. Hackel.** Marymount Univ.
- A412 **727.5** Western Blot Identification of Dopamine and GABA Receptors in Gill of the Bivalve *Crassostrea virginica* **F. Mondelus, B. Boissette, F. Bess, E.J. Catapane and M.A. Carroll.** Medgar Evers Col., Brooklyn.
- A413 **727.6** Role of Negative Charge on C2 Insert of Nonmuscle Myosin II-C: Intermittent Structural Oscillation and Aggregation in Neuritogenesis **S. Saha, S. Chatteraj, D. Halder, S. Goswami, K. Bhattacharyya and S.S. Jana.** Indian Assn. for Cultivation of Sci., Kolkata.
- A414 **727.7** Cloning and Functional Characterization of Odorant Receptors Expressed in the Zebrafish Olfactory System **C.I. Lopez and J.A. Raper.** Univ. of Puerto Rico, Rio Piedras and Univ. of Pennsylvania.
- A415 **727.8** Calpain-1 Knockout in Mice Causes Degeneration of Cerebellar Granule Cells and Ataxia **D. Lopez, V. Pinto, Y. Wang, Y. Liu, J. Seinfeld, X. Bi and M. Baudry.** Grad. Col. of Biomed. Sci., Western Univ. of Hlth. Sci.
- A416 **727.9** Characterization of Myelin P2 and Slitrk Echinoderm Genes and Their Expression during Enteric Nervous System Regeneration **E. Monahan Vargas, J. Otero and J.E. García Arrarás.** Univ. of Puerto Rico.
- A417 **727.10** Conditional Lineage Tracing in the Mouse Dorsal Root Ganglion **A.M. Smith, J.J. Rowe, K.H. Wolfe and R.C. Murray.** Hendrix Col., AR.

- A418 **727.11** A Truncated Fragment of Src Protein Kinase Generated by Calpain-Mediated Cleavage Is a Mediator of Neuronal Death in Excitotoxicity **M.I. Hossain**. Univ. of Melbourne.
- A419 **727.12** Investigation of the Cellular and Molecular Mechanisms of Facial Branchiomotor Neuron Migration **A. Burkard and G. Walsh**. Virginia Commonwealth Univ.
- A420 **727.13** Protein Disulfide Stress: Proposed Radical-Free Bridges to Neurodegeneration **T.D. Foley, K.M. Cantarella, P.F. Gillespie and S.D. Wierbowski**. Univ. of Scranton.
- A421 **727.14** Characterization of the Role of Noradrenaline in Brain versus Adrenaline in Blood Reveals a Metabolic Psychosomatic Axis **A. Bennun**. Rutgers Univ.
- A422 **727.15** Rin GTPase Deficiency Promotes Neuroprotection following Traumatic Brain Injury **M. Pannell, W. Cai, J. Brelfoard, S. Carlson, E. Littlejohn, T. Stewart, K. Saatman and D. Andres**. Univ. of Kentucky.
- A423 **727.16** Determining the Role of *neurogenin1* in the Development of the Mouse Dorsal Root Ganglion **J.J. Bauer-Erickson, S.A. Shrum and R.C. Murray**. Hendrix Col., AK.
- A424 **727.17** Burn-Injury Alters Brain Catecholamine Levels and β -AR Signaling **A. El Ayadi, Y. Wang, A. Guillory, D. Herndon and C. Finnerty**. Univ. of Texas Med. Branch.

728. SIGNAL TRANSDUCTION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A425 **728.1** MUC1-C Induces the LIN28B→LET-7→HMGA2 Axis to Regulate Self-Renewal in NSCLC **R. Ahmad, M. Alam, H. Rajabi and D. Kufe**. King Saud Univ. and Dana-Farber Cancer Inst.
- A426 **728.2** AMPK α 1 Deficiency in Fibroblasts Promotes Angiogenesis in Athymic Nude Mice **P. Song, Y. Zhou, H. Xu, Y. Ding and M-H. Zou**. Univ. of Oklahoma Hlth. Sci. Ctr.
- A427 **728.3** Loss of *agr* Quorum Sensing and Virulence Function Leads to Early Growth Advantage in *Staphylococcus aureus* Infection **A. Winnett and J. Femling**. Univ. of Massachusetts Boston; Univ. of New Mexico Hosp. and Univ. of New Mexico.
- A428 **728.4** Dimerization of EphA2 in Plasma Membranes **K. Hristova, D. Singh, C. King, M. Salotto and N. Gupta**. Johns Hopkins Univ.
- A429 **728.5** Determining the Genotype-Phenotype Relationship of *atg18* Mutants **M.D. Fischer and E.M. Selva**. Univ. of Delaware.
- A430 **728.6** Nuclear Invaginations Demarcate Cytoplasmic-Nanotubes for Integrative Calcium Signalling to the Nucleus **J. Navarro-Dorado and A.M. Evans**. Col. of Med. and Vet. Med., Univ. of Edinburgh.
- A431 **728.7** Differential Role of Nonmuscle Myosin II Isoforms in Bleb Formation in MCF-7 Cells **S.K. Dey, S. Saha and S.S. Jana**. Indian Assn. for Cultivation of Sci., Kolkata.
- A432 **728.8** Two Fingers on the Pulse of Wnt: Molecular Mechanism of Wnt Pathway Regulation by RING-Finger E3 Ligases ZNRF3/RNF43 **X. Jiang, O. Kheifets, R. Zamponi, Y. Yang and F. Cong**. Novartis Inst. for Biomed. Res.
- A433 **728.9** ARD1 Controls Osteoblast Differentiation and Bone Formation as a Feedback Regulator of Runx2 **H. Yoon and J-W. Park**. Seoul Natl. Univ. Col. of Med.
- A434 **728.10** Improved Purification of Proglucagon and Major Proglucagon Fragment and Their Use in a PCSK1 Cleavage Assay **R.B. Mackin**. Creighton Univ.
- A435 **728.11** SETDB2 Mediates Metabolic Stress in Liver **M. Roqueta-Rivera, P.E. Phelan, S. Khorasanizadeh and T.F. Osborne**. Sanford Burnham Med. Res. Inst., Orlando.
- A436 **728.12** Inflammatory Lipid Sphingosine-1-Phosphate Upregulates C-Reactive Protein via C/EBP β and Potentiates Breast Cancer Progression **A. Moon, E-S. Kim, Y. Cha, M. Ham, M. Bae, H. Lee, J. Jung, S.G. Kim, S. Hwang and R. Kleemann**. Col. of Pharm., Duksung Women's Univ.; Seoul Natl. Univ.; Col. of Med., Hanyang Univ. and TNO, Netherlands.
- A437 **728.13** Epigenetic Regulation of RGS2 in Cystic Fibrosis **G. Bouvet, Y. Cyr, C. Massé and Y. Berthiaume**. IRCM, Clin. Res. Inst. of Montreal.
- A438 **728.14** Cell Type-Specific Expression of the Human RAP1A and RAP1B Genes **J.L. Cruise, A. Niemela, R. Augustin, M. Painter and M. Hindt**. Univ. of St. Thomas, MN.
- A439 **728.15** EC 3.4.24.15 Is a Putative Regulator of Kisspeptin Signaling **N.C. Weitowich, K.D. Philibert, M.R. DeJoseph, J.H. Urban and M.J. Glucksman**. Rosalind Franklin Univ. of Med. and Sci., Chicago Med. Sch.
- A440 **728.16** Activated STAT5A Interacts with the Pyruvate Dehydrogenase Complex in Adipocytes **J.M. Stephens and A.J. Richard**. Pennington Biomed. Res. Ctr., Baton Rouge.
- A441 **728.17** TANK Inhibits Genotoxic NF- κ B Activation by Facilitating MCP1/USP10-Dependent Deubiquitination of TRAF6 **W. Wang, X. Huang, J. Niu, M. Fu and Z-H. Wu**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis; Nanchang Univ., China and Univ. of Missouri-Kansas City.
- A442 **728.18** The Role of Platelet-Derived Growth Factor Induced Phosphorylation of Na⁺-H⁺ Exchanger Isoform 1 in the Regulation of Cell Growth and Movement **M. Strong, E. Mammenga, J.J. Provost and M.A. Wallert**. Minnesota State Univ. Moorhead and Univ. of San Diego.
- A443 **728.19** MED28 Modulates Cell Cycle Progression in Human Breast Cancer Cells **C-I. Li, N-T. Hsieh, C-Y. Huang, H-C. Chang and M-F. Lee**. Chang Jung Christian Univ., Taiwan and China Med. Univ.
- A444 **728.20** Regulation of cAMP-Dependent Protein Kinase A by Src Family Tyrosine Kinases **P. Deming, B. Ballif, J. Mann and M. Weir**. Univ. of Vermont.
- A445 **728.21** Effect of Anti-cancer Reagents on the Invasiveness of Cancer Cells **N. Parmar, P. Garimidi, J. Mytych, S. Kennedy and K. Carter**. California State Univ. Channel Islands.
- A446 **728.22** Nuclear Export of *Yersinia* YopM Is Mediated by DEAD Box Helicase DDX3 and Regulates Phosphorylation of Nuclear RSK1 **L. Berneking, M. Schnapp, A. Rumm, C. Trasak, M. Perbandt, A. Kikhney, D. Svergun, F. Buck, C. Betzel, M. Hentschke and M. Aepfelbacher**. Univ. Med. Ctr. Hamburg-Eppendorf ; Univ. of Hamburg and EMBL, Hamburg.
- A447 **728.23** Temporal Selectivity of Melanocortin-4 Receptor Agonist to Modulate Signaling by Increased Intracellular cAMP **K.A. Cooney, B.M. Molden, K.L. West and G. Baldini**. Univ. of Arkansas for Med. Sci.
- A448 **728.24** Phosphorylation-Dependent Association of PDE3A1 with SERCA2 and Its Regulation of SERCA2 Activity in Human Myocardium **F. Ahmad, W. Shen, F. Vandeput, N. Szabo-Fresnais, J. Krall, E. Degerman, F. Goetz, E. Klusmann, M. Movsesian and V. Manganiello**. NHLBI, NIH; Univ. of Utah; Univ. Lund and German Ctr. for Cardiovasc. Res., Berlin.

- A449 **728.25** Effect of GnRH on Thimet Oligopeptidase within Prostate Cancer Cells **Y. Ramirez and A.J. Wolfson**. Wellesley Col., MA.
- A450 **728.26** Delineation of ESDN-Dependent Signaling Mechanisms Required for Zebrafish Eye Development **R.M. Joy, E.E. Wyslowski, B.A. Ballif and A.M. Ebert**. Univ. of Vermont.
- A451 **728.27** Upregulation of Ciliary Neurotrophic Factor in Astrocytes and Oligodendrocytes by Cinnamon Metabolite Sodium Benzoate: Implications for Demyelinating Disorders **K.K. Modi and K. Pahan**. Rush Univ. Med. Ctr.
- A452 **728.28** Identification of Fyn-Induced PKA Binding Partners Using Quantitative Proteomics **M.E. Weir, J.E. Mann, B.A. Ballif and P.B. Deming**. Univ. of Vermont.
- A453 **728.29** All-Atom Folding Simulations of Insulin B-Chain and its Mimetic Peptide **H. Mohammadiarani and H. Vashisth**. Univ. of New Hampshire.
- A454 **728.30** Developing Reagents and Methodologies to Measure Post-translational Modification of G Protein-Coupled Receptor Kinase 2 **J. Keyoskey, A. Shareef, A. Grogan, T. Tagliaferro and R. Sterne-Marr**. Siena Col., NY.
- A455 **728.31** Apoptotic and Inflammatory Role of TNF- α in Adult Rat Testis upon Ethylene Dimethane Sulfonate Treatment **B. Singhal and N. Mills**. Texas Woman's Univ.
- A456 **728.32** Production of Transgenic Mice Expressing EGFP under Monkey 20 α -HSD Promoter **K-S. Min, C-W. Park, E-B. Seo and M-H. Kang**. Hankyong Natl. Univ. and Hoseo Univ., South Korea.
- A457 **728.33** A Central Role for H₂O₂ in Insulin Signal Transduction in Cardiac Myocytes **J.L. Sartoretto, N. Romero, B.S. Steinhorn, H. Kalwa and T. Michel**. Brigham and Women' Hosp., Harvard Med. Sch.
- A458 **728.34** *C. elegans* Troponin I Peptides from Helix 4 and the COOH-Terminus Bind Troponin C In Vitro: Novel Implications for the Structural Basis of Troponin's Regulatory Mechanism **D.E. Barnes and S. Ono**. Emory Univ.
- A459 **728.35** The N-Terminal Atypical Region Regulates Non-mitochondrial Localization of Novel Hexokinase Isoform **S. Kumar, S. Parameswaran and R.K. Sharma**. Univ. of Saskatchewan.
- A460 **728.36** A Novel Mechanism for 2-Deoxyglucose Toxicity Is Mediated by Glucose Transporter Endocytosis Regulated by Arrestins and AMP-Activated Protein Kinase **M.C. Schmidt and A.F. O'Donnell**. Univ. of Pittsburgh Sch. of Med. and Duquesne Univ.
- A461 **728.37** An Optogenetic Approach to Delineate Spatial Regulation of Plexin Signaling **A. Deb Roy, T. Yin and Y. Wu**. Univ. of Connecticut Hlth. Ctr.
- A462 **728.38** Supervillin Binds the Rac/Rho-GEF Trio and Increases Trio-mediated Rac1 Activation **K. Son, T.C. Smith and E.J. Luna**. UMass Med. Sch.
- A463 **728.39** **Withdrawn.**
- A464 **728.40** Maternal High Fat Diet-Induced *Ii-12b* Overexpression in Male Offspring Rats Is Associated with DNA Hypomethylation **D. Hernández-Saavedra, D. Zhou and Y-X. Pan**. Univ. of Illinois at Urbana-Champaign.
- A465 **728.41** Meta-proteomic Analysis of PTMs in G Protein Signaling Systems – New Tools and Unsuspected Discoveries **M. Torres, H. Dewhurst and S. Choudhury**. Georgia Inst. of Technol.
- A466 **728.42** Design and Biological Evaluation of Selective Melanocortin Drugs **K.R. McLeod, R.J. Soto, M. Cai and V.J. Hruby**. Univ. of Arizona.
- A467 **728.43** Biochemical Analysis of Wsc1p and Mid2p Interacting Partners under Thermal Stress **E. Santiago, L. Pérez, I. Mejías and J. Rodríguez Medina**. Univ. of Puerto Rico-Med. Sci. Campus and Univ. of Puerto Rico-Rio Piedras Campus.
- A468 **728.44** Activation of the RET Receptor Tyrosine Kinase by Agonist Antibodies Results in Distinct Signaling Effects **M. Atanasova and A. Whitty**. Boston Univ.
- A469 **728.45** MIEN1 Drives Breast Cancer Invasion by Regulating Cytoskeletal Dynamics **M. Kpetemey and J. Vishwanatha**. Univ. of North Texas Hlth. Sci. Ctr.
- A470 **728.46** O-GlcNAc Modification of Runx2 Links Nutrient Metabolism with Osteogenesis **A.K. Nagel, M.N. Berkaw and L.E. Ball**. Med. Univ. of South Carolina.
- A471 **728.47** O-GlcNAc Modified Residues of IRS1 Impact Postprandial Lipid Metabolism **L.E. Ball, K. Robinson, M.N. Berkaw and M.G. Buse**. Med. Univ. of South Carolina.
- A472 **728.48** GGF2 Activation of PI3 Kinase Pathway Mediates Cardiomyocyte Protection via Effects on Mitochondria **M. Srinivas, J. Cao, P.D. Sarmiere, A.O. Caggiano and D.C. Button**. Acorda Therapeut., Ardsley, NY.
- A473 **728.49** Estrogen-Related Receptor α Negatively Regulates Expression of the 40S Ribosomal S6 Kinase 1 (p70 S6K1) in Breast Cancer Cells **M.K. Holz, S. Manna, A. Alayev and K. Applebaum**. Yeshiva Univ.

Nutrition

729. GLOBAL NUTRITION: MICRONUTRIENTS

Poster

(Sponsored by: Global Nutrition Council (GNC))

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C1 **I 729.1** Effect of Zinc and Multiple Micronutrient Supplements on Growth in Tanzanian Children **L. Locks, K. Manji, C. McDonald, R. Kupka, R. Kisenge, S. Aboud, M. Wang, D. Spiegelman, W. Fawzi and C. Duggan.** Harvard Sch. of Publ. Hlth.; Muhimbili Univ. of Hlth. & Allied Sci., Tanzania; Boston Children's Hosp. and United Nations Children's Fund.
- C2 **II 729.2** An Integrated Agriculture, Health and Nutrition Program Increased Vitamin A Intakes among Mothers and Their Infants in Western Kenya **A. Webb Girard, M. Deneen, A. Lubowa, H. Okuku, J. Low and F. Grant.** Emory Univ.; Consultant, Kampala and Intl. Potato Ctr., Kenya.
- C3 **I 729.3** Effects of Zinc and Multivitamin Supplementation on Hematologic Status during Infancy **R. Carter, R. Kupka, K. Manji, C. McDonald, S. Aboud, K. Gosselin, R. Kisenge, E. Liu, W. Fawzi and C. Duggan.** Columbia Univ. Med. Ctr.; UNICEF, NYC; Sch. of Med., Muhimbili Univ. of Hlth. and Allied Sci., Tanzania; Boston Children's Hosp. and Harvard Sch. of Publ. Hlth.
- C4 **II 729.4** Evidence of the Effectiveness of Flour Fortification Programs on Iron Status and Anemia: A Systematic Review **H. Pachon, R. Spohrer, Z. Mei and M. Serdula.** Food Fortification Init., U.S.; Emory Univ.; Global Alliance for Improved Nutr., Switzerland and Ctrs. for Dis. Control and Prevent.
- C5 **I 729.5** Defining a Vitamin A deficiency Cut-Off for Retinol Binding Protein in Nepal Children 6-23 Months of Age **R.D. Whitehead, Jr., C.G. Perrine, S. Mebrahtu, P. Dahal, G.R. Subedi and M.E. Jefferds.** Ctrs. for Dis. Control and Prevent.; UNICEF, Kathmandu and Ministry of Hlth. and Popul., Kathmandu.
- C6 **II 729.6** Prevalence and Predictors of Iron Deficiency in Bolivian Infants **R.M. Burke, R. Revollo, V. Iniguez, J.S. Leon and P.S. Suchdev.** Rollins Sch. of Publ. Hlth., Emory Univ.; La Paz Dept. of Hlth. Svcs.; Higher Univ. of San Andrés, Bolivia and Ctrs. for Dis. Control and Prevent.
- C7 **I 729.7** Prevalence of Deficient Vitamin B12 Intake in a South Indian Population **S. Ravi, H. Vanzan, S. Thanikachalam, P. Vasudevan, A. Must, M. Thanikachalam and O.I. Bermudez.** Sri Ramachandra Univ., India and Tufts Univ. Sch. of Med.
- C8 **II 729.8** Serum Cytokine Levels in Healthy Mongolian School-Age Children Randomized to Either Vitamin D or Placebo **G. Davaasambuu, Y. Enkhbold, N. Boldbaatar and J. Furtado.** Harvard Sch. of Publ. Hlth.; Brigham and Women's Hosp. and Harvard Med. Sch.; Univ. of Calgary, Canada and Boston Univ. Sch. of Publ. Hlth.
- C9 **I 729.9** Sociocultural Factors Affecting Sun Seeking Behavior for Infants Living in Rural or Urban Communities in Southern Ethiopia **R.M. Larson, M. Girma and B.J. Stoecker.** Oklahoma State Univ. and Hawassa Univ., Ethiopia.
- C10 **II 729.10** The Mediating Effect of Zinc on the Association between Vitamin D and Hemoglobin Status in Kenyan Preschool Children **L.A. Houghton, K. Bailey, M. Harper, S. Beaumont, R.C. Brown, J. Erhardt, M. Kung'u, M. Bautista and R.S. Gibson.** Univ. of Otago, New Zealand; Univ. of Indonesia; ChildFund, Kenya and ChildFund, New Zealand.
- C11 **I 729.11** Analysis of the Family Life Surveys in Indonesia: The Contribution of Wheat Flour Fortification to Reducing Anemia **H. Pachon, K.L. Kendrick, K. Codling and S. Muslimatun.** Food Fortification Init., U.S.; Emory Univ. and Southeast Asian Ministers of Educ. Org. Reg. Ctr. for Food and Nutr., Indonesia.
- C12 **II 729.12** Predictors of Adherence to Preconception and Prenatal Micronutrient Supplementation in Vietnam **I. Gonzalez-Casanova, P.H. Nguyen, K. Harding, G. Reinhart, H. Nguyen, T.V. Truong, H. Pham, S. Nguyen, R. Martorell and U. Ramakrishnan.** Emory Univ.; Thai Nguyen Univ. Sch. of Med., Viet Nam; Intl. Food Policy Res. Inst., Hanoi; The Micronutrient Init., Canada and Mathile Inst. for the Adv. of Human Nutr.,
- C13 **I 729.13** High Sodium Intakes Are Associated with High Blood Pressure in South Indians **O.I. Bermudez, S. Ravi, M. Thanikachalam, H. Vanzan, P. Vasudevan, A. Must and S. Thanikachalam.** Sch. of Med., Tufts Univ. and Sri Ramachandra Univ., India.
- C14 **II 729.14** Amino Acids in Tanzanian Children with Sickle Cell Disease: Baseline Results of the Vascular Function Intervention Trial **A.I. Marealle, J. Makani, F.J. Kirkham, A.M. Prentice and S.E. Cox.** London Sch. of Hyg. and Trop. Med.; Sch. of Global Hlth., Nagasaki Inst. of Trop. Med. and Muhimbili Univ. of Hlth. & Allied Sci., Tanzania.
- C15 **I 729.15** Risk Factors Associated with Low 25(OH)D Concentrations in *Kekchi-Mayan* and *Garifuna* Adolescents from Guatemala **O.I. Bermudez, A. Naqvi, R. Campos, M.J. Soto, M.E. Romero, L. Armas and N.W. Solomons.** Tufts Univ. Sch. of Med.; CeSSIAM, Guatemala City and Creighton Univ.
- C16 **II 729.16** Micronutrients in Human Milk: A Global Perspective **L.H. Allen, D. Hampel and S. Shahab-Ferdows.** USDA, Davis.
- C17 **I 729.17** Adherence Partners Are an Acceptable Intervention to Support Adherence to Prenatal Micronutrient Supplementation among Pregnant Women in Western Kenya **S.L. Martin, M.O. Omotayo, G.M. Chappleau, S.E. Ortolano, R.J. Stoltzfus and K.L. Dickin.** Cornell Univ.
- C18 **II 729.18** Social Support and Depressive Symptoms Predict Adherence to Iron and Folic Acid Supplements among Pregnant Women in Rural Zimbabwe **C.R. Matare, M.N. Mbuya, K.L. Dickin, J.H. Humphrey and R.J. Stoltzfus.** Cornell Univ.; Zvitambo, Inst. for Maternal and Child Hlth. Res., Harare and Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C19 **I 729.19** Breast Milk Iodine Concentration Correlated with Urinary Iodine Concentration of Infants from Southern Ethiopia **T. Gebreegziabher and B.J. Stoecker.** Hawassa Univ., Ethiopia and Oklahoma State Univ.

- C20 II 729.20 Vitamin D Supplementation as Adjunct to Anti-tuberculosis Drugs in Mongolian TB Patients **G. Davaasambu, S. Bromage, B. Erkhembayar, E. Jaisandavga and M. Baatar.** Brigham and Women's Hosp. and Harvard Med. Sch.; Harvard Sch. of Publ. Hlth. and Natl. Ctr. for Communicable Dis., Mongolia.
- C21 I 715.42 Role of Macroautophagy in Anti-cancer Effects of the Novel Sphingolipid, Enigmol **S.G. Mays, A.S. Bushnev, M.T. Baillie, H. Yi, D.C. Liotta and J.A. Petros.** Emory Univ. and Atlanta VA Med. Ctr.
- C22 II 729.21 The Long-Term Impact of Maternal Multiple Micronutrient Supplementation, Infant Nutrition and Health on Visual Acuity of 9-12 Year Old Children in Indonesia **S. Siddiq, M. Apriatni, E.L. Prado, S.F. Santyowibowo, Y.D. Lestari, R. Sitorus, A.H. Shankar and H. Muadz.** Summit Inst. of Develop.; Med. Fac., Mataram Univ.; Med. Fac., RSCM Hosp./Indonesia Univ.; Univ. of California, Davis; Harvard Sch. of Publ. Hlth. and Univ. of Mataram, Indonesia.
- C23 I 729.22 Serial Iron, Zinc and Copper Status in Adults with Pulmonary Tuberculosis in the Country of Georgia **J.K. Frediani, N. Tukvadze, E. Sanikidze, M. Kipiani, G. Hebbar, E.C. Millson, U. Ramakrishnan, V. Tangpricha, H.M. Blumberg and T.R. Ziegler.** Emory Univ. and Natl. Ctr. for TB and Lung Dis., Tbilisi, Georgia.

730. NUTRITION AND SUSTAINABILITY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C24 II 730.1 Evaluation of Physical and Chemical Characteristics of Major Camel Muscles **A.N. Al-Owaimer.** King Saud Univ.
- C25 I 730.2 Fatty Acid Analysis of Citron (*Citrus junos Sieb. ex TANAKA*) Seed Oil and Its Regulation Effects on Nitric Oxide Production, Lipid Accumulation, and Leptin Secretion **T.W. Kim, K.K. Kim, Y.H. Kang, D.J. Kim and M. Choe.** Kangwon Natl. Univ., South Korea.
- C26 II 730.3 Composition Analysis of Hexane Extract Seed Oils, and Study on the Effect of Seed Oil on 3T3-L1 Adipocytes **T.W. Kim, K.K. Kim, Y.H. Kang, D.J. Kim and M. Choe.** Kangwon Natl. Univ.
- C27 I 730.4 Pumpkin Seed Oil Composition Analysis and Research on the Prevention Effects of Vascular Disease **K.K. Kim, Y.H. Kang, D.J. Kim, T.W. Kim, J.I. Lee and M. Choe.** Kangwon Natl. Univ. and Hanbit Flavor & Fragrance, South Korea.
- C28 II 730.5 Effect of *Gynura procumbens* Water Extract on Enzymes Activities Related with Glucose Metabolism in HepG2 Cell **D.J. Kim, Y.H. Kang, T.W. Kim, K.K. Kim and M. Choe.** Kangwon Natl. Univ., South Korea.
- C29 I 730.6 Sustainable Diets: Understanding Nutrition Educator Perceptions **M.A. Wyatt, C.L. Martinez, B.T. Pope, G.V. Sandoval, A.M. Franklin, R.J. Turner and N. Hongu.** Univ. of Arizona and Arizona Coop. Ext., Univ. of Arizona.

- C30 II 730.7 Organic and Conventional Strawberry: Nutritional, Physical-Chemical, Antioxidant, and Pesticide Residues Composition **N.M.B. Costa, H.B. Kobi, P.I. Silva and J.L. Souza.** Fed. Univ. of Espirito Santo and INCAPER, Ctr. Serrano, Brazil.
- C31 I 730.8 Comparative Energy Flow Analysis on Dairy Farms in North Carolina and Malawi **S. Chizonda, A.A. Dos Passos, Y. Sun and J.C. Allen.** North Carolina State Univ.

731. NUTRITION EDUCATION: CHILDHOOD OBESITY PREVENTION

Poster

(SPONSORED BY: NUTRITION EDUCATION AND BEHAVIOR
SCIENCE RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C32 II 731.1 Behavioral and Predictive Validation of a Self-Assessment of Parental Feeding Style in Low-Income Parents of Young Children **L. Ontai, C. Sutter, M. Shilts and M.S. Townsend.** Univ. of California, Davis.
- C33 I 731.2 Educator Interactions at Head Start Lunches: A Context for Nutrition Education **T.M. Swindle and L. Whiteside-Mansell.** Univ. of Arkansas for Med. Sci.
- C34 II 731.3 Predictors of Maternal Concern and Accuracy of Maternal Perceptions of Child's Weight in 1ST Graders **L. Shriver, J. Rutledge, T. Swindle, A. Harrist, L. Hubbs-Tait, G. Topham and M. Page.** Univ. of North Carolina at Greensboro; Louisiana Tech Univ.; Univ. of Arkansas for Med. Sci.; Oklahoma State Univ. and West Virginia Univ.
- C35 I 731.4 Effectiveness of a Multicomponent Environmental Intervention on Adiposity and Behavioural Measures in Middle School Adolescents: A Randomized School-Based Controlled Study **M.M. Corsi Romanelli, F. Ermetici, S. Briganti, R. Zelaschi, E. Dozio, L. Morricone and A.E. Malavazos.** Univ. of Milan and IRCCS Policlin. San Donato, Milan.
- C36 II 731.5 Healthy Kids Obesity Risk Assessment Demonstrates Predictive Validity in Sample of Low-Income Children **M.S. Townsend, M. Shilts, D. Styne, L. Allen, C. Drake and L. Ontai.** Univ. of California, Davis and Univ. of California Davis Med. Sch., Sacramento.
- C37 I 731.6 Fast Food, Fat and Sugar Sweetened Beverage Items are Related to Children's Dietary Energy Density **M.K. Shilts, D. Styne, C. Drake, C. Aden and M.S. Townsend.** Univ. of California, Davis; California State Univ. Sacramento and Univ. of California, Davis Med. Sch.
- C38 II 731.7 Short Pictorial Vegetable Behavioral Scale Demonstrates Convergent Validity with MyPlate Cup Equivalents of Vegetables **M.S. Townsend, M. Shilts, D. Styne, C. Drake, C. Aden and L. Ontai.** Univ. of California, Davis; California State Univ. Sacramento and Univ. of California Davis Med. Sch.
- C39 I 731.8 Factors Associated with Meeting Public Health Recommendations for Beverage Intake in Young Children **T. Mesa, J.A. Wright and A.C. Lindsay.** Univ. of Massachusetts Boston and Harvard Sch. of Publ. Hlth.

- C40 **II 731.9** Using Random Forest Method to Select Most Valued Items on a Healthy Weight [Obesity Risk] Survey for Young Children **C. Aden, C. Drake, M. Shilts and M.S. Townsend.** Univ. of California, Davis and California State Univ. Sacramento.
- C41 **I 731.10** Examining Junior High and High School Students' Willingness to Consume Foods and Beverages Recommended by the 2010 Dietary Guidelines for Americans **B. Zawodniak, M. Cater, D. Miketinas and G. Tuuri.** LSU and LSU Agr. Ctr., Baton Rouge.
- C42 **II 731.11** Relationships between Adiposity and Fasting Blood Lipids, Glucose, and Insulin in 4TH-Grade Children Participating in the Shaping Healthy Choices Program **L.M. Nguyen, R.E. Scherr, J.D. Linnell, C.L. Keen, S. Miyamoto, F.M. Steinberg, H.M. Young and S. Zidenberg-Cherr.** Univ. of California, Davis.
- C43 **I 731.12** Preventing Childhood Obesity through Healthy Diet, Physical, and Stress-Reduction Activities **G.R. Nondi, J.F. Houston and E.A. Frongillo.** Univ. of South Carolina.
- C44 **II 731.13** Short Pictorial Sweetened Beverage Scale Demonstrates Convergent Validity with Diet Logs **M.S. Townsend, M. Shilts, D. Styne, C. Aden and C. Drake.** Univ. of California, Davis ; Univ. of California, Davis Med. Sch. and California State Univ. Sacramento.
- C45 **I 731.14** Anxiety and Self-Perception Variables and Its Association with Obesity **A.B. Perez-Lizaur, L.I. Moreno-Landa, K. Haua-Navarro and E.I. Escalante-Izeta.** Univ. Iberoamericana, Mexico.
- C46 **II 731.15** Do Low-Income Mothers and Fathers of Preschool Children Share Similar Concerns and Perception about Their Child's Body Weight? **R.L. Vollmer, K. Adamsons, J.S. Foster and A.R. Mobley.** Illinois State Univ. and Univ. of Connecticut.
- C47 **I 731.16** WAVE Pilot Study: Feasibility of Recruiting, Enrolling, Assessing, and Retaining High School Soccer Players Using Soccer Coaches in a 2-Year Integrative Obesity Prevention Research Study **S.S. Wong, Y. Meng, M.M. Manore, K. Pilolla, T. Johnson, C. Curiel and G. Dursch.** Oregon State Univ. Sch. of Biol. and Popul. Hlth. Sci. and Oregon State Univ. Sch. of Soc. and Behav. and Hlth. Sci.

732. NUTRITION EDUCATION: DEVELOPING HEALTHY EATING AND PHYSICAL ACTIVITY BEHAVIORS ACROSS THE LIFESPAN

Poster

(Sponsored by: Nutrition Education and Behavior Science RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C48 **II 732.1** Comparative Analysis of Single versus Multiple Behavioral Economics Intervention Components on Children's Food Intake from the National School Lunch Program **H.M. Golub, C.W. Gunther, A.S. Hanks, C.H. Holloman and J.A. Kennel.** The Ohio State Univ.
- C49 **I 732.2** A Behavior Change Model to Improve Vegetable and Fruit Intake among Low-income Pregnant Latinas **A. Hromi-Fiedler, D. Chapman, S. Segura-Pérez, G. Damio, P. Clark and R. Pérez-Escamilla.** Sch. of Publ. Hlth., Yale Univ.; Springfield Col.; Hispanic Hlth. Council, Hartford and Hartford Hosp.
- C50 **II 732.3** Differences in Utilized Mealtime Strategies between Home-and Center-Based Daycare Providers and Parents **V. Luchini, S-Y. Lee and S. Donovan.** Univ. of Illinois, Urbana.
- C51 **I 732.4** Sources and Knowledge of Calcium Consumption: The Lactose Intolerant versus Tolerant among Selected Groups **Y. Bai, S. Wunderlich, S. Chung and M. Tomioka.** Montclair State Univ.
- C52 **II 732.5** Motivating Hispanic and Asian Parents to Engage in Practices Promoting Intake of Calcium-Rich Foods and Beverages by Early Adolescents **M. Reicks, J. Banna, C. Gunther, R. Richards, N. Hongu, S. Misner, M. Cluskey, S. Wong and C. Bruhn.** Univ. of Minnesota; Univ. of Hawaii at Manoa; The Ohio State Univ; Brigham Young Univ.; Univ. of Arizona; Oregon State Univ and Univ. of California, Davis.
- C53 **I 732.6** Weight Management Practices, Food Choice Behaviors, and Physical Activity of Thai High School Students by Type of Body Dissatisfaction **P. Chongwatpol and G.E. Gates.** Oklahoma State Univ.
- C54 **II 732.7** Relationship between Parental Beverage Knowledge, Intake and Home Availability and Early Adolescent Beverage Intake **A. Zahid and M. Reicks.** Univ. of Minnesota.
- C55 **I 732.8** Determinants of Fruit and Vegetable Consumption among Undergraduate Students **C. Chairez-Jimenez, L.I. Moreno-Landa and A.B. Perez-Lizaur.** Univ. Iberoamericana, Mexico City.
- C56 **II 732.9** Evaluation of the Life Quality of College Students Who Live without the Presence of the Parents or Guardians at the City of São Paulo, Brazil **D.M.A. Chaud, C.C. Reis, A.K.G.V. Santos and J.M. Morimoto.** Mackenzie Presbyterian Univ., São Paulo.
- C57 **I 732.10** Young Children's Physical Activities in the U.S. Affiliated Pacific: the Children's Healthy Living Program **R. Ettienne, C. Boushey, K. Yonemori, C. Nigg, R. Leon Guerrero, A. Bersamin, R. Castro, U.T. Martin and R. Novotny.** Univ. of Hawaii; Univ. of Guam; Univ. of Alaska Fairbanks; Northern Marianas Col., U.S. Minor Outlying Islands and American Samoa Community Col.
- C58 **II 732.11** Online Social Media to Deliver Nutrition and Physical Activity to Adolescents in Maine **M.E. Camire, D.E. Lemire, A. White and M. L'Italien.** Sch. of Food & Agr., Univ. of Maine and Somerset Publ. Hlth., ME.
- C59 **I 732.12** Healthy Lifestyle Factors and Metabolic Syndrome among College Students **J.S. Morrell and R.A. Reilly.** Univ. of New Hampshire.

733. SPORTS NUTRITION: NUTRITION, DIETARY SUPPLEMENTS AND HUMAN PERFORMANCE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C60 **II 733.1** Eating Habits and Patterns of Female College Athletes **S. Markovic, J. Phelps, T. Crook and R. Hakkak**. Univ. of Arkansas for Med. Sci.
- C61 **I 733.2** Fluid and Carbohydrate Absorption by Small Intestine after Duodenojejunum Perfusion with Hypertonic Sports Drinks in Healthy Young Men **P. Tharabenjasin, N. Achalanan, P. Cherdrungsi, B. Lewchalermwongse and C. Pholpramool**. Fac. of Sci., Mahidol Univ.; Fac. of Med. Ramathibodi Hosp., Mahidol Univ., Thailand and Fac. of Sport Sci., Burapha Univ.
- C62 **II 733.3** A Novel Cell-Based Screening Assay to Assess the Effects of Diverse Protein Sources on Muscle Protein Signaling **D.A. Roeseler, N.J. McGraw, D.N. Butteiger, N. Napawan, J. Hall-Porter and E.S. Krul**. DuPont, St. Louis.
- C63 **I 733.4** Validity and Reliability of an Algorithm to Help Select Safe Dietary Supplements **C. Manganello, S. Attipoe and P. Deuster**. Uniformed Svcs. Univ. of Hlth. Sci.
- C64 **II 733.5** Vitamin D Correlation with Testosterone Concentration in U.S. Army Special Operations Personnel **L.M. Wentz, C.S. Berry-Cabán, J.D. Eldred and Q. Wu**. East Carolina Univ. and Womack Army Med. Ctr., Fort Bragg, NC.
- C65 **I 733.6** The Majority of Athletes Participating in Winter Multisport Events and Ironman Fail to Meet Recommended Intakes for Endurance Sports **G. Masson and B. Lamarche**. Laval Univ., Canada.
- C66 **II 733.7** Zeolite Supplementation Has Beneficial Effects on Gut Wall Integrity in Endurance Trained Subjects **M. Lamprecht, S. Bogner, S.J. Wallner-Liebmann, K. Steinbauer, B. Schuetz and G. Schippinger**. Med. Univ. of Graz; Inst. of Nutrient Res. and Sport Nutr., Austria; SportchirurgiePlus, Graz and Biovis Diagnostic MVZ GmbH, Limburg.
- C67 **I 733.8** Relationship between Body Fat and Physical Fitness in Army ROTC Cadets **C.L. Steed, B.R. Krull, A.L. Morgan, R.M. Tucker and M-J. Ludy**. Bowling Green State Univ.
- C68 **II 733.9** Chia Seed Oil Supplementation Has No Influence on Running Performance **D.C. Nieman, N.D. Gillitt, M.P. Meaney, D.A. Dew and F. Jin**. Appalachian State Univ. and Dole Foods.
- C69 **I 733.10** Anthropometric Profile and Rate of Sweating in Women Soccer Athletes **D.M.A. Chaud, V. Apollinario, E.S.d. Abreu and L. Rossi**. Mackenzie Presbyterian Univ., São Paulo.
- C70 **II 733.11** Effects of Acai Berry Supplementation on Exercise Adaptation of Mice **H. Minagawa, Y. Matsunaga, N. Takei and H. Hatta**. The Univ. of Tokyo.
- C71 **I 733.12** Effect of Dietary Intake on Subjective Condition of and Oxidative Stress in Endurance-Trained Athletes **Y. Okumura, E. Maeshima and S. Tomokane**. Osaka Univ. of Hlth. and Sport Sci.
- C72 **II 733.13** Behaviors Associated with Muscularity Dissatisfaction of Male High School Students in the Bangkok Metropolitan Region **P. Chongwatpol and G. Gates**. Oklahoma State Univ.

- C73 **I 733.14** The Effect of Exercise on Iron Absorption and Incorporation in Humans **D. Moretti, M. Samuel, Z. Christophe, S.W. Dorine, H. Tjalsma, L. Carsten and M.B. Zimmermann**. ETH Zürich; Univ. of Zürich and Radboud Univ. Med. Ctr., Netherlands.
- C74 **II 733.15** Pre-exercise Casein Hydrolysate Ingestion Activates AMP-Activated Protein Kinase Signaling Pathway in Slow Muscle Fibers but Not in Fast Fibers **Y. Matsunaga, Y. Tamura, H. Minagawa, H. Nakamura, N. Saito, Y. Takeda and H. Hatta**. Univ. of Tokyo and Morinaga Milk Industry Co. Ltd.
- C75 **I 733.16** Effects of Dark Chocolate on Exercise Capacity in Sedentary Older Subjects: Underlying Mechanisms **F. Villarreal, I. Ramirez-Sanchez, A. Moreno-Ulloa, L. Roman, G. Ceballos, M. Patel, E. Higginbotham and P. Taub**. UCSD.
- C76 **II 733.17** Examining the Relationships between Dietary Intake, Iron Status, and Physical Performance in Female Collegiate Rowers **D.M. DellaValle, D.C. Rousseau, S. Wadsten and J.D. Haas**. Med. Univ. of South Carolina; Univ. of Georgia and Cornell Univ.
- C77 **I 733.18** Caffeine and Creatine's Combined Effects on Plasma Lactose and Glucose Levels: A Systematic Review and Meta-analysis **M. Shams-White, D.D. Wang and M. Chung**. Tufts Univ. and D&V Syst. Evidence Review, Bronx.
- C78 **II 733.19** Health Benefits of a Pulse-Based Diet for Soccer Players during Regular Season Play **A. Hanifi, E. Mizelman, D. Michel, M. Kaviani, P. Chillbeck and G. Zello**. Univ. of Saskatchewan.
- C79 **I 733.20** Differences in Bone Turnover and 25(OH)D Change in Indoor Athletes **C.R. Teager, M. Redzic, E.P. Cassity and D.T. Thomas**. Univ. of Kentucky.
- C80 **II 733.21** Body Composition Assessment of Nutritional Status Using Near-Infrared Spectroscopy, Bioelectrical Impedance and Air Displacement Plethysmograph in Young Athletes **A.N. Mendoza, M.J. Aviles and C.P. Sanchez**. UPAEP, Puebla, Mexico.
- C81 **I 733.22** Prevalence of Performance-Enhancing Protein Supplements and Anabolic-Androgenic Steroid Use among Young Kuwaiti Males Attending Gym **T.A. Zafar**. Kuwait Univ.

734. DAIRY AND YOGURT: HEALTH AND NUTRITION EFFECTS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C82 **II 734.1** Effects of Camel Casein Hydrolysate Addition on Microbiological and Rheological Properties of Yoghurt **A. Alsaleh, A. Metwalli, E. Ismail and A. Alkhalifa**. King Saud Univ.
- C83 **I 734.2** Postprandial Changes in Bone Turnover after High Saturated Fat Challenge Meals **T.S. Rogers, E. Demmer, N. Rivera, E. Gertz, A.M. Zivkovic, J.T. Smilowitz, J.B. German and M.D. Van Loan**. Univ. of California, Davis and Western Human Nutr. Res. Ctr.
- C84 **II 734.3** Chemical Composition, Probiotic Survivability and Shelf Life Studies of Symbiotic Buttermilk **D. Zhang, X. Wang and M. Guo**. Univ. of Vermont.

- C85 **I 734.4** Effects of Consuming Dairy Fat versus Plant-Based Fat with and without Milk Fat Globule Membrane on Postprandial Inflammatory Markers in Overweight and Obese Adults **E. Demmer, M. Van Loan, N. Rivera, A. Zivkovic, J. Smilowitz, J.B. German, E. Gertz and T. Rogers.** Univ. of California, Davis and USDA, Davis.
- C86 **II 734.5** Vitamin D Status and Functional Health Outcomes: A Randomized Vitamin D Dose-Response Trial in 2-8 Year Olds **N.R. Brett, P. Lavery, C.A. Vanstone, J. Maguire, F. Rauch and H.A. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ.; Univ. of Toronto and McGill Univ.
- C87 **I 734.6** Fermented Dairy Products Consumption and Impact on Nutrients Intake and Nutritional Status by Anthropometric Data in Russian Adults: RLMS-HSE **A. Martinchik, A. Baturin, E. Keshabyants, N. Mihaylov, É. Picard-Deland and A. Marette.** FSBRI Inst. of Nutr., Moscow and Laval Univ., Quebec.
- C88 **II 734.7** Effect of Dairy Foods on Insulin Resistance **K.F. Hilpert, S.G. West, E. Harrington and P.M. Kris-Etherton.** SUNY Oneonta and Penn State.
- C89 **I 734.8** The Effect of Consumption of Fat-Free Dairy Products over Eight Weeks on Body Weight, Waist Circumference and Satiety Hormones in Overweight and Obese Individuals **D. El Khoury, P.S.P. Huot, N. Barkhordari, C.E. Smith, M. Wad, H.D. Goff and G.H. Anderson.** Univ. of Toronto and Univ. of Guelph, Canada.
- C90 **II 734.9** Milk Product Intake May Not Associate with Body Fat Percentage or Bone Density in Young Children **N.R. Brett, P. Lavery, C.A. Vanstone, J. Maguire, F. Rauch and H.A. Weiler.** Sch. of Dietetics and Human Nutr., McGill Univ.; Univ. of Toronto and McGill Univ.
- C91 **I 734.10** Comparison of Select Nutrients in the Nutrition Facts Panel to Analytical Values in Greek Yogurt **M. Somanchi, T. Simpson, J. Exler and P. Pehrsson.** USDA, Beltsville.
- C92 **II 734.11** Identifying Dietary Patterns Associated with Dairy Consumption in British Children **D. Hobbs, I. Givens and J. Lovegrove.** Univ. of Reading, U.K.
- C93 **I 734.12** Lifestyle of Brazilian Adults: Consumers and Non-consumers of Yogurt **M. Fisberg, G. Possa and R.M. Fisberg.** Fed. Univ. of São Paulo and Univ. of São Paulo.
- C94 **II 734.13** Brazilian Heavy Consumers of Yogurt Present Better Adherence to Dietary Dairy Guidelines than Non-consumers **M. Fisberg, G. Possa and R.M. Fisberg.** Fed. Univ. of São Paulo and Univ. of São Paulo.
- C95 **I 734.14** Milk versus Soybean Polar Lipids as Emulsifier: Faster Postprandial Lipid Metabolism through Greater Emulsion Lipolysis **M. Lecomte, C. Bourlieu, D. Cheillan, A. Geloën, F. Laugerette and M-C. Michalski.** Univ. Lyon 1, Villeurbanne and STLO, INRA, Rennes.
- C96 **II 734.15** Calcium Intake from Dairy Products Is Inversely Related to Obesity and Body Fat in Mexican School-Aged Children **L.G. Oropeza, M.C. Caamaño, O.P. Garcia, D. Ronquillo, G. Martínez and J.L. Rosado.** Autonomous Univ. of Queretaro and Cindetec, AC, Queretaro, Mexico.

735. NUTRITION EPIDEMIOLOGY: EPIDEMIOLOGIC METHODS IN EXAMINING HEALTH OUTCOMES IN DIVERSE POPULATIONS

Poster

(Sponsored by: Nutritional Epidemiology RIS)

(Cosponsored by: Minority and Diversity Affairs Committee)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C97 **I 735.1** Double Sampling with Multiple Imputation to Answer Large Sample Meta-Research Questions: Introduction and Illustration by Evaluating Adherence to Two Simple CONSORT Guidelines **P.L. Capers, A.W. Brown, J. Dawson and D.B. Allison.** Univ. of Alabama at Birmingham
- C98 **II 735.2** Associations of Parathyroid Hormone Concentration among Alaska Natives of Western Alaska **B. Luick, A. Bersamin and J.S. Stern.** Univ. of Alaska Fairbanks and Univ. of California, Davis.
- C99 **I 735.3** A Study of the 2001 Anthrax Terror Attacks and the History of Biological Warfare **R. More.** USAT Col. of Med., Montserrat.
- C100 **II 735.4** The Relationship between Iron Status and Free-Living Physical Activity in Indian School Children **B.M. Denvir, S.V. Luna, S. Udipi, P. Ghugre, E. Przybyszewski and J.D. Haas.** Cornell Univ. and SNDT Women's Univ., Mumbai.

736. NUTRITION EPIDEMIOLOGY: EPIDEMIOLOGICAL RESEARCH ADDRESSING DIET AND HEALTH OUTCOMES

Poster

(Sponsored by: Nutritional Epidemiology RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C101 **I 736.1** Fruit and Vegetable Consumption Is Inversely Related to Mild Cognitive Impairment among Older Adults **S. Kim, A. Yu, B.Y. Choi, M.K. Kim, J.H. Nam, D.H. Oh and Y.J. Yang.** Dongduk Women's Univ. and Hanyang Univ., South Korea.
- C102 **II 736.2** Early Bedtime and Late Wake Time Is Associated with Lower Diet Quality among Young Women **D. Azarmanesh, A.G. Ronnenberg, E.R. Bertone-Johnson and L.M. Troy.** Sch. of Publ. Hlth., Univ. of Massachusetts Amherst.
- C103 **I 736.3** Dietary Patterns And Health-Related Quality of Life among Korean Breast Cancer Survivors **S. Song, E. Hwang, H-G. Moon, D-Y. Noh and J.E. Lee.** Sookmyung Women's Univ.; Seoul Natl. Univ. Hosp. and Seoul Natl. Univ. Col. of Med.
- C104 **II 736.4** Mineral Composition of Commonly Consumed Local Foods in Nigeria **A. Morakinyo, T.A. Samuel and O.A. Adegoke.** Col. of Med., Univ. of Lagos.

- C105 **I 736.5** American Minor Dietary Patterns and Age-Related Macular Degeneration **C-J. Chiu, M-L. Chang, T. Li, G. Gensler and A. Taylor.** USDA at Tufts Univ.; Tufts Univ., Boston; Harvard Univ. and The EMMES Corp., Rockville, MD.
- C106 **II 736.6** Concordance with DASH Diet and Blood Pressure Change: Result from Framingham Offspring Cohort (1991-2008) **J. Jiang, M. Liu, L.M. Troy, S. Bangalore, R.B. Hayes and N. Parekh.** NYU; Univ. of Massachusetts Sch. of Publ. Hlth. and Hlth. Sci. and Steinhardt Sch., NYU.
- C107 **I 736.7** Consumption of Certain Grain Food Patterns Is Associated with Improved Diet Quality and Nutrient Intakes in U.S. Adults: An NHANES 2005-2010 Analysis **Y. Papanikolaou and V.L. Fulgoni.** Nutr. Strategies Inc., Canada and Nutr. Impact LLC, MI.
- C108 **II 736.8** Association between Phosphorus Intake and Bone Health in the NHANES Population **S.S. Cho and A.W. Lee.** NutraSource Inc., Clarksville, MD and Royal Oak, MI.
- C109 **II 736.9** High Soft Drink Consumption Is Associated with Metabolic Syndrome Risk Factors in Korean Adults Using the Data from 2007-2011 Korea National Health and Nutrition Examination Survey **S. Chung, K. Ha, H-S. Lee, C-i. Kim, H. Joung, H-Y. Paik and Y. Song.** Grad. Sch. of Publ. Hlth., Seoul Natl. Univ.; Korea Hlth. Indust. Develop. Inst.; Seoul Natl. Univ. and Sch. of Human Ecol., Catholic Univ. of Korea.
- C110 **I 736.10** Validity of Food Frequency Questionnaire May Be Improved by Factoring Gender in Development Stage **H. Lee, J.E. Shim and H.Y. Paik.** Seoul Natl. Univ. and Daejeon Univ., South Korea.
- C111 **II 736.11** Association of Nut Consumption and Lung Cancer Risk in a Large Population-Based Case-Control Study **J.T. Lee, T.K. Lam, D. Consonni, A.C. Pesatori, P.A. Bertazzi and M.T. Landi.** NCI, NIH and Univ. of Milan.
- C112 **I 736.12** Legume Consumption and Breast Cancer Risk in Puerto Rico: the Atabey Study **M. Schelske Santos, C.M. Nazario, J. Nie, R.V. Rosario Rosado, I. Mansilla-Rivera, J. Hernández, F.A. Ramirez Marrero and J.L. Freudenheim.** Univ. of Puerto Rico, Rio Piedras; Univ. of Puerto Rico Med. Sci. and Univ. at Buffalo.
- C113 **II 736.13** Dietary Flavonoid Intake Is Associated with an Anti-atherogenic Blood Lipid Profile **K. Kim, T.M. Vance and O.K. Chun.** Univ. of Connecticut and BOM Res. Inst., Seoul.
- C114 **I 736.14** High Sugar Intake from Milk and Fruits Is Associated with Reduced Risks of Obesity in Korean Children **K. Ha, S. Chung, H-S. Lee, C-i. Kim, H. Joung, H-Y. Paik and Y. Song.** Grad. Sch. of Publ. Hlth., Seoul Natl. Univ.; Korea Hlth. Indust. Develop. Inst.; Seoul Natl. Univ. and Sch. of Human Ecol., Catholic Univ. of Korea.
- C115 **II 736.15** Alcohol Use and Zinc Status in HIV+ Adults in Miami, Florida **G. Alvarado, L. Ceballos, M.K. Baum, T. Stewart, C. Fleetwood, S.S. Martinez and A. Campa.** Florida Intl. Univ.
- C116 **I 736.16** Maternal Mental Health Symptoms are Positively Related to Emotional and Restrained Eating Attitudes in a Statewide Sample of WIC Participants **J.A. Emerson, K.M. Hurley, L.E. Caulfield and M.M. Black.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Univ. of Maryland Sch. of Med.
- C117 **II 736.17** Mediterranean Diet Is Associated with Glycemic Control and Cardiovascular Risk Factors in Youth with Type 1 Diabetes: The SEARCH Nutrition Ancillary Study **V.W. Zhong, A. Lamichhane, J. Crandell, S. Couch, A. Liese, N. The, D. Dabelea, J. Lawrence, G. Kim, S. Marcovina and E. Mayer-Davis.** Univ. of North Carolina at Chapel Hill; Univ. of Cincinnati; Univ. of South Carolina; Furman Univ; Univ. of Colorado; Kaiser Permanente Southern California; Seattle Children's Hosp. and Univ. of Washington.
- C118 **I 736.18** Changes in Dietary Intake among Participants in a University Worksite Wellness Program Using the Dietary Screening Questionnaire **D.R. Radler, A.F. Marcus, J. Patel, R. Griehs and R. Touger-Decker.** Rutgers Sch. of Hlth. Related Professions.
- C119 **II 736.19** Metabolomic Markers Associated with Central Adiposity Gain in Young Adults **K.C. Hootman, J.P. Trezzi, J.R. Bailey, L.S. Burwell, K.A. Guertin, K. Hiller and P.A. Cassano.** Cornell Univ. and Univ. of Luxembourg.
- C120 **I 736.20** Women's Motivations for Eating **L. Jahns, K. Stote, H. Madanat and R.E. Cole.** USDA, Grand Forks; SUNY Empire State Col.; San Diego State Univ. Grad. Sch. of Publ. Hlth. and U.S. Army Res. Inst. of Envrn. Med., Natick, MA.
- C121 **II 736.21** Association between Fructose, Uric Acid and Blood Pressure **G.G.C. Kuhnle, N. Tasevska and K-T. Khaw.** Univ. of Reading; Univ. of Cambridge and Arizona State Univ.
- C122 **I 736.22** A Comparison of Nutrient Intake/Adequacy, Diet Quality, and Obesity in Low-Income Children (2-18 y) that Participated or Did Not Participate in the Supplemental Nutrition Assistance Program: NHANES 2003-2010 **M.J. Landry, C.E. O'Neil, T.A. Nicklas and V.L. Fulgoni III.** LSU, Baton Rouge; LSU AgCtr.; Baylor Col. of Med. and Nutr. Impact, LLC, Battle Creek.
- C123 **II 736.23** Functional Gastrointestinal Disorders are Highly Prevalent in Mexican School-Age Children **M.F. Carrillo-Vega, J.J.G. Duran-Arenas, L.L. Tirado-Gomez and D. Hervert-Hernandez.** Natl. Univ. of Mexico and Kellogg Co. Mexico, Queretaro.
- C124 **I 736.24** The Role of Food in Low-Level Arsenic Exposure among Children from Montevideo, Uruguay **K. Kordas, F. Peregalli, E.I. Queirolo, N. Manay and M. Vahter.** Univ. of Bristol; Pereira Rossell Hosp., Montevideo; Catholic Univ. of Uruguay; Univ. of the Republic, Uruguay and Karolinska Inst.
- C125 **II 736.25** Dietary Fiber Intake and Cardiometabolic Conditions among Adult Survivors of Childhood Cancer: A Report from the St. Jude Lifetime Cohort Study **Y. Jia, F.F. Zhang, R. Ojha, J. Lanctot, W. Chemaitilly, K. Krull and M. Hudson.** Tufts Univ. and St. Jude Children's Res. Hosp.
- C126 **I 736.26** Seasonal and Diurnal Variations in Cardiometabolic Traits in the GOLDN Study **H.S. Dashti, S. Aslibekyan, C.E. Smith, D.K. Arnett and J.M. Ordovas.** USDA at Tufts Univ. and Univ. of Alabama at Birmingham.
- C127 **II 736.27** Dietary Fiber and the Human Gut Microbiome: Application of Evidence Mapping Methodology **C.M. Sawicki, K.A. Livingston, M. Obin, S.B. Roberts, M. Chung and N. McKeown.** USDA at Tufts Univ.; Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and Tufts Univ. Sch. of Med.
- C128 **I 736.28** Association between Changes in Waist Circumference and Health Related Quality of Life among Participants in a University Worksite Wellness Program **A.F. Marcus, D.R. Radler, R. Griehs and R. Touger-Decker.** Rutgers Sch. of Hlth. Related Professions.

- C129 **II 736.29** Risk of Gestational Diabetes Mellitus Associated with Dietary Patterns during Pregnancy May Not Be Mediated by Inflammation **D. Shin and W.O. Song.** Michigan State Univ.
- C130 **I 736.30** Seafood Intake of US Adults **L. Jahns, S.K. Raatz, L.K. Johnson, S. Kranz, J.T. Silverstein and M.J. Picklo, Sr.** USDA, Grand Forks and Univ. of Bristol.
- C131 **II 736.31** Increased Carbohydrate Intake and Glycemic Load Are Associated with Left Ventricular Hypertrophy **N. Bush, B. Gower, K. Pearson, S. Judd, J. Shikany, V. Howard, S. Soliman and G. Howard.** Univ. of Alabama at Birmingham and Wake Forest.
- C132 **I 736.32** Food Groups Associated with a Reduced Risk of 15-Year All-Cause Death **V. Bongard, D. Arveiler, J. Dallongeville, J-B. Ruidavets, A. Wagner, C. Simon, N. Marecaux and J. Ferrieres.** Toulouse Univ. – INSERM; Strasbourg Univ.; Inst. Pasteur de Lille – INSERM and Lyon Univ. – INSERM.
- C133 **II 736.33** Standardization of Food Composition Database in Latin American Nutrition and Health Study (ELANS): Preliminary Data **I. Kovalskys, M. Fisberg, G. Gómez, A. Rigotti, Y. Cortés, M. Yopez, R. Pareja, M. Herrera, R. Fisberg, V. Guajardo, I. Zimberg, N. França, P. Amigo and G. Echeverria.** ILSI, Argentina; Fed. Univ. of São Paulo; H.Sabara, Brazil; Univ. of Costa Rica; Pontifical Catholic Univ. of Chile; Pontifical Xavierian Univ., Colombia; Univ. San Francisco, Quito; Nutr. Res. Inst., Peru; Central Univ. of Venezuela and Univ. of São Paulo.
- C134 **I 736.34** Does Pollution Exacerbate Obesity Risks? A Systematic Review and Meta-analysis **K.A. Smith, W. Qu, X. Ren and Y. Wang.** Univ. at Buffalo, SUNY and Fudan Univ., China.
- C135 **II 736.35** Food Craving in Childhood Cancer Survivors **M.M. Shams-White, M. Kelly, S.B. Roberts, A. Must, S.K. Parsons, E. Saltzman and F.F. Zhang.** Tufts Univ. and Tufts Med. Ctr.
- C136 **I 736.36** Social Support in Context and Its Association with Three Healthy Diet Indicators **S.P. Arévalo, L.M. Falcón and K.L. Tucker.** Univ. of Massachusetts Lowell.
- C137 **II 736.37** Effects of Walnut Intervention on Endothelial Function among People with Type 2 Diabetes: A Randomized Trial **L. Djousse, A. Petrone and J.M. Gaziano.** Brigham and Women's Hosp., Harvard Med. Sch. and VA Boston Healthcare Syst.
- C138 **I 736.38** Snacks Consumed by an Urban African American and White Population **E.L. Adams, M. Fanelli Kuczmarski, M.A. Mason, D. Allegro, A.B. Zonderman and M.K. Evans.** Univ. of Delaware and NIA, NIH, Baltimore.
- C140 **II 737.2** mTORC1 Nutrient Signaling and Autophagy in Young and Older Skeletal Muscle after Bed Rest and Rehabilitation **R. Tanner, L. Bruncker, J. Agergaard, O-S. Kwon, K. Barrows, D. McClain and M. Drummond.** Univ. of Utah.
- C141 **I 737.3** Dietary Protein Food Pattern Is Not Associated with Muscle Mass or Strength among Protein Replete Adults **K.M. Mangano, S. Sahni, K.L. Tucker, K.P. Douglas, A.B. Dufour, R.R. McLean and M.T. Hannan.** IFAR, Hebrew SeniorLife, BIDMC, Harvard Med. Sch. and Univ. of Massachusetts Lowell.
- C142 **II 737.4** Novel Natural Compounds with Potential to Prevent and Treat Skeletal Muscle Atrophy **A. Torrent, E. Montell, J. Vergés, P. Dalmau, R. Ruhí, K. Swiderski, J.E. Church, D.M. Baum and G.S. Lynch.** Bioiberica S.A., Barcelona and Univ. of Melbourne.
- C143 **I 737.5** Effect of Beta-Hydroxy-Beta-Methylbutyrate Supplementation on Lean Mass in Older Women Completing 8 Weeks of Rehabilitation **K. Johnson, J. Phelps, A. Ferrando, T. Crook and R. Hakkak.** Univ. of Arkansas for Med. Sci.

738. AGING: NUTRITION AND OSTEOPOROSIS

Poster

(Sponsored by: Aging and Chronic Disease RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C144 **II 738.1** The Effect of a Synbiotic Diet on Bone Structure in Aging Male Mice **M.T. Choman, C. Blanton and A. Gabaldón.** Colorado State Univ. – Pueblo and Idaho State Univ.
- C145 **I 738.2** Assessing Nutritional and Vitamin D Status of Postmenopausal Obese and Osteosarcopenic Obese Women **J.E. Inglis, O.J. Kelly and J.Z. Ilich.** Florida State Univ. and Abbott Nutr., Columbus.
- C146 **II 738.3** Do Food Group Intake and Physical Activity during Growth Spurt Have Impact on Bone Health during Adulthood **E. Movassagh and H. Vatanparats.** Univ. of Saskatchewan.
- C147 **I 738.4** Adipokines as Mediators of Bone Density in Overweight/Obese Postmenopausal Women after 6-Month Weight Loss Program **P. Jafarinasabian, Y-C. Chi and J.Z. Ilich.** Florida State Univ.
- C148 **II 738.5** Serum Irisin Is Positively Related to Functional Abilities and Favorable Metabolic Markers in Overweight/Obese Postmenopausal Women **J. Huang, R. Blakeley, R. Basiri and J.Z. Ilich.** Florida State Univ.
- C149 **I 738.6** A Calcium-Collagen Chelate Dietary Supplement Attenuates Bone Loss in Osteopenic Postmenopausal Women by Reducing Osteoclastogenesis **M.L. Elam, S.A. Johnson, S. Hooshmand, R.G. Feresin, J. Gu and B.H. Arjmandi.** Florida State Univ.; San Diego State Univ. and AIDP Inc.

737. AGING: NUTRITION AND SARCOPENIA

Poster

(Sponsored by: Aging and Chronic Disease RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C139 **I 737.1** Effects of Dietary Protein on Skeletal Muscle Mass and Sarcopenia Risk in Middle-Aged Framingham Adults **J.R. Buendia, S.R. Hasnain, M.L. Bradlee, M.R. Singer, R.B. D'Agostino and L.L. Moore.** Boston Univ. Sch. of Med. and Boston Univ.

- C150 **II 738.7** Calcium Plus Vitamin D Supplementation and Risk of Fractures: An Updated Meta-analysis from NOF **T.C. Wallace, C.M. Weaver, D.D. Alexander, C.J. Boushey, B. Dawson-Hughes, J.M. Lappe, M.S. LeBoff and A.C. Looker.** Natl. Osteoporosis Fndn., Washington, DC; Purdue Univ.; Epidstat Inst., Evergreen, CO; Univ. of Hawaii Cancer Ctr.; Tufts Univ., Boston; Creighton Univ. Schs. of Nursing and Med. and George Mason Univ.
- C151 **I 738.8** Effect of Total Protein Intake on Bone Health in Overweight and Obese Adults following a 36-Week Exercise and Diet Intervention **C.S. Wright, E.M. Weinheimer-Haus and W.W. Campbell.** Purdue Univ.
- C152 **II 738.9** Validation of a Food Frequency-Screening Instrument to Assess Dietary Calcium Insufficiency in a Large Population in South Korea **M-H. Kim and Y-J. Bae.** Korea Natl. Univ. of Transportation and Shinhan Univ., South Korea.
- C153 **I 738.10** Effect of Adding Tai Chi to a Dietary Weight Loss Program on Bone Mineral Density in Obese Older Women **C.E. Paulin, M. Benson, N. Beebe, L. Katkowski, F. Xu, M.J. Delmonico and I.E. Lofgren.** Univ. of Rhode Island.
- C154 **II 738.11** Assessment of Calcium Intake and Osteoporosis Risk Factors in Women before and during the Climacteric **D.M.A. Chaud, L.A. Bueno, M.A.S. Noguchi, A.D. Machado and E.S.d. Abreu.** Mackenzie Presbyterian Univ., São Paulo.
- C155 **I 738.12** Effects of Low Dose Dried Plum (50 g) on Bone Mineral Density and Bone Biomarkers in Older Postmenopausal Women **D. Metti, P. Shamloufard, A. Cravinho, P. Delgado Cuenca, M. Kern, B.H. Arjmandi and S. Hooshmand.** San Diego State Univ. and Florida State Univ.
- C156 **II 738.13** The Effect of Bisphosphonate Use on Coenzyme Q10 Serum Levels **S. Hirsh, L. Huber, K. Schmid, J. Woolger, S. Strum, S. Joyal and E. Cohn-Gelwasser.** Life Extension Clin. Res. Inc., Fort Lauderdale; Univ. of Miami; Med. Oncol., Jacksonville, OR and Internal Med., Pembroke Pines, FL.
- C157 **I 738.14** Dietary and Urinary Sulfur Can Predict Changes in Bone Metabolism during Space Flight **S.R. Zwart, M. Heer, L. Shackelford and S.M. Smith.** Univs. Space Res. Assn.; Univ. of Bonn and NASA Johnson Space Ctr.
- 739. NUTRITION TRANSLATION: NUTRITION SCIENCE FOR PUBLIC POLICY, PRACTICE AND THE CONSUMER**
- Poster**
(Sponsored by: Nutrition Translation RIS)
MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C158 **II 739.1** Total Vegetable and White Potato Consumption of Women of Childbearing Age **M.L. Storey and P.A. Anderson.** Alliance for Potato Res. and Educ., McLean, VA.
- C159 **I 739.2** How do Consumers Perceive Single Serve Frozen Meals Compared to Commercial Weight Loss Program Meals? **K. Reimers, D. Blake and M. Jacobson.** ConAgra Foods, Omaha.
- C160 **II 739.3** Variability of Portion Sizes within Popular Italian Restaurant Chains **M. Nickle and P. Pehrsson.** USDA, Beltsville.
- C161 **I 739.4** How Do Popular Breakfast Cereals Measure Up? **R.G. Thomas and J.K. Ahuja.** USDA, Beltsville.
- C162 **II 739.5** How Consumer Perceptions about Stevia Impact Purchasing Decisions in the United Kingdom and France **R. Cheatham.** Global Stevia Inst., PureCircle.
- C163 **I 739.6** Trends in the Content and Forms of Vitamin K in Processed Foods **M.Z. Brown-Ramos, A.J. Centi, D.B. Haytowitz and S.L. Booth.** USDA at Tufts Univ. and USDA, Beltsville
- C164 **II 739.7** Differences between Magazine Headline Themes/Emotions that Motivate Latino and Non-Latino Mothers to Read Women's and Parenting Magazines **P.L. Barrios, C. Lozada, C. Delaney, J. Martin-Biggers and C. Byrd-Bredbenner.** Rutgers Univ.
- C165 **I 739.8** Beverage Groups Consumed by U.S. Children and Their Impact on Nutrient Intake **E.A. Parker, J.C. Clemens and A.J. Moshfegh.** USDA, Beltsville.
- 740. NUTRITION TRANSLATION: FOOD SCIENCE AND TECHNOLOGY IN NUTRITION**
- Poster**
(Sponsored by: Nutrition Translation RIS)
MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C166 **II 740.1** Medicinal and Nutritional Plants in Rural Panama: Artisanal Lemongrass Tea Has High Community Acceptability **T.P. van der Have, I. Bermudez, J. Kearney and O. Bermudez.** Catholic Univ. of Leuven; Tech Univ. of Panama; Dublin Inst. of Technol. and Tufts Univ. Sch. of Med.
- C167 **I 740.2** The Added Sugar Puzzle: The Food Science Piece – Why Is Sugar Added to Food and the Challenges of Labeling Added Sugar **K. Goldfein and J. Slavin.** Univ. of Minnesota.
- C168 **II 740.3** A New Natural Extract with Anti-aging and Regenerative Properties for Skin **A. Torrent, E. Montell, J. Vergés, R. Ruhí, P. Dalmau, M.J. Zurbano and J. Romero.** Bioiberica, Barcelona and BioloVITro Res. Area, Spain.
- C169 **I 740.4** Monitoring on the 4-Hexylresorcinol in Various Shrimp and Crab Meat Products **J-M. Kim, Y-H. Kim, J.S. Lee, S-R. Gang and O-H. Lee.** Kangwon Natl. Univ., South Korea and S-Food Guardians Co. Ltd., Seoul.
- C170 **II 740.5** Understanding Aspects of Carbohydrate Quality in Rice Related to Differences in Gastric Emptying Rate **E. Pletsch and B. Hamaker.** Purdue Univ.
- C171 **I 740.6** Total Carbohydrate Determinations in USDA's National Nutrient Database for Standard Reference **P.R. Pehrsson, K.Y. Patterson, D.B. Haytowitz and K. Phillips.** USDA, Beltsville and Virginia Tech.
- C172 **II 740.7** From Paper and Pencil to Tablet and Stylus: Automating the Sneakers and Spokes Environmental Audit **M.M. Koenings, T.M. Horacek, L. Marxen, D. Farnsworth and C. Byrd-Bredbenner.** Rutgers Univ. and Syracuse Univ.
- C173 **I 740.8** Content Analysis of Women and Parenting Magazines Targeted to Latino Audiences **P.L. Barrios, C. Lozada, C. Delaney, J. Martin-Biggers and C. Byrd-Bredbenner.** Rutgers Univ.

741. NUTRITION POLICIES AND PROGRAMS: IMPLEMENTATION, EVALUATION, AND MONITORING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C174 II **741.1** FDA's Evaluations of GRAS Food Ingredients **J. Dausch**. FDA, College Park, MD.
- C175 I **741.2** Theoretical Effect of Universal Removal of Added Sugars in Packaged Foods **J. Louie**. Univ. of Sydney.
- C176 I **741.3** Integrating Nutrition in Local Governance Structures: An Example from Suaahara Program Nepal **B.R. Neupane**. Helen Keller Intl., Nepal.
- C177 I **741.4** Defining Protein Foods **J. Hess and J. Slavin**. Univ. of Minnesota.
- C178 I **741.5** Enhancing USDA's Food and Nutrient Database for Dietary Studies with Branded Food Product Label Data **L.C. Steinfeldt, C.L. Martin, D.G. Rhodes, K.M. Yirenyki, P. Matthey, R.P. Lacombe and A.J. Moshfegh**. USDA, Beltsville.
- C179 II **741.6** A Magnetic Separation Method to Improve Signal-to-Noise Ratio in the Measurement of Iron Deficiency Biomarkers Using a Photonic Crystal Biosensor Immunoassay **R.D. Peterson, B.T. Cunningham and J.E. Andrade**. Univ. of Illinois at Urbana-Champaign.
- C180 I **741.7** Food Assistance Programs Have an Indirect Effect on a Non-anemia Trend via Household Food Insecurity and Socio-economic Conditions in Children Receiving the Benefit from San Luis Potosi, Mexico **I. Mendez Gomez Humaran, T. Shamah Levy, L. Cuevas Nasu and E.B. Gaona Pineda**. Mathematics Res. Ctr., Aguascalientes, Mexico and Natl. Publ. Hlth. Inst., Cuernavaca.
- C181 II **741.8** Modeling Changes in Daily Grain Foods Intake: An Analysis to Determine the Impact on Nutrient Intakes in Comparison to the USDA Ideal Food Pattern **Y. Papanikolaou and V.L. Fulgoni**. Nutr. Strategies Inc., Paris, Canada and Nutr. Impact LLC, Battle Creek, MI.
- C182 I **741.9** Why Do School Stores in South Korea Still Sell Restricted Foods Four Years after the School Store Policy? **S.K. Choi, E.A. Frongillo, C.E. Blake, J.F. Thrasher and M.E. Tompkins**. Univ. of South Carolina.
- C183 II **741.10** Evaluative Ethnography Is Useful for Understanding the Impact Pathways of Performance-Based Incentives on Health Worker Motivation **R.C. Schuster, O. de Sousa, A-K. Reme, D. Pinault and S.L. Young**. Cornell Univ. and CARE Mozambique.
- C184 I **741.11** The Center for Nutrition, Learning, & Memory: Together Addressing a Grand Challenge **C. Moulton, E. Wee, M. Kuchan, K. Garleb and N. Cohen**. Abbott Labs., Champaign, IL; Abbott Labs., Columbus, OH and Univ. of Illinois at Urbana-Champaign.
- C185 II **741.12** Impact of Milk Packaging Changes on Children's Milk Consumption **B. Yon**. Univ. of Vermont.

C187 I **741.13** Effect of Maternal Multiple Micronutrients Supplementation on the Apgar Score of Indonesian Neonates **W. Iskandar, E. Smith, A. A. M. Apriatni, R. Tjong and A. Shankar**. Summit Inst. of Develop., Indonesia and Harvard Univ. Sch. of Publ. Hlth.

C188 II **741.14** Environmental Supports of Healthy Eating in Older Adults in Diverse Communities **Q. Jiang, N. Cohen, M. Marra, K. Woolf, J. Gilbride and S. Francis**. Univ. of Massachusetts Amherst; West Virginia Univ.; NYU and Iowa State Univ.

742. ENERGY AND MACRONUTRIENT METABOLISM: PROTEIN AND AMINO ACID METABOLISM

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C190 II **742.1** Leucine Attenuates the Endotoxin-Induced Reduction in Skeletal Muscle Protein Synthesis in Neonatal Pigs **A. Hernandez-Garcia, D.A. Columbus, R. Manjarin, A. Suryawan, H. Nguyen, R. Almonaci, R.A. Orellana and T.A. Davis**. CNRC, Baylor Col. of Med. and Texas Children's Hosp., Houston.
- C191 I **742.2** The Role of Hepatic AMPK in Metabolic Adaptation under High-Protein Diet **T. Chalvon-Demersay, P.C. Even, B. Viollet, C. Chaumontet, D. Tomé, M. Foretz and D. Azzout-Marniche**. AgroParisTech, INRA; INSERM U1016; CNRS and Univ. Paris Descartes.
- C192 II **742.3** Muscle Protein Synthetic Responses to Essential Amino Acid Supplementation during Load Carriage Exercise **S.M. Pasiakos, H.L. McClung, N.E. Murphy, L.M. Margolis, G.G. Lin, J.R. Hydren, B.A. Davis and A.J. Young**. U.S. Army Res. Inst. of Envrn. Med. and U.S. Army Natick Soldier Res. Develop. & Engin. Ctr.
- C193 I **742.4** Net Protein Balance after Load Carriage Exercise Is Enhanced by Amino Acid Supplementation **H.L. McClung, L.M. Margolis, N.E. Murphy, G.G. Lin, J.R. Hydren, B.A. Davis, A.J. Young and S.M. Pasiakos**. U.S. Army Res. Inst. of Envrn. Med., Natick, MA and U.S. Army Natick Soldier Res. Develop. & Engin.
- C194 II **742.5** Proteomic Analysis Reveals Cross-Talk of Adipocytes and Myotubes in Co-culture **F. Li, Y. Li, Y. Duan, Y. Tang, T.G. Anthony, M. Watford and Y. Yin**. Inst. of Subtrop. Agr., Chinese Acad. of Sci. and Rutgers Univ.
- C195 I **742.6** Enteral Supplementation with β -Hydroxy- β -Methylbutyrate Increases Muscle Protein Synthesis in Neonatal Pigs **M. Kao, D.A. Columbus, A. Suryawan, J. Steinhoff-Wagner, A. Hernandez-Garcia, H.V. Nguyen, S.R. Davis, M.L. Fiorotto and T.A. Davis**. USDA, Houston and Abbott Nutr., Columbus.
- C196 II **742.7** Plasma Sulfured Amino Acid Responses to Methionine-Loading Test in HIV⁺ Patients **R.C. Burini, M.D. Borges-Santos, F. Moreto, P.C.M. Pereira and Y. Ming-Yu**. Botucatu Med Sch., São Paulo State Univ and MGH and Shriners Burns Hosp., Boston.

- C197 **I 742.8** Effect of Different Types of Dietary Proteins on Liver and Muscle mTORC1 Pathway after Nutritional Recovery **C. Rodriguez-Gaytran, C. Márquez-Mota, A.R. Tovar and N. Torres.** Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City.
- C198 **II 742.9** Protein Requirements in Children with Phenylketonuria **A. Turki, K. Ueda, B. Cheng, A. Giezen, S. Stockler and R. Elango.** BC Children's Hosp., Vancouver and Univ. of British Columbia.
- C199 **I 742.10** *Sanguinarine* instead of Tryptophan on Growth and Metabolism of Pig under Conditions of Lower-Protein Diets **H. Xi, Z. Shirui, Y. Long and L. Qian.** Col. of Animal Sci. and Technol., Hunan Agr. Univ.
- C200 **II 742.11** Nonessential Amino Acids as Nitrogen Sources in Adult Men Examined Using the Indicator Amino Acid Oxidation Technique **L. Cooper, R. Ball, P. Pencharz, R. Sakai and R. Elango.** Univ. of British Columbia; Ajinomoto Co. Inc., Kawasaki; Hosp. for Sick Children, Toronto and Univ. of Alberta.
- C201 **I 742.12** Acute Effect of Whey Protein Microgels on Whole Body Protein Turnover in Overweight Adults **J-P. Godin and A. Kassis.** Nestlé, Lausanne.
- C202 **II 742.13** Insulin Antagonizes SIRT1 and NF- κ B Signaling in Skeletal Muscle of Neonatal Pigs during Chronic Infection **R.A. Orellana, R. Manjarín, S.J. Koo, A. Suryawan, H.V. Nguyen, F.A. Wilson, M.L. Fiorotto and T.A. Davis.** Baylor Col. of Med.
- C203 **I 742.14** Arginine Disposal in Health and Endotoxemia **J.C. Marini and I.C. Didelija.** USDA, Baylor Col. of Med.
- C204 **I 742.15** Branched-Chain Amino Acid Catabolism Is Required for Muscle Cell Differentiation **Z. Dhanani, K. Dhaliwal and O. Adegoke.** York Univ., Canada.
- C205 **II 742.16** Leucine and Omega-3 Fatty Acids Regulate Cell Bioenergetics via mTOR **J.I. Baum, S.A. Shouse, K. Lassiter, W.G. Bottje and S. Dridi.** Univ. of Arkansas.
- C209 **I 743.4** SCD1 Inhibition Modifies Fatty Acid Regulation of Adipocyte Inflammation and Lipid Content **J.C. Ralston, A.H. Metherel, K.D. Stark and D.M. Mutch.** Univ. of Guelph and Univ. of Waterloo, Canada.
- C210 **II 743.5** Gender Differences in Bile Acid Kinetics after Dietary Challenges **J. Fiamoncini, G. Frost, R. Scheundel and H. Daniel.** Tech Univ. Munich and Imperial Col. London.
- C211 **I 743.6** Nutritional Regulation of the Rainbow Trout Long Chain-Polyunsaturated Fatty Acid Biosynthetic Enzymes **M.K. Gregory, M.J. James and G.M. Turchini.** Royal Adelaide Hosp. and Sch. of Life and Envrn. Sci., Deakin Univ.
- C212 **II 743.7** Differential Effects of Sphingomyelin Derived from Milk and Egg on Response to a High-Fat Diet **G.H. Norris, N.J. Farrell and C.N. Blesso.** Univ. of Connecticut.
- C213 **I 743.8** Delta-6 Desaturase Substrate Competition between 16:0 and 18:2n-6 or 18:3n-3 May Limit the Accumulation of 16:1n-10 **H.G. Park, K. Kothapalli, W.J. Park, P. Lawrence, L. Liu and J.T. Brenna.** Cornell Univ. and Gangneung-Wonju Natl. Univ., South Korea.
- C214 **II 743.9** Attenuation of mTORC1-Driven Overproduction of ApoB-Containing Lipoproteins by Aromatic Fatty Acid Phenylbutyric Acid **J.L. Roberts and R. Moreau.** Univ. of Nebraska-Lincoln.
- C215 **I 743.10** Alternative Splicing Generates Novel *Fads3* Transcript in Mice **J.Y. Zhang, X. Qin, H.G. Park, E. Kim, G. Liu, K.S. Kothapalli and J.T. Brenna.** Cornell Univ. and Jilin Univ.
- C216 **II 743.11** FADS2 Polymorphisms Correlate with HDL-C and Desaturase Activity in Type 2 Diabetes **M-C. Huang, H-Y. Chang, P-C. Huang, C-C. Hsu and S-J. Shin.** Kaohsiung Med. Univ.; Kaohsiung Med. Univ. Hosp. and Natl. Hlth. Res. Inst., Zunan, Taiwan.
- C217 **I 743.12** Dietary High Oleic Canola Oil Supplemented with DHA Oil Attenuates Plasma PCSK9 Levels in Humans **S. Pu, C. Rodríguez-Pérez, V.R. Ramprasath, Segura-Carretero and P.J.H. Jones.** Univ. of Manitoba and Univ. of Granada.
- C218 **II 743.13** Inhibitory Activities of Medicinal Herbs against Lipid Accumulation in 3T3-L1 Adipocyte **H-K. Ji, J.Y. Seo, M.S. Kim, S.J. Kang, G.R. Jo, Z. Erdenebileg, J.H. Jang, J-S. Kim, H.J. Suh and J-S. Kim.** Kyungpook Natl. Univ.; Podomaul Co. Ltd. and Gyeongbuk Natural Color Indust. Inst., South Korea.
- C219 **I 743.14** Lipid Emulsion Halts the Progression of Non-alcoholic Fatty Liver Disease in Nonobese Mice Fed a Liquid High Carbohydrate Diet **K-H. Huang, L. Hao, P.B. Smith, A.D. Patterson and A.C. Ross.** Penn State.
- C220 **II 743.15** Effect of Ezetimibe on Low-and High-Density Lipoprotein Subclasses in Sitosterolemia **R. Othman, S. Myrie, D. Mymin, L. Merckens, J-B. Rouillet, R. Steiner and P. Jones.** Univ. of Manitoba; Oregon Hlth. & Sci. Univ. and Univ. of Wisconsin-Marshfield.
- C221 **I 743.16** C/EBP-beta Regulates Lipid Homeostasis and Autophagy Activation in Liver and Macrophages **M.K. Zahid, A. Doyel, R.C. Janssen, S. Wang, J.E. Friedman and S.M. Rahman.** Texas Tech Univ. and Univ. of Colorado Denver, Aurora.
- 743. ENERGY AND MACRONUTRIENT METABOLISM: LIPID AND FATTY ACID METABOLISM AND TRANSPORT**
- Poster**
- (Sponsored by: Energy & Macronutrient Metabolism RIS)
- MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)
- C206 **II 743.1** Adipocyte Ablation of Long-Chain Acyl-CoA Synthetase-4 (ACSL4) Protects against Diet-Induced Obesity **E.A. Killion, M-J. Lee, R.A. Coleman and A.S. Greenberg.** USDA at Tufts Univ.; Boston Univ. Sch. of Med. and Univ. of North Carolina at Chapel Hill.
- C207 **I 743.2** Role of the Lipolysis Stimulated Lipoprotein Receptor in Hepatic Lipid Homeostasis during the Postprandial Phase **F.T. Yen, S. Akbar, H. Layeghkhavidaki, A. Pinçon, M-C. Lanhers, Oster, L. Gregory Pauron and C. Corbier.** Univ. of Lorraine.
- C208 **II 743.3** Relative VO₂ max Correlates with Lipoprotein Subfractions in Response to Four Different Exercise Modalities **A. Kieffer, B. Lambert, S. Crouse and R. Walzem.** Texas A&M Univ.

744. ENERGY AND MACRONUTRIENT METABOLISM: ENERGY AND MACRONUTRIENT METABOLISM AND THE GUT

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C222 II **744.1** Dietary Dairy Proteins Improve Lipoprotein Profiles in C57/Bl6 Mice **T. Price, X. Wu, S.A. Baskaran and R.L. Walzem.** Texas A&M Univ.
- C223 I **744.2** SATIN (Satiety Innovation) Project: Dietary Supplementation with Type 3 Resistant Starch Induces Distinct Changes in Gut Microbiota of Overweight Human Volunteers **A. Bonnema, J. Kelly, S. Ryan, H. McKinnon, R. Romero-Gonzalez, P. Louis, D. Bosscher, S.H. Duncan, A. Johnstone, H.J. Flint, J. Harrold, J. Halford and S. Shirazi-Beechey.** Cargill Inc., Minneapolis; Univ. of Liverpool; Univ. of Aberdeen and Cargill Inc., Vilvoorde, Belgium.
- C224 II **744.3** Effects of Differently Processed Soy Protein Compared to Milk Protein on Gut Microbial Composition: Possible Mechanisms for Cardiometabolic Effects of Soy **D.N. Butteiger, A.A. Hibberd, N. Napawan, N.J. McGraw, J. Hall-Porter and E.S. Krul.** DuPont Nutr. & Hlth., St. Louis.
- C225 I **744.4** How Modification of Dietary FODMAP Intake Impacts Blood Glucose and Fasting Breath Hydrogen **E.W. Kerr and K.J. Melanson.** Univ. of Rhode Island.
- C226 II **744.5** Impact of High and Low- FODMAP Interventions on Free-Living Subjective Appetite **E.W. Kerr and K.J. Melanson.** Univ. of Rhode Island.
- C227 I **744.6** Short Chain Fatty Acid Production and Glucose Responses by Methane Producers **B. Rust, I. Gray, D. Kieffer, J.W. Newman, D. Cooper, L. Welch, W. Horn, M. Marco, C. Pelkman and N. Keim.** Univ. of California, Davis; USDA, Davis and Ingredion, IL.
- C228 II **744.7** Slower Rate of Fat Absorption at Dinner versus Lunch Is Associated with Lower Concentrations of Triacylglycerols the Following Morning **M. Jacome-Sosa, Q. Hu, C. Manrique and E.J. Parks.** Univ. of Missouri-Columbia.
- C229 I **744.8** AMPKa1 Subunit Is Required for Proper Intestinal Epithelial Differentiation **X. Sun, Q. Yang, X. Fu, X. Liang, C.J. Rogers, M. Du and M. Zhu.** Sch. of Food Sci., Washington State Univ.; Sch. of Food Sci., Univ. of Idaho and Washington State Univ.

745. ENERGY AND MACRONUTRIENT METABOLISM: METABOLIC PHENOTYPING, METABOLOMICS AND BIOMARKERS

Poster

(Sponsored by: Energy & Macronutrient Metabolism RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C230 II **745.1** Metabolomics Analysis of Phenylketonuria and Wild Type Mice Fed Casein, Amino Acid and Glycomacropptide Diets **E.A. Sawin, B.M. Stroup, S.G. Murali and D.M. Ney.** Univ. of Wisconsin-Madison.

C231 I **745.2** NMR-Based Metabolomics Analysis in Muscle and Serum of Middle-Aged Ovariectomized Rats Supplemented with 6-Month Green Tea Polyphenols **F. Assadi-Porter, E. Selen and C. Shen.** Univ. of Wisconsin-Madison and Texas Tech Univ. Hlth. Sci. Ctr.

C232 II **745.3** Effects of Algae Feeding on Mouse Metabolome **Y. Ma, W. Zhou, P. Chen, P.E. Urriola, H.R. Gislerød, G.C. Shurson, R. Ruan and C. Chen.** Univ. of Minnesota and Norwegian Univ. of Life Sci.

C233 I **745.4** Effect of Sustaining Dietary Ketosis on the Hippocampal and Serum Metabolome of Sprague-Dawley Rats **S.L. Kesl, A.M. Poff, N.P. Ward, T.N. Fiorelli, C. Ari, A.J. Van Putten, J.W. Sherwood, P. Arnold and D.P. D'Agostino.** Morsani Col. of Med., Univ. of South Florida.

C234 II **745.5** Plasma Metabolome-Wide Association Study of Clinical Variables in Hospitalized Adults with Cystic Fibrosis **E.M. Smith, R.E. Grossmann, E. Chong, K. Uppal, S. Li, D.P. Jones, V. Tangpricha, T.R. Ziegler and J.A. Alvarez.** Emory Univ.

C235 I **745.6** Effects of Polyphenols on the Endogenous Formation of Nitroso Compounds in Simulated Gastric Conditions **V. Sági-Kiss, M. Pitzalis and G.G. Kuhnle.** Univ. of Reading, U.K.

C236 II **745.7** Identification of the Metabolomic Fingerprint Associated with Flavonoid Consumption Level **K.L. Ivey, E.B. Rimm, P. Kraft, L. Liang, A. Cassidy and B. Wolpin.** Harvard Sch. of Publ. Hlth.; Univ. of East Anglia, U.K. and Harvard Med. Sch.

746. OBESITY: MACRONUTRIENTS AND OBESITY

Poster

(Sponsored by: Obesity RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

C237 II **746.1** No Difference in Perceived Intensity of Linoleic Acid in the Oral Cavity between Obese and Non-obese Adults **R.M. Tucker, T.M. Nuessle, N.L. Garneau and R.D. Mattes.** Bowling Green State Univ.; Denver Museum of Nature & Sci. and Purdue Univ.

C238 I **746.2** Obesity and Hypothalamic Inflammation from High Fat Diets of Different Fatty Acid Profile **K.J. Mamounis and T.A. Roepke.** Rutgers Univ.

C239 II **746.3** Dyslipidemia Induces Independent Mechanisms Regulating Skeletal Muscle Protein Metabolism and Glucose Balance in Human Obesity **L. Tran, E.A. De Filippis, D.F. Lake, L.J. Mandarino and C.S. Katsanos.** Arizona State Univ. and Mayo Clin.

C240 I **746.4** Fat, Sugar or Both? A Prospective Analysis of Dietary Patterns and Adiposity in Children **G.L. Ambrosini, D.J. Johns, K. Northstone and S.A. Jebb.** Sch. of Popul. Hlth., Univ. of Western Australia; MRC, Cambridge; Sch. of Soc. and Comm. Med., Univ. of Bristol and Univ. of Oxford.

C241 II **746.5** Acute Thermic Effect of Food in Response to Consumption of Whey Protein Microgels in Overweight Adults **A. Kassis, S. Moille, C. Nielsen-Moennoz, J-P. Godin, J. Sauser, I. Monnard, C. Ammon-Zufferey, M. Beaumont and K. Mace.** Nestlé Res. Ctr., Lausanne.

747. OBESITY: BODY COMPOSITION

Poster

(Sponsored by: Obesity RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C242 I 747.1 Excessive Weight and Its Association with Physical Inactivity in Colombian College Students **E. Gamboa, L. Rojas and L. Rangel**. Colombia Cardiovasc. Fndn., Sangander and Univ. Santo Tomás, Colombia.
- C243 II 747.2 Evaluation of Novel Hand-Held Wireless Bioelectrical Impedance Analysis Body Composition Devices **S. Heymsfield, J. Zheng, M. Wang, C. Gao, J.Y.-H. Kim, A. Choi, S. Wook Jo, J.-T. Oh, J. Cho, Y. Bhagat and I. Kim**. Pennington Biomed. Res. Ctr., Baton Rouge; Samsung Electronics, Suwon, South Korea and Samsung Res. America-Dallas.
- C244 I 747.3 Thigh Volume Ratios Assessed via Stereovision Body Imaging as a Predictor of Visceral Adiposity Measured by Magnetic Resonance Imaging **J. Freeland-Graves, J.J. Lee and B. Xu**. Univ. of Texas at Austin.
- C245 II 747.4 Low Muscle Fitness Is Related to a High Lipid-Metabolic Cardiovascular Risk **R. Ramírez-Vélez, J.E. Correa-Bautista and K. González-Ruiz**. Univ. Santo Tomás; Univ. del Rosario and Univ. Manuela Beltrán, Bogotá.
- C246 I 747.5 Body Composition and Its Relationship with Metabolic Profile in School-Age Children **C. Nápoli, S. Vidueiros, I. Fernandez, A. Paganini, G. Tarducci and A. Pallaro**. Sch. of Pharm. and Biochemistry. Univ. of Buenos Aires and Univ. of La Plata, Argentina.
- C247 II 747.6 Skeletal Muscle Quality: Concordant Findings from Two Practical Non-invasive Approaches **J. Zheng, C. Johnson, S.B. Heymsfield, A.Z. Pereira and M.C. Gonzalez**. Univ. of Virginia; Pennington Biomed. Res. Ctr., LSU and Hosp. Israelita Albert Einstein and UNIFESP, São Paulo.
- C248 I 747.7 Associations between Adiposity Measures and Taste Sensitivity Ratings **R.J. Leone, R.M. Tucker, A.L. Morgan and M.-J. Ludy**. Bowling Green State Univ.
- C249 II 747.8 Hydrational Medicine Is Possibly the New Additional Method for Correcting the Effect of the Consequences from Imbalances in the Body Fluid Composition and Will Act to Supply the Lacking Nutrients that Will Reduce Obesity and Deficiency **D.Z. Lajot**. DL Nutr. Consult. and Supply, Cagayan de Oro, Philippines.
- C250 I 747.9 Validation of Self-Reported Obesity Measurements from the Guam Youth Risk Behavior Surveillance System **Y.C. Paulino, M.L. Rosadino and A.A. Uncangco**. Sch. of Nursing and Hlth. Sci., Univ. of Guam; Guam Behav. Hlth. and Wellness Ctr. and Dept. of Publ. Hlth. and Soc. Svcs., Mangilao, Guam.
- C251 II 747.10 Correlations of Serum Persistent Organic Pollutants with Regional Fat Distribution Measured by Dual-Energy X-Ray Absorptiometry **G. Zong, P. Grandjean and Q. Sun**. Harvard Sch. of Publ. Hlth. and Brigham and Women's Hosp. and Harvard Med. Sch.
- C252 I 747.11 Regional Fat Mass Estimations in Caucasian Adults from Regional Subcutaneous Fat Thickness Measured by Ultrasound **M. Wall, A.B. Welk and R.T. Davidson**. Logan Univ., MO.
- C253 II 747.12 Diet Quality and Adiposity in Adolescents **K. Mellendick, L. Shanahan, L. Wideman, S. Calkins, S. Keane and C. Lovelady**. Univ. of North Carolina at Greensboro and Univ. of North Carolina at Chapel Hill.
- C254 I 747.13 The Impact of Coconut and Safflower Oils on Body Composition **M. Harris, L. Fryda and A. Hutchins**. Univ. of Colorado Colorado Springs.
- C255 II 747.14 Sagittal Abdominal Diameter in HIV Show Strong Correlations in Body Fat Over Two Year HAART in a Mixed Ancestry HIV Population of South Africa **M.J. Kruger, L. van Zyl and T.A. Nell**. Stellenbosch Univ., South Africa.
- C256 I 747.15 Walnut Ingestion in Adults at Risk for Diabetes: Effects on Diet Quality, Body Composition, and Cardiac Risk Measures **V.Y. Njike, R. Ayyettey, P. Petraro, J. Treu and D.L. Katz**. Griffin Hosp., Derby, CT.
- C257 II 747.16 Using Multiple Frequency Bioelectrical Impedance to Determine Regional Body Composition **R.T. Davidson, B.A. Jones and G.W. Danhoff**. Logan Univ., MO and Missouri Baptist Univ.
- C258 I 747.17 Utility of Waist Circumference Percentiles vs. Adult Waist Circumference Cutoffs for Assessing Metabolic Risk in Overweight/Obese Adolescents **E. Yakes Jimenez, D. Gonzales-Pacheco, S. Sanders, A. Harris, G. Trejo and A. Kong**. Univ. of New Mexico.
- C259 II 747.18 Does the recommendation to drink 8 cups of water per day promote weight loss? **J.M. Wong, C.B. Ebbeling, L. Robinson, H.A. Feldman and D.S. Ludwig**. Boston Children's Hosp.
- C260 I 747.19 Adiposity Predicts Vitamin D Status of Children **C.E. Moore and Y. Liu**. Texas Woman's Univ. and CNRC, Baylor Col. of Med.
- C261 II 747.20 The Impact of Sugar Sweetened Beverage Intake on Hunger and Satiety in Minority Adolescents **G.E. Shearrer, G.A. O'Reilly, B. Belcher, M.J. Daniels, M.I. Goran, D. Spruijt-Metz and J.N. Davis**. Univ. of Texas at Austin; Univ. of So. California and NCI, NIH.
- C262 I 747.21 Sex Difference in Body Image Helps Explain Large Sex Difference in Childhood Obesity Rate in China **H.-c. Wang, H. Xue, F. Xu and Y. Wang**. Sch. of Publ. Hlth. and Hlth. Professions, Univ. at Buffalo and Nanjing Ctrs. for Dis. Control and Prevent.
- C263 II 747.22 Prevalence of Food Addiction in Overweight/Obese Adolescents as Measured by the Yale Food Addiction Scale **E. Yakes Jimenez, A. Harris, S. Sanders, M. Bodo, S. Feldstein Ewing and A. Kong**. Univ. of New Mexico
- C264 I 747.23 Anthropometric Outcomes Related to Self-Satisfaction, Parent and Peer Support in Overweight Youth Participating in a Fitness and Nutrition Themed Summer Camp **G.G. Morton, C. Schieder and L. Kaiser**. San Francisco State Univ. and Univ. of California, Davis.

748. NUTRIENT-GENE INTERACTIONS: GENOMICS, PROTEOMICS, AND METABOLOMICS

Poster

(Sponsored by: Nutrient-Gene Interactions RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C265 I **748.1** Comparative Plasma High-Resolution Metabolomic Profiling in Patients with Drug-Susceptible and Multi-drug Resistant Pulmonary Tuberculosis **J.K. Frediani, E. Chong, D. Jones, T. Yu, L. Zhang, N. Tukvadze, E. Sanikidze, M. Kipiani, G. Hebbar, V. Tran, R.R. Kempker, V. Tangpricha, H.M. Blumberg and T.R. Ziegler.** Emory Univ. and Natl. Ctr. for Tuberculosis and Lung Dis., Tbilisi, Georgia.
- C266 II **748.2** Arginine Silicate Supplementation Decreases Markers of Cardiovascular, Renal and Metabolic Dysfunction and Increases Markers of Vasodilation and Cardiovascular Health in Healthy Adult Males **J. Komorowski, S. Rood-Ojalvo and A. El-Sohemy.** Nutr. 21 LLC, Purchase, NY and Univ. of Toronto.
- C267 I **748.3** Effects of GNB3 Polymorphism on Gender Differences along with Energy Intake and HDL Subtypes of Korean Obese Children **Y. Lee, S. Park, S. Choi and M. Lee.** Jeju Natl. Univ., South Korea; Sungshin Women's Univ., South Korea and Res. Inst. of Obesity Sci., Seoul.
- C268 II **748.4** A Non-targeted Metabolomic Approach to Identify Potential Plasma Lipophilic Biomarkers of Inadequate Vitamin B₆ Status, Induced by Low B₆ Intake, Exposure to the Anti-B₆ Factor 1-Amino D-Proline, or Their Interaction, in a **S. Mayengbam, J.D. House and M. Aliani.** Univ. of Manitoba and St. Boniface Hosp. Res. Ctr., Univ. of Manitoba.
- C269 I **748.5** Increased Accumulation of Long-Chain Fatty Acids in Skeletal Muscle May Contribute to Insulin Resistance in *Znt7* Knockout Mice **S. Tepasamordech, C. Kirschke, T. Pedersen, W. Keyes, J. Newman and L. Huang.** USDA, Davis and Univ. of California, Davis.
- C270 II **748.6** Sex-Specific Effects of *NPHP1* and *SLC9A2* SNPs on Systemic Water Balance In American Indians **V.S. Voruganti, K. Haack, S. Laston, H.H.H. Goring, L.G. Best, B.V. Howard, J.W. MacCluer, J.G. Umans, S.A. Cole and D.M. Cohen.** Univ. of North Carolina at Chapel Hill; Texas Biomed. Res. Inst.; Missouri Breaks Industries Res. Inc.; Medstar Hlth. Res. Inst. and Georgetown-Howard Univs. Ctr. for Clin. and Trans. Sci. and Oregon Hlth. & Sci. Univ. and Portland VA Med. Ctr.
- C271 I **748.7** Integrated datasets characterize metabolic interactions between mouse's colonic mucosa, colonic-cecal contents and feces **H. Zeng, D. Grapov, M. Jackson, J. Fahrman, O. Fiehn and G. Combs, Jr.** USDA, Grand Forks; Univ. of California, Davis and Hill's Pet Nutr. Inc., Topeka.

749. NUTRIENT-GENE INTERACTIONS: EPIGENETICS

Poster

(Sponsored by: Nutrient-Gene Interactions RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C272 II **749.1** Maternal Low Protein Diet Reduces Birth Weight and Increases Brown Adipose Tissue UCP-1 and FND5 Gene Expression in Male Neonatal Sprague-Dawley Rats **K.J. Claycombe, E.E. Vomhof-DeKrey, J.N. Roemmich, T. Rhen and O. Ghribi.** USDA, Grand Forks and Univ. of North Dakota.
- C273 I **749.2** The Effects of Childhood Malnutrition on DNA Methylation in Adulthood **L. Fischer, C. Peter, P. Garg, A. Sharp, S. Akbarian and J. Galler.** Harvard Med. Sch. and Icahn Sch. of Med. at Mount Sinai.
- C274 II **749.3** The *MTHFD1* 1958G>A Relates to Survival Rate According to PBMCs DNA Global Methylation in Cancer **P. Guarini, S. Moruzzi, S. Udali, A. Guglielmi, A. Ruzzenente, P. Pattini, N. Martinelli, O. Olivieri, S-W. Choi and S. Friso.** Univ. of Verona; Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and CHA Univ., Seoul.
- C275 I **749.4** The *RFC1* 80G>A Relates to Survival Rate According to PBMCs DNA Global Methylation in Primary Liver Cancer **S. Moruzzi, S. Udali, P. Guarini, A. Guglielmi, A. Ruzzenente, P. Pattini, S. Conci, S.A. Tammen, O. Olivieri, S-W. Choi and S. Friso.** Univ. of Verona; Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and CHA Univ., Seoul.
- C276 II **749.5** Effects of High Fat Diets on Metabolic Gene Expression in the Liver and Adipose of the Offspring through Multi-generations via Epigenetic Alterations **J.H. Park, Y. Yoo and Y.J. Park.** Ewha Womans Univ., South Korea.
- C277 I **749.6** Effects of Maternal Blood Levels of One-carbon Nutrients on Global DNA Methylation and Demethylation in Cord Blood Lymphocytes **L. Plumtre, S. Tammen, S. Masih, C.E. Visentin, A. Ly, K-J. Sohn, A.Y. Lausman, R. Croxford, H. Berger, S-W. Choi, D.L. O'Connor and Y-I. Kim.** Univ. of Toronto; Friedman Sch. of Nur. Sci. and Policy, Tufts Univ.; Consultant, Toronto and CHA Univ., South Korea.
- C278 II **749.7** Effects of Aging and Walnut-Rich Diet on DNA Methylation and Expression of Immediate-Early Genes in Critical Brain Regions **S.M. Poulouse, D.F. Bielinski, J.W. Crott, A.J. Roe, N. Thangthaeng and B. Shukitt-Hale.** USDA at Tufts Univ.
- C279 I **749.8** The Digital Nature of Epigenetics **C.W. Shults, G.P. Einstein and O.L. Tulp.** Univ. of Sci., Arts and Technol., Montserrat.
- C280 II **749.9** Supplementation of Maternal Diets with Choline, B-Vitamin and Docosahexaenoic Acid Alters Gene Expressions Associated with Hepatic Lipid Metabolism in Offspring **L. Xi, C. Man, H. Lima, S. Jacobi, S. Lui and J. Odle.** North Carolina State Univ.
- C281 I **749.10** Effects of In Utero Nutrition Perturbation on Epigenetic Reprogramming in Sperm Cells **J. Xue and F.Y. Ideraabdullah.** Univ. of North Carolina at Chapel Hill, Kannapolis and Univ. of North Carolina at Chapel Hill.

750. NUTRIENT-GENE INTERACTIONS: OBESITY AND INFLAMMATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C282 **II 750.1** Effect of n-3 Fatty Acids and Their Derivatives on the Expression of Inflammatory Genes in Cultured THP1 Macrophages **B. Allam-Ndoul, M-C. Vohl, F. Guénard and O. Barbier.** Laval Univ., Canada.
- C283 **I 750.2** Effect of Agar-Free *Gelidium amansii* on Obesity in DIO C57BL/6J Mice Model **S. Choi, H. Oh, J. Jung, S. Park, Y.I. Park, S. Bak and M. Lee.** Sungshin Women's Univ. and Gachon Univ., South Korea.
- C284 **II 750.3** Inhibition of Acetyl-CoA Carboxylase Activity Prevents Adipocyte Differentiation in 3T3-L1 Cells **E.L. Cordonier, S. Jarecke, F.E. Hollinger and J. Zempleni.** Univ. of Nebraska-Lincoln.
- C285 **I 750.4** Network Analysis Identifies NR4A2 with Gene-Environment Interactions Influencing Inflammation Biomarkers Modified by Fatty Acid Intake in Two Populations **R. Hou, L.D. Parnell, C-Q. Lai, F.K. Kamanu, J.M. Ordovas and C.E. Smith.** USDA at Tufts Univ.
- C286 **II 750.5** Temporal Pattern of Circulating Leptin Levels and Obesity in Congenic Mice Carrying an Obesity Quantitative Trait Locus, *tabw2* **J.H. Kim and T. Stewart.** Marshall Univ. Sch. of Med.
- C287 **I 750.6** Inactivation of Adipose Angiotensinogen Reduces inflammatory Adipokines and Adipose Tissue Macrophages **M.J. LeMieux, C. Polizzi, R. Mynatt, N.S. Kalupahana, L. Ramalingam, S. Scoggin, A. Quignard-Boulange and N. Moustaid-Moussa.** Texas Tech Univ.; Pennington Biomed. Res. Ctr., Baton Rouge; Univ. of Peradeniya, Sri Lanka and AgroParisTech.
- C288 **II 750.7** Saturated Fatty Acids Differentially Affects Adipocytes and Muscle Cells **Y. Li, T. Gonzalez and C. Fernandez.** Texas A&M Univ.-Kingsville.
- C289 **I 750.8** PNPLA3 Variants Are Associated with Obesity and Interact with Meat and Dairy Intake in Hispanic and Non-Hispanic White Americans **N. Lin, C. Smith, A. Frazier-Wood, L. Parnell, S. Noel, J. Maras, Y-C. Lee, Y-Y. Ma, R-X. Hou, M. Allison, M. Averill, J. Rotter, K. Tucker, J. Ordovas and C-Q. Lai.** USDA at Tufts Univ.; USDA, Houston; Umass Lowell; UCSD; Univ. of Washington and Harbor-UCLA Med. Ctr.
- C290 **II 750.9** Eicosapentaenoic Acid Increases Brown Adipose Tissue Thermogenic Markers in High Fat Fed Mice **M. Pahlavani, F. Razafimanjato, N.S. Kalupahana, S. Scoggin, L. Ramalingam and N. Moustaid-Moussa.** Texas Tech Univ. and Univ. of Peradeniya, Sri Lanka.
- C291 **I 750.10** Effects of Plasma Phospholipid Fatty Acid Composition and PPAR- α L162V Polymorphism on C-Reactive Protein Levels in Response to an n-3 Fatty Acid Supplementation **B.L. Tremblay, I. Rudkowska, S. Lemieux, P. Couture and M-C. Vohl.** Laval Univ. and CHU Quebec Res. Ctr.

751. NUTRIENT-GENE INTERACTIONS: BIOMARKERS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C292 **II 751.1** Common rs3808607 Polymorphism in the Cholesterol 7 α -Hydroxylase (*CYP7A1*) Gene Determines the Degree of Responsiveness of Circulating Cholesterol Concentrations to Dairy Consumption **M. Abdullah, P. Eck, P. Couture, B. Lamarche and P. Jones.** Univ. of Manitoba and Laval Univ., Quebec.
- C293 **I 751.2** Predicting the Impact of Folic Acid Fortification, Ready-to-Eat Cereals and Supplement Use on the Risk of Neural Tube Defects in the United States **K.S. Crider, O. Devine, Y.P. Qi, S. Tinker and R.J. Berry.** Ctrs. for Dis. Control and Prevent. and Carter Consulting Inc., Atlanta.
- C294 **II 751.3** Leptin Gene Polymorphism and Blood Pressure Changes during Pregnancy and Early Postpartum: Longitudinal Study **D.R. Farias, J. Trujillo, M. Martins and G. Kac.** Fed. Univ. of Rio de Janeiro.
- C295 **I 751.4** Biomarkers of Oxidative Stress Induced by Leachates from Lagos, Nigeria as Indicators of Environmental Pollution in African Cat Fish (*Clarias gariepinus*) **F.I. Osuala, A.A. Otitolaju and N.M. Igwo-Ezikpe.** Univ. of Lagos and Col. of Med., Lagos, Nigeria.
- C296 **II 751.5** Ranges of Phenotypic Flexibility in 100 Healthy Subjects **S. Wopereis, G. Bakker, C. de Jong-Rubingh, A. Dijk-Stroeve, T. van den Broek, B. van Ommen and M. van Erk.** TNO, Zeist, Netherlands.

752. DIET AND CANCER: MOLECULAR TARGETS

Poster

(Sponsored by: Diet and Cancer RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C297 **I 752.1** Induction of Autophagy and Inhibition of Oncoprotein Aurora-A Activity in Curcumin-Enhanced Chemosensitivity of Grade III Human Bladder Cancer T24 Cells to FDA-Approved Anticancer Drugs **C-L. Su and Y-W. Fan.** Natl. Taiwan Normal Univ.
- C298 **II 752.2** Proliferative Effect of 17 β -Trenbolone on Human Prostate Cancer Cell Line **H-S. Lee, E-J. Park, S. Han, G-Y. Oh, M-H. Kim, K-S. Lee, G. Moon, M-S. Hwang and I-G. Hwang.** Ministry of Food and Drug Safety, Cheongju, South Korea.
- C299 **I 752.3** Resveratrol and Pterostilbene Regulate MED28 Expression and Cell Growth in Human Breast Cancer Cells **A-C. Cheng, N-T. Hsieh, C-Y. Huang, H-C. Chang and M-F. Lee.** Chang Jung Christian Univ. and China Med. Univ., Taiwan.
- C300 **II 752.4** Butyrate and Deoxycholic Acid Play Common and Distinct Roles in HCT116 Human Colon Cell Proliferation **H. Zeng, K. Claycombe and K. Reindl.** USDA, Grand Forks and North Dakota State Univ.

- C301 **I 752.5** Omega-3 Polyunsaturated Fatty Acids Decrease Growth and microRNA-21 Expression of Estrogen Receptor-Positive MCF-7 Breast Cancer Cells **L. LeMay-Nedjelski, J.K. Mason, A. Taibi, E.M. Comelli and L.U. Thompson.** Univ. of Toronto.
- C302 **II 752.6** Synergistic Impact of *d*- δ -Tocotrienol and Geranylgeraniol in Human DU145 Prostate Carcinoma Cells **H. Yeganehjo, R. DeBose-Boyd and H. Mo.** Texas Woman's Univ.; HHMI, Univ. of Texas Southwestern Med. Ctr. and Georgia State Univ.
- C303 **I 752.7** Urolithin A, Walnut Polyphenol Metabolite, Causes Cell Cycle Arrest and Apoptosis in Prostate and Breast Cancer Cells **C. Sánchez-González, C.J. Ciudad, V. Noé and M. Izquierdo-Pulido.** Univ. of Barcelona.
- C304 **II 752.8** Induction of Anticarcinogenic Marker NQO1 Enzyme by Soybean-Derived Glyceollins in Colorectal Cancer Cells **G.R. Jo, J.Y. Seo, S.J. Kang, M.S. Kim, H-K. Ji, Z. Erdenebileg, H.J. Suh and J-S. Kim.** Kyungpook Natl. Univ., South Korea.
- C305 **I 752.9** Effects of Black Chokeberry (*Aronia melanocarpa*) Extracts on Adhesion, Invasion and Migration in SK-Hep1 Human Hepatoma Cancer Cells **E-S. Hwang and N. Do Thi.** Hankyong Natl. Univ., South Korea.
- C306 **II 752.10** Walnut Phenol Extracts Inhibit Stemness of Colon Cancer Stem Cells In Vitro **Y-S. Kim, S-W. Choi, S.J. Min, J. Lee and Y. Kim.** Ewha Womans Univ. and CHA Univ.
- C307 **I 752.11** Tumor Progression Locus 2 Depletion Inhibits Hepatic Inflammation and Steatosis and Incidence of Hepatocellular Carcinoma **X. Li, C. Liu, C.P. Stice, B.C. Ip, K-Q. Hu, A.S. Greenberg and X-D. Wang.** USDA at Tufts Univ. and Sch. of Publ. Hlth., Med. Col. of Soochow Univ.
- C308 **II 752.12** *Mallotus furetianus* Caused the Inhibition of Proliferation through Activation of p21 in Ehrlich Ascites Tumor Cells **Y. Shimizu, X. Huang, T. Shirahata, Y. Kobayashi, I. Matsui-Yuasa and A. Kojima-Yuasa.** Grad. Sch. of Human Life Sci., Osaka City Univ. and Sch. of Pharmaceut. Sci., Kitasato Univ.
- C309 **I 752.13** Cancer Preventive Mechanisms by Exercise: Activation of p53 and p53-Related IGF-1 Pathway Regulators **M. Yu, B. King, E. Ewert, X. Su, N. Mardiyati, S. Lim and W. Wang.** Kansas State Univ.
- C310 **II 752.14** Green Tea Extract and Curcumin Enhanced the Benefit of EPA on Muscle Wasting **M. Luo, K. Mirza, S. Pereira, A. Voss, M. Tisdale and T. Das.** Abbott Nutr. and Aston Univ., UK.
- C311 **I 752.15** Black Raspberry Constituents and Genistein Do Not Alter the Effectiveness of Taxane Chemotherapy in Human Prostate Cancer Cells **J.N. Eskra, A. Dodge and M.C. Bosland.** Univ. of Illinois at Chicago.
- C312 **II 752.16** Docosahexaenoic Acid and Doxorubicin Act Synergistically to Disrupt Cell Cycle and Increase Cell Death of MDA-MB-231 Breast Cancer Cells **M. Newell, V. Mazurak and C.J. Field.** Univ. of Alberta.
- C313 **I 752.17** Selenoprotein W Inhibits the c-Met Oncogene by Regulating Receptor Ubiquitination **C.R. Wilcox, Z. Alkan and W.C. Hawkes.** Univ. of California, Davis and USDA, Davis.
- C314 **II 752.18** Delta Tocotrienol Inhibits MMP-9 Dependent Invasion and Metastasis of Non-Small Cell Lung Cancer Cell by Suppressing Notch-1 Mediated NF- κ B and uPA Pathways **L.D. Rajasinghe, R.S.H. Pindiprolu, N. Razalli, Y. Wu and S.V. Gupta.** Wayne State Univ.
- C315 **I 752.19** Thymoquinone from *Nigella sativa* Seeds Promotes the Antitumor Activity of Topotecan in Human Colorectal Cancer Cell Lines **S. Rizk, R. Khalifeh, M.H. Hodroj and R. Fakhoury.** Lebanese Amer. Univ. and Beirut Arab Univ.
- C316 **II 745.6** Effects of Polyphenols on the Endogenous Formation of Nitroso Compounds in Simulated Gastric Conditions **V. Sági-Kiss, M. Pitzalis and G.G. Kuhnle.** Univ. of Reading, U.K.
- C317 **I 752.20** Chemopreventive Effects of Nobiletin on Azoxymethane-Induced Colon Carcinogenesis in Rats Is Associated with Inhibition of Heat Shock Proteins **X. Wu, M. Song, Z. Gao, J. Zheng and H. Xiao.** Univ. of Massachusetts Amherst.
- C318 **II 752.21** The Heat Shock Proteins Are Novel Targets for Nobiletin in Human Cancer Cells **Z. Gao, J. Zheng, K. Dimova, S. Scordilis and H. Xiao.** Univ. of Massachusetts Amherst and Smith Col.

753. DIET AND CANCER: ANIMAL STUDIES

Poster

(Sponsored by: Diet and Cancer RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C319 **I 753.1** Targeting Colon Cancer with Dietary Bioactive Agents **M. Waly, N. Guizani and M.S. Rahman.** Sultan Qaboos Univ., Oman.
- C320 **II 753.2** Apiaceous and Cruciferous Vegetables Fed in the Post-initiation Stage Have Different Effects on Colonic Preneoplastic Lesions in the Rat **S. Kim, S.P. Trudo and D.D. Gallaher.** Univ. of Minnesota.
- C321 **I 753.3** Do Resistant Starches Have Long-Term Protective Effects against Colorectal Cancer? **N. Shah, N. Cray, D. Pralle, K. Thompson, R. Faldet, E. Whitley, J-L. Jane, S. Hendrich and D.F. Birt.** Iowa State Univ.
- C322 **II 753.4** Impact of Dietary Broccoli on Liver Cancer in B6C3F1 Male Mice Fed a Western Diet **Y-J. Chen, M.A. Wallig and E.H. Jeffery.** Univ. of Illinois at Urbana-Champaign.
- C323 **I 753.5** Inhibition of Colon Carcinogenesis by 5-Demethylnobiletin in Azoxymethane-Treated Rats **M. Song, X. Wu, M. Wang and H. Xiao.** Univ. of Massachusetts Amherst.
- C324 **II 753.6** The Effect of Dietary Polyunsaturated Acid Concentration and n6:n3 Ratio on Azoxymethane + Dextran Sodium Sulfate Inflammation-Associated Colorectal Cancer **K.J. Hintze, S. Kellen, D.P. Larson, R.E. Ward, M. Lefevre, N. Hergert and A.D. Benninghoff.** Utah State Univ.
- C325 **I 753.7** Preventive Effects of American Style Natural Raw Meal on Azoxymethane/Dextran Sulfate Sodium-Induced Colitis-Associated Colon Cancer in C57BL/6J Mice **K-Y. Park, J-L. Song, S.H. Shin, M.G. Park and S.J. Hwang.** Pusan Natl. Univ. and Erom R&D Ctr., Chuncheon, South Korea.
- C326 **II 753.8** Effects of 7, 12-Dimethylbenz[a]anthracene (DMBA) Treatment on Serum Oxidative and Nitrosative Stress in Obese Zucker Rats **R. Hakkak, S. Korourian, T. Evans, O. Pavliv and S. Melnyk.** Univ. of Arkansas for Med. Sci. and Arkansas Children's Hosp. Res. Inst.

- C327 **I 753.9** Relationships of Prostaglandin E₂ with Fatty Acid Concentrations and Gene Expression in Colon of Individuals at Increased Risk of Colon Cancer **E.H. Sidahmed, A. Sen, J. Ren, K. Turgeon, M. Ruffin, D. Brenner and Z. Djuric.** Univ. of Michigan.
- C328 **II 753.10** Promotion of Inflammation-Associated Colon Tumorigenesis by the Total Western Diet in the *APC^{min/+}* Mouse **D.P. Larson, K.J. Hintze, R.E. Ward, M. Lefevre, A. Hunter, S. Quarnberg and A.D. Benninghoff.** Utah State Univ.
- C329 **I 753.11** Anti-carcinogenic Properties of Camel Milk Protein, β -Casein, against Azoxymethane-Induced Cancer in Rat Colon **A. Al-Alawi and M. Waly.** Sultan Qaboos Univ., Oman.
- C330 **II 753.12** Development of a Murine Model of Chemobrain to Evaluate the Efficacy of Nutritional Intervention **A.A. Sheriff, T.K. Bhattacharya, E.J. Roy, J.S. Rhodes, W.G. Helferich and H. Chen.** Univ. of Illinois at Urbana-Champaign.
- C331 **I 753.13** Low-Lycopene Tomato Powder Alters Prostate Biology in TRAMP Mice **L. Conlon, M. Wallig and J.W. Erdman.** Univ. of Illinois, Urbana.
- C332 **II 753.14** β -Thujaplicin Suppressed Estrogen Receptor Negative Mammary Tumor Growth and Regulated the Cell Cycle Progression **C. Bao, M. Kim, J. Ko, H-C. Park and H.J. Lee.** Chung-Ang Univ., South Korea.
- C333 **I 753.15** Anti-androgenic Effect of Fatty Acids and Phytosterols in Saw Palmetto Extract on Growth of Syrian Hamster Androgen-Sensitive Flank Organ **A.B. Opoku-Acheampong, K. Penugonda, N.M. Fiorentino and B.L. Lindshield.** Kansas State Univ.
- C334 **II 753.16** Obesity-Induced Intestinal Tumorigenesis Is Associated with Inflammatory Cytokines and Activation of Pro-tumorigenic Signaling Pathways in the Colon **A.C. Pflazer, L. Iyer, L.D. Parnell, A. Tai, Z. Liu, J.B. Mason and J. Crott.** USDA at Tufts Univ.; Tufts Univ. Sch. of Med.; Tufts Univ.; Univ. of Massachusetts Amherst and USDA, Boston.
- C338 **II 754.4** Neonatal Pig Femur Integrity Responses to Dietary Vitamin D and P Depend on Maternal Dietary Vitamin D **L.A. Amundson and T.D. Crenshaw.** Univ. of Wisconsin-Madison.
- C339 **I 754.5** Hippocampal Metabolites Correlate with Neuroimaging Outcomes in the Piglet **A.T. Mudd, L.S. Alexander, R.V. Waworuntu, B.M. Berg, S.M. Donovan and R.N. Dilger.** Univ. of Illinois, Urbana and Mead Johnson Nutr., Evansville.
- C340 **II 754.6** Dendritic Spine Density of Rat Hippocampal Neurons Is Increased following Consumption of Diet Containing a Prebiotic Blend and Bioactive Whey Protein Fractions **R.V. Waworuntu, T. Hanania, C. Rex and B.M. Berg.** Mead Johnson Nutr., Evansville, IN; PsychoGenics Inc., Tarrytown, NY and Afraxis Inc., La Jolla.
- C341 **I 754.7** Effects of Maternal Vitamin D Deficiency during Pregnancy on the Long-Term Metabolic Health of Offspring **A.M. Belenchia, C.S. Rosenfeld, S.A. Johnson and C.A. Peterson.** Univ. of Missouri-Columbia.
- C342 **II 754.8** Establishment of a Transgenic Quail Model and an Ex Vivo Culture System of Yolk Sac Membrane Endodermal Epithelium Cell for Studying Functions of Individual Genes in Avian Embryonic Development **H.J. Lin, H.J. Mersmann and S. Ding.** Bio-Resources and Agr., Taipei and Col. of Med., Palm Harbor, FL.
- C343 **I 754.9** Early Exposure to Phytosterols Protects Offspring from Hypercholesterolemia Induced by Maternal Cholesterol Feeding in Syrian Golden Hamsters **J. Liu, A. Raslawsky, C. Movsesian, M.S. Patel and T.C. Rideout.** SUNY at Buffalo.
- C344 **II 754.10** Postnatal Iron Deficiency Impairs White Matter Development in Neonatal Piglets **B.J. Leyshon and R.W. Johnson.** Univ. of Illinois, Urbana.
- C345 **I 754.11** Milk Oligosaccharides Modulate Colonic Microbiota of Formula-Fed Piglets **S.K. Jacobi, T. Yatsunenkov, B.M. Berg, M. Chichlowski and J. Odle.** North Carolina State Univ.; Second Genome Inc., South San Francisco and Mead Johnson Pediat. Nutr. Inst., Evansville.
- C346 **II 754.12** Interesterified Fat or Palm Oil as Substitutes for *Trans* Fat in Maternal Diet Can Predispose Obesity and Inflammation in Adult Male Offspring **P. De Velasco, F. Fernandes, D. Mucci, R. Santos, T. Magri, V. Misan and M. Tavares do Carmo.** Fed. Univ. of Rio de Janeiro.
- C347 **I 754.13** Maternal Undernutrition Affects Expression of Genes Associated with Ileal Development and Metabolism in Full-Term Offspring **C. Man, Y. Fan, H. Lima, S. Jacobi, S. Lui, J. Odle and L. Xi.** North Carolina State Univ.
- C348 **II 754.14** Interaction of Pre-natal and Post-weaning High Fat Diet on Adult Mouse Skeletal Muscle Vitamin D Homeostasis **L.R. Green, M.F. Godden, M.L. Doherty, L.E. Jones, K.R. Poore and F.R. Cagampang.** Univ. of Southampton.
- C349 **I 754.15** Impact of the Dietary Lipid Matrix on Neurodevelopmental Patterns of the Piglet **R.M. Jacob, A.T. Mudd, C-S. Lai and R.N. Dilger.** Univ. of Illinois, Urbana and Abbott Labs., Columbus.
- C350 **II 754.16** Maternal Metformin Treatment in Obese Pregnancy: Sex Differences in Its Effect on Offspring Metabolism **F.R. Cagampang, C.D. Byrne and H.N.B. Thomas.** Univ. of Southampton.

754. EXPERIMENTAL ANIMAL NUTRITION: ANIMAL MODELS OF FETAL NUTRITION, PROGRAMMING AND NEONATAL DEVELOPMENT

Poster

(Sponsored by: Experimental Animal Nutrition RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C335 **I 754.1** Immunohistochemical Detection of Gut-Brain-Axis Markers along the Gastrointestinal Tract of Formula-Fed Piglets **K. Berding, M. Wang, M.H. Monaco, B. Berg, R. Waworuntu, R.N. Dilger and S.M. Donovan.** Univ. of Illinois, Urbana and Mead Johnson, Evansville.
- C336 **II 754.2** Choline and Betaine Supplementation Affects Biomarkers in Mice with Gestational Diabetes **J. Nam and X. Jiang.** Brooklyn Col.
- C337 **I 754.3** Impact of Prenatal Exposure to Humanized High Fat Diets on Murine Metabolic Phenotype **E.H. Marchlewicz, Z. Djuric, B.N. Sanchez, K.E. Peterson and D.C. Dolinoy.** Univ. of Michigan.

- C351 I 754.17 A Prebiotic Blend of Polydextrose and Galactooligosaccharides with Bioactive Whey Protein Fractions Ameliorates Stress-Evoked Disruptions in Sleep States **R.S. Thompson, R. Roller, A. Mika, B.N. Greenwood, M. Chichlowski, B.M. Berg and M. Fleshner.** Univ. of Colorado Boulder; Mead Johnson, Evansville, IN and Univ. of Colorado.
- C352 II 754.18 Effect of Maternal Iron Overload on Offspring's Liver Injury in Rats **A. Ma, J. Cui, Y. Jiang, Y. Sun, X. Han, J. Cai and D. Wu.** Med. Col. of Qingdao Univ., China and USDA at Tufts Univ.
- C353 I 754.19 Maternal Supplementation of Phytosterols to a High Cholesterol Diet during Pregnancy and Lactation Favorably Modulates Lipid and Lipoprotein Metabolism in Offspring **C. Movsesian, A. Raslawsky, J. Liu, M.S. Patel and T.C. Rideout.** Univ. at Buffalo, SUNY.
- C354 II 754.20 Protein Synthesis Is Impaired in Low Compared to Normal Birth Weight Neonatal Pigs **H. Zhu, Y. Chen, S.R. McCauley and S.W. El-Kadi.** Virginia Tech.
- C355 I 754.21 Flaxseed Oil Supplementation during Lactation Change the Oxidative Balance at Adulthood **M.S. Figueiredo, P.N. Soares, E.P. Conceição, D.S. Guarda, X.X. Ai, P.C. Lisboa, E. Oliveira and E.G. Moura.** State Univ. of Rio de Janeiro.
- C356 II 754.22 Gestational Alcohol Exposure Impairs Maternal-Fetal Iron Homeostasis through Hepcidin Dysregulation **S.M. Smith and S. Huebner.** Univ Wisconsin-Madison.
- C357 I 754.23 Safflower Oil Intake during Pregnancy and Lactation Changes Biochemical Parameters of Weaning Rats **M. Batista-de-Oliveira Hornsby, M. Souza, M.S. Gomes, A.E. da Silva, M.F. Frazão, C.C. Santos and J.K. Soares.** Fed. Univ. of Pernambuco and Fed. Univ. of Campina Grande, Brazil.
- C358 II 754.24 Prenatal Protein Malnutrition Increases Activation of Parvalbumin Interneurons but Decreases Overall Activation in the Prefrontal Cortex of Adult Rats **A.C. Amaral, X. Wang, F. Mortazavi, J.A. McGaughy, D.J. Mokler, J.R. Galler, R.J. Rushmore and D.L. Rosene.** Boston Univ. Med. Sch.; Univ. of New Hampshire; Univ. of New England and Harvard Med. Sch.
- C359 I 754.25 Tissue Distribution of Oxidases and Transaminases mRNA in Broiler Chickens Fed with Methionine Isomers or Precursors **S. Zhang, B. Saremi, E. Gilbert and E. Wong.** Virginia Tech and Evonik Industries AG, Hanau, Germany.
- C360 II 754.26 Pancreatic Glucose Regulatory Gene Expression during the First Two Weeks Post-hatch Differs between Lines of Chickens Selected for Low or High Body Weight **G.A. Parker, L.H. Sumners, X. Zhao, C.F. Honaker, P.B. Siegel, M.A. Cline and E.R. Gilbert.** Virginia Tech.
- 755. EXPERIMENTAL ANIMAL NUTRITION: ANIMAL MODELS OF NUTRITION AND DISEASE**
- Poster**
- (Sponsored by: Experimental Animal Nutrition RIS)
- MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C361 I 755.1 Taste Preference in Cats Is Influenced by Physiological State **D.E. Jewell, D.A. Fritsch, H.M. Schiefelbein and M.A. Vanchina.** Hill's Pet Nutr. Inc., Topeka.
- C362 II 755.2 Beneficial Effects of Citrus Based Mixture Drinks on Behavior of Restraint-Stressed Rat **D-B. Kim, G-H. Shin, J-W. Oh, J-M. Kim, Y-H. Kim, J-H. Lee, J.S. Lee, I-J. Park, J.H. Cho and O-H. Lee.** Kangwon Natl. Univ. and Central Res. Inst., Hurum, South Korea.
- C363 I 755.3 Leucine Antagonizes Protein Degradation Induced by Endotoxin in Skeletal Muscle of Neonatal Pigs **A. Hernandez-Garcia, R.A. Orellana, A. Suryawan, D. Columbus, R. Manjarin, H. Nguyen and T. Davis.** CNRS, Baylor Col. of Med. and Texas Children's Hosp., Houston.
- C364 II 755.4 The Effect of Dietary Saturated and Unsaturated Fatty Acid on Gene Expression and Fatty Acid Composition of Various Tissues in Pre-ruminant Calves **C-Y. Tsai, W.I. Loucks, K.C. Ramsey, C.M. Scholte, M.E. Doumit and P. Rezamand.** Univ. of Idaho.
- C365 I 755.5 Formulation of the Total Western Diet for Pigs and Phenotypic Differences after a 12-Week Feeding Trial **K.J. Hintze, L. Cox, S. Kellen and S.C. Isom.** Utah State Univ.
- C366 II 755.6 Effects of Contaminated Fish Oil on Hepatic FAS and HMGCR Gene Expression and Liver Function Enzyme Activities **J.C. Lumibao and M.Y. Hong.** San Diego State Univ.
- C367 I 755.7 Effect of Heat Stress on Pig Skeletal Muscle Metabolism **L. Zhao, R. McMillan, Z. Zhang, G. Xie, L. Baumgard, S. El-Kadi, J. Selsby, J. Ross, N. Gabler, M. Hulver and R. Rhoads.** Virginia Tech and Iowa State Univ.
- C368 II 755.8 Acute Dextran Sodium Sulfate Dose Dependently Induces Colitis in Formula-Fed Piglets **S.K. Jacobi, A.J. Moeser, L.B. Borst, X. Lin and J. Odle.** North Carolina State Univ.
- C369 I 755.9 Riboflavin Binding Protein and Riboflavin Transport to Hen Eggs as an Educational Tool **M.A. Benore, A. Bhandari, M. Saruna and S.R. Smith.** Univ. of Michigan Dearborn.
- C370 II 755.10 Development of Novel Probiotic and Synbiotic Mouse Diets Containing *Bifidobacterium infantis*, Whole Cranberry Powder and Pectin **T. Nguyen, L.L. Kimble, B.D. Mathison and B.P. Chew.** Sch. of Food Sci., Washington State Univ. and Texas A&M Univ.
- C371 I 755.11 Injection of β -Hydroxybutyrate in the Lateral Ventricle Suppresses Luteinizing Hormone Release in Castrated Male Lambs **J.T. Mulliniks, B. Voy, B. Whitlock, S. Howard and S. Edwards.** Univ. of Tennessee, Knoxville.

- C372 **II 755.12** Influence of Beta-Hydroxybutyrate on Gene Expression of Hypothalamus and Pituitary Tissues in Castrated Male Lambs **B. Voy, J.T. Mulliniks, B. Whitlock, S. Howard, S. Edwards, J. Davitt, M. Stanton and S. Das.** Univ. of Tennessee, Knoxville.
- C373 **I 755.13** Increased Circulating Estradiol in Mice Fed a High-Fat Diet Does Not Attenuate Ovariectomy-Induced Bone Structural Deterioration **J.J. Cao.** USDA, Grand Forks.
- C374 **II 755.14** Dietary Vitamin D₃ Restriction Exacerbates Disease Pathophysiology in the Spinal Cord of the G93A Mouse Model of Amyotrophic Lateral Sclerosis **E. Moghimi, M. Kolahdouzan, S. Thampinathan, J.A. Solomon, A. Gianforcaro and M.J. Hamadeh.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.
- C375 **I 755.15** Vitamin D₃ Supplementation at 50x the Adequate Intake Attenuates Disease Pathophysiology in the Spinal Cord of Male, but Is Toxic in Female, G93A Mouse Model of Amyotrophic Lateral Sclerosis **E. Moghimi, S. Thampinathan, J.A. Solomon, A. Gianforcaro and M.J. Hamadeh.** York Univ., Canada.
- C376 **II 755.16** Effect of Aplysin on Immunomodulatory in Rats of Alcohol-Induced Hepatic Injury **H. Liang, Y. Liu, J. Liu, A. Ma, N. Ge and W. Wang.** Med. Col. of Qingdao Univ.; Baotou Med. Col. of Inner Mongolia Univ. of Sci. and Technol. and Col. of Basic Sci. of Qingdao Univ., China.
- C377 **I 755.17** Effect of d-Limonene on Iron Metabolism in Rats with Alcoholic Liver Injury **H. Liang, Y. Liu, T. Sun, W. Wang and A. Ma.** Med. Col. of Qingdao Univ. and Col. of Basic Sci. of Qingdao Univ., China.
- C378 **II 755.18** Protective Effect of Aplysin on IKK/NF- κ B Signaling Pathway and Related Cytokines in Rats Exposed to Ethanol **W. Wang, N. Ge, A. Ma, M. Liu and H. Liang.** Med. Col. of Qingdao Univ., China and Baotou Med. Col. of Inner Mongolia Univ. of Sci. and Technol.
- C379 **I 755.19** Investigating Tissue Level Gene-by-Diet Interactions with Metabolomics **A. Wells, B. Barrington, D. Threadgill, S. Campagna and B. Voy.** Univ. of Tennessee, Knoxville and Texas A&M Univ.
- C380 **II 755.20** Hormonal Profile in Overweight Cats: Retrospective Study **C. Amato, L. Jaillardon, V. Leray, P. Nguyen and B. Siliart.** Oniris, Nantes.
- C381 **I 755.21** Effects of Soybean Embryo on Lipid Metabolism of Non-alcoholic Fatty Liver Disease in C57BL/6 Mice Fed a High Cholesterol and High Fat Diet **J. Hong and H-S. Kim.** Col. of Human Ecol., Sookmyung Women's Univ., South Korea.
- 756. EXPERIMENTAL ANIMAL NUTRITION: ANIMAL MODELS FOR NUTRITION ACROSS PHYSIOLOGICAL STATES**
- Poster**
- (Sponsored by: Experimental Animal Nutrition RIS)
- MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C382 **I 756.1** Vitamin D in Serum of Non-pregnant, Pregnant and Lactating Rhesus Monkeys **A.M. Preston, I.V. Rodriguez, E. Maldonado and J. Rodriguez-Orengo.** Univ. of Puerto Rico-Med. Sci. Campus.
- C383 **II 756.2** Effect of Prolonged Consumption of Sweeteners in CD1 Mice in Lymphocyte Populations from Different Lymphoid Organs **B.E. Martinez-Carrillo, J.A. Escoto-Herrera, R. Valdés-Ramos, R.A. Jarillo-Luna and A.D. Benitez.** Autonomous Univ. of Mexico State, Toluca.
- C384 **I 756.3** The Study of the Anti-obesity Effect of Dairy Administration Green Tea Extract in High Fat Diet-Induced Obese Rats **C-H. Chan, M-H. Fan, J-X. Li and H-Y. Huang.** Shih Chien Univ., Taipei City.
- C385 **II 756.4** The Effect of Lactoferrin on Immunomodulatory in OVA-Induced Immunocompromised Mice **Y-T. Lin, C-H. Chan and H-Y. Huang.** Shih-Chien Univ., Taiwan.
- C386 **I 756.5** Anti-hyperglycemia Effect of *Lactobacillus reuteri* GMNL-89 through Modulating of PPARs and Energy Metabolism Related Genes Expression in Insulin-Resistant Rats **M-H. Fan, W-K. Huang, C-H. Chan and H-Y. Huang.** Shih Chien Univ.
- C387 **II 756.6** Dairy Administration of *Lactobacillus reuter* 263 Suppresses Body Fat Synthesis and Alters the Body Composition on High Fat Diet-Induced Obese SD Rats **S-P. Tsao, Y-T. Lin and H-Y. Huang.** Shih Chien Univ., Taiwan.
- C388 **I 756.7** Anti-diabetic Effects of Propolis in High Fat Diet Fed-Streptozotocin-induced Type 2 Diabetic Rat **H-W. Tang, C-H. Chan, Y-T. Lin and H-Y. Huang.** Shih Chien Univ., Taiwan.
- C389 **II 756.8** Differential Effects of Blueberry Polyphenols on Age-Associated Neuroinflammation and Cognition **N. Thangthaeng, M.G. Miller, S.M. Poulouse, D.F. Bielinski, D.R. Fisher and B. Shukitt-Hale.** USDA at Tufts Univ.
- C390 **I 756.9** Heat Stress and LPS Activate Multiple Signaling Pathways to Regulate Cytokine Expression in Macrophages **K. Ajuwon and Z. Hua.** Purdue Univ. and Sichuan Agr. Univ., China.
- C391 **II 756.10** GLP2 and EGF Stimulated EC Proliferation of TPN-Derived Enteroids **Y. Feng, F. Demehri and D.H. Teitelbaum.** Univ. of Michigan.

757. NUTRITION IMMUNOLOGY: NUTRITION AND INFECTION

Poster

(Sponsored by: Nutritional Immunology RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C392 **I 757.1** Impact of Hospital-Acquired Infection on Vitamin D Status in Critically Ill Patients **B.L. Peterson, J.A. Alvarez, J.L. Jones, G. Hebbar, D.P. Griffith, N. Dave, L. Hao, K.A. Easley, N. Shenvi, V. Tangpricha and T.R. Ziegler.** Emory Univ.
- C393 **II 757.2** Vitamin D Status and Severity of Pneumonia in Ecuadorian Children **R.R. Mokhtar, M.F. Holick, F. Sempértegui, J.K. Griffiths, B. Estrella, L.L. Moore and D.H. Hamer.** Boston Univ.; Ecuadorian Corp. of Biotechnol. and Tufts Univ.
- C394 **I 757.3** Infection with *Entamoeba coli* and *Ascaris lumbricoides* Affects Energy, Nutrients and Foods Intake in Mexican Children **G.A. Zavala, C.M. Doak, O.P. García, M. Caamaño, D. Ronquillo, M. Campos-Ponce, K. Polman and J.L. Rosado.** VU Amsterdam Univ. and Autonomous Univ. of Queretaro, Mexico.
- C395 **II 757.4** Infection with *Ascaris lumbricoides* or *Entamoeba coli* Affect Differently Zinc Status in School-Aged Mexican Children **O.P. García, M. Caamaño, G. Zavala, M. Camacho, M. Campos-Ponce, K. Polman and J.L. Rosado.** Sch. of Nat. Sci., Autonomous Univ. of Querétaro, Mexico and Fac. of Earth and Life Sci., VU Univ. Amsterdam.
- C396 **I 757.5** Development and Application of a Novel Real-Time PCR Assay for *Citrobacter rodentium* Quantification **S. Sagaidak, B. Wen, A. Taibi, C.R. Villa and E.M. Comelli.** Univ. of Toronto.
- C397 **II 757.6** Association between Two Acute Phase Proteins with Hemoglobin in Preschool Children **K.M. Sullivan, P. Suchdev, D. Raiten, R. Flores, S. Namaste, V.J. Temple, M.K. Serdula, Z. Mei, M. Jefferds and R.D. Whitehead.** Ctrs. for Dis. Control and Prevent. and NICHD, NIH.
- C398 **I 757.7** Treated Malaria Does Not Affect Physical Growth and Hemoglobin Concentration of Young Children in Burkina Faso **J.W. Some, S. Abbeddou, E. Yakes Jimenez, S.Y. Hess, Z.P. Ouedraogo, R.M. Guissou, S.A. Vosti, J-B. Ouedraogo and K.H. Brown.** Univ. of California, Davis; Institut de Recherch en Sci. de la Santé and Univ. of New Mexico.
- C399 **II 757.8** Increased Bacterial Growth in Serum from Iron Supplemented Individuals **C. Cerami, J. Cross, R. Bradbury, A. Fulford, A.T. Jallow and A.M. Prentice.** Univ. of North Carolina at Chapel Hill; Med. Res. Council. Gambia and London Sch. of Hyg. & Trop. Med.
- C400 **I 757.9** Anemia and Iron Supplementation Is Not Associated with Malaria in Young Burkinabe Children **J.W. Some, S. Abbeddou, E. Yakes Jimenez, Z.P. Ouedraogo, J-B. Ouedraogo, K.H. Brown and S.Y. Hess.** Univ. of California, Davis; IRSS, Res. Inst. of Hlth. Sci., Bobo-Dioulasso, Burkina Faso and Univ. of New Mexico.

758. VITAMINS AND MINERALS: WATER AND FAT SOLUBLE VITAMINS AND CHRONIC DISEASE

Poster

(Sponsored by: Vitamins and Minerals RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C401 **II 758.1** γ -Carboxyethyl Hydroxychroman Preserves Nitric Oxide Bioavailability by Attenuating Oxidative Stress and Inflammation in Endothelial Cells Treated with High Glucose **Y. Li, L. Bharath, Y. Quan, E. Mah, Y. Guo, M. Hawkins, R.S. Bruno, P.V.A. Babu, T. Jalili and J.D. Symons.** Univ. of Utah and The Ohio State Univ.
- C402 **I 758.2** 25-Hydroxyvitamin D and Its C-3 Epimer in a Mouse Model of Non-melanoma Skin Cancer **M.D. Teegarden, K.M. Riedl, K.L. Tober, S.J. Schwartz and T.M. Oberszyn.** The Ohio State Univ. and The Ohio State Univ. Wexner Med. Ctr.
- C403 **II 758.3** Associations between Plasma Folate and Kidney Dysfunction in Type 2 Diabetes **Y-L. Liao, H-R. Jhang, H-F. Chung, M-C. Huang, C-C. Hsu and S-J. Hwang.** Kaohsiung Med. Univ.; Kaohsiung Med. Univ. Hosp., Taiwan; Sch. of Popul. Hlth., Univ. of Queensland and Natl. Hlth. Res. Insts., Zhunan, Taiwan.
- C404 **I 758.4** α -Tocopherol Bioavailability Is Lower in Adults with Metabolic Syndrome Regardless of Dairy Fat Consumption **E. Mah, T.N. Sapper, S.W. Leonard, M.G. Traber and R.S. Bruno.** The Ohio State Univ. and Oregon State Univ.
- C405 **II 758.5** Serum 25-Hydroxyvitamin-D₃ Response to a Large Bolus Dose of Cholecalciferol in Adult Patients with CF **W.A. Hermes, J.A. Alvarez, M.J. Lee, D. Lodin and V. Tangpricha.** Georgia State Univ. and Emory Univ. Sch. of Med.
- C406 **I 758.6** Maintenance of Vitamin D Status in Zucker Diabetic Fatty Rats by Dietary Resistant Starch Is Dependent on Colonic Fermentation **G.Y. Koh, S.E. Leow, L. Reed, E. Wisecup and M.J. Rowling.** Iowa State Univ.
- C407 **II 758.7** Vitamin D Deficiency in Early Life Leads to Food Allergy by Down-regulating Treg Cells in BALB/c Mice **K. Yang, J. Wu, Y. Zhong and W. Cai.** Shanghai Jiao Tong Univ. Sch. of Med.; Xin Hua Hosp.; Shanghai Key Lab. of Pediat. Gastroenterol. and Nutr. and Mead Johnson Pediat. Nutr. Inst., Shanghai.
- C408 **I 758.8** Influence of Usual Dietary Vitamin K Intake on Anticoagulation Outcomes **C. Leblanc, M-P. Dube, S. Dumas, É. Rouleau-Mailloux, P. Shahabi, M. Talajic, J-C. Tardif, S. Perreault and G. Ferland.** Inst. of Geriat., Univ. of Montreal; Cardiol. Inst. of Montreal and Univ. of Montreal.
- C409 **II 758.9** Effect of High-Dose Vitamin D Supplementation on Bone Density in Youth with Osteogenesis Imperfecta: A Randomized Controlled Trial **L. Plante, L-N. Veilleux, H. Weiler and F. Rauch.** McGill Univ. and Shriners Hosp. for Children, Montreal.

- C410 **I 758.10** Decreases in Circulating Uncarboxylated Osteocalcin Are Not Associated with HOMA-IR Changes in Humans **A.J. Centi, K. Shea, C.M. Gundberg, E. Saltzman and S.L. Booth.** USDA at Tufts Univ. and Yale Sch. of Med.
- C411 **II 758.11** Effect of Phylloquinone Supplementations on Inflammatory Markers in High-Fat Diet-Induced Obese Mice **C. Sohn and M. Kim.** Wonkwang Univ., South Korea.
- C412 **I 758.12** Serum 25-Hydroxyvitamin-D and Prostate Cancer U-Shaped Risk Curves: Does Latitude Play A Role? A Meta-Analysis of Case-Control Studies **T.S. Moreira-Lucas, T.M.S. Wolever and R. Vieth.** Univ. of Toronto.
- C413 **II 758.13** Biofortification of Eggs and Pork with Vitamin D as a Means of Increasing Dietary Supply **K.D. Cashman, S. Duffy, A. Hayes, K. Seamans, J. Kerry, A. Kelly, J. Jakobsen and J. O'Doherty.** University Col. Cork; University Col. Dublin and Tech Univ. of Denmark.
- C414 **I 758.14** Low Serum Folate Is Associated with Increased Risk of Chronic Kidney Disease Independently of Oxidative Stress and Antioxidant Capacities **Y-C. Huang, C-H. Chen, Y-H. Hsiao and W-C. Yang.** Chung Shan Med. Univ.; Chiayi Branch, Taichung Veterans Gen. Hosp. and Taichung Veterans Gen. Hosp., Taiwan.
- C415 **II 758.15** Whole Egg Consumption Completely Prevents Vitamin D Deficiency in Type 2 Diabetic Rats **S.K. Jones and K.L. Schalinske.** Iowa State Univ.
- C420 **I 759.5** Dietary Products Consumption in Relation to Serum 25-Hydroxyvitamin D and Selenium Level in Saudi Children and Adults **M. Alokail, N. Al-Daghri, O. Al-Attas, S. Yakout, N. Aljohani and H. Alfawaz.** King Saud Univ. and King Saud bin Abdulaziz Univ. for Hlth. Sci.
- C421 **II 759.6** Disease Associated Variations in Glutathione Peroxidase-1 Affect Its Subcellular Localization and Function **D.N. Ekoue, S. Bera, F. Weinberg, K.A. Fricano, M. Mao, M.G. Bonini and A.M. Diamond.** Col. of Med., Univ. of Illinois at Chicago.
- C422 **I 759.7** Modulation of Intestinal Microbiota by Dietary Selenium and 15kDa Selenoprotein Expression in Inflammatory Colon Cancer **J.A. Canter, S. Sheckells, C.V. Saylor, A. Patterson, B.A. Carlson, V.N. Gladyshev, Y. Yu, L. Cao, M. May, C.D. Davis, D.L. Hatfield and P.A. Tsuji.** Towson Univ.; NCI, NIH; Brigham and Women's Hosp., Harvard Med. Sch.; NCI, NIH; Univ. of New England and ODS, NIH.
- C423 **II 759.8** Effect of Dietary Bioactive Compounds on Thioredoxin Reductase 1 and 15kDa Selenoprotein Expression in Colon Cancer Cells **L.E. Rosso, S.E. Galinn, B.A. Carlson, R. Tobe, S. Naranjo-Suarez and P.A. Tsuji.** Towson Univ.; NCI, NIH and Johns Hopkins Univ.
- C424 **I 759.9** The 15kDa Selenoprotein Expression May Be Regulated through the AhR Pathway **S.E. Galinn, L.E. Rosso, B.A. Carlson, R. Tobe, S. Naranjo-Suarez and P.A. Tsuji.** Towson Univ.; NCI, NIH and Johns Hopkins Univ.
- C425 **II 759.10** Effect of Long-Term Dietary Selenium Deprivation and Aging on Gut Microbiota in Short Telomere Mice **H-Y. Lu, R. Wu and W-H. Cheng.** Mississippi State Univ. and Univ. of Maryland College Park.
- C426 **I 759.11** Selenium Surveillance: A New Option for China to Examine Selenium Contents in Major Sources of the Chinese Diet **L-p. Liu, X-w. Li, N-n. Zhang and S. Du.** Beijing Ctr. for Dis. Prevent. and Control; China Natl. Ctr. for Food Safety Risk Assessment, Beijing and Univ. of North Carolina at Chapel Hill.
- C427 **II 759.12** Roles of Nutritional Selenium in Mouse Aging and Age-Related Degenerations **R.T. Wu, L. Cao and W-H. Cheng.** Univ. of Maryland College Park and Mississippi State Univ.
- C428 **I 759.13** Effect of Long-Term Dietary Selenium Deprivation and Aging on Selenoprotein Transcriptome in Short Telomere Mice **L. Cao, R.T.Y. Wu and W-H. Cheng.** Mississippi State Univ. and Univ. of Maryland College Park.
- C429 **II 759.14** Selenium and Soy Modulate Different Processes in Tumor Progression in Transgenic Adenocarcinoma of Mouse Prostate Mice **L.A. Spencer, B.H. Bahme, J.K. Worden, P.M. Urie and M.J. Christensen.** Brigham Young Univ. and Utah Valley Reg. Med. Ctr., Provo.
- C430 **I 759.15** Selenium Status in Cognitively Impaired Korean Elderly Using INAA-Method **O. Lee, S.Y. Moon, S-U. Lee, J.H. Moon and Y.S. Chung.** Yongin Univ.; Sch. of Med., Ajou Univ.; Jungsun Clin., South Korea and Korea Atomic Energy Res. Inst., Daejeon.

759. VITAMINS AND MINERALS: SELENIUM

Poster

(Sponsored by: Vitamins and Minerals RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C416 **I 759.1** Potential Role of the 15kDa Selenoprotein in Colorectal Inflammation **P.A. Tsuji, B.A. Carlson, J.A. Canter, C. Onyewu, C.V. Saylor, R. Tobe, H.E. Seifried, Y. Yu, L. Cao, V.N. Gladyshev, C.D. Davis and D.L. Hatfield.** Towson Univ.; NCI, NIH; Brigham and Women's Hosp., Harvard Med. Sch. and ODS, NIH.
- C417 **II 759.2** Conditional Effect of Selenium on the Mammalian Hind Gut Microbiota **D. Taussig and G.F. Combs, Jr.** USDA, Grand Forks.
- C418 **I 759.3** Knockout of Gpx1 Exerted Differential Impacts on Responses of Lipid Metabolism-Related Genes to High Dietary Se Intake between Liver and Adipose Tissue **X. Lei, Z. Zhao and J. Kim.** Cornell Univ.
- C419 **II 759.4** Selenium Status Biomarkers and Selenium Requirements of Chickens (*G. gallus*) **J. Li and R.A. Sunde.** Univ. of Wisconsin-Madison and Northeast Agr. Univ., Harbin, China.

**760. VITAMINS AND MINERALS:
MICRONUTRIENT BIOAVAILABILITY AND
ANTIOXIDANT FUNCTION**

Poster

(Sponsored by: Vitamins and Minerals RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C431 **II 760.1** Stability of Whole Blood Antioxidants during Overnight Storage at 4°C **S.W. Leonard, G. Bobe and M.G. Traber.** Oregon State Univ.
- C432 **I 760.2** The Higher Calcium Absorption Associated with a High Fat Diet Is Not Due to Intestinal Calcium Availability **E. Bandali, M. Rogers and S. Shapses.** Rutgers Univ.
- C433 **II 760.3** Flame-Made Calcium Phosphate/Carbonate Nanopowders for Nutrition **J.T. Knijnenburg, L. Posavec, F.M. Hilty and M.B. Zimmermann.** ETH Zurich.
- C434 **I 760.4** Mutual Interactions among Antioxidative Nutrients, Antioxidant Enzymes and Urinary Biomarkers of Oxidative Stress in Guatemalan Preschoolers in the Western Highlands **M.J. Soto Mendez, C.M. Aguilera, M.D. Mesa, L. Campaña, V. Martin, N.W. Solomons, K. Schuemann and A. Gil.** Ctr. for Studies of Sensory Impairment Aging and Metabolism; Univ. of Granada and Tech Univ. Munich.
- C435 **II 760.5** Bioavailability of Potassium from Potato and Potassium Gluconate **C.J. Macdonald-Clarke, B.R. Martin, L.D. McCabe, G.P. McCabe, P.J. Lachcik and C.M. Weaver.** Purdue Univ.
- C436 **I 760.6** Antioxidant and Quality Evaluation of Saudi Triticale **A.S. Alkhalifh and H. Ali.** King Saud Univ.

761. VITAMINS AND MINERALS: ZINC

Poster

(Sponsored by: Vitamins and Minerals RIS)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C437 **II 761.1** Effects of a Hypocaloric Diet and Exercise Intervention on Circulating Zinc and Inflammatory Markers in Obese, Sedentary, Insulin-Resistant Women **L.R. Woodhouse, S.H. Adams, D. Burnett, G.A. Casazza, C.J. Chandler, J. Domek, M. Gustafson, N.L. Keim, C. Sheets and E. Souza.** USDA, Davis; Univ. of California Davis Med. Ctr. and UCSF.
- C438 **I 761.2** Milk Enhances In Vitro Accessibility and Fractional Absorption of Zinc from High Phytate Intrinsically Labeled Rice in Humans **A. Melse-Boonstra, E.F. Talsma, A. Fitri, R. Dekkers, E. van den Heuvel, E. Boelsma, S. Ly, T.J. Stomph, C. Zeder and D. Moretti.** Wageningen Univ. ; Friesland Campina BV; Wageningen Univ. and Res. Ctr., Netherlands and Swiss Fed. Inst. of Technol.
- C439 **II 761.3** The Size of the Exchangeable Zinc Pool Is Related to Age, Body Size, Gender and Plasma Zinc Concentration in Adults **L.V. Miller, M. Hambidge, J.C. King and N.F. Krebs.** Univ. of Colorado Denver, Aurora and Children's Hosp. Oakland Res. Inst.
- C440 **I 761.4** Increased Oxidative Stress and Vascular Aging by Zinc Deficiency in Mice **G. Salazar, Y. Zhao and R.G. Feresin.** Florida State Univ.
- C441 **II 761.5** mir-548n Expression in HEPG2 and HEP2 Cells Is Affected by the Culture Medium Zinc Concentration **A. Grider, R.D. Lewis, E.M. Laing, A.A. Bakre and R.A. Tripp.** Univ. of Georgia and Univ. of Georgia Col. of Vet. Med.
- C442 **I 761.6** Zinc Overload Increases ROS Production and Induces Senescence by a Nox1-Dependent Mechanism in Vascular Smooth Muscle Cells **Y. Zhao, R.G. Feresin and G. Salazar.** Florida State Univ.
- C443 **II 761.7** Determination of Zinc in Serum and Urine during Pregnancy in Colombian Women of Low Socioeconomic Level by Colorimetric Method using Zincon **C.L. Vargas-Zapata, S.L. Coronado-Reyes, F. Gonzales Santiago, E. Garcia-Solano, K. Muñoz-Salas and N.J. Abdala-Vargas.** Univ. del Atlantico and Fac. of Med., Univ. Libre, Atlantico, Colombia.

Pathology

762. IMAGING AND BIOINFORMATICS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D369 **762.1** Health Effects of Electromagnetic Pollution Modeling Using Fuzzy Inference System **S. Boumaiza and S. Bouharati**. Fac. of SNV, Univ. Ferhat Abbas Setif and Fac. of Technol., Univ. Ferhat Abbas Setif, Algeria.
- D370 **762.2** Napsin A and Thyroid Transcription Factor-1 Immunohistochemistry in the Diagnosis of Canine Pulmonary Carcinomas **J. Beck, M. Miller, C. Frank, D. DuSold and J. Ramos-Vara**. Purdue Univ.; NCI, NIH and Colorado State Univ.
- D371 **762.3** Towards Single Cell Pathway Component Analysis in Diagnostic Pathology: Digitized Image Analysis **H.N. Gokozan, M.F. Ahmad Fauzi, B. Elder, J. Winter, V.K. Puduvalli, C.R. Pierson, M.N. Gurcan and J.J. Otero**. The Ohio State Univ.; Multimedia Univ., Malaysia and Nationwide Children's Hosp., Columbus.
- D372 **762.4** Transmission Electron Microscopy as a Novel Tool for Diagnostics of Infectious Agents in the Cerebrospinal Fluid **M. Pomiklova and I. Vidlickova**. Inst. of Publ. Hlth., Ostrava, Czech Republic.
- D373 **762.5** Mitochondria in Renal Tubules: Light Microscopic, Immunohistochemical and Enzyme Activity Analysis **Z. Zsengeller and S. Rosen**. Beth Israel Deaconess Med. Ctr.

763. THE INFLAMMATORY RESPONSE: RECRUITMENT AND ACTIVATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D374 **763.1** Macrophage Phenotype in Acute Porcine Vocal Fold Injuries **S.N. King, J. Guille and S.L. Thibeault**. Univ. of Wisconsin-Madison.
- D375 **763.2** LPS Ligation of TLR4 on Alveolar Macrophages Promotes PMN and CDR+ T Cell Transendothelial Migration **S. Al Heialy, A.A. Shaikh, A.M. Assiri, T. Rui, M. Nader and P. Kvietyts**. Alfaisal Univ., Riyadh; King Faisal Spec. Hosp. & Res. Ctr., Saudi Arabia and Affil. Peoples' Hosp. of Jiangsu Univ., China.
- D376 **763.3** Effects of the NOD2 Mutations E600A, T605P, and T605N on NF- κ B Activation **A.M. Domina, E. Stiles, R. Ewer, C. Bocian, S. Lee and M. Saab**. Husson Univ. Sch. of Pharm., ME.
- D377 **763.4** Prevalence of Metabolic Syndrome in Patients with End Stage Renal Disease and Relevance of Biomarkers **J. Saluk, V. Bansal, D. Hoppensteadt, D. Syed, S. Abro and J. Fareed**. Loyola Univ. Med. Ctr.

- D378 **763.5** IL6 Is Part of an Autocrine Loop in TNF- α /SFK Induced Increase in Endothelial Monolayer Permeability **H. Alsaffar, N.C. Martino, A. Lowery, A. Adam and P.A. Vincent**. Albany Med. Col.
- D379 **763.6** Bilirubin Inhibits the Transmigration of Monocytes across Endothelial Cell Monolayers: Implications for Atherosclerosis Prevention **M.E. Vogel, G. Idelman and S.D. Zucker**. Univ. of Cincinnati.
- D380 **763.7** Inhibition of Glutathione Production by L-Buthionine-(S,R)-Sulfoximine Induces Macrophage CD36 Expression **X. Yang, Y. Chen, L. Sun, Y. Duan and J. Han**. Nankai Univ., China.
- D381 **763.8** Airway Epithelial-Derived Exosomes on Protecting and Remodeling of the Lung **S. Abdelwahab, R. Gupta, G. Radicioni, L. Jones, H. Dang, W. O'Neal and K. Mehmet**. Univ. of North Carolina at Chapel Hill.

764. CARDIAC PATHOBIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D382 **764.1** Analysis of the Retinoblastoma Protein in Aortic Valve Calcification **M. Freytsis, P. Hinds and G. Huggins**. Tufts Univ. Sch. of Med. and Tufts Med. Ctr.
- D383 **764.2** Evidence for Time-Dependent and Adaptive Mechanisms in the Mitral Valve following Prolonged Angiotensin II Infusion **N.M. Thalji, M.A. Hagler, G.C. Verzosa, R.M. Suri and J.D. Miller**. Mayo Clin.
- D384 **764.3** Deficiency in DNA Repair Enzyme Ogg1 in Mice Leads to Impaired Mitochondrial Function and Cardiomyopathy **M.V. Ruchko, D.F. Alvarez, J.M. McLendon, O.M. Gorodnya, L.I. Rachek and M.N. Gillespie**. Univ. of South Alabama Col. of Med.
- D385 **764.4** Mitochondrial Transplantation in Cardiomyocytes: Rescue of Mitochondrial Function and Replacement of mtDNA **C.A. Pacak, J.M. Preble, H. Kondo, S. Levitsky, P.J. del Nido, D.B. Cowan and J.D. McCully**. Boston Children's Hosp.
- D386 **764.5** Role of Receptor for Advanced Glycation End Products in the Regulation of Human Epicardial Fat (EAT) Thickness and EAT Adipocyte Size **M.M. Corsi Romanelli, E. Vianello, M.G. Marazzi and E. Dozio**. Univ. of Milan and IRCCS. Policlin. San Donato, Milan.
- D387 **764.6** Growth Hormone Administration Influence on Soleus Muscle of Heart Failure Rats **A.R.R. Lima, R.L. Damatto, L.U. Pagan, M.J. Gomes, C. Bonomo, M.D.M. Cezar, F.C. Damatto, S.G. Zanati, K. Okoshi and M.P. Okoshi**. Botucatu Med. Sch. – UNESP, São Paulo.

765. GENETIC DISEASES AND GENE EXPRESSION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM–1:45 PM

- D388 **765.1** Alteration of Murine Regulator of Calcineurin 1 Results in Dymorphogenesis of Pancreatic Islets **G.T. Gurda, A.S. Baras, J.A. Williams and T.C. Cornish.** Univ. of Pittsburgh Med. Ctr.; Johns Hopkins Univ. and Univ. of Michigan.
- D389 **765.2** Expression of Non-collagenous Proteins in Facial Tissue of Children with Cleft Lip and Palate **L. Smane, M. Pilmene and I. Akota.** Riga Stradins Univ., Inst. of Anat. and Anthropol., Latvia.
- D390 **765.3** Cryosectioning Method for Microdissection of Murine Colonic Mucosa **C.T. Capaldo, A.E. Farkas and A. Nusrat.** Emory Univ.

766. HOST MEETS ENVIRONMENT: INJURY (HAVOC) AND HOST RESPONSES ENSUE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM–1:45 PM

- D391 **766.1** BRCA1-Mediated DNA Damage Response Is a Potential Player Involved in Mallory-Denk Body Formation in Alcoholic Hepatitis **H. Liu, B. French, J. Li, B. Tillman and S. French.** Harbor UCLA Med. Ctr.
- D392 **766.2** Effects of *Cryptococcus neoformans* and Minocycline on NK Cell CD69 and CD38 Expression as Surrogates for Activation **O.O. Lawal, C. Paige, A. Toney and W.H. Carr.** Medgar Evers Col., CUNY.
- D393 **766.3** Over-Generation Effects of Cigarette Smoking during Pregnancy Promote Allergic Susceptibility **K. Hamada, T. Ito, M. Sho and Y. Suzaki.** Nara Med. Univ., Japan.
- D394 **766.4** Characterizing the Protective Role of Pre-pubertal Status in Sepsis Outcomes **R. Filoramo, F. Suber and L. Kobzik.** Harvard Sch. of Publ. Hlth.
- D395 **766.5** Marine Hydroquinone Zonanol Prevents Inflammation and Apoptosis in Dextran Sulfate Sodium-Induced Mice Ulcerative Colitis **S. Yamada, T. Koyama, H. Noguchi, A. Nawata, T. Nakayama and T. Satoh.** Sch. of Med., Univ. of Occup. and Envrn. Hlth., Kitakyushu; Grad. Sch. of Marine Sci. and Technol., Tokyo and Sch. of Biosci. and Biotechnol., Tokyo Univ. of Technol.
- D396 **766.6** Characteristics of Skin Inflammatory Cells following Exposure of Mice to Sulfur Mustard **S. Kim, G.M. Composto, C.R. Croutch, R.P. Casillas, D.R. Gerecke, J.D. Laskin, D.E. Heck, L.B. Joseph and D.L. Laskin.** Rutgers Univ.; MRIGlobal Inc; Rutgers Univ.-RWJ Med. Sch. and New York Med. Col.
- D397 **766.7** Nitrogen Mustard Induces DNA Damage and Structural Changes in Mouse Skin Hair Follicles **G. Composto, S. Kim, D. Heck, J. Laskin, D. Laskin and L. Joseph.** Rutgers Univ. and New York Med. Col.

D398 **766.8** Increased Biomarkers of Metabolic Syndrome in Total Joint Arthroplasty Patients **A. Banos, W. Hopkinson, H. Rees, D. Syed, S. Abro, D. Hoppensteadt, O. Iqbal, J. Saluk and J. Fareed.** Loyola Univ. Med. Ctr., Maywood.

D399 **766.9** Mechanism of Na-H Exchanger-1 Expression in Experimental Colitis: Role of Carbonic Anhydrase **I. Khan and A. Al-Shamali.** Kuwait Univ.

D400 **766.10** Loss of $\alpha(1,3)$ -Fucosyltransferases 4 and 7 Exacerbates DSS-Induced Colitis **L.C. Mackey, J. Rose and J.W. Homeister.** Univ. of North Carolina at Chapel Hill.

D401 **766.11** Aquaporin 3 Promotes Intestinal Epithelial Proliferation and Inhibits Cytokine-Induced Apoptosis **E.E. Morgan, M.A. Peplowski and W.K. MacNaughton.** Univ. of Calgary, Canada.

D402 **766.12** Effect of Age on *Clostridium difficile* Infection in a Murine Model of Infection **A.G. Peniche and S.M. Dann.** Univ. of Texas Med. Branch.

D403 **766.13** **Withdrawn.**

D404 **766.14** The Role of TarA in Regulating Gene Expression and Physiological Processes in *Vibrio cholerae* **V.Y. Vargas-Zapata, M.E. Taveirne and V.J. DiRita.** Univ. of Puerto Rico Ponce and Univ. of Michigan.

D405 **766.15** Oxalate and Calcium Oxalate Crystal Involvement in Production of Urinary Macromolecules in an Animal Model of Nephrolithiasis **S.R. Khan, S. Joshi and A. Khan.** Univ. of Florida and Khyber Med. Univ., Pakistan.

D406 **766.16** Pyroptosis Is Induced by *Streptococcus pneumoniae* in Microglial Cells **Y.J. Jung and H.W. Lee.** Sch. of Pharm., Sungkyunkwan Univ., Souh Korea.

767. METABOLOMICS AND DISEASE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM–1:45 PM

D407 **767.1** Glucotoxicity Caused by Change in Hepatic Metabolic Pathways Leading to Type 2 Diabetes **D. Kapuria, B. Herndon and A. Molteni.** Univ. of Missouri-Kansas City.

D408 **767.2** Maspin Expression of Pancreatic Inflammation in an Obese Strain of Mice **L. Haldiman, A. Glazyrin, B. Herndon, D. Kapuria and A. Molteni.** Univ. of Missouri-Kansas City Sch. of Med.

D409 **767.3** Effects of Lutein Supplementation on the Prevention of Colonic Inflammation and Neoplasia in Mice **C. Liu, R.T. Bronson and X-D. Wang.** USDA at Tufts Univ. and Harvard Med. Sch.

D410 **767.4** High Salt Induces Developmental Defect during Pregnancy **C-T. Yen, C-H. Pai, C-L. Hong, S-K. Chang, I-S. Yu, S-R. Lin and S-W. Lin.** Col. of Med., Natl. Taiwan Univ. and Col. of Sci., Chung-Yuan Christian Univ.

Pharmacology

768. NEUROPHARMAOLOGICAL EFFECTS OF DRUGS OF ABUSE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D1 **768.1** Nicotine, Methamphetamine-Induced Dopaminergic Deficits, and the Impact on $\alpha 4\beta 2$ and $\alpha 6\beta 2$ Nicotinic Receptors **P.L. Vieira-Brock, L.M. McFadden, J. McIntosh, G.R. Hanson and A.E. Fleckenstein.** Univ. of Utah.
- D2 **768.2** Use of In Silico Docking and Peptide Mapping Studies with the Cocaine Analog MFZ 2 24 to Elucidate the Dopamine Transporter Cocaine Binding Site **P. Akula Bala, R.A. Dahal, D. Krout, B. Sharma, J.D. Foster, M.F. Zou, C.A. Boateng, A.H. Newman, J.R. Lever, R.A. Vaughan and L.K. Henry.** Univ. of North Dakota Sch. of Med. & Hlth. Sci.; NIDA, NIH, Baltimore; Truman Mem. VA Hosp. and Univ. of Missouri-Columbia.
- D3 **768.3** The Function of Cholinergic Input to the Ventral Tegmental Area **J. Santini, D. MacLaren and S. Clark.** Univ. at Buffalo, SUNY.
- D4 **768.4** Dopamine Transporter Expression and Transport Capacity Is Regulated by Palmitoylation **D.E. Rastedt, J.D. Foster and R.A. Vaughan.** Univ. of North Dakota.
- D5 **768.5** Sigma-1 Receptor Attenuates Methamphetamine Stimulation of Dopamine Transporter Activity **D. Sambo, M. Lin and H. Khoshbouei.** Univ. of Florida.
- D6 **768.6** Serotonin 5-HT_{2C} Receptors in the Ventral Subiculum Regulate Hippocampal-Mediated Behaviors in Rats **H. Neelakantan, S.J. Stutz, M.J. Bubar and K.A. Cunningham.** Univ. of Texas Med. Branch.
- D7 **768.7** Cocaine Photo-affinity Analogs Bind in the S1 Binding Pocket of the Dopamine Transporter Providing a Mechanism for Competitive Inhibition of Dopamine Uptake **D. Krout, R.A. Dahal, A.B. Pramod, B. Sharma, J.D. Foster, C.A. Boateng, J.H. Cha, J. Cao, M.F. Zou, A.H. Newman, J.R. Lever, R.A. Vaughan and L.K. Henry.** Univ. of North Dakota Sch. of Med. & Hlth. Sci.; NIDA, NIH, Baltimore; Truman Mem. Veterans' Hosp. and Univ. of Missouri-Columbia.
- D8 **768.8** Role of Ventral Tegmental Area TORC2 Signaling in Stress-Induced Morphine Reward **S. Kaska, M. Kechner and M.S. Mazei-Robison.** Michigan State Univ.
- D9 **768.9** Morphine Induced Changes of Gene Expression in the Differentiated SH-SY5Y Human Neuroblastoma Cell **K. Randell and C.B. Goodman.** Florida A&M Univ.
- D10 **768.10** Alterations in Brain Tissue Neurochemistry following Chronic 'Bath Salts' Exposure **S.A. Allen, B.B. Pond and S.A. Rednour.** East Tennessee State Univ. Col. of Pharm.
- D11 **768.11** A High Fat Diet Reduces Dopamine Terminal Function and Increases Behavioral Sensitization to Amphetamine in C57BL/6 Mice **S. Fordahl and S. Jones.** Wake Forest Sch. of Med.
- D12 **768.12** Ligand-Based Pharmacophore Modeling of 5-HT_{2A} Receptor Biased Agonism **K.S. Murnane, O. Guner, N. Moniri and P. Bowen.** Mercer Univ., GA.

- D13 **768.13** Effects of an Anti-methamphetamine Antibody Fragment on Markers of Methamphetamine Neurotoxicity **E.E. Reichard, G.A. Gonzalez, N. Nanaware-Kharade and E.C. Peterson.** Univ. of Arkansas for Med. Sci.
- D14 **768.14** Role of Hippocampal p21 in Reward-Induced Behaviors **N.E. Scholpa, S. Hammond, J.J. Wagner and B.S. Cummings.** Univ. of Georgia.
- D15 **768.15** Methamphetamine Alters Calcium Channel Gene DNA Methylation and Gene Expression in the Murine Heart **C. Koczor, R.A. Torres, E. Fields, M. Jedrzejczak, Z. Jiao, T. Ludaway, R. Russ and W. Lewis.** Emory Univ.
- D16 **768.16** Novel CNS-Permeant PKC Inhibitor and Tamoxifen Analog Reduces Amphetamine Neurochemical and Behavioral Effects **C. Carpenter, S. Mikelman and M. Gnegy.** Univ. of Michigan.
- D17 **768.17** Discovery of M5 Muscarinic Acetylcholine Receptor Antagonists: 1-Methyl-4-Phenylpiperidine Analogs **N-R. Lee, X. Zhang, M. Darna, G. Zheng and L.P. Dwoskin.** Univ. of Kentucky and Univ. of Arkansas for Med. Sci.
- D18 **768.18** Influence of Dopamine D2 Receptor Availability during Abstinence from Long-Term Cocaine Exposure in Female Cynomolgus Monkeys **M. Nader, S. Nader, M. Rowe and A. Adler.** Wake Forest Sch. of Med.

769. COGNITION AND LEARNING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D19 **769.1** **Withdrawn.**
- D20 **769.2** Examining the Consequences of Pre-natal Exposure to Stress in the Behavior of Adult Offspring **A. Oderhowho and M.V. Tejada-Simon.** Univ. of Houston.
- D21 **769.3** Differences in Quinpirole-Induced Yawning between Radiation Sensitive and Insensitive Rats **S.R. Gupta, C.M. Davis and R.D. Heinz.** Washington and Jefferson Col., PA and Johns Hopkins Univ. Sch. of Med.
- D22 **769.4** Circuitry and Molecular Mechanisms Underlying Maladaptive Decision Making following Chronic Adolescent Alcohol Intake **A.G. Schindler, K. Tsutsui, R. Jackson, C. Jones and J.J. Clark.** Univ. of Washington.
- D23 **769.5** High Trait Impulsivity Predicts Food Addiction-Like Behavior in the Rat **C.F. Moore, C. Velazquez-Sanchez, A. Ferragud, B.J. Everitt, V. Sabino and P. Cottone.** Boston Univ. and Univ. of Cambridge.
- D24 **769.6** ENT1-Mediated Adenosine A_{2A}R Signaling Promotes Impulsive Responses during Acquisition of Conditioned Reward Seeking **D-S. Choi, A. Oliveros, H. Nam, S. Choi and C. Vadnie.** Mayo Clin Col. of Med.
- D25 **769.7** Effects of Daily Morphine Treatment on Impulsivity in Rats Responding under a 5-Choice Serial Reaction Time Task **D.R. Maguire and C.P. France.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

D26 **769.8** Prenatal Protein Malnutrition in the Rat Reduces Extracellular Norepinephrine in the Ventral Medial Prefrontal Cortex and Impairs Performance in Attentional Set Shifting **D.J. Mokler, L.K. Fischer, D.L. Rosene, A.C. Amaral, R.J. Rushmore, J.R. Galler and J.A. McGaughy.** Univ. New England Col. of Osteo. Med.; Massachusetts Gen. Hosp., Harvard Med. Sch.; Boston Univ. Sch. of Med. and Univ. of New Hampshire.

770. PAIN MECHANISMS: INFLAMMATION AND CANNABINOIDS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D27 **770.1** Involvement of CaMKII α in Multiple Sclerosis-Associated Pain **X. Hu, F. Huang and Z.J. Wang.** Univ. of Illinois at Chicago.

D28 **770.2** Nitric Oxide Derived from Neuronal NOS Inhibits Spinal Synaptic Transmission and Neuropathic Pain **S-R. Chen, X-G. Jin, H. Chen and H-L. Pan.** Univ. of Texas MD Anderson Cancer Ctr.

D29 **770.3** Group A Streptococcus Induces Caspase-Independent IL-1 Signaling **C.N. LaRock, J. Todd, J. Olson, H. Hoffman and V. Nizet.** UCSD.

D30 **770.4** Opioid-Induced Alterations of TLR4 Protein Expression in a Human Microglial Cell Line **S.L. Dodson, R.L. Davis, L.K. Figueroa and C.W. Stevens.** Oklahoma State Univ. Ctr. for Hlth. Sci.

D31 **770.5** Protective Effects of Resveratrol on Social Stress-Induced Neuroinflammation and Depressive-Like Behavior **J.E. Finnell, C.M. Lombard, N. Singh, M. Nagarkatti, P. Nagarkatti, C.S. Wood and S.K. Wood.** Univ. of South Carolina Sch. of Med.

D32 **770.6** Characterization of Synthetic Ircinianin Analogues as Potent and Selective Modulators of $\alpha 3$ Glycine Receptor **S. Talwar, X. Xiao, Y. Zhang, C.W. Vaughan, R.J. Capon and J.W. Lynch.** Univ. of Queensland and No. Clin. Sch., Univ. of Sydney.

D33 **770.7** N-(Pyridine-3-ylmethyl)oleamide as a New Inhibitor of Fatty Acid Amide Hydrolase **A. Alafnan, H. Wu, M. Bohlke, T.J. Maher and A.J. Pino-Figueroa.** MCPHS Univ., Boston.

D34 **770.8** Inhibitory Effect of Macamides: N-Benzylpalmitamide and N-(3-Methoxybenzyl) Palmitamide on Fatty Acid Amide Hydrolase **M. Alamoudi, M. Bohlke, T.J. Maher and A.J. Pino-Figueroa.** MCPHS Univ., Boston.

D35 **770.9** Genetic Deletion of Sterol Carrier Protein 2 Selectively Enhances Amygdalar Endocannabinoid Signaling **C.J. Hillard, E.S. Liedhegner, J. Tinklenberg, K.L. Stuhr, E.M. Doncheck, L. Du and C.W. Cunningham.** Med. Col. of Wisconsin and Concordia Univ. Wisconsin.

D36 **770.10** Biochemical and Pharmacological Characterization of Human α/B Hydrolase Domain 6 **C. Miyabe, N. Zvonok, M. Williams, M. McCormack and A. Makriyannis.** Northeastern Univ.

D37 **770.11** Reconstitution of Human Cannabinoid 2 Receptor into Nanodiscs for Mass Spectrometric Studies **S. Mallipeddi, B. Kochert, N. Zvonok, J. Engen and A. Makriyannis.** Northeastern Univ.

D38 **770.12** Cannabinoid 1 Receptor Mutants and Covalent Cannabinergic Probes for Ligand Binding Site Characterization **A.G. Korde, N. Zvonok, K. Vemuri and A. Makriyannis.** Northeastern Univ.

D39 **770.13** Enantiomer-Specific Positive Allosteric Modulation of the Type 1 Cannabinoid Receptor **R.B. Laprairie, P.M. Kulkarni, M.G. Cascio, R.G. Pertwee, M.E. Kelly, E.M. Denovan-Wright and G.A. Thakur.** Dalhousie Univ., Canada; Northeastern Univ. and Sch. of Med. Sci., Univ. of Aberdeen, U.K.

D40 **770.14** Effects of Nicotinic Acetylcholine Receptor Positive Allosteric Modulator on Microglia Activation following Lipopolysaccharide-Induced Neuropathic Pain **M. Abbas and S. Rahman.** Col. of Pharm., South Dakota State Univ.

771. NEURODEGENERATION AND NEUROTOXICOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D41 **771.1** Traumatic Brain Injury Leads to Later Development of Parkinson's Disease in Mice **D. Impellizzeri, G. Bruschetta, M. Cordaro, R. Crupi, S. Cuzzocrea and E. Esposito.** Univ. of Messina and Saint Louis Univ.

D42 **771.2** Bavachinin and Genistein, Two Novel Human Monoamine Oxidase-B Inhibitors in the *Psoralea corylifolia* Seeds **N.O. Zarmouh, S.V. Eyunni, E.A. Mazzio, S.S. Messeha, F.M. Elshami and K.F. Soliman.** Col. of Pharm. and Pharmaceut. Sci., Florida A & M Univ. and Col. of Med. Technol., Misrata, Libya.

D43 **771.3** An Orally Active Pharmacological Inhibitor of Complement C5a Signalling Protects against Dopaminergic Degeneration in Experimental Parkinson's Disease **R. Gordon, K. Zhou, A. Garin-Michaud, V. Kumar, S. Mantovani, A.G. Kanthasamy and T.M. Woodruff.** Sch. of Biomed. Sci., Univ. of Queensland and Iowa State Univ.

D44 **771.4** Nimodipine: A Novel Protective Calcium Channel Blocker against 3-Nitropropionic Acid-Induced Huntington's Disease **A.S. Khalil, S. Saleh and N.N. Nassar.** Fac. of Pharm., Cairo Univ.

D45 **771.5** Icarin Levels Using HPLC/MS and Antioxidant and Neuronal PC12 Cell Protective Effects from *Epimedium koreanum* on Hydrogen Peroxide-Induced Oxidative Damage **M. Jang and G-H. Kim.** Plant Resources Res. Inst., Seoul.

D46 **771.6** Protective Effects of Phytochemicals, Quercetin and Ferrulic Acid, on Transthyretin Fibril-Induced Amyloidosis in Neuronal Cells **R.S. Narla and K.E. Benzeroual.** Long Island Univ.

- D47 **771.7** Behavioural and Cognitive Assessment of Aldehyde Dehydrogenase 2 Null Mice: A New, Oxidative Stress-Based Model of Age-Related Alzheimer's Disease **A. Elharram, Y. D'Souza and B. Bennett**. Queen's Univ., Canada.
- D48 **771.8** Effects of Sildenafil on PicROTOXINE-Induced Seizures in Rat **Z.A. Hasan**. Col. of Med. and Med. Sci., Arabain Gulf Univ., Bahrain.
- D49 **771.9** Role of Neurosteroidogenic Pathways in the Antiseizure Activity of Midazolam in the 6-Hz and Kindling Models of Epilepsy **S.D. Reddy, I. Younus and D.S. Reddy**. Texas A&M Univ. Col. of Med., Bryan.
- D50 **771.10** p-Aminosalicylic Acid Reverses Neurotoxic Effects of Manganese on Dopamine Post-synaptic Receptors **K. Loney-Walsh, L. Dubose, M.A. Carroll and E.J. Catapane**. Medgar Evers Col., Brooklyn.
- D51 **771.11** p-Aminosalicylic Acid Reverses Neurotoxic Effects of Manganese on the Physiological Response of a Dopaminergic System **T. McBean, C. Mezalón, M.A. Carroll and E.J. Catapane**. Medgar Evers Col., Brooklyn.
- D52 **771.12** Chronic L-DOPA Induced 5-HT Neuron Loss and Behavioral Impairments in the Rat **B.J. Stansley and B.K. Yamamoto**. Univ. of Toledo Col. of Med.
- D53 **771.13** BPC 157 Counteracts Convulsions after Continuous Haloperidol Overdose Administration in Rats **D. Drmic, D. Kolenc, S. Ilic, J. Suran, S. Seiwerth and P. Sikiric**. Sch. of Med., Univ. of Zagreb, Croatia.
- D54 **771.14** Dopamine-Induced Post-translational Modifications of α -Synuclein **A.B. Cholanians, S.S. Lau and T.J. Monks**. Col. of Pharm., Univ. of Arizona.
- D55 **771.15** Pharmacological Profile of Opicapone, a Third Generation Nitrocatechol COMT Inhibitor, in the Rat **M.J. Bonifácio, A.I. Loureiro, P.N. Palma, L.C. Wright and P. Soares-da-Silva**. BIAL - Portela & C^ª. SA and Fac. of Med., Univ. of Porto, Portugal.
- D56 **771.16** Phosphorylation State Modulates the Interaction between Neurofilament Medium and Spinophilin **A.C. Hiday, M.C. Edler, Jr., T.J. Rentz and A.J. Baucum II**. Indiana Univ.-Purdue Univ. Indianapolis and Vanderbilt Univ. Sch. of Med.
- D57 **771.17** Prenatal Treatment with Artesunate Alters Foetal Skeletal Development, Cell Proliferation and Expression of Calbindin D28K in Cerebrum of Wistar Rats **J.N. Alawa, A.S. Muhammad, S.S. Adebisi and C.B. Alawa**. Ahmadu Bello Univ. Samaru and Univ. of Abuja, Nigeria.
- D58 **771.18** Pathogenic Role of Phosphodiesterase 4B in Alcohol-induced Neuro-inflammation **D.V. Avila, L. Gobejishvili, S.A. Myers, J. Zhang, D. Barker, S. Whittemore, C. McClain and S. Barve**. Univ. of Louisville and Robley Rex VA Med. Ctr.
- D59 **771.19** Dimethyl Fumarate Confers Neuroprotection through CK2-Mediated Phosphorylation of Nrf2 in Murine Intracerebral Hemorrhage **L.O. Iniaqhe, P.R. Krafft, D.W. Klebe, J.H. Zhang and J. Tang**. Univ. of Benin, Nigeria.

772. GPCR PHARMACOLOGY**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D60 **772.1** Bias in The 4TH Dimension: The Influence of Ligand Binding Kinetics upon the Quantification of Biased Agonism at G Protein-Coupled Receptors **J.D. Lane**. Monash Inst. of Pharmaceut. Sci., Australia.
- D61 **772.2** Development of Structure-Activity Relationships for a G Protein-Biased Agonist of the D₂ Dopamine Receptor **L.S. Chun, R.B. Free, R.H. Vekariya, T. Beuming, L. Shi, J. Aubé, K. Frankowski and D.R. Sibley**. NINDS, NIH; Johns Hopkins Univ.; Univ. of Kansas; Schrödinger Inc., NY and Weill Cornell Med. Col.
- D62 **772.3** Identification of a Novel Dopaminergic Agonist that Displays Locational Bias and Functional Selectivity at the D₂ Dopamine Receptor **R.B. Free, J.H. Shin, B.N. Miller, T.B. Doyle, A.E. Moritz, J.L. Conroy, T.F. Brust, N.T. Southall, M. Ferrer, P. Donthamsetti, J.A. Javitch, V.J. Watts, J.L. Katz, G.D. Stanwood, J.W. Bertz, J.H. Woods, K.A. Emmitte, C.W. Lindsley, V.A. Alvarez and D.R. Sibley**. NINDS, NIH, Rockville; NIAAA, NIH, Rockville; Purdue Univ.; NCATS, NIH, Rockville; Columbia Univ.; NIDA, NIH, Baltimore; Vanderbilt Univ. and Univ. of Michigan.
- D63 **772.4** High-Throughput Screening for Identification of Novel Allosteric Modulators of the D₃ Dopamine Receptor **A.E. Moritz, R.B. Free, W. Weiner, M. Bachani, J.L. Conroy, E. Barnaeva, X. Hu, N. Southall, M. Ferrer, J.A. Javitch, J. Steiner, J. Aube, K. Frankowski and D.R. Sibley**. NINDS, NIH; Univ. of Kansas; NCATS, NIH, Rockville and Columbia Univ.
- D64 **772.5** Allosteric Modulation of the Mu-Opioid Receptor: Probe Dependence and Role of Na⁺ Ions **K.E. Livingston and J.R. Traynor**. Univ. of Michigan.
- D65 **772.6** A Novel Opioid for Photoaffinity Labeling Opioid Receptor Complexes in Natively-Expressing Tissues **S. Grinnell, S. Majumdar, A. Narayan and G. Pasternak**. Weill Cornell Grad. Sch. of Med. Sci. and Mem. Sloan Kettering Cancer Ctr.
- D66 **772.7** Biased Signalling Might Be the Answer to the Inconsistent Pharmacology of GPR55 **Y. Zeng, R.F. Irvine and C.R. Hiley**. Univ. of Cambridge.
- D67 **772.8** α 1B- and α 2-Adrenoceptors Mediate Contractions of Mouse and Rat Spleen: Pharmacological and Gene Knockout Data **J.R. Docherty and C. Daly**. Royal Col. of Surgeons in Ireland and Sch. of Life Sci., Glasgow Univ.
- D68 **772.9** Temperature Sensitive Interaction of α_{2c} -Adrenergic Receptor and Nucleophosmin in Raynaud's Phenomenon **M. Inyang, J.J. Guidry and C.M. Filipeanu**. Howard Univ. Col. of Med. and LSU Hlth. Sci. Ctr., New Orleans.
- D69 **772.10** Comparison of Parathyroid Hormone (PTH) (1-34) and PTH (7-34) Effects on Cell Signaling and Proliferation in Saos-2 Osteoblast-Like Cells **G. Mamidanna and J.A. Cole**. Univ. of Memphis.

- D70 **772.11** Beneficial Effect of Fish Oil on Liver Steatosis: Involvement of Kupffer Cell Polarization and Inflammasome Inactivation **D-S. Im and S. Kang**. Col. of Pharm., Pusan Natl. Univ., South Korea.
- D71 **772.12** Therapeutic Effect of Fish Oil on Acute Lung Injury through GPR120 Activation and Club Cell Proliferation **D-S. Im, K-P. Lee, S. Kang, S-J. Park and J-M. Koh**. Col. of Pharm., Pusan Natl. Univ. and Asan Med. Ctr., South Korea.
- D72 **772.13** Pharmacological Profiling of Lysophosphatidylinositol Species at GPR55 Using xCELLigence Cellular Impedance Analysis **L.S. Whyte, A.J. Irving and R.A. Ross**. Univ. of Toronto and Univ. of Dundee, U.K.
- D73 **772.14** Free Fatty Acid Receptor 4 Mediates the Inhibitory Effects of Omega-3 Fatty Acids on Growth Factor-Mediated Proliferation and Migration in Human Prostate Cancer Cells **M.M. Hopkins and K.E. Meier**. Washington State Univ.
- D74 **772.15** Mutation Induced Functional Alterations in CCR6 – a GPCR Mediator of Inflammation **B. Julian, K.M. Gao, B.N. Harwood and A.S. Kopin**. Tufts Med. Ctr. and Sackler Sch. of Grad. Biomed. Sci., Tufts Univ.
- D75 **772.16** The G Protein-Coupled Estrogen Receptor GPR30 Controls Immune Function by Regulating Neutrophil Extracellular Trap Formation **R. Flores, S. Döhrmann, V. Nizet and R. Corriden**. UCSD and San Diego State Univ.
- D76 **772.17** Allosteric Ligands of Metabotropic Glutamate Receptor 5 Have Biased Agonism and Cooperativity **K.J. Gregory, K. Sengmany, J. Singh and A. Christopoulos**. Monash Inst. of Pharmaceut. Sci., Australia.

773. NATURAL PRODUCTS I

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D77 **773.1** Supplementation of Palm Vitamin E in Ovariectomised Rat: Expression Proteomics Evaluation **P.N. Okechukwu, I.N. Soelaiman, G.A.R. Froemming, M.Y. Idorus and N. Mohamed**. Univ. Kebangsaan Malaysia and Univ. Technol. Mara, Malaysia.
- D78 **773.2** The Extract of *Euterpe oleracea* Mart. (Açai) Improves the Cardiovascular and Renal Disorders in Hypertensive Diabetic Rats **A.C. Resende, V.S.C. Cordeiro, D.T. Ognibene, G.F. Bem, I.B. Santos, C.A. Costa, J.B. Daleprane and R. Soares de Moura**. State Univ. of Rio de Janeiro.
- D79 **773.3** Effects of the *Euterpe oleracea* Mart. (Açai) Extract on Cardiovascular Changes and Oxidative Stress in Spontaneously Hypertensive Rats **D.T. Ognibene, V.S.C. Cordeiro, L.C.R.M. Carvalho, C.A. Costa, G.F. Bem, M.A.V. Souza, P.J.C. Sousa, J.B. Daleprane, R. Soares de Moura and A.C. Resende**. State Univ. of Rio de Janeiro and Fed. Univ. of Pará, Brazil.
- D80 **773.4** Effect of Chitosan Film Containing Carvacrol, a Phenolic Monoterpene, on Wound Healing in Rats **R. de Souza Siqueira Barreto, R.L.C. Albuquerque Júnior, R.N. Pereira-Filho, P. de Souza Siqueira Lima, R.S. Nunes, A.S. Barreto, W. De Lucca Júnior, E.A. Camargo and L.J. Quintans Júnior**. Fed. Univ. of Sergipe; Tiradentes Univ. of Sergipe and State Univ. of Feira de Santana, Brazil.
- D81 **773.5** Identification of a New Sesquiterpine Component from *Petasites japonicus* Leaves and Its Anti-asthma Effect **D-S. Im, S. Kang, J-M. Kim and Y-W. Choi**. Col. of Pharm., Pusan Natl. Univ. and Col. of Nat. Resources and Life Sci., Pusan Natl. Univ., South Korea.
- D82 **773.6** The Methanol Extract of *Garcinia kola* Seed Blunts Lipopolyssacharide- and Angiotensin II-Induced Cell Proliferation as well as Nitric Oxide Production in In Vitro Vascular Smooth Muscle Cells Assay **A.A. Adedapo, T.O. Omobowale, A.A. Oyagbemi, M.O. Yakubu and A.O. Oyekan**. Texas Southern Univ.
- D83 **773.7** Isolation and Characterization of Iron Binding Compounds from Turmeric (*Curcuma longa*) **D.J. Messner, B.S. Kunakom, C. Surrage and K.V. Kowdley**. Bastyr Univ., WA and Swedish Med. Ctr.
- D84 **773.8** On the Mechanism of Action of the Relaxing Effect of the 5,4'-Dihydroxi-6,7,8,3'-Tetrametoxi-Flavone, Flavone A, on Vascular Smooth Muscle of the Rat **P. Algara Suárez, M.P. Navarro Huerta, J.R. Valle-Aguilera, M.D. Brito-Orta, A.A. Rodriguez-Menchaca, I.A. Arechiga-Figueroa, R. Espinosa-Tanguma and M.M. Gonzalez-Chavez**. Autónoma Univ. of de San Luis Potosí.
- D85 **773.9** Effects of Silkworm Feed Residue on Neurotoxin-Induced Cellular and Animal Models of Alzheimer's Disease **J.G. Choi, M. Moon, S.Y. Kim and M.S. Oh**. Grad. Sch. and Kyung Hee East-West Pharmaceut. Res. Inst., Kyung Hee Univ.; Col. of Pharm., Kyung Hee Univ.; McLean Hosp., Harvard Med. Sch. and Col. of Pharm., Gachon Univ.
- D86 **773.10** Effects of Danggui-shaoyao-san on Neuronal Damage in Parkinson's Disease Models **P. Gu, D-S. Hwang, H.G. Kim and M.S. Oh**. Grad. Sch. of Kyung Hee Univ.; Col. of Korean Med., Kyung Hee Univ. and Col. of Pharm., Kyung Hee Univ., South Korea.
- D87 **773.11** Effects of Processed Rhubarb on Liver Cell Damage In Vitro and In Vivo **Y. Sim, D-S. Oh, H. Oh, H.G. Kim, T.H. Kang and M.S. Oh**. Grad. Sch. and Kyung Hee East-West Pharmaceut. Res. Inst., Kyung Hee Univ.; Korea Inst. of Oriental Med.; Col. of Pharm., Kyung Hee Univ. and Col. of Life Sci., Kyung Hee Univ., South Korea.
- D88 **773.12** The Application of Lipophilic Green Tea Polyphenols in a Time-Kill Study for Controlling Endospore Germination in *Bacillus cereus* **B. Ali, H. Tahir and L.H. Lee**. Montclair State Univ., NJ.
- D89 **773.13** Synergy and Selectivity of Antifungal Small Molecule Combinations **Z.B. Weinstein, N. Kuru, P. Clemons, F.P. Roth and M. Cokol**. Boston Univ. Sch. of Med.; Sabanci Univ., Turkey; Broad Inst. of Harvard and MIT; Univ. of Toronto and Mount Sinai Hosp., Toronto.
- D90 **773.14** Curcumin Suppresses Human Circulating Fibrocytes Differentiation and Migration by Regulating CCR7 and CCL21 Expression **Y. Li, X. Fu, D. Zhang, Y. Li and J. Niu**. Beijing Univ. of Chinese Med.
- D91 **773.15** Curcumin-Encapsulated Stem Cell Exosomes Mitigates Neuro-vascular Mitochondrial Dysfunction after Stroke in T1DM Mice **A. Kalani, P.K. Kamat and N. Tyagi**. Univ. of Louisville.

774. CHEMICAL WARFARE AGENTS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D92 **774.1** DNA Damage Initiated by the Sulfur Mustard Analog Mechlorethamine (Methylbis(2-Chloroethyl)Amine) in Mouse Keratinocytes Is Associated with an Oxidative Stress Response **R. Zheng, Y. Wang, D.E. Heck, D.L. Laskin and J.D. Laskin.** Rutgers Robert Wood Johnson Med. Sch.; New York Med. Col. and Rutgers Univ., Piscataway.
- D93 **774.2** Nitrogen Mustard-Induced Lung Fibrosis Is Associated with Altered Lipid Metabolism and Foam Cell Formation **A. Venosa, A. Gow, J.D. Laskin and D.L. Laskin.** Rutgers Univ., Piscataway.
- D94 **774.3** Role of Surfactant Protein-D in Vesicant-Induced Lung Toxicity **V. Sunil, K. Vayas, J. Cervelli, M. Goedken, A. Venosa, R. Malaviya, J. Laskin and D. Laskin.** Rutgers Univ. and Rutgers Robert Wood Johnson Med. Sch.
- D95 **774.4** Characterization of Serum Carboxylesterase Knockout Mice as a Model for Organophosphorous Nerve Agent Research **C.A. Hofstetter, C.L. Cadieux, Z. Canter and D.M. Cerasoli.** U.S. Army Med. Res. Inst. of Chem. Defense, Aberdeen Proving Ground, MD.

775. PULMONARY DISEASE AND TOXICOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D96 **775.1** Examination of the Effects of Inhalation Exposure of Rats to Work Site Fracking Sand Dust on Ion Transport in Tracheal Epithelium In Vitro **J.S. Fedan, W. McKinney, A.M. Cumpston, M.C. Jackson and J.A. Thompson.** NIOSH, Morgantown, WV.
- D97 **775.2** Protection of Cigarette Smoke-Induced Lung Fibrosis in Guinea Pigs by Inhalation of Aerosolic All-trans Retinoic Acid **S. Mukherjee, M.W. Schaeffer, P. Mitra, S. Sinha Roy and S.K. Das.** Meharry Med. Col.
- D98 **775.3** Bone Marrow and Spleen as Sources of Inflammatory Macrophages Responding to Ozone-Induced Lung Injury **M. Francis, M. Mandal, J. Cervelli, H. Choi, J.D. Laskin and D.L. Laskin.** Rutgers Univ., Piscataway.
- D99 **775.4** Reproductive Toxicity to Male Mice of Nose Only Exposure to Water- Pipe Smoke **B.H. Ali, K.A. Al Balushi, S.A. Adham, A. Shalaby, M.I. Waly and A. Nemmar.** Sultan Qaboos Univ., Oman and United Arab Emirates Univ.
- D100 **775.5** The Effect of Stimulatory Compounds on Baseline and Impaired Mucociliary Clearance in the Guinea Pig **A. Young, E. Sadler, P. Nath and V. Russell.** Argenta Discovery, Oxford, U.K.
- D101 **775.6** Parainfluenza 3 Virus Induces Increased Cough Sensitivity, Tracheal BDNF Expression, and Vagal Sensory TRPV1 Expression **E.J. Zaccone, T. Lieu, Y. Muroi, B.J. Canning, P. Gao and B.J. Udem.** Johns Hopkins Asthma and Allergy Ctr.
- D102 **775.7** Initial Characterization of a Mouse Model of Severe Asthma **A. Young, E. Sadler, P. Nath and V. Russell.** Argenta Discovery, Oxford.

- D103 **775.8** Allergic Asthma and Serotonin 5-HT₂ Receptor Activation: New Therapeutic Directions **F.J. Nau, J. Miller, J. Saravia, K. Happel, S. Cormier and C.D. Nichols.** LSU Hlth. Sci. Ctr., New Orleans.
- D104 **775.9** In Vivo Screening for Cystic Fibrosis Drugs: Transfer of Clinical Read-Out Parameters in CF Patients to the delF508 CFTR CF Mice **E. Haasbach, K. Droebner and P. Sandner.** Bayer HealthCare, Wuppertal and Hannover Med. Sch., Germany.
- D105 **775.10** RGS2 Repression Exacerbates Airway Hyperresponsiveness and Remodeling in Asthma **H. Jiang, Y. Xie, P.W. Abel, D.W. Wolff, M.L. Toews, R.A. Panettieri, T. Casale and Y. Tu.** Creighton Univ. Sch. of Med.; Univ. of South Carolina Sch. of Med.; Univ. of Nebraska Med. Ctr.; Univ. of Pennsylvania and Univ. of South Florida Sch. of Med.

776. PESTICIDES

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D106 **776.1** HPLC Uv-Vis Analysis of Multiple Pesticides Extracted from Biological Tissues: Effects of Acetonitrile/Hexane on Detection **J.A. Tran, N. Naidu and M.A. Yakubu.** Texas Southern Univ.
- D107 **776.2** A Pyrethroid Pesticide, Permethrin, Alters Lipid Metabolism and Voluntary Activities in Mice **X. Xiao, Y. Kim, D. Kim, K. Yoon, J.M. Clark and Y. Park.** Univ. of Massachusetts.
- D108 **776.3** Environmental Circadian Modulators Target Melatonin Receptors in Pancreatic β -Cells **A.J. Jones, M. Popovska-Gorevski, L.D. Mastandrea, R.V. Rajnarayanan and M.L. Dubocovich.** Sch. of Med. and Biomed. Sci., Univ. at Buffalo.
- D109 **776.4** Molecular Modeling Predicts Affinity of Environmental Toxins for Human and Mouse MT₁ and MT₂ Melatonin Receptors **A.K. Van Hall, M. Popovska-Gorevski, A.J. Jones, R.V. Rajnarayanan and M.L. Dubocovich.** Sch. of Med. & Biomed. Sci., Univ. at Buffalo.

777. MITOCHONDRIAL PHARMACOLOGY/TOXICOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D110 **777.1** Vancomycin Induced Renal Tubular Cell Injury by Reactive Oxygen Species Generation and Mitochondrial Dysfunction **T. Yano, Y. Sakamoto, Y. Hanada, A. Takeshita, F. Inagaki and S. Masuda.** Kyushu Univ. Hosp. and Kyushu Univ. Grad. Sch. of Pharmaceut. Sci.
- D111 **777.2** Diazoxide Preconditioning Is Mediated by Mechanistic Target of Rapamycin and S6 Kinase **S. Dutta, I. Rutkai, K. Walter, P.V.G. Katakam and D.W. Busija.** Tulane Univ.
- D112 **777.3** Caveolin-3/AdipoR1 Dependent Mitochondrial STAT3 Activation in Ischemic Postconditioning Cardioprotection **H. Li, M.G. Irwin and Z. Xia.** The Univ. of Hong Kong.

- D113 **777.4** ABT-737 Inhibits Full Length and Cleaved Proapoptotic Bcl-xL, Resulting in Differential Effects on Death and Survival **H.A. Park, P. Licznerski, Y. Niu, K. Alavian and E. Jonas.** Yale Sch. of Med.
- D114 **777.5** Pesticide-Induced Mitochondrial Dysfunction Augments NLRP3 Inflammasome Signaling Pathway in Primary Microglia **S. Sarkar, N. Panicker, M. Neal, H. Jin, V. Anantharam, A. Kanthasamy and A.G. Kanthasamy.** Iowa State Univ.
- D115 **777.6** The Aqueous Extract of *TA* Bark Reduces Mitochondrial Oxidative Stress Induced by Doxorubicin in H9c2 cells **S. Liu and S. Bishop.** Univ. of Arkansas for Med. Sci.
- D116 **777.7** Evidence of Distinct Channel Conformations for the Mitochondrial Outer Membrane Translocase Tom40 **A.J. Kuszak, D. Jacobs, P.A. Gurnev, T. Lithgow, S.M. Bezrukov, T.K. Rostovtseva and S.K. Buchanan.** NIDDK, Natl. Insts. of Hlth.; NICHD, Natl. Insts. of Hlth. and Univ. of Massachusetts, Amherst.
- D117 **777.8** Effects of High Fat Diet-Induced Obesity on Mitochondrial Biogenesis and Function – Impact of Exercise or Nicotinamide Mononucleotide **G.M. Uddin, N.A. Yongson, D.A. Sinclair and M.J. Morris.** Sch. of Med. Sci., Univ. of New South Wales and Harvard Med. Sch.

778. THE BIOPHYSICS AND REGULATION OF CYTOCHROMES P450

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D118 **778.1** The N-Terminal Regions of CYP1A Proteins Affect Their Microdomain Localization in the Endoplasmic Reticulum **J.W. Park, J.R. Reed and W.L. Backes.** LSU Hlth. Sci. Ctr., New Orleans.
- D119 **778.2** Deconvoluting the Dance: Cytochrome P450 Interaction Mapping via Super-Resolution Imaging **S. Humphreys, A. Barden, C. Barnaba, J. Brozik and J. Jones.** Washington State Univ.
- D120 **778.3** CYP1A2 and CYP2B4 Form Complexes Associated with Altered Catalytic Activity **J.P. Connick, J.R. Reed and W.L. Backes.** LSU Hlth. Sci. Ctr., New Orleans.
- D121 **778.4** Some Like It Hot: Quantification of Biomolecular Interactions Using MicroScale Thermophoresis **L.W. Lehmann, N. Bouley Ford, W. Strutz and A. Lazic.** NanoTemper Technol. Inc., South San Francisco.
- D122 **778.5** Molecular Regulation of Hepatic and Pulmonary Cytochrome P4501A (CYP1A1) Enzymes by 3-Methylcholanthrene in Mice: Role of CYP1A2 **B. Moorthy, W. Jiang, L. Wang, C. Chu and P. Maturu.** Baylor Col. of Med.
- D123 **778.6** Isoniazid Protects Against Angiotensin II-Induced Cardiac Hypertrophy in Sprague Dawley Rats **S. Elkhatali, A.A. El-Sherbeni, O.H. Elshenawy, G. Abdelhamid and A.O.S. El-Kadi.** Fac. of Pharm. and Pharmaceut. Sci., Univ. of Alberta.
- D124 **778.7** Structure-Activity Analysis of Efavirenz-Mediated Modulation of Pregnane X Receptor Target Genes **J.M. Lade and N.N. Bumpus.** Johns Hopkins Univ.

- D125 **778.8** GW4064, an Agonist of Farnesoid X Receptor, Represses CYP3A4 Expression in Human Hepatocytes **S. Zhang, X. Pan and H. Jeong.** Col. of Pharm. Univ. of Illinois at Chicago.
- D126 **778.9** Inducers of Small Heterodimer Partner Expression Lead to Decreased CYP2D6 Expression and Activity **X. Pan and H. Jeong.** Univ. of Illinois at Chicago.
- D127 **778.10** Suppression of Pulmonary CYP2A13 Expression by Carcinogen-Induced Lung Tumorigenesis in a CYP2A13-Humanized Mouse Model **X. Ding, Z. Liu, V. Megaraj, L. Li, S. Sells and J. Hu.** Wadsworth Ctr., NYS Dept. of Hlth. and SUNY Poly, Albany.

779. PHARMACOKINETICS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D128 **779.1** Aspirin Absorption in Rats Is much Greater in Stomach versus Duodenum **J.T. Philip, B. Bang, T.M. Phan and L.M. Lichtenberger.** Univ. of Texas Hlth. Sci. Ctr., Houston.
- D129 **779.2** Determining the Fraction Unbound of Herbal Product Constituents in Human Liver Microsomes to Improve Herb-Drug Interaction Predictions **D. Armstrong, B.T. Gufford, V. Gonzalez-Perez and M.F. Paine.** Whitworth Univ. and Col. of Pharm., Washington State Univ.
- D130 **779.3** Recent Advances in Deriving Hepatocyte Like Cells from Induced Pluripotent Stem Cells in Drug Metabolism and Toxicity Studies **T.B. Andersson, H. Palmgren, A. Kvist, A-K. Sjogren, M. Liljevald, B. Glinghammar and G. Brolén.** AstraZeneca R&D Mölndal.
- D131 **779.4** Assessment of Drug Clearance, Metabolite Profile, and Drug-Induced Toxicity in a Coculture of Human 3D Liver and Gut Microphysiological Systems: Toward Developing a Perfused Human Liver-Gut Interactome **U. Sarkar, S. Tannenbaum, R. Carrier, K. Chen, M. Cirit, L. Griffith, D. Hughes, E. Large, J. Wishnok and J. Yu.** MIT; CN Bio Innovations Ltd., U.K. and Northeastern Univ.
- D132 **779.5** Rapid Resolution Liquid Chromatography Method Development and Validation for Detection of Anastrozole in Human Serum **M.B. Abubakar and S.H. Gan.** Sch. of Med. Sci., Univ. Sains Malaysia and Col. of Hlth. Sci., Usmanu Dan Fodiyo Univ. Sokoto, Nigeria.
- D133 **779.6** Toxicokinetic Insights are Critical to Understanding Renal Toxicity of Novel Polymyxin Analog **A. Gupta, N. Keirstead, H. Shankaran, R. Goodwin, A. Xue, K. Martea, N. Johnson, T. Grebe, M. Hale, G. Kern, J. Swales and J. Sasaki.** AstraZeneca Pharmaceut., Waltham, MA and AstraZeneca Pharmaceut., Macclesfield, U.K.
- D134 **779.7** Determination of Intrahepatic Exposure to the HIV Protease Inhibitor Ritonavir **P. Annaert, J. Keemink and P. Augustijns.** Univ. of Leuven – KU Leuven, Belgium.
- D135 **779.8** Pharmacokinetic Interaction between Paclitaxel and Polyoxypregnanes **X. Wu, C. Yin, Y. Ye and G. Lin.** Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong and Shanghai Inst. of Mat. Med. and The Chinese Univ. of Hong Kong.

- D136 **779.9** All-trans-Retinoic Acid Enhances Mitochondrial Biogenesis in Models of Human Liver **S. Tripathy, R.S. Foti and N. Isoherranen**. Univ. of Washington and Amgen Inc., Seattle.
- D137 **779.10** Role of Immune Modulators in Drug-Drug Interaction between Irinotecan and Taxol **P. Mallick, S. Basu and R. Ghose**. Univ. of Houston.
- D138 **779.11** Study of Biodistribution and Biocompatibility of CdS-MD Nanoparticles In Vivo **I. Gutiérrez-Sancha, P. Rodriguez-Fragoso, J. Reyes-Esparza and L. Rodriguez-Fragoso**. Autonomous Univ. of State of Morelos, Cuernavaca and CINVESTAV- IPN, Mexico City.
- D139 **779.12** Effects of Pringle Maneuver and Partial Hepatectomy on the Systemic Pharmacokinetics of Fluorescein in Rats **M.K. Kowser, I.H. Shaik, U. Bickel and R. Mehvar**. Texas Tech Univ. Hlth. Sci. Ctr. and Chapman Univ.

780. CEREBROVASCULAR SIGNALING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D140 **780.1** Effects of Ang II on Angiotensin Converting Enzyme mRNA Levels in Cultured Rat Astrocytes **Y. Vudhya Gowrisankar and M.A. Clark**. Nova Southeastern Univ.
- D141 **780.2** Differential Interleukin-6 Protein and mRNA Expression Levels in Angiotensin II-Treated Cultured Rat Astrocytes **Y. Vudhya Gowrisankar and M.A. Clark**. Nova Southeastern Univ., FL.
- D142 **780.3** Sex-Differences in Mitochondrial Respiration in Rat Cerebral Arteries **I. Rutkai, S. Dutta, P. Katakam and D. Busija**. Tulane Univ.
- D143 **780.4** In Vitro and in Vivo Analyses of the Effects of Sunitinib on Endothelial Cell-Surface Vascular Endothelial Growth Factor Receptor-2 **K.A. Norton, N.B. Pandey, Y. Kato, D. Artemov and A.S. Popel**. Johns Hopkins Univ.
- D144 **780.5** Development of a Novel, Physiologically Realistic Pediatric Blood Brain Barrier on a Chip **S.P. Deosarkar, B. Augeli, B. Prabhakarandian, J. Rosanno, B. Krynska and M.F. Kiani**. Temple Univ.; Shriners Hosps. and Sch. of Med., Temple Univ. and CFD Res. Corp., Huntsville, AL.
- D145 **780.6** Protective Actions of Ghrelin Gene-Derived Peptides on the Brain after Ischemic Stroke **J.M. Ku, T.M. De Silva, T. Barsby, C. Wong, Z.B. Andrews, C.G. Sobey and A.A. Miller**. Monash Univ. and Sch. of Med. Scis., RMIT Univ., Australia.
- D146 **780.7** Rho Kinase Regulates Myogenic Depolarization of Cerebral Parenchymal Arterioles **Y. Li and J.E. Brayden**. Univ. of Vermont.

781. CARDIAC HYPERTROPHY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D147 **781.1** Identifying Simultaneous Matrix Metalloproteinases/Soluble Epoxide Hydrolase Inhibitors **A.A. El-Sherbeni, R. Bhatti and A.O.S. El-Kadi**. Fac. of Pharm. and Pharmaceut. Sci., Univ. of Alberta.
- D148 **781.2** Chronic Blockade of Class I PI3-Kinase Attenuates Ang II-Induced Cardiac Hypertrophy and Autophagic Alteration **L. Guo, L. Sun, S. O'Rourke and C. Sun**. Jilin Univ., China and North Dakota State Univ.
- D149 **781.3** Role of MAPKs and NF- κ B in the Development of Cellular Hypertrophy by 8-Hydroxyeicosatetraenoic Acids in Human Ventricular Cardiomyocyte, RL-14 Cell Line **A.O.S. El-Kadi, Z.H. Maayah and G. Abdelhamid**. Col. of Pharm., Qatar Univ. and Fac. of Pharm. and Pharmaceut. Sci., Univ. of Alberta.
- D150 **781.4** Human Cardiac Hypertrophy Induced by Thrombin/COX-2 Is Mediated through a c-Src/Pyk2/EGFR/CREB-Dependent Pathway **T-Y. Chien and C-M. Yang**. Chang Gung Univ., Taiwan.
- D151 **781.5** Apoptosis Activation under the Action of Immunomodulators on the Course of Experimental Myocardial Infarction **A.P. Sarapultsev, O.N. Chupakhin, P.A. Sarapultsev and L.P. Sidorova**. Inst. of Immunol. and Physiol. of Ural Branch of RAS and Ural Fed. Univ. named after first President of Russia B. N. Yeltsin, Ekaterinburg.
- D152 **781.6** EGFR Inhibition Protects the Cardiac Remodeling through Attenuating Oxidative Stress in STZ-Induced Diabetic Mouse Model **D. Liang, P. Zhong, Y. Wang and G. Liang**. Sch. of Pharmaceut. Sci., Wenzhou Med. Univ., China.

782. VASCULAR PHARMACOLOGY – SMOOTH MUSCLE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D153 **782.1** Cytochrome P450 1B1 Is Essential for Angiotensin II- and Arachidonic Acid-Induced Activation of NADPH Oxidase in Vascular Smooth Muscle Cells of Mice **C.Y. Song, N.S. Khan, X.R. Fang and K.U. Malik**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- D154 **782.2** Vasoconstrictive and Vasodilatative Effects of Transient Receptor Potential Melastatin-4 Modulation **T. Csipo, A. Kovacs, G.A. Fulop, A. Czikora, R. Porszasz, A. Szalai, I. Edes, Z. Papp and A. Toth**. Univ. of Debrecen and NCI, NIH.
- D155 **782.3** The Role of Caveolin-1 in 5-Hydroxytryptamine Receptors Mediated Epidermal Growth Factor Receptor Transactivation in Vascular Smooth Muscle **S. Guner, T. Akhayeva and H. Gurdal**. Ufuk Univ. Sch. of Med., Turkey; Astana Med. Univ., Kazakhstan and Ankara Univ. Sch. of Med.
- D156 **782.4** Effect of Angiotensin III on ERK1/2 and p38 Mitogen Activated Protein Kinases in Wistar Rat VSMCs **A.Z. Alanazi and M.A. Clark**. Nova Southeastern Univ.

- D157 **782.5** Caveolin-1 as a Potential Regulator of Transforming Growth Factor- β and Angiotensin II Type 1 Receptor Signaling in Primary Human Aortic Smooth Muscle Cells **J. Harmon, L. Leung, M. Esfandiarei and J. Vallejo**. Midwestern Univ., AZ.
- D158 **782.6** Early Transient Sarcoplasmic Reticulum Calcium Decrease Prior to Initiation of Unfolded Protein Response in Vascular Smooth Muscle Cells **G. Ziomek, C. van Breemen and M. Esfandiarei**. Univ. of British Columbia and Midwestern Univ., AZ.
- D159 **782.7** Comparison of High Fructose and Glucose Consumption on the Impairment of Mesenteric Arterial Function in Female Rats **S. Shaligram, G. Sangüesa, F. Akther, M. Alegret, J.C. Laguna and R. Rahimian**. Thomas J. Long Sch. of Pharm. and Hlth. Sci., Univ. of the Pacific and Univ. of Barcelona Inst. of Biomed.
- D160 **782.8** Consumption of High Fructose and Glucose Impairs Aortic Function in Female Rats **F. Akther, G. Sangüesa, S. Shaligram, M. Alegret, J.C. Laguna and R. Rahimian**. Thomas J. Long Sch. of Pharm. and Hlth. Sci., Univ. of the Pacific and Sch. of Pharm., Univ. of Barcelona.
- D161 **782.9** Possible Role of MCP1 in Insulin-Enhanced Vascular Injury-Induced Restenosis **C. Naik and Y. Chang**. A.T. Still Univ. of Hlth. Sci., MO.
- D162 **782.10** Regulation of TRPML1-Mediated Dynein Activation and Autophagosome Trafficking by Acid Sphingomyelinase in Coronary Arterial Smooth Muscle Cells **M. Xu, X. Li, A.L. Pitzer, P-L. Li and Y. Zhang**. Virginia Commonwealth Univ.
- D163 **782.11** Inhibition of Vascular Smooth Muscle Cell Migration by an Endothelium-Derived 15-Lipoxygenase Metabolite, 11,12,15-Trihydroxyeicosatrienoic Acid **W.B. Campbell, K. Nithipatikom, J.R. Falck and C.L. Williams**. Med. Col. of Wisconsin and Univ. of Texas Southwestern Med. Ctr.
- D168 **783.5** Soluble Epoxide Hydrolase Modulates Adenosine Receptor-Induced Vascular Response in Mouse Mesenteric Arteries **V.R. Yadav, D.C. Zeldin, S.J. Mustafa, S. Xie and M.A. Nayeem**. West Virginia Univ. and NIEHS, NIH, Research Triangle Park.
- D169 **783.6** Effects of Resveratrol on Contractions of the Rat Tail Artery **J.D. Peuler, S.M. Stom and L.E. Phelps**. Midwestern Univ., IL.
- D170 **783.7** AMPK Activators Cause Different Vasoconstrictor Responses in Small and Large Muscular Arteries **Y. Huang, G. Chen, B. Sharma, A.S. Miner, R.W. Barbee and P.H. Ratz**. Virginia Commonwealth Univ.
- D171 **783.8** Investigation of the Role of Multidrug Resistance Proteins in Vascular Homeostasis **R.M.H. Allen, A. Renukathan, K.J. Bubb, I.C. Villar, A.J. Moyes, R.S. Baliga and A.J. Hobbs**. Barts and The London Sch. of Med. and Dent., Queen Mary Univ. of London.
- D172 **783.9** Pharmacological Characterization of the Mechanisms Involved in the Vasorelaxation Induced by Progesterone and 17 β -Estradiol on Isolated Canine Basilar and Carotid Arteries **A. Sanchez-Lopez, M.B. Ramirez-Rosas, L.E. Cobos-Puc, E.J. Gutierrez-Lara and D. Centurion**. CINVESTAV, Mexico City.
- D173 **783.10** A New Prenylated, A-Polar Compound (AGS07) Mediates Vasoconstriction through Alpha-1 Receptors, and Inhibited Norepinephrine Induced Contractions on Thoracic Aortic Rings **B.J. Moodie-Henry, P. Singh, P.B. Reese and P.C. Facey**. Univ. of The West Indies, Jamaica.
- D174 **783.11** Contribution of P62 to the Phenotype Transition of Coronary Arterial Myocytes from Mice Lacking CD38 Gene **J-X. Bao, G-B. Li, X. Li, A.L. Pitzer, Y. Zhang and P-L. Li**. Med. Col. of Virginia at VCU.

784. KIDNEY PHARMACOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D164 **783.1** Anti-contractile Effect of Perivascular Adipose Tissue in Pregnant Rat Aorta **M. Oriowo and A. Al-Jarallah**. Kuwait Univ.
- D165 **783.2** Toll-Like Receptor 9 Signals through Both the Stress-Tolerance and Inflammatory Cascades after Pharmacological Stimulation in Isolated Rat Arteries **C.G. McCarthy, C.F. Wenceslau, S. Gouloupoulou and R.C. Webb**. Georgia Regents Univ. and Univ. of North Texas Hlth. Sci. Ctr.
- D166 **783.3** Dynamics of Actin-Based Structures in Migrating Artery Myocytes are Regulated by Phosphodiesterases **P. Brzezinska, A. McBride, J. Mackeil and D.H. Maurice**. Queen's Univ., Canada.
- D167 **783.4** Vascular Reactivity of Rat, Guinea Pig, Rabbit and Human Vessels to Bufadienolides and Cardenolides **C.F. Santos, I.M.B. Oliveira, M.C. Fonteles, I.C.M.T. Martins and N.R.F. Nascimento**. Superior Inst. of Biomed., Ceara State Univ., Brazil.
- D175 **784.1** Human Amniotic Fluid Derived Stem Cells Improve Renal Function in a Rodent Model of Ischemia-Induced Acute Kidney Injury **D.M. Eckman, S.K. George, M. Abolbahari, A. Wilson, J.D. Jackson, T. Tullo, A. Atala and J.J. Yoo**. Midwestern Univ. Col. of Hlth. Sci.; Wake Forest Sch. of Med. and Midwestern Univ. AZ Col. of Osteo. Med.
- D176 **784.2** The Effect of Glutamine plus Glutathione as Substrates for the Hypothermic Preservation of the Isolated Perfused Rabbit Kidney **M.C. Fonteles, J.E. Sousa-Filho, N.R.F. Nascimento and R.M. Araújo-Filho**. Fed. Univ. of Ceara and Ceara State Univ., Brazil.
- D177 **784.3** TRPC6 Channel-Mediated Neonatal Glomerular Mesangial Cell Apoptosis Involves Activation of Calcineurin/Nuclear Factor of Activated T-Cell Signaling **H. Soni and A. Adebisi**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- D178 **784.4** Preventive Effect of Chrysin on Adenine-Induced Chronic Kidney Disease in Rats **B.H. Ali, S.A. Adham, M. Al Za'abi, M.I. Waly, A. Nemmar and N. Schupp**. Col. of Med., Sultan Qaboos Univ.; Col. of Sci., Sultan Qaboos Univ.; Col. of Agr. and Marine Sci., Muscat, Oman; Col. of Med., United Arab Emirates Univ. and Univ. Clin. Düsseldorf.

- D179 **784.5** Multispectral Imaging Application in Chronic Kidney Disease Drug Discovery **C-W. Lee, G. Gibson, P. Sun, J. Villalona, S. Weldon, G. Reinhart and H. Qian.** Boehringer-Ingelheim Pharmaceuticals., Ridgefield, CT.
- D180 **784.6** Preclinical Evaluation of the Mitochondria-Targeted Antioxidant MitoTEMPO on the Renal Microcirculation in a Pediatric Model of Sepsis-Induced Renal Injury **C.R. Sims and P.R. Mayeux.** Univ. of Arkansas for Med. Sci.
- D181 **784.7** Nimesulide Toxicity of Kidneys of Prepubertal Rats **P.U. Agbasi, E. Obi and N. Abasi.** Fed.. Univ. of Technol; Nnamdi Azikiwe Univ. and Abia State Univ., Nigeria.
- 785. CANCER THERAPEUTICS I: OVERCOMING TREATMENT RESISTANCE AND TOXICITY**
- Poster**
- MON, 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:30 PM–2:30 PM*
- D182 **785.1** Y15 Enhances the Cytotoxic Profile of Cisplatin, Paclitaxel and Vitamin E in Platinum-Resistant Ovarian Cancer Cells **M.P. Reboe, A.S. Levy, S. Dhandyuthapani and A. Rathinavelu.** Univ. of the West Indies and Nova South Eastern Univ.
- D183 **785.2** Factor (G-CSF) Enhances Peripheral Platelet Recovery in C57 Radiotherapy Mice and No Immunogenicity in Rats **Z. Jie, K. Shi, C. Chu, X. Ding and Y. Jiang.** Biopharmagen Corp., Suzhou and Chinese Acad. of Med. Sci. & Peking Union Med. Col.
- D184 **785.3** Transport of 4-Boronophenylalanine, a BNCT Delivery Agent, by L-Type Amino Acid Transporters 1 and 2 **P. Jutabha, M. Ouchi, N. Otani and N. Anzai.** Dokkyo Med. Univ. Sch. of Med., Japan.
- D185 **785.4** Tetra-triethyleoxysulfonyl Substituted Zinc Phthalocyanines Are Promising New Photosensibilisators for Cancer Treatment with Photodynamic Therapy **W. Kuzyniak, E. Ermilov, D. Atilla, A. Gürek, B. Nitzsche, K. Derkow, B. Hoffmann, G. Steinemann, A. Pries, V. Ahsen and M. Höpfner.** Charité – Univ. Med. Berlin and Gebze Inst. of Technol., Turkey.
- D186 **785.5** Epidermal Growth Factor Receptor-Targeted Liposome with Cisplatin Enhances Radiotherapeutic Efficacy without Nephrotoxicity **W. Bae, H.K. Lim, A. Moon, S-Y. Jeong, E.K. Choi and J. Jung.** Duksung Women's Univ., South Korea and ASAN Med. Ctr., Seoul.
- D187 **785.6** Predicting Anticancer Drug Efficacy by Assessing DNA Repair Ability **L.L. Ma and Y. Qiao.** Northeastern Univ. and Worcester Polytech Inst.
- D188 **785.7** Reversal of Chemoresistance in Ovarian Cancer by Co-delivery of MDR Inhibitors and Paclitaxel Using a Targeted Liposomal Platform **S.K. Sriraman, Y. Zhang, E. Lengyel and V. Torchilin.** Northeastern Univ. and Univ. of Chicago.
- D189 **785.8** Overcoming Chemoresistance in Pancreatic Cancer: Targeting the Apoptotic Protein Machinery Using Raloxifene **P. Chand, J. Ho, E. Burunova, T. Kardashova and A. Malhotra.** Col. of Arts and Sci., Pacific Univ. and Sch. of Pharm., Col. of Hlth. Professions, Pacific Univ.
- D190 **785.9** Effect of Growth Hormone on Testicular Dysfunction Induced by Methotrexate in Rats **H. Serati-Nouri and Y. Azarmi.** Tabriz Univ. of Med. Sci. and Fac. of Pharm., Univ. of Med. Sci., Tabriz, Iran.
- D191 **785.10** **Withdrawn.**
- D192 **785.11** Evaluation of Cardio-protective Activity of Wheat Grass and Bioenhancing Property of Cow Urine (Wheat Grass Fortified with Cow Urine) against Doxorubicin- Induced Cardiomyopathy **M.R. Papasani, A. Akula and E.K. Kilari.** Andhra Univ. Col. of Pharmaceut. Sci., India.
- D193 **785.12** Doxorubicin Inhibition of Lymphatic Function Is Mediated by Ryanodine Receptors and Prevented by Dantrolene **A.J. Stolarz, A. Pathan, R. Versluis, T.W. Fletcher, J.R. Stimers, E. Galanzha, V. Zharov and N.J. Rusch.** Univ. of Arkansas for Med. Sci.
- D194 **785.13** Extracellular ATP Stimulates Uptake of a Topoisomerase Poison into Cervical Cancer Cells **M. Bukhari, H. Deng, C.D. Woodworth and D.S.K. Samways.** Clarkson Univ., NY.
- D195 **785.14** Thymoquinone Ameliorates Tamoxifen-Induced Hepatotoxicity and Augments Its Anti-cancer Activity in Breast Cancer **M. Koladia, J. Kaur and K. Tikoo.** North Dakota State Univ. and Natl. Inst. of Pharmaceut. Educ. and Res., Mohali, India.
- D196 **785.15** Betulinic Acid, a Pentacyclic Triterpene, Inhibits Prosurvival Endoplasmic Reticulum Chaperone GRP78/BIP Expression and Induces Mitochondrial-Dependent Apoptosis in Gastric Cancer Cells **M-W. Lin, C-Y. Hsieh, F-R. Chang, D-C. Wu, C-L. Chen and Y-B. Huang.** Sch. of Pharm., Kaohsiung Med. Univ.

Poster Presenters: Upload Your Poster

Where: E-Poster Counter, Lobby D

Deadline: Wed., April 1, 3:00 PM

Uploaded posters will be available online to
all registered attendees following the meeting at
[www. experimentalbiology.org](http://www.experimentalbiology.org)

Physiology

786. MICROVASCULAR DEVELOPMENT AND AGING

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B1 **786.1** Advanced Age Increases the Amplitude of ATP-Sensitive K^+ Channel Currents in Murine Resistance Artery Smooth Muscle Cells **S. Hayoz, B. Mullan, C. Washington, S.S. Segal and W.F. Jackson.** Michigan State Univ. and Univ. of Missouri-Columbia.
- B2 **786.2** Tissue-Specific Isolated Murine Arterial Responses to Aging **C.J. Nicholson, M. Sweeney, S.C. Robson and M.J. Taggart.** Boston Univ. and Newcastle Univ., U.K.
- B3 **786.3** Deficiency of the T-Type Calcium Channel $Ca_v3.1$ Attenuates Endothelial Dysfunction in Aging Mice **P.B.L. Hansen, K. Andersen, P.M. Vanhoutte and A.D. Thuesen.** Univ. of Southern Denmark and Li Ka Shing Fac. of Med., Univ. of Hong Kong.
- B4 **786.4** Age-Related Phenotype of Diabetic and Obese Mouse Models **J.E. Vigilance, B. Song and M.D. Frame.** Stony Brook Univ. and Univ. of The West Indies, Barbados.
- B5 **786.5** Endothelial Dysfunction with Nano-silica Oxide Exposure Differs in Diabetic versus Old Mice **B. Song, J.E. Vigilance and M.D. Frame.** Stony Brook Univ. and Univ. of The West Indies, Barbados.
- B6 **786.6** Age-Related Changes in Circulating MicroRNA Profile and Brain Endothelial Microvascular Cell Response to Oxidative Insult **M. Shaul, B. Shukitt-Hale and I. Rosenberg.** USDA at Tufts Univ.
- B7 **786.7** Comparison of Network Resistances in Aged versus Adult Microvascular Networks **D.C. Sloas, S.A. Stewart, R.S. Sweat and W.L. Murfee.** Tulane Univ.

787. MICROVASCULAR FLOW REGULATION/OXYGEN DELIVERY

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B8 **787.1** Effects of Light Sources and Intensity on Blood Physiological Variables of Broilers Grown to Heavy Weights **H.A. Olanrewaju, J.L. Purswell, S.D. Collier and S.L. Branton.** USDA, Starkville, MS.
- B9 **787.2** The Effect of Gap Junction Blockade on Renal Autoregulation and Phase Synchronization of Autoregulation Dynamics **N. Mitrou, B. Braam and W.A. Cupples.** Simon Fraser Univ., Canada and Univ. of Alberta.
- B10 **787.3** Microvascular Hemodynamics in the Chick Chorioallantoic Membrane **A.F. Smith, B. Nitzsche, M. Maibier, A.R. Pries and T.W. Secomb.** Univ. of Arizona and Charité – Univ. Med. Berlin.

B11 **787.4** Effects of Breathing O_2 at Different Concentrations on Reactive Oxygen Species and Endothelium-Dependent Dilatation **J.M. Marshall, R.T. Junejo, F. D'Souza and C.J. Ray.** Univ. of Birmingham, U.K.

B12 **787.5** IGF-1 Deficiency Promotes Neurovascular Uncoupling: Implications for Cerebromicrovascular Aging and Age-Related Cognitive Decline **P. Toth, S. Tarantini, N.M. Ashpole, M.N. Valcarcel-Ares, J. Landoll, Z. Tucsek, G.L. Milne, W.E. Sonntag, A. Csiszar and Z. Ungvari.** Univ. of Oklahoma Hlth. Sci. Ctr.; Szentagothai Res. Ctr and Vanderbilt Univ. Med. Ctr.

B13 **787.6** Resveratrol Treatment Rescues Neurovascular Coupling in Aged Mice: Role of Improved Cerebromicrovascular Endothelial Function and Down-Regulation of NADPH Oxidase **P. Toth, S. Tarantini, Z. Tucsek, N.M. Ashpole, D. Sosnowska, T. Gautam, P. Ballabh, A. Koller, W.E. Sonntag, A. Csiszar and Z. Ungvari.** Univ. of Oklahoma Hlth. Sci. Ctr.; Univ. of Pecs; New York Med. Col. Westchester Med. Ctr. and New York Med. Col.

B14 **787.7** Microscopic Study of PO_2 and VO_2 Kinetics in Contracting Rat Spinotrapezius Muscle **A.S. Golub, W.H. Nugent, B.K. Song and R.N. Pittman.** Virginia Commonwealth Univ.

B15 **787.8** Level of Sympathetically Mediated Arteriolar Control Is Inversely Dependent on Arteriolar Segment Length in Rat Gluteus Maximus Microvascular Networks **M. Al Tarhuni, B.K. Al-Khazraji, N. Omoruwa and D.N. Jackson.** Univ. of Western Ontario Schulich Sch. of Med. & Dent.

B16 **787.9** Contributions of Transport Resistance Components to Lung Diffusing Capacity **T.K. Roy and T.W. Secomb.** Mayo Clin. and Univ. of Arizona.

B17 **787.10** Effects of Myoendothelial Interactions on Arteriolar Myogenic and Agonist-Mediated Vascular Control **R.K. Pradhan, X. Lu, G.S. Kassab, D.A. Beard and B.E. Carlson.** Univ. of Michigan and California Med. Innovations Inst. Inc., San Diego.

B18 **787.11** Image-Based Characterization of Functional and Structural Heterogeneity of Tumor Xenografts Using Blood Flow Modeling, Oxygenation Modeling and Multivariate Analysis **S.K. Stamatelos, E. Kim, A.P. Pathak and A.S. Popel.** Johns Hopkins Sch. of Med. and Norwegian Inst. of Sci. and Technol., Trondheim.

788. MICROVASCULAR MECHANICS/HEMODYNAMICS

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B19 **788.1** Thermally Induced Erythrocyte Aggregation in Mammals **G. Gunter, H.S. Seidner and M.D. Frame.** Stony Brook Univ.

B20 **788.2** Flux Flow Split in Microchannels with Varying Bifurcation Angles at Low Re **S. Darvishi, A.A. Kadam and M.D. Frame.** Stony Brook Univ.

789. MICROVASCULAR PATHOLOGY AND TRANSLATIONAL BIOLOGY

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B21 **789.1** Effects of Triptolide on the Expression of Inflammatory Markers in Lipopolysaccharide-Treated Human Endothelial Cells (HUVEC) **G. Galvez, S. Santander, I. Raskin and M.E. Baldeon.** Universidad de Las Americas and Rutgers Univ.
- B22 **789.2** Restoration of Endothelium-Dependent Vasodilatory Responses in T2D Resistance Arteries by a Pharmacologic Activator of Endothelial K_{Ca} Channels **R.C. Mishra, B.D. Kyle, H.E. Mewhort, P.W. Fedak and A.P. Braun.** Univ. of Calgary.
- B23 **789.3** Vasodilator and Vasoprotective Actions of Angiotensin 1-7 in the Human Microcirculation – Role of Telomerase **M.J. Durand, D.D. Gutterman and A.M. Beyer.** Med. Col. of Wisconsin.
- B24 **789.4** Metabolic Syndrome Eliminates Vascular Protection against Chronic Stress in Female Rats **S. Stanley, S. Brooks, C. Leon, A. d'Audiffret and J. Frisbee.** West Virginia Univ.
- B25 **789.5** Obesity in Aging Exacerbates Blood Brain Barrier Disruption and Neuroinflammation Leading to Synaptic Plasticity Deficit and Cognitive Decline in Mice **Z. Tucsek, P. Toth, S. Tarantini, M.N. Valcarcel-Ares, T. Gautam, W.E. Sonntag, F. Deak, Z. Ungvari and A. Csiszar.** Univ. of Oklahoma Hlth. Sci. Ctr.
- B26 **789.6** Metabolic Syndrome and Chronic Stress: Convergent Pathologies Lead to Severe Vascular Impairment **S.D. Brooks, S.C. Stanley, C.M. Leon, A. d'Audiffret and J.C. Frisbee.** West Virginia Univ.
- B27 **789.7** Arginine Vasopressin Receptor 2 Activation Disrupts Endothelial Barrier and Promotes Vascular Hyperpermeability **E. Lopez, O. Fujiwara, B. Enkhtaivan, Y. Zhu, D. Perez-Bello, J. Rojas, R.A. Cox, H.K. Hawkins, D.N. Herndon, D.S. Prough and P. Enkhbaatar.** Univ. of Texas Med. Branch and Shriners Hosp. for Children.
- B28 **789.8** Quantification of Breast Cancer Cell Transmigration across Brain and Lung Microvascular Endothelium **B.M. Fu and J. Fan.** City Col. of CUNY.
- B29 **789.9** IGF-1 Deficiency Exacerbates Hypertension-Induced Cerebral Microhemorrhages in Mice, Mimicking the Aging Phenotype **S. Tarantini, P. Toth, Z. Springo, Z. Tucsek, M.N. Valcarcel-Ares, T. Gautam, W.E. Sonntag, A. Csiszar and Z. Ungvari.** Univ. of Oklahoma Hlth. Sci. Ctr.
- B30 **789.10** Experimental Neurovascular Uncoupling Promotes Cognitive Impairment in Mice: Implications for Brain and Cerebrovascular Aging **S. Tarantini, Z. Tucsek, N. Smith, M.N. Valcarcel-Ares, E. Hodges, R. Towner, F. Deak, W.E. Sonntag, A. Csiszar, Z. Ungvari and P. Toth.** Univ. of Oklahoma Hlth. Sci. Ctr. and Oklahoma Med. Res. Fndn., Advanced Magnetic Resonance Ctr.
- B31 **789.11** Intravital Microscopy of the Rat Uterus after Titanium Dioxide Nanomaterial Exposure **P.A. Stapleton, C.R. McBride, J. Yi and T.R. Nurkiewicz.** West Virginia Univ.

- B32 **789.12** EET-Dependent Potentiation of Pulmonary Arterial Pressure: A Role of Sex Differences **S. Kandhi, J. Qin, G. Froogh, M.S. Wolin, D. Sun and A. Huang.** New York Med. Col.
- B33 **789.13** A Novel Role of Three Prime Repair Exonuclease 1 in Microvascular Function and Hypertension **K. Ait Aissa, M. Kassin, M. Trebak, S. Belmadani and K. Matrougui.** Eastern Virginia Med. Sch.
- B34 **789.14** Endothelial Cell $Hb\alpha$ Can Regulate Blood Pressure **J.T. Butcher, L.J. DeLalio, L.A. Biwer, S.M. Lang, R.B. Weaver, A.K. Best-Campbell, M.E. Good and B.E. Isakson.** Univ. of Virginia.
- B35 **789.15** In Vivo Inhibition of NFAT Signaling Restores Microvascular Endothelial Function in Diabetic Mice **E. Garcia Vaz, A. McNeilly, J. Gallagher, R. McCrimmon, M.F. Gomez and F. Khan.** Lund Univ. and Ninewells Hosp., Univ. of Dundee.

790. PERICYTES AND STEM CELLS

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B36 **790.1** Ca^{2+} Dynamics and Contraction of Junctional Pericytes in the Retinal Vasculature **A.L. Gonzales, B. Shui, M.I. Kotlikoff and M.T. Nelson.** Univ. of Vermont and Col. of Vet. Med., Cornell Univ.
- B37 **790.2** Tracking Human Adipose-Derived Stem Cells in an Ex Vivo Microvascular Network Model **M.S. Azimi, A.L. Strong, T.B. Phamduy, D.B. Chrisey, B.A. Bunnell and W.L. Murfee.** Tulane Univ.

791. PERMEABILITY/FLUID AND SOLUTE EXCHANGE/GLYCOCALYX

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B38 **791.1** A Novel Isolated Glomerular Albumin Permeability Assay Based on Quantitative Fluorescence Microscopy **S. Desideri, A. Salmon, S. Satchell and B. Foster.** Sch. of Physiol. and Pharmacol., Univ. of Bristol.
- B39 **791.2** The Development and Functional Validation of Engineered Microvessels Using Microfluidic Devices **S. Xu, X. Li, Y. Liu and P. He.** Penn State Col. of Med. and West Virginia Univ.
- B40 **791.3** Sphingosine-1-Phosphate-Induced Activation of RhoA and Enhancement of Endothelial Barrier Integrity **X. Zhang, S.P. Adderley and J.W. Breslin.** Univ. of South Florida.
- B41 **791.4** Histamine-Induced Endothelial Barrier Dysfunction Requires p38 MAPK-Mediated Actin Cytoskeleton Reorganization **S. Adderley and J. Breslin.** Univ. of South Florida.

- B42 **791.5** Increased Aggregated Circulating Microparticles in STZ-Induced Diabetic Rats Propagate Inflammation **Q. Feng, S. Xu, G. Guo and P. He.** Penn State Col. of Med. and West Virginia Univ.
- B43 **791.6** Hemorrhagic-Shock/Resuscitation-Induced Microvascular Permeability in the Rat Mesentery Is Exacerbated by Acute Alcohol Intoxication **T.M. Doggett and J.W. Breslin.** Univ. of South Florida and LSU Hlth., New Orleans.
- B44 **791.7** Sphingosine-1-Phosphate Maintains Normal Microvascular Permeability by Preserving Endothelial Surface Glycocalyx **L. Zhang, M. Zeng, J. Fan, F.-R.E. Curry, J.M. Tarbell and B. Fu.** City Col. of CUNY and Univ. of California, Davis.
- B45 **791.8** Alcohol-Induced Decreases in Brain Endothelial Barrier Integrity Rescued by Sphingosine-1-Phosphate or 8-pCPT-2'-O-Me-cAMP **N.G. Alves, S.P. Adderley, S.Y. Yuan and J.W. Breslin.** Univ. of South Florida.
- B46 **791.9** Focal Adhesion Kinase Mediates Nucleotide P2Y₂ Receptor-Dependent Increased Endothelial Permeability **J. Wang, J.J. Harvey, A. Tiwari, L. Erb, V. Huxley, G. Weisman and G. Richard.** Missouri State Univ. and Univ. of Missouri-Columbia.

792. TISSUE-MICROVESSEL INTERACTIONS/ EXTRACELLULAR MATRIX

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B47 **792.1** Effect of Electrospun Scaffold Fiber Alignment on Platelet Functions **J. Han, I. Soaita, J. O'Hara, W. Yin and D.A. Rubenstein.** Stony Brook Univ.
- B48 **792.2** Effect of Electrospun Scaffold Fiber Alignment on Endothelial Cell Growth **S. Hom, J. O'Hara, W. Yin and D.A. Rubenstein.** Stony Brook Univ.
- B49 **792.3** Macromolecular Distribution Volume in Human Ovarian and Endometrial Cancer **H. Wiig, H. Haslene-Hox, E. Oveland, K. Woie, H.B. Salvesen and O. Tenstad.** Univ. of Bergen and Haukeland Univ. Hosp., Norway.
- B50 **792.4** Vascularization of Porous PolyHEMA Scaffolds **L. Liao, E.H. Cho, A. Boico, J.K. Register, A.M. Fales, K.L. Helton, N.A. Wisniewski, T. Vo-Dinh, G. Palmer and B. Klitzman.** Duke Univ. and PROFUSA Corp., San Francisco.

793. VASOMOTOR CONTROL

Poster

(Sponsored by: The Microcirculatory Society)

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B51 **793.1** Integrated Capillary Responses to Multiple Vasodilators: Implications for Redundancy in Active Hyperaemia **I.R. Lamb and C.L. Murrant.** Univ. of Guelph, Canada.
- B52 **793.2** Alpha-1 Adrenergic Receptor Subtype Distribution in Small Resistance Arteries from Mouse and Rat **R. Mitchell, P. Bagher, K.A. Dora and C.J. Garland.** Univ. of Oxford.

- B53 **793.3** Endogenous Acetylcholine Detected by Changes in [Ca²⁺]_i within Isolated Endothelial Cell Tubes **H.E.C. Davis, P. Bagher, K.A. Dora and C.J. Garland.** Univ. of Oxford.
- B54 **793.4** Type 2 Diabetes Alters Nitric Oxide Signaling in the Rat Aorta **T.D. Olver, B.S. Ferguson, R.D. Sheldon, M.A. Linden, C.A. Emter, R.S. Rector and M.H. Laughlin.** Univ. of Missouri-Columbia.
- B55 **793.5** Effect of Macronutrient Ingestion on Flow-Mediated Dilatation: A Meta-Regression Analysis **A. Early, N. Thom, B. Hunt and M. Herring.** Wheaton Col., IL and Univ. of Limerick.
- B56 **793.6** Sympathetic Neural Contributions to Vascular Control: Role of K_{ATP} Channels **C.T. Holdsworth, S.K. Ferguson, R.J. Fels, S.R. Montgomery, M.J. Kenney, D.C. Poole and T.I. Musch.** Kansas State Univ.

794. MICROCIRCULATION II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B57 **794.1** Large Arteriolar Component of Oxygen Delivery Implies Safe Margin of Oxygen Supply to Cerebral Tissue **S. Sakadzic, E.T. Mandeville, L. Gagnon, J.J. Musacchia, M.A. Yaseen, M.A. Yucel, J. Lefebvre, F. Lesage, A.M. Dale, K. Eikermann-Haerter, C. Ayata, V.J. Srinivasan, E.H. Lo, A. Devor and D.A. Boas.** Massachusetts Gen. Hosp.; École Polytech de Montréal; UCSD and Univ. of California, Davis.
- B58 **794.2** Acute and Chronic Inhibition of NOS Causes a Switch in Vasodilator Mechanism from Nitric Oxide to Hydrogen Peroxide in the Human Microcirculation **J.C. Hockenberry, N. Zinkevitch, A.M. Beyer and D.D. Gutterman.** Med. Col. Wisconsin.
- B59 **794.3** Nox1 Deletion Rescues Microvascular Dysfunction in Obese db/db Mice **J.A. Thompson, J.D. Mintz, D.J. Fulton and D.W. Stepp.** Georgia Regents Univ.
- B60 **794.4** Complement Receptor C5L2 Improves Renal Perfusion Impairment after Ischemia Reperfusion Injury **A. Thorenz, R. Chen, K. Hüper, B. Hensen, C. Klemann, M. Meier, A. Klos and F. Güler.** Hannover Med. Sch., Germany.
- B61 **794.5** Intravital Microscopy for Measuring Microcirculatory Blood Flow in Pulmonary Surface Metastases of Rats **T. Schroeder, B. Gert, K. Kaefer, A. Boico and D.C. Irwin.** Duke Univ. Med. Ctr.; Univ. of Colorado Denver Sch. of Med. and Univ. of Mainz.
- B62 **794.6** Cutaneous Thermal Injury Increases Leukocyte Adherence in Rat Mesenteric Venules by a Reactive Oxidant-Dependent Mechanism **J.M. Howard, M. Moncure and J.G. Wood.** Univ. of Kansas Med. Ctr.
- B63 **794.7** TRPV4 Channels Regulate Endothelial Ca Signaling in Rat Maternal Uteroplacental Vasculature **N.I. Gokina, A.D. Bonev, A.P. Gokin, G. Goloman and K. Oppenheimer.** Univ. of Vermont.

795. KALEY LECTURE POSTER SESSION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B64 **795.1** Mechanism of Aging-Associated Hypertension: Role of Smooth Muscle Cell Mineralocorticoid Receptor Regulation of Vascular L-type Calcium Channels **J.J. DuPont, A.T. McCurley, S.B. Bender, W.E. Baur, M.A. Hill and I.Z. Jaffe.** Tufts Med. Ctr.; Univ. of Missouri and Univ. of Missouri-Columbia.
- B65 **795.2** TRPV3 Sparklets Mediate Endothelium-Dependent Dilation of Cerebral Parenchymal Arterioles **M.N. Sullivan, P.W. Pires, J.J. Robinson, E.A. Ko and S. Earley.** Univ. of Nevada Sch. of Med. and Colorado State Univ.
- B66 **795.3** Endothelial Cell TRPA1 Channel Activity Delays the Onset of Hypertension-Associated Hemorrhagic Stroke **M.N. Sullivan, J.J. Robinson, W. Li, Y. Feng and S. Earley.** Univ. of Nevada Sch. of Med. and Colorado State Univ.
- B67 **795.4** Ca²⁺ Influx through Vascular Smooth Muscle Cell Voltage-Gated Ca²⁺ Channels Increases Endothelial Cell Ca²⁺ to Evoke Vasodilation **P. Bagher, C.J. Garland and K.A. Dora.** Univ. of Oxford.
- B68 **795.5** Salt-Induced Oxidant Stress in Sprague-Dawley Rats with a Deletion Mutation of the *Nrf2* Gene **J.H. Lombard, K. Kautenberg, J.R.C. Priestley, B.D. Weinberg, M.C. Casati, B.T. Endres and A.M. Geurts.** Med. Col. of Wisconsin.
- B69 **795.6** Identification and Functional Characterization of Neuronal Nitric Oxide Synthase in Primary Brain Microvascular Endothelial Cells **N.R. Peterson, A.O. Gordon, V.N. Sure, G. Rajaprabakaran, D. Liu, S. Dutta, I. Rutkai, D.W. Busija and P.V. Katakam.** Tulane Univ. Sch. of Med.
- B70 **795.7** Does the Side Matter? Mitochondrial Respiration in Rat Cerebral Arteries following Experimental Stroke **I. Rutkai, S. Dutta, K. Walter, P. Katakam and D. Busija.** Tulane Univ.
- B71 **795.8** TRPV1 Residues Vital to Protection against 4-HNE Modification, Preservation of Channel Activity and Microvascular Function **D.J. DelloStritto, P. Connel, W. Geldenhuys and I.N. Bratz.** Northeast Ohio Med. Univ.
- B72 **795.9** Microtubules Couple Sarcoplasmic Reticulum Calcium Release to TRPM4 and BK Channel Activation in Cerebral Artery Myocytes **A.L. Gonzales, P.W. Pires, B.T. Drumm, E.A. Ko, K.M. Sanders and S. Earley.** Univ. of Vermont and Univ. of Nevada Sch. of Med.
- B73 **795.10** Loss of Hydrogen Sulfide-Stimulated Ca²⁺ Spark Activity in Arteries from Rats with Intermittent Hypoxia-Induced Hypertension **N.L. Kanagy, J.M. Osmond and V.S. Naik.** Univ. of New Mexico.

796. ANGIOGENESIS AND VASCULAR GROWTH II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B74 **796.1** Patterning of renal medullary vasa recta bundles takes place in a narrow developmental window in rats and humans and is dependent on Angiotensin II AT1 receptors **A.R. Tinning, B.L. Jensen, I.G. Johnsen, D. Chen, T.M. Coffman and K. Madsen.** Univ. of Southern Denmark; Odense Univ. Hosp. and Duke Univ. and Durham VA Med. Ctrs.
- B75 **796.2** Mechanisms of Angiotensin-(1-7) Induced MAS1 Receptor Signaling in the Vascular Endothelium **B.R. Hoffmann, T.J. Stodola, J.R. Wagner, J.H. Lombard and A.S. Greene.** Med. Col. of Wisconsin.
- B76 **796.3** LMO2 Regulates Angiogenesis through TGFβ1 and HGF **S. Meng, W.T. Wong and J.P. Cooke.** Houston Methodist Res. Inst.
- B77 **796.4** Cleaved Flt1 Ectodomain Antagonizes VEGF-A Signaling while Uncleaved Flt1 Facilitates KDR Signaling **N.S. Raikwar, K.Z. Liu and C.P. Thomas.** Univ. of Iowa Carver Col. of Med. and VA Med. Ctr.
- B78 **796.5** TRPV4 Channels Regulate Tumor Angiogenesis via Modulation of ERK1/2-Dependent Tumor Endothelial Cell Proliferation **R.J. Thoppil, R.K. Adapala, H.C. Cappelli, S. Paruchuri, J.G. Meszaros and C.K. Thodeti.** Northeast Ohio Med. Univ.
- B79 **796.6** Experimental and Computational Studies of CCR5 Cell-Surface Receptor Heterogeneity and Angiogenesis in Triple-Negative Breast Cancer – A Step towards Understanding Lung Metastasis **K.A. Norton, N.B. Pandey and A.S. Popel.** Johns Hopkins Univ.
- B80 **796.7** Nox4 and HO-1 Mediate Effects of Fluid Shear Stress on PLGF in an In Vitro Model of the Vessel Wall **N.A. Rashdan and P.G. Lloyd.** Oklahoma State Univ.
- B81 **796.8** MMP-2 and MT1-MMP Silencing Induces the Differentiation of Porcine Adipose-Derived Mesenchymal Stem Cells to Endothelial Cells **S.G. Almalki, Y. Llamas and D.K. Agrawal.** Creighton Univ.

797. ENDOTHELIAL CELL BIOLOGY II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B82 **797.1** Phosphorylation of Caveolin-1 Tyrosine 14 Leads to Caveolar Coat Destabilization, Membrane Invagination and Endocytosis **A.M. Zimmnicka, Y.S. Husain, A.N. Shajahan, P. Toth and R.D. Minshall.** Univ. of Illinois at Chicago.
- B83 **797.2** Role of Albumin-Induced RalA Activation and PLD2-Mediated Phosphatidic Acid Production in Caveolae-Mediated Endocytosis and Trafficking in Endothelial Cells **Y. Jiang, M.S. Sverdlov, P. Toth, Y. Liu, V. Natarajan and R.D. Minshall.** Univ. of Illinois at Chicago and Univ. of Electronic Sci. and Technol. of China.

- B84 **797.3** Oxidant-Induced Endothelial Dysfunction Is a Failure of the Mitochondria to Process Cytosolic ROS **E. Shafique, A. Torina, Y. Liu, J. Feng, L. Benjamin, E. Harrington, F. Sellke and R. Abid.** Brown Univ. Alpert Med. Sch.; ImClone, NY and Brown Univ.
- B85 **797.4** Enhanced NLRP3 Inflammasome Activation by Impairment of Instant Membrane Resealing in Endothelial Cells **Y. Chen, M. Yuan, M. Xia and P-L. Li.** Virginia Commonwealth Univ.
- B86 **797.5** Focal Adhesion Kinase Leads Paxillin in the Assembly of Nascent Focal Adhesions in Lamellipodial Protrusions of Migrating Endothelial Cells **Y-L. Hu, S. Lu, K.W. Szeto, J. Sun, Y. Wang, J.C. Lasheras and S. Chien.** UCSD and Univ. of Illinois at Urbana-Champaign.
- B87 **797.6** Generation and Utilization of Human-Induced Pluripotent Stem Cells from Primary Endothelial Cells for Studying Endothelial Gene Regulation **M. Nakhaei-Nejad, A.G. Murray and N. Jahroudi.** Univ. of Alberta.
- B88 **797.7** Autocrine and Paracrine Effects of VEGF-A on PLGF in an In Vitro Model of the Vessel Wall **N.A. Rashdan and P.G. Lloyd.** Oklahoma State Univ.
- B89 **797.8** Activation of Endothelial NLRP3 Inflammasomes Associated with Acid Sphingomyelinase-Dependent Formation of Membrane Raft Redox Signaling Platforms **M. Xia, K.M. Boini, Y. Chen, Y. Zhang and P-L. Li.** Virginia Commonwealth Univ.
- B90 **797.9** The Role of Myosin Phosphatase in Pulmonary Vascular Endothelial Barrier Preservation In Vivo **A. Kasa, B. Gorshkov, S. Kumar, C. Dimitropoulou, J.D. Catravas, S.M. Black and A.D. Verin.** Georgia Regents Univ.

798. MYOCARDIAL ISCHEMIA/METABOLISM I

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B91 **798.1** Macrophage-Secreted Ceramides are Necessary for Myocardial Mitochondrial Disruption with LPS Treatments **R. Saito, M. Hansen and B. Bikman.** Brigham Young Univ.
- B92 **798.2** Effects of T3 (Tri-iodothyronine) on Myocardial Remodeling and Functional Recovery after Ischemia/Reperfusion **S. Seitter, C. Pol, V. Rajagopalan, Y. Zhang, Y. Chen and A.M. Gerdes.** NYIT Col. of Osteo. Med.
- B93 **798.3** The Novel Contribution of the ER/SR Ca²⁺ Sensor STIM1 to Cardiac Function and Metabolism **H.E. Collins, B.M. Pat, S.H. Litovsky, M.E. Young and J.C. Chatham.** Univ. of Alabama at Birmingham.
- B94 **798.4** The Effects of NAD on Glucose Deprivation Induced Activation of Protein O-GlcNAcylation, ER Stress and Autophagy Mediated by CD38 and cADPR **L. Zou, R.B. Marchase and J.C. Chatham.** Univ. of Alabama at Birmingham.
- B95 **798.5** Safe Therapeutic Effect on Post-infarct Cardiac Remodeling and Pathophysiology following Low-Dose Oral Triiodo-L-Thyronine (T3) Treatment **V. Rajagopalan, Y. Zhang, A. Pingitore, Y. Chen, C.J. Pol, Y. Wang, D. Saunders, K. Balasubramanian, R. Towner, K. Ojamaa and A.M. Gerdes.** New York Inst. of Technol. Col. of Osteo. Med.; CNR Clin. Physiol. Inst., Pisa; Feinstein Inst. for Med Res and Oklahoma Med. Res. Fndn.

- B96 **798.6** The Association of Depressed Angiogenic Factors with Reduced Capillary Density in Rhesus Monkey Model of Myocardial Ischemic Infarction **W. Zhang, X. Zhao, Y. Xiao, P. Han and J.Y. Kang.** Sichuan Univ. West China Hosp. and Univ. of Louisville Sch. of Med.
- B97 **798.7** Spatial Implications of a Steep Relationship between Intracellular Na⁺ and Spontaneous Calcium Wave Frequency **K.L. Ford, P. Swietach and R.D. Vaughan-Jones.** Univ. of Oxford.
- B98 **798.8** Ubiquitin Proteasome System Inhibition Ameliorates Cardiac Dysfunction following Ischemia-Reperfusion under Hyperglycemic Conditions **R.F. Mapanga, B. Adams and M.F. Essop.** Stellenbosch Univ., South Africa.
- B99 **798.9** The Effect of Inhibition of Glycolysis on Susceptibility to Ischemia-Induced Ventricular Fibrillation in the Isolated Rat Heart **H. Clements-Jewery and G. Endler.** West Virginia Sch. of Osteo. Med.

799. CARDIAC FUNCTION AND DYNAMICS I

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B100 **799.1** Assessment of Human Physiological Oscillations with Interferometry **C. Haselby, J.L. Smith, R. Murphy, K.P. Heinking and K.K. Henderson.** Midwestern Univ., IL.
- B101 **799.2** Transgenic rat model overexpressing endothelial β_3 -adrenoceptor: a new model for heart failure with preserved ejection fraction **V. Prat, D. Roul, M. Ferron, N. Piriou, D. Guijarro, A. Grabherr, V. Aillerie, A. Erraud, B. Lauzier, B. Rozec and C. Gauthier.** INSERM UMR 1087/ CNRS UMR 6291 and Nantes-Laennec Hosp.
- B102 **799.3** Acute Hemodynamic Effects of Intravenous Triiodothyronine in Normal Swine and Swine with Ischemic Cardiomyopathy **B.R. Weil, G. Suzuki, R.F. Young, J.A. Fallavollita and J.M. Canty, Jr.** Univ. at Buffalo and VA Western NY Healthcare Syst., Buffalo.
- B103 **799.4** Residual Strain in the Left Ventricular Ex Vivo C57BL/6 Myocardium **S. Angeli, M. Michaelides and C. Constantinides.** Chi Biomed Ltd., Nicosia, Cyprus and Univ. of Cyprus.
- B104 **799.5** Left Ventricular Diastolic Elastance Is Higher in Women Compared to Men, and Elevated with Beta-Blockade **P.L. Kerkhof, J.K. Li, J.Y. Kresh and G.R. Heyndrickx.** VU Univ. Med. Ctr., Amsterdam; Rutgers Univ.; Drexel Univ. and CV Ctr., Aalst, Belgium.
- B105 **799.6** Improvement in Fractional Shortening in Aortic Regurgitation Rats: Cardiac Muscle Network **A.C.M. Omoto, G.J. Fernandez, L.N. Moraes, M.G. Roscani, R.F. Carvalho and J.I.F. De Gobbi.** São Paulo State Univ. and Fed. Univ. of São Carlos, Brazil.
- B106 **799.7** Rho Kinase Inhibition Improves Cardiac Cross-Bridge Dynamics in Early Diabetic Cardiomyopathy **M.T. Waddingham, A.J. Edgley, A. Astolfo, T. Inagaki, Y. Fujii, H. Tsuchimoshi, D.J. Kelly, N. Yagi, M. Shirai and J.T. Pearson.** Univ. of Melbourne; Paul Scherrer Inst., Swiss Light Source; Natl. Cerebral and Cardiovasc. Res. Inst., Osaka; JASRI, SPring-8, Hyogo and Monash Univ., Australia.

- B107 **799.8** Elasticity Measurements from Left Ventricular Murine HL-1 Cardiomyocytes using Atomic Force Microscopy **F. Kossivas, M. Michaelides, A. Hadjisavvas, A. Kyprianou, K. Kyriacou and C. Constantinides.** Univ. of Cyprus; Cyprus Inst. of Neurol. & Genet. and Chi Biomed. Ltd., Nicosia, Cyprus.
- B108 **799.9** Chronic Levosimendan Administration Preserves Systolic and Diastolic Function and Preserves Circumferential Strain in Rats with Volume Overload Heart Failure **K. Wilson, E.F. McIlwain and P.A. Lucchesi.** Nationwide Children's Hosp.; The Ohio State Univ. and LSU Hlth. Sci. Ctr., New Orleans.
- B109 **799.10** Effect of Resveratrol on Cardiovascular and Metabolic Function in Adult Male and Female Offspring Born Intrauterine Growth Restricted **A. Shah, L.M. Reyes, J.S. Morton and S.T. Davidge.** Univ. of Alberta and Women and Children's Hlth. Res. Inst.
- B110 **799.11** Altered Structure and Function in Aging Synemin-Null Murine Heart **K.P. Garcia-Pelagio, L. Chen, L. Lund, M. Bond and R.J. Bloch.** Univ. of Maryland Baltimore; Merrick Sch. of Business, Univ. of Baltimore and Col. of Sci. and Hlth. Professions, Cleveland State Univ.
- B111 **799.12** Heart Rate Variability as a Measure of Autonomic Regulation of Cardiac Activity during Mental Stress **E.V. Saperova and D.A. Dimitriev.** Chuvash State Pedagogical Univ., Russian Fed.
- B119 **800.8** Comparison of Compensatory Reserve Index during Lower Body Negative Pressure and Hemorrhage **C. Hinojosa-Laborde, J. Mulligan, G.Z. Grudic and V.A. Convertino.** U.S. Army Inst. of Surg. Res., Fort Sam Houston and Flashback Technologies Inc., Boulder.
- B120 **800.9** Protective Function of Endothelial Glycocalyx during Hemorrhagic Shock in Skeletal Muscle: Integration of Systemic and Local Parameters In Vivo **L. Torres, C. Salgado, C. Valdez, J. Sondeen, M. Dubick and I. Torres Filho.** U.S. Army Inst. of Surg. Res., San Antonio.
- B121 **800.10** Autonomic Dysreflexia Impairs Cerebrovascular Health and Cognition in Experimental Spinal Cord Injury **A.A. Phillips, N. Matin, C.R. West, A.M.Z. Zheng, L.A.M. Galea, A.M. Dorrance, I. Laher and A.V. Krassioukov.** Univ. of British Columbia and Michigan State Univ.
- B122 **800.11** Cerebrovascular Regulation Is Impaired Immediately Post Concussion and Associated with Increased Estimated ICP **J.M. Serrador, J. Tosto, L. Reyes, M. Blatt, B. Ghobreal and M. Falvo.** Rutgers Biomed. and Hlth. Sci. Campus, Newark and VA New Jersey Hlth. Care Syst., East Orange.

801. CELLULAR MEMBRANE REPAIR IN CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

800. CARDIOVASCULAR CONSEQUENCES OF TRAUMA

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B112 **800.1** Protective Effects of the Somatostatin Analogue (Oceriotide) versus Ischemic Preconditioning on Cardiac Dysfunction Induced by Ischemia Reperfusion Injury in Hypothyroid Rats **M.H. El sayed.** Ain Shams Univ., Egypt.
- B113 **800.2** Coenzyme Q10 but Not Resveratrol Protects against the Sequelae of Myocardial Infarction: Profoundly Reduces Infarct Area, Inflammation, and Oxidative Stress; Normalizes Hemodynamics; and Recommences Homeostatic Apoptosis **F. AL-Hashem, S. Eleawa and M. Alkhateeb.** King Khalid Univ. Col. of Med., Saudi Arabia and Col. of Hlth. Sci., Kuwait.
- B114 **800.3** Inhibitory Effect of Meclofenamate Sodium on Proteasome Activity in the Cardiac Cells and Reversal of Its Effect by Antioxidants **R. Ghosh, S.M. Hwang and A.V. Gomes.** Univ. of California, Davis.
- B115 **800.4** Alcohol Exposure Worsens Progression of Heart Failure in a Rat Model of Volume Overload **A. Mouton, E.C. El Hajj, M.C. El Hajj, N. Gilpin, P.E. Molina and J.D. Gardner.** LSU Hlth. Sci. Ctr., New Orleans.
- B116 **800.5** Mast Cells Distinctly Regulate Inflammatory Response in Wild-Type and H1R Null Mice **D.D. Smith, V.V. Raveendran and K.N. Dileepan.** Univ. of Kansas Med. Ctr.
- B117 **800.6** Attenuation of Post-trauma Hyperglycemia Prevents Acute Kidney Injury in Obese Rats **P. Mittwede, S. Lu, J. Clemmer, R. Hester and L. Xiang.** Univ. of Mississippi Med. Ctr.
- B118 **800.7** Reproducibility of a Continuous Ramp Lower Body Negative Pressure Protocol for Simulating Hemorrhage **C.A. Rickards and V.L. Kay.** Univ. of North Texas Hlth. Sci. Ctr.
- B123 **801.1** Modulating Membrane Repair Facilitates Therapeutic Cell Membrane Resealing in Striated Muscle **L. Gushchina, S. Bhattacharya, A. Blazek, H. Manning, E. Beck, J. Alloush and N. Weisleder.** Wexner Med. Ctr., The Ohio State Univ.
- B124 **801.2** Tripartite Motif Family Proteins Mediate Vesicular Trafficking during Membrane Repair in Striated Muscle **S. Bhattacharya, J. Alloush, E. Beck, L. Gushchina and N. Weisleder.** The Ohio State Univ.
- B125 **801.3** The Role of Sarcospan in Cardiac Sarcolemma Organization and Function **V.A. Richardson, M.S. Parvatiyar, J.L. Marshall, R.T. Nguyen, M.C. Jordan, K.P. Roos and R.H. Crosbie-Watson.** UCLA and UCLA David Geffen Sch. of Med.
- B126 **801.4** Neutrophil Polarization following Myocardial Infarction in Mice **Y. Ma, A. DeCoux, A. Yabluchanskiy, R. Clark, Y-F. Jin and M.L. Lindsey.** Univ. of Mississippi Med. Ctr. and Univ. of Texas at San Antonio.
- B127 **801.5** Differential Effects of Hydrophilic versus Lipophilic Statins on RhoA Kinase Inhibition and Membrane Stability in Cardiac Myocytes **J.C. Godoy, J.M. Schilling, A. Schwarz, E.K. Asfaw, E.A. Alvarez, N.D. Dalton, H.H. Patel and A.E. Zemljic-Harpf.** Veterans Med. Res. Fndn., San Diego and UCSD.
- B128 **801.6** Chronic High Fat Diet Decreases CD34/CD133 Cell Population in Bone Marrow and Peripheral Circulation in Association with Decreased Level of Serum MG53 **J.Z. Liu, H. Ma, D.Z. Liu, Y. Cui, S. Parthasarathy and H. Zhu.** The Ohio State Univ. Wexner Med. Ctr. and Burnett Sch. of Biomed. Sci., Univ. of Central Florida Col. of Med.

B129 **801.7** Effect of Metabolic Syndrome on Mitsugumin 53 Expression and Function **H. Ma, J. Liu, Z. Bian, Y. Cui, X. Zhou, X. Zhou, B. Zhang, T.M.A. Adesanya, K.H. Park and H. Zhu.** The Ohio State Univ. Wexner Med. Ctr.; Olentangy Liberty H.S., Powell, OH and Dublin Jerome H.S., Dublin, OH.

802. VASCULAR ENDOTHELIAL CELL INSULIN RESISTANCE: A NEW TARGET FOR REDUCING VASCULAR RISK IN DIABETES?

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B130 **802.1** Endothelial ARF6 Deletion Impairs Insulin-Induced Dilatation of Adipose Arteries and Systemic Glucose Tolerance **S.R. Breevoort, G.D. Henson, C. Gibson, K.D. Reihl, D.Y. Li, A.J. Donato and L.A. Lesniewski.** Univ. of Utah and VA Med. Ctr.

B131 **802.2** PTP1B Deletion Enhances Endothelial Cyclooxygenase 2 Expression and Protects Mice from Type 1 Diabetes-Induced Endothelial Dysfunction **J.B. Norman, D.J. Herren, R. Anderson, A-C. Huby and E.J. Belin de Chantemele.** Georgia Regents Univ.

B132 **802.3** Enhanced p47^{PHOX} NADPH Sub-unit Expression Impairs Conductance and Resistance Vascular Function in Obese Mice **K. Ait-Aissa, M. Kassan, M. Trebak, K. Matrougui and S. Belmadani.** Eastern Virginia Med. Sch.

B133 **802.4** Hyperglycemia-Induced Alterations of the Vascular Endothelium in Type 2 Diabetes Mellitus **B.R. Hoffmann, A.R. Prisco, M.E. Widlansky and A.S. Greene.** Med. Col. of Wisconsin.

B134 **802.5** Sodium Salicylate Prevents TNF Alpha-Induced Reductions in Insulin-Stimulated eNOS^{Ser1177} Phosphorylation but Not Akt in Human Aortic Endothelial Cells **R.A. Younatham, K.J. Siefers, L.J. Wegman-Points and G.L. Pierce.** Univ. of Iowa.

B135 **802.6** COX Inhibitor Indomethacin Attenuates Phenylephrine-Induced Vasoconstriction: Differences in OLETf and LETO Vascular Response **B.S. Ferguson, T.D. Olver, R.D. Sheldon, M.A. Linden, C.A. Emter, R.S. Rector and M.H. Laughlin.** Univ. of Missouri-Columbia.

B136 **802.7** Homa Modeling Is Significantly Associated to the Cutaneous Blood Perfusion Responses of Insulin **M.F. La Fontaine, K.N. Swonger, J.C. Hobson and W.A. Bauman.** James J. Peters VA Med. Ctr., Bronx and Icahn Sch. of Med. at Mount Sinai.

B137 **802.8** A Novel Assay for Insulin Transcytosis Reveals an Unexpected Role for Clathrin **P.M. Azizi, R.E. Zyla, S. Guan, C. Wang, S-S. Bolz, B. Heit, A. Klip and W.L. Lee.** St. Michael's Hosp., Toronto; Hosp. for Sick Children, Toronto and Western Univ., London, Canada.

803. VASCULAR PATHOBIOLOGY II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B138 **803.1** Association of Markers of Intravascular Cellular Interaction with Carotid Intima Medial Thickness in Postmenopausal Women **C.M. Gustafson, A.J. Shepherd, V.M. Miller and M. Jayachandran.** Mayo Clin.

B139 **803.2** Post-partum Endothelial Dysfunction in the Reduced Uteroplacental Perfusion Pressure Model **J.S. Morton, L.J. Brennan and S.T. Davidge.** Univ. of Alberta.

B140 **803.3** Collagen-binding Peptide Attenuates Catheter-Induced Coronary Vasospasm **A. Kole, J. Noblet, N. Ramchandani, J.D. Tune, A. Panitch and M. Sturek.** Indiana Univ. Sch. of Med. and Weldon Sch. of Biomed. Engin., Purdue Univ.

B141 **803.4** Antiproliferative Effect of Methanolic Extract of *Azadirachta indica* on Vascular Smooth Muscle Cells **T. Omobowale, A.A. Oyagbemi, A.A. Adedapo and M. Yakubu.** Fac. of Vet. Med., Univ. of Ibadan, Nigeria and Texas So. Univ.

B142 **803.5** Genetic Deletion of P2Y₂ Receptor Induces Vascular Endothelial Dysfunction but not Large Artery Stiffening in Mice **B.K. Kishore, G.D. Henson, Y. Zhang, N.G. Carlson, L.A. Lesniewski and A.J. Donato.** Univ. of Utah & VA Med. Ctr.

B143 **803.6** Impact of Senescent Endothelial Cells on Vascular Smooth Muscle Cells **H.T. Hwang and A.A. Knowlton.** Univ. of California, Davis.

B144 **803.7** Mechanisms of Vascular Dysfunction in Depression and Metabolic Syndrome **C.M. Leon, S.D. Brooks, S. Stanley and J.C. Frisbee.** West Virginia Univ.

B145 **803.8** K_{Ca}3.1 Inhibition Decreases Size and Alters Composition of Atherosclerotic Lesions Induced by Low, Oscillatory Flow **D.L. Tharp and D.K. Bowles.** Univ. of Missouri-Columbia.

B146 **803.9** Racial Differences in Macrovascular and Microvascular Function following Acute Antioxidant Supplementation **R.M. Kappus, B.M. Shafer, S.O. Wee, T. Baynard, J.M. Haus, S. Phillips, M.D. Brown and B. Fernhall.** Univ. of Illinois at Chicago.

B147 **803.10** Differential AMPK Activation and Contractile Function in Rabbit Leg and Neck Arteries in Response to Oxygen and Glucose Deprivation **T.O. Makinde, A.D. Latham, A.S. Miner, Y. Huang, B. Sharma, G. Chen, R.W. Barbee and P.H. Ratz.** Virginia Commonwealth Univ.

B148 **803.11** Endothelial-Dependent Cerebrovascular Dysfunction in U.S. Veterans with Combat Related Health Issues **L.A. Reyes, M. Blatt, A. Acosta and J.M. Serrador.** VA New Jersey Hlth. Care Syst., East Orange and Rutgers Biomed. Hlth. Sci.

B149 **803.12** Angiotensin II-Induced TLR4 Mediated Abdominal Aortic Aneurysm Formation in ApoE^{-/-} Mice Is Dependent on STAT3 **Y. Zhang, Z. Qin, J. Bagley, D. Beasley, H-J. Park and J. Galper.** Tufts Med. Ctr. and Tufts Univ.

804. VASCULAR SMOOTH MUSCLE I

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B150 **804.1** High Activity of Large-Conductance Ca^{2+} -Activated K^+ Channels Underlies Weak Myogenic Tone of Rat Mesenteric Arteries in Comparison of Cerebral Artery **E.Y. Seo, M.C. Yun, Y.H. Zhang and S.J. Kim.** Seoul Natl. Univ. Col. of Med.
- B151 **804.2** Mechanisms of the Shock Absorber Function in Proximal Aorta **Y.Z. Gao, R.J. Saphirstein, R. Yamin, B. Suki and K.G. Morgan.** Boston Univ. and Sargent Col., Boston Univ.
- B152 **804.3** Lysosomal Calcium: Impact on Serotonin-Induced Contractions of Ovine Pulmonary Arteries **A. Arnold, L. Linklater, H. Widmer, I. Rowe and S.F. Cruickshank.** Robert Gordon Univ., Aberdeen.
- B153 **804.4** The Tyrosine Kinase Pyk2 Promotes Sustained Contraction of Vascular Smooth Muscle and Is Activated Downstream of Calcium Entry **R.D. Mills, M. Mita, C. Sutherland and M.P. Walsh.** Univ. of Calgary, Canada and Meiji Pharmaceut. Univ., Tokyo.
- B154 **804.5** Protein Kinase G and VASP in the Control of Vascular Smooth Muscle Cell Migration **A. Holt, J. Stone and D. Tulis.** Brody Sch. of Med., East Carolina Univ. and Carson-Newman Univ., TN.
- B155 **804.6** Phenotypic Characterization of Diabetic Vascular Smooth Muscle Cells **K.E. Husarek and P.A. Lucchesi.** The Ohio State Univ.; Ohio State Univ. and Nationwide Children's Hosp.
- B156 **804.7** Angiotensin II Stimulates Internalization and Degradation of BK Channels in Arterial Myocytes to Induce Vasoconstriction **M.D. Leo, S. Bulley, J.P. Bannister and J.H. Jaggar.** Univ. of Tennessee Hlth. Sci. Ctr.
- B157 **804.8** Glucose-6-Phosphate-Dehydrogenase Blockers Attenuate Inositol Triphosphate-Mediated Constriction of Pulmonary Arteries via Activation of Protein Kinase G **A. Lakhkar and S.A. Gupte.** New York Med. Col.
- B158 **804.9** Arterial Smooth Muscle Proliferative Responses to ET-1 Are Subject to Hypoxic Pre-conditioning in Term Fetal Lamb Arteries **D. Kim, J. Silpanisong, M. Hubbell and W.J. Pearce.** Loma Linda Univ.

805. DIABETES AND INSULIN RESISTANCE I

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B159 **805.1** Gestational Chronic Intermittent Hypoxia Impairs Hepatic Gluconeogenesis in the Offspring **J. Ciriello, W. Iqbal and D.B. Hardy.** Univ of Western Ontario.
- B160 **805.2** Insulin Resistance Causes Posttranslational Downregulation of Hepatic Sortilin 1 in Diabetic Mice **T. Li, J. Li and D. Matye.** Kansas Univ. Med. Ctr.
- B161 **805.3** Arginase Promotes Endothelial Dysfunction and Hypertension in Obesity by Restricting Arginine Bioavailability **W. Durante, K.J. Peyton, X-m. Liu, M.A. Azam, A.R. Shebib, R.A. Johnson and F.K. Johnson.** Univ. of Missouri-Columbia and Lincoln Mem. Univ.
- B162 **805.4** Proteomics Analysis of Platelets from Morbidly Obese Subjects **Y. Dobrydneva and S. Dutta.** Eastern Virginia Med. Sch.
- B163 **805.5** Antglycemic Benefits of Enhanced External Counterpulsation in Patients with Type II Diabetes Mellitus **P.D. Sardina, J.C. Avery, J.S. Martin and R.W. Braith.** Univ. of Florida and Quinnipiac Univ., CT.
- B164 **805.6** Plasma from Type 2 Diabetes Patients Increase Monocyte-Derived Superoxide Production via ER Stress-NADPH Oxidase Pathway **S.H. Deo, J. Padilla and P.J. Fadel.** Univ. of Missouri-Columbia.
- B165 **805.7** P2Y2 Receptor Facilitates High-Fat Diet Induced Insulin Resistance **B.K. Kishore, Y. Zhang, K.M. Heiney and C.M. Ecelbarger.** Univ. of Utah/VA Med Ctr and Georgetown Univ.
- B166 **805.8** Modeling of the Fasting Plasma Glucose Identified an Equation Providing Significantly Earlier Identification of Overt Type 2 Diabetes in Nonhuman Primates **K-L.C. Jen, P.K.H. Lin, J.D. Newcomb and B.C. Hansen.** Wayne State Univ.; Univ of Michigan-Dearborn and Univ. of South Florida.
- B167 **805.9** Short-Term Moderate Sleep Restriction Increases Insulin Concentration following Oral Glucose Tolerance Test **X. Wang, J. Greer, R. Porter, K. Kaur, S.D. Youngstedt and R. Fayad.** Univ. of South Carolina and Arizona State Univ.

Visit the Exhibits
March 29 – March 31

Exhibit Hours
Sunday – Tuesday
9:00 AM – 4:00 PM

806. SYMPATHETIC MECHANISMS IN DIABETES AND OBESITY**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B168 **806.1** Anoctamins are Determinants of Reduced Cholecystokinin Sensitivity of Vagal Afferents and Impaired Satiety in Obese Mice on High Fat Diet **Y. Lu, R. Wang, M.Z. Cicha, M.W. Chapleau and F.M. Abboud.** Univ. of Iowa and VA Med. Ctr.
- B169 **806.2** The Effect of Hypoglycemia and Hypoxia on Heart Rate Variability in Type 1 Diabetes **K.R. Malterer, J.K. Limberg, M. Kuijpers, K.E. Farni, S. Dube, A. Basu, T.B. Curry, R. Basu and M.J. Joyner.** Mayo Clin.
- B170 **806.3** Effect of Hypoxia on Baroreflex Control of Blood Pressure during Hypoglycemia in Type 1 Diabetes Mellitus **M. Kuijpers, J.K. Limberg, S. Dube, K.E. Farni, A. Basu, T.B. Curry, R. Basu and M.J. Joyner.** Mayo Clin.
- B171 **806.4** Consumption of a High Fat Diet Inhibits Sympathetic Outflow to Brown Adipose Tissue via Activation of Neurons in the Rostral Nucleus of the Solitary Tract **C.J. Madden.** Oregon Hlth. & Sci. Univ.
- B172 **806.5** Obesity and Neural Cardiovascular Responses to Mental Stress in Humans **T.R. Wakeham, M.H. Harwood, J.R. Carter and J.J. Durocher.** Michigan Technol. Univ.
- B173 **806.6** Effect of Stress on Glucose Uptake in Skeletal Muscles: Roles of Beta Adrenergic Receptors **Y. Li.** Univ. of South Dakota.

807. ACUTE KIDNEY INJURY**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B174 **807.1** The Role of p204 in Kidney Injury **A. Marlier, S. Huen, P. Lengyel and L. Cantley.** Yale Univ.
- B175 **807.2** Endothelin-1 and the Recovery of Renal Perfusion Post-ischemia **E.I. Boesen.** Univ. of Nebraska Med. Ctr.
- B176 **807.3** Transcription Factor C/EBP β -Induced microRNA-16 Inactivates BCL2 during Ischemia/Reperfusion and Reduce Kidney Function **H. Lin and H-H. Cheng.** Col. of Med., Taipei Med. Univ.
- B177 **807.4** A New Model of Hemorrhagic Shock-Induced Acute Kidney Injury **L. Wang, P. Qu, Y. Lu, J. Wei, S. Wang, J. Zhang, K.P. Yip and R. Liu.** Univ. of South Florida Col. of Med.
- B178 **807.5** Endolyn/CD164 Regulates Proximal Tubule Cell Survival **P.E. Mattila.** Univ. of Pittsburgh.
- B179 **807.6** Autophagy in Proximal Tubules Prevents or Promotes Tubular Damage Depending on the Type of Acute Kidney Injury Model **S. Bhayana, A. Baisantry, S. Rong, H. Haller, A. Melk and R. Schmitt.** Hannover Med. Sch.
- B180 **807.7** Hydrodynamic Isotonic Fluid Delivery Ameliorates Moderate Ischemia/Reperfusion Injury in Rat Kidneys **P.R. Corridon, G.J. Rhodes, S.J. Atkinson and R.L. Bacalla.** Australian Col. of Kuwait; Sch. of Med., Indiana Univ. and Indiana Univ.-Purdue Univ. Indianapolis.

- B181 **807.8** Efficient Targeted Transgene Delivery in the Setting of Mild and Moderate Ischemia/Reperfusion Kidney Injury **P.R. Corridon, G.J. Rhodes, S.J. Atkinson and R.L. Bacalla.** Australian Col. of Kuwait; Sch. of Med., Indiana Univ., Indianapolis and Indiana Univ.-Purdue Univ. Indianapolis.
- B182 **807.9** Deregulation of miR-21 Contributes to Differential Macrophage Activation in Acute Kidney Injury in Aged Mice **S. Pushpakumar, S. Kundu, S. Givvimani and U. Sen.** Univ. of Louisville.
- B183 **807.10** Mitochondrial Dysfunction in Sepsis-Associated Acute Kidney Injury **N. Nourbakhsh, J. Thomas, R. Deshpande and P. Singh.** UCSD and VA San Diego Healthcare Syst.
- B184 **807.11** Meprin Interactions with the Catalytic Subunit of Protein Kinase A in Ischemia Reperfusion-Induced Renal Injury **J-M.V. Niyitegeka and E.M. Onger.** North Carolina A&T State Univ.

808. RENAL HEMODYNAMICS**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B185 **808.1** Sympathetic Denervation Facilitates L-Type Ca^{2+} Channel Activation in Renal Resistance Arteries by Depolarization of Vascular Smooth Muscle Cells **O. Grisk, P. Heumann, A. Koenen, A. Steinbach, O. Zavaritskaya, R. Schubert and R. Rettig.** Univ. of Greifswald and Med. Fac. Mannheim, Germany.
- B186 **808.2** Insulin Increases Glomerular Barrier Permeability: Role of Intracellular Calcium and PKG α -Dependent Signaling **A. Piwkowska, D. Rogacka, I. Audzuyenka, M. Kasztan, S. Angielski and M. Jankowski.** Mossakowski Med. Res. Ctr., Polish Acad. of Sci. and Med. Univ. of Gdańsk.
- B187 **808.3** The Role of Nitric Oxide System in the Regulation of Renal Function during Prehypertensive and Hypertensive Period in Fawn-Hooded Rat **S. Dolezelova, L. Kopkan and L. Cervenka.** Inst. for Clin. and Exptl. Med., Prague and Charles Univ., Czech Republic.
- B188 **808.4** Exaggerated Natriuresis in Essential Hypertension Is Not Due to Increase in Renal Medullary Blood Flow **K.B. Assersen, P. Bie, P.F. Hoilund-Carlsen, M.H. Olsen, S.V. Greve, J.C. Gam-Hadberg, P.E. Braad, A. Diederichsen, H. Mickley and M. Damkjaer.** Odense Univ. Hosp. and Univ. of Southern Denmark.
- B189 **808.5** Antioxidant and Antiinflammatory Therapies Preserve Renal Autoregulation in 5/6 Nx Rats **L.G. Sanchez-Lozada, A.N. Rodriguez-Alcocer, A.B. Jiménez-Flores, O. Siverio, A.S. Arellano, M. Cristobal, H. Osorio-Alonso, V. Soto and E. Tapia.** INC Ignacio Chavez, Mexico City.
- B190 **808.6** Natriuretic Peptides Exert Marked Renoprotective Effects via Activation of the Natriuretic Peptide Receptor GC-A in Podocytes **J. Staffel, D. Valletta, A. Federlein, M. Kuhn and F. Schweda.** Univ. of Regensburg and Univ. of Würzburg.

- B191 **808.7** Urotensin II-Induced Store-Operated Ca²⁺ Entry Stimulates CAMKII/CREB-Dependent Glomerular Mesangial Cell Proliferation and Extracellular Matrix Accumulation **H. Soni and A. Adebisi**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- B192 **808.8** ET_B Receptors in High Salt Diet-Induced Decline of Renal Autoregulation in Rats **Z. Guan, D.M. Pollock and E.W. Inscho**. Univ. of Alabama at Birmingham.
- B193 **808.9** The Regulatory Pathways of Nitric Oxide Production in Glomeruli Podocytes **O. Palygin, D.V. Ilatovskaya, B.T. Endres, A.M. Geurts and A. Staruschenko**. Med. Col. of Wisconsin.
- B194 **808.10** Renal Arterial Network Structure by Computed Tomography, and Nephron-Arterial Interactions **D.D. Postnov, N-H. Holstein-Rathlou, O.V. Sosnovtseva, D.E. Postnov, A.S. Wexler, D.J. Rowland and D.J. Marsh**. Copenhagen Univ.; Saratov State Univ., Russia; Univ. of California, Davis and Brown Univ.
- B195 **808.11** Luminal Perfusion of In Situ Vasa Recta Capillaries with Calcineurin Inhibitors Enhances Pericyte-mediated Vasoconstriction **M.C. Kelly, S.S.P. Wildman and C.M. Peppiatt-Wildman**. Sch. of Pharm., Univs. of Kent and Greenwich at Medway, U.K.
- B196 **808.12** Protective Action of Prostamide E2 from Homocysteine-Induced NLRP3 Inflammatory Activation and Podocyte Injury **M. Xia, J. Abais, K.M. Boini, P-L. Li and J.K. Ritter**. Virginia Commonwealth Univ.
- B197 **808.13** Roles of Superoxide and Nitric Oxide in the Myogenic Control of Renal Blood Flow Autoregulation **N.G. Moss, T.E. Gentle and W.J. Arendshorst**. Univ. of North Carolina at Chapel Hill.
- B198 **808.14** RBF Autoregulatory Dynamics in a Virtual Step Response **S. Thomson, H. Pham and P. Singh**. UCSD and VA San Diego Healthcare Syst.
- B199 **808.15** Role of Systemic Inflammation and Monocyte Activation in Acutely-Decompensated Cardiorenal Syndrome Patients **R.U. Pliquett, C. Linhart, C. Ulrich and M. Girndt**. Univ. of Halle, Germany.
- B200 **808.16** Chronic Early Life Stress Induces Alpha 1-Adrenergic Receptor Desensitization in the Renal Vasculature **L.J. Evans, C.H. Castillo, T.M. Mahanes, J.L. Osborn and A.S. Loria**. Univ. of Kentucky.
- B201 **808.17** Systemic Administration of a Biopolymer-Delivered VEGF Improved Renal Hemodynamics and Microvascular Rarefaction in Renal Artery Stenosis **A.R. Chade, T.W. Harvey and G.L. Bidwell**. Univ. of Mississippi Med. Ctr.
- B202 **808.18** Two-Photon Imaging of Intracellular Ca²⁺ Handling and Nitric Oxide Production in Endothelial and Smooth Muscle Cells of Isolated Rat Vessels **O. Palygin, B. Endres, B. Miller, A. Sorokin, A. Geurts and A. Staruschenko**. Med. Col. of Wisconsin.
- B203 **808.19** Implications of Increased Renal Venous Pressure for Renal Hemodynamic and Reabsorptive Function Studied by a Mathematical Model of the Kidney **A. Baird, B. Braam and A. Layton**. Duke Univ. and Univ. of Alberta.
- B204 **808.20** Role of Hemodynamic Factors in the Progression of CKD following AKI **A. Polichnowski, K. Griffin, M. Picken, J. Long, G. Williamson and A. Bidani**. Hines VA Hosp./Loyola Univ. and Illinois Inst. of Technol.
- B205 **808.21** Adaptation of Descending Vasa Recta after Renal Ischemia **T.L. Pallone, Z. Zhang and K. Payne**. Univ. of Maryland, Baltimore.
- B206 **808.22** Mechanism of Angiotensin II-Mediated Changes in Glomeruli Permeability and Calcium Influx in Podocytes **D. Ilatovskaya, O. Palygin, B. Endres, V. Levchenko and A. Staruschenko**. Med. Col. of Wisconsin.
- B207 **808.23** Assessing Renal Blood Flow Hemodynamics and Autoregulation in Humans Using Intrarenal Doppler Flow Velocity Measurement **B. Braam, A. Kiepas, E. Nath, N. Mitrou, W. Cupples and D. Kim**. Univ. of Alberta; Alberta Heart Inst. and Simon Fraser Univ., Canada.
- B208 **808.24** Renal Tissue Blood Flow Regulation System in Acute Blood Pressure Modulation Is Maintained in Elderly Wistar-Kyoto Rats **Y. Yajima, K. Komatsu, H. Mitsubayashi and A. Hirayama**. Nippon Dent. Univ. and Nihon Univ.

809. RENAL TRANSPORT AND REGULATION II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B209 **809.1** Low Phosphate Stimulates Na-H Exchanger Regulatory Factor 1 Trafficking **E.D. Lederer, C. Ketchem, B. Clark and S.J. Khundmiri**. Robley Rex VA Med. Ctr. and Univ. of Louisville.
- B210 **809.2** KSRP and Roquin-2: Mediators of PTH-Induced Npt2a mRNA Destabilization? **R.D. Murray, M.L. Merchant, S.J. Khundmiri, B.J. Clark and E.D. Lederer**. Robley Rex VA Med. Ctr. and Univ. of Louisville.
- B211 **809.3** Citrate Transport in NaDC1 Knockout Mice **K.S. Hering-Smith, W. Huang, J. Coleman-Barnett and L. Hamm**. Tulane Univ.
- B212 **809.4** Shear Stress Dependent Regulation of Apical Endocytosis in Renal Proximal Tubule Epithelia **V. Raghavan, Y. Rbaibi, F. Carattino, M.D. Carattino and O.A. Weisz**. Univ. of Pittsburgh.
- B213 **809.5** The Calcium Sensing Receptor Activation by Neomycin Decreases the Bicarbonate Flux in Renal Proximal Tubules of Wistar Rats **P.M.C. Santos, R. Fernandez, G. Malnic and T.D. Pessoa**. Univ. of São Paulo and Fed. Univ. of Paraná.
- B214 **809.6** Increase in Tubular Flow Directly Induces Hypertrophy of Proximal Tubular Cells **D. Valletta, A. Schreiber, I.M. Schiebl and F. Schweda**. Univ. of Regensburg, Germany.
- B215 **809.7** Regulation of Novel Calcium-Sensitive Dicarboxylate Transport by the Calcium-Sensing Receptor **R.W. Walker, J. Coleman-Barnett, L. Hamm and K.S. Hering-Smith**. Tulane Univ.
- B216 **809.8** Characterization of the Inherited I130N Substitution in V2 Vasopressin Receptor Revealed a Gain-of-Function Mutation Leading to NSIAD **L.S. Erdélyi, A.W. Mann, P. Várnai, A. Balla and L. Hunyady**. Semmelweis Univ.; Hungarian Acad. of Sci. and Endokrinologikum, Frankfurt am Main.

- B217 **809.9** Characterization of Aquaporin-2 Containing Vesicle Trafficking in mpkCCD Cells **K-P. Yip, J. Amin and B. Cha.** Univ. of South Florida.
- B218 **809.10** Interaction of AQP2 and Integrin b1 Is Important for the Maintenance of Epithelial Structure and Function **H.J. Lu, W. Rice, W. Li and Y. Chen.** Massachusetts Gen. Hosp.
- B219 **809.11** AMPK Phosphorylates Urea Transporter A1 and Aquaporin 2 in Rat Inner Medullary Collecting Ducts **J.A. Ruiz, P.A. Molina, L. LaRocque, J.D. Klein and J.M. Sands.** Emory Univ.
- B220 **809.12** Functional Comparison of Sodium Dependency on Human, Flounder, and Drosophila Sodium-Dicarboxylate Cotransporter Proteins **Y. Hagos, G. Burckhardt and B.C. Burckhardt.** Univ. of Göttingen.
- B221 **809.13** Sympathetic Stimulation in the Kidney: A Possible Antidiuretic Effect of BAR3? **G. Procino, S. Milano, M. Dal Monte, M.C. Nicoletti, M. Mastrodonato, J.H. Li, J. Wess, M. Carmosino, P. Bagnoli and M. Svelto.** Univ. of Bari; Univ. of Pisa and NIDDK, NIH.
- B222 **809.14** Temperature Dependence Suggests Multiple Transepithelial Transport Pathways for Urea and Na⁺ in Isolated Perfused Thin Limbs of Henle's Loops **K.K. Evans and T.L. Pannabecker.** Univ. of Arizona.
- B223 **809.15** Lithium-Induced NDI, Hypercalcemia and Urinary PGE2 Excretion Develop Independently in Mice **T. de Groot, L.K. Ebert, R. Baumgarten, P.M. Deen and R. Korstanje.** The Jackson Lab.; Radboud Univ. Med. Ctr., Netherlands and St. Exp. Lab. Med.
- B224 **809.16** Erlotinib, an EGF Receptor Antagonist, Induces Aquaporin 2 Phosphorylation and Increases Water Reabsorption in Lithium-Treated Mice **P.W. Cheung, N. Nomura, A.V. Nair, H. Lu, R. Bouley and D. Brown.** Massachusetts Gen. Hosp.
- B225 **809.17** Nephron Specific Deletion of Prorenin Receptor Modulates Water and Sodium Homeostasis **N. Ramkumar, D. Stuart, M. Calquin, S. Wang, A. Van Hoek, A. Ichihara and D.E. Kohan.** Univ. of Utah and Tokyo Women's Med. Univ.
- B226 **809.18** Disrupted Store-Operated Calcium Entry Causes Nephrogenic Diabetes Insipidus in Rats **M. Mamenko, I. Dhande, O. Zaika, N. Boukelmoune, O. Pochynyuk and P.A. Doris.** Univ. of Texas Hlth. Sci. Ctr. at Houston.
- B227 **809.19** Functional Cross-talk in the Kidney between B₃ Adrenergic Receptors and NKCC2 in the Thick Ascending Limb of the Loop of Henle **M. Carmosino, M. Dal Monte, G. Schena, S. Torretta, A. Gerbino, G. Procino, P. Bagnoli and M. Svelto.** Univ. of Bari, Italy; Univ. of Basilicata and Univ. of Pisa.
- B228 **809.20** FDA-Approved PDE4 Inhibitor Roflumilast Enhances Vasopressin-Induced Aquaporin-2 Phosphorylation Changes in Renal Collecting Duct **E. Umejiego, C-L. Chou and M.A. Knepper.** NHLBI, NIH.
- B229 **809.21** Activation of EP3 Receptors Suppresses COX-2 in Thick Ascending Limb and Inhibits Water Excretion **S. Hao, A. DelliPizzi, H. Jiang, M. Quiroz-Munoz, C. Cespedes, M.A. Knepper, C.P. Vio and N.R. Ferreri.** New York Med. Col.; Catholic Univ., Chile and NHLBI, NIH.
- B230 **809.22** *Rana catesbeiana* Oocytes: An Alternative to the *Xenopus laevis* Heterologous Expression System for Ammonia Transporters **J. Kabutomori, O. Beloto-Silva, R.R. Geyer and R. Musa-Aziz.** Univ. of São Paulo.
- B231 **809.23** Elucidating the Physiological Role of Gprc5c, a Novel Orphan GPCR in the Kidney **P. Rajkumar and J.L. Pluznick.** Johns Hopkins Sch. of Med.
- B232 **809.24** A Novel Missense Mutation in the NBCe1 Gene (*SLC4A4*) and a Novel Mode of Inheritance for Proximal Renal Tubular Acidosis **E.J. Myers, L. Yuan, M.A. Felmlee, Y-Y. Lin, Y. Jiang, Y. Pei, O. Wang, M. Li, X-P. Xing, A. Marshall, W-B. Xia and M.D. Parker.** Univ. at Buffalo, SUNY; Peking Union Med. Col. Hosp., Chinese Acad. of Med. Sci. and Chinese People's Army Gen. Hosp., Beijing.
- B233 **809.25** Mechanism of Acidosis-Induced Proliferation of Collecting Duct Intercalated Cells **A. Doucet, B. Viollet, B. Vogt and L. Cheval.** Cordeliers Res. Ctr., Paris; Inst. Cochin, Paris and Univ. Hosp. of Bern, Switzerland.
- B234 **809.26** Deletion of the Proximal Tubule Basolateral Bicarbonate Transporter, NBCe1, Impairs Ammonia Metabolism **I.D. Weiner, H-W. Lee, G. Osis, M.E. Handlogten and J.W. Verlander.** North Florida/South Georgia Veterans Hlth. Syst., Gainesville and Univ. of Florida.

810. BLOOD PRESSURE AND FLUID VOLUME REGULATION IN PREGNANCY AND DEVELOPMENTAL PROGRAMMING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B235 **810.1** Evaluation of 24h Urine Volume As an Indicator of Uosm:Posm Ratio and Free Water Clearance in Pregnant Women **A.L. McKenzie, C.X. Muñoz, E.T. Perrier, L. Jimenez and L.E. Armstrong.** Univ. of Connecticut and Danone Res., Palaiseau, France.
- B236 **810.2** Vasopressin Infusion during Pregnancy Is Associated with Cardiovascular and Metabolic Dysfunction in Offspring **J.A. Sandgren, S.M. Scroggins, D.A. Santillan, N.A. Pearson, G.L. Pierce, C.D. Sigmund, K.N. Gibson-Corley, M.K. Santillan and J.L. Grobe.** Univ. of Iowa.
- B237 **810.3** Complement C3 and IgM Deposition in Placental Ischemia-Induced Hypertension in Rat **J.F. Regal, J.E. Parker, J.W. Opacich, M.E. Strehlke, B.J. Elmquist, J.S. Gilbert and S.D. Fleming.** Univ. of Minnesota Med. Sch. Duluth and Kansas State Univ.
- B238 **810.4** T Cell-Dependent B Cell Activation Mediates Pathophysiology in Response to CD4⁺ T Cells from Reduced Uterine Perfusion Pregnant Rats **D.C. Cornelius, J. Castillo, L.M. Amaral, K. Wallace, J. Moseley and B. LaMarca.** Univ. of Mississippi Med. Ctr.
- B239 **810.5** Soluble fms-Like Tyrosine Kinase-1 (sFlt-1) Links Placental Ischemia to Downregulation of Microvascular Type B Endothelin Receptor in Hypertensive Pregnancy **M.Q. Mazzuca, K.M. Mata and R.A. Khalil.** Brigham and Women' Hosp.
- B240 **810.6** Early Administration of 17-Hydroxyprogesterone Caproate to Reduced Uterine Perfusion Pressure Rat Model of Preeclampsia Improves Inflammation, Uterine Artery Vasoconstriction and Blood Pressure during Pregnancy **L.M. Amaral, J.L. Faulkner, D.C. Cornelius, J. Moseley, J.N. Martin and B. LaMarca.** Univ. of Mississippi Med. Ctr.
- B241 **810.7** Sildenafil Treatment Improves the Maternal Syndrome in the Preeclamptic Dahl Salt Sensitive Rat **E.E. Gillis, J.N. Mooney, M.R. Garrett and J.M. Sasser.** Univ. of Mississippi Med. Ctr.

- B242 **810.8** Serelaxin Improves Blood Pressure and Uterine Artery Resistance in the Reduced Uterine Perfusion Pressure Rat Model of Preeclampsia **L.M. Amaral, J.A. Santiago-font, E.E. Gillis, J. Moseley, J.M. Sasser and B. LaMarca.** Univ. of Mississippi Med. Ctr.
- B243 **810.9** Treatment with Vitamin D Attenuates Blood Pressure and Immune Activation in a Preeclamptic Rat Model **J.L. Faulkner, M.M. Darby, D.C. Cornelius, L.M. Amaral, A.C. Harmon, J. Moseley, G. Wallukat, F. Herse, R. Dechend and B. LaMarca.** Univ. of Mississippi Med. Ctr. and HELIOS Clin., Berlin.
- B244 **810.10** Inhibition of 20-HETE Synthesis Attenuates Elevations in Blood Pressure and Uterine Artery Resistance Index in the RUPP Rat Model of Preeclampsia **J.L. Faulkner, S. Murphy, N. Lee, J. Moseley and B. LaMarca.** Univ. of Mississippi Med. Ctr.
- B245 **810.11** The Effects of Serum from Obese Pregnant Rats on Hypoxia-Induced Placental sFlt-1 Release **A.C. Palei, E.A. Dent, F.T. Spradley and J.P. Granger.** Univ. of Mississippi Med. Ctr.
- B246 **810.12** Agonistic Autoantibodies to the Angiotensin II Type 1 Receptor Enhance ANGII Binding on Vascular Endothelial Cells **M.W. Cunningham, J. Faulkner, L. Amaral, D. Cornelius, R. Kramer and B. LaMarca.** Univ. of Mississippi Med. Ctr.
- B247 **810.13** Daily Inhaled Low-Dose Carbon Monoxide Does Not Improve Hypertension Associated with Placental Ischemia **E.M. George and J.P. Granger.** Univ. of Mississippi Med. Ctr.

811. HYPERTENSION: DEVELOPING CONCEPTS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B248 **811.1** FKBP12 Kidney-Specific Knockout Mice are Protected from Tacrolimus-Induced Hypertension **R.A. Lazelle, B.H. McCully, C-L. Yang and D.H. Ellison.** Oregon Hlth. & Sci. Univ. and Trauma Res. Inst. of Oregon.
- B249 **811.2** Impaired Regulation of the Renal Sodium Chloride Cotransporter (NCC) in Animal Models of Salt-Sensitive Hypertension **K.R. Walsh and R.D. Wainford.** Boston Univ. Sch. of Med.
- B250 **811.3** A Fructose-Enriched Diet Induces Salt-Sensitive Hypertension and Enhances NKCC2 and SPAK/OSR1 Phosphorylation in Thick Ascending Limbs **G.R. Ares, M.Z. Haque, E. Henson and P.A. Ortiz.** Henry Ford Hlth. Syst.
- B251 **811.4** Hypertension Causing Mutations in Cullin3 Decrease RhoA Ubiquitination and Sequester Substrate Adaptors **S-R.C. Ibeawuchi, L.N. Agbor, F.W. Quelle and C.D. Sigmund.** Univ. of Iowa.
- B252 **811.5** Short Chain Fatty Acid Metabolites Lower Blood Pressure via Endothelial Gpr41 **N. Natarajan and J.L. Pluznick.** Johns Hopkins Univ. Sch. of Med.
- B253 **811.6** Genetic Deletion of Retinol-Binding Protein 7, a PPAR γ Target Gene, Accelerates Angiotensin II-Mediated Endothelial Dysfunction **C. Hu, S. Vogel, F.M. Faraci and C.D. Sigmund.** Univ. of Iowa and Duke-NUS Grad. Med. Sch., Singapore.
- B254 **811.7** Regulation of Hypertension-Related Genes by Endogenous microRNAs in Human Microvascular Endothelial Cells **A.J. Kriegel, Y. Liu, M.C. Casati and M. Liang.** Med. Col. of Wisconsin.
- B255 **811.8** Effect of Klotho Gene Delivery on Hypertension and Arterial Stiffness in Senescence Accelerated Mice P1 **J. Fan, X. Wang and Z. Sun.** Univ. of Oklahoma Hlth. Sci. Ctr.
- B256 **811.9** Endothelial Cell-Derived Endothelin-1 Regulates Skin Na⁺ Storage: Evidence for Sex Differences **J.S. Speed and D.M. Pollock.** Univ. of Alabama at Birmingham.
- B257 **811.10** Angiotensin-II Induced Hypertensive Renal Injury Is Mediated through HMGB1-TLR4 Signaling in Rat Tubulo-Epithelial Cells **A.R. Nair, P.J. Ebenezer and J. Francis.** LSU, Baton Rouge.
- B258 **811.11** Sodium-Independent Dietary Effects on Renal Immune Cell Infiltration in Salt-Sensitive Hypertension **J.M. Abais, A. Mattson, B. Wade, H. Lund, N. Rudemiller, G. Petrova and D.L. Mattson.** Med. Col. of Wisconsin.
- B259 **811.12** Early-Life Stress Induces Dysregulated Heme Homeostasis and Pro-inflammatory Phenotype in Adult Male Mice **D.H. Ho, Y. Pettway, M.L. Burch and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B260 **811.13** Evidence of an Impaired Neuroimmune Pathway in Autoimmune-Associated Hypertension **K.W. Mathis.** Univ. of North Texas Hlth. Sci. Ctr.
- B261 **811.14** TUDCA Attenuates High Salt-Induced Renal Injury in ET_B Deficient *sl/sl* Rats **R. Sedaka, C. De Miguel, D.M. Pollock and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B262 **811.15** Evidence that Vascular Endothelial Derived Endothelin-1 Promotes Development of Tunicamycin-Induced Endoplasmic Reticulum Stress in Renal Vessels **C. De Miguel, M.A. Rodriguez, D.M. Pollock and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B263 **811.16** Role of Renal Interstitial ATP in Pressure Natriuresis/Diuresis Relationship **O. Palygin, L. Evans, A. Staruschenko and A.W. Cowley, Jr.** Med. Col. of Wisconsin.
- B264 **811.17** Impaired Myogenic Responses of the Af-Art Contributes to Chronic Kidney Disease in Milan Normotensive Rats **Y. Ge, F. Fan, Y. Muroya, W. Wu and R. Roman.** Univ. of Mississippi Med. Ctr.
- B265 **811.18** Leptin-Induced Hypertension Is Aldosterone Dependent in Obese Females **A-C. Huby, M. Cortez-Cooper, J. Cannon and E.J. Belin De Chantemele.** Georgia Regents Univ. and Georgia Regents Univ. Col. of Allied Hlth. Sci.
- B266 **811.19** Deoxycorticosterone Acetate Treatment Increased Blood Pressure in Female but not Male Mice under High Salt Diet **A. Rouch, T. Wallen, L. Fan, C. Waturuocha and L. Kudo.** Oklahoma State Univ. Ctr. for Hlth. Sci.
- B267 **811.20** Impact of Commercial Vendor on the Developmental Programming of Later Chronic Health **S. Intapad, J.H. Dasinger, A.J. Carter, M.A. Backstrom and B.T. Alexander.** Univ. of Mississippi Med. Ctr.
- B268 **811.21** Intrauterine Growth Restriction Induced by Reduced Uterine Perfusion in the Mouse Programs Impaired Glucose Homeostasis in Female Offspring **S. Intapad.** Univ. of Mississippi Med. Ctr.
- B269 **811.22** Melanocortin-4 Receptor Deficiency Promotes Increases in High-Fat Diet-Induced Body Weight Gain and Visceral Fat, but Not Hypertension, during Pregnancy **F.T. Spradley, A.C. Palei and J.P. Granger.** Univ. of Mississippi Med. Ctr.

- B270 **811.23** Nox4-Mediated and Hydrogen Peroxide-Dependent Regulation of ENaC in Salt-Sensitive Hypertension **T.S. Pavlov, O. Palygin, D.V. Ilatovskaya, V. Levchenko, A.W. Cowley, Jr. and A. Staruschenko**. Med. Col. of Wisconsin.
- B271 **811.24** Mechanisms Involved in the Oxidative Stress-Mediated Hypertension Associated With DJ-1 Depletion **S. Cuevas, C. De Miguel, L. Asico, J. Jones, J. Pollock and P. Jose**. Univ. of Maryland Baltimore and Univ. of Alabama at Birmingham.
- B272 **811.25** Increased Renal Oxidative Stress in hGRK4 486V Transgenic Mice **Z. Diao, I. Armando, L. Asico, S. Cuevas, P. Jose and X. Wang**. Univ. of Maryland Sch. of Med.
- B273 **811.26** Renal Denervation Does Not Affect Blood Pressure in Mice with Renal-Specific Downregulation of Dopamine D2 Receptors **A. Crusan, L. Asico, P. Konkalmatt, C. Escano, Y. Yang, D. Louis, P. Jose and I. Armando**. Univ. of Maryland Sch. of Med.
- B274 **811.27** Radiofrequency Renal Denervation Produces Sustained Decreases in Blood Pressure and Cytokines, Tumor Necrosis Factor α and Interleukin 17, in Spontaneously Hypertensive Rats **J. Gao, D.J. Polhemus, F. Smart, D.J. Lefer and D.R. Kapusta**. LSU Hlth. Sci. Ctr., New Orleans.
- B275 **811.28** The Renal Afferent Nerves: A Role in Countering Salt-Sensitive Hypertension? **C.Y. Carmichael, S. Su and R.D. Wainford**. Boston Univ.
- B276 **811.29** Nonresponse to Renal Denervation in a Simulated Cohort of Resistant Hypertensive Men **W.A. Pruett and R.L. Hester**. Univ. of Mississippi Med. Ctr.
- B277 **811.30** Intracerebroventricular Infusion of Angiotensin-(1-7) Improves Baroreflex Sensitivity in Antenatal Betamethasone Exposed Sheep **M.J. Lawson, J.P. Figueroa, J.C. Rose, M.C. Chappell, D.I. Diz and H.A. Shaltout**. Wake Forest Sch. of Med.

812. RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM IN REGULATION OF BLOOD PRESSURE AND RENAL FUNCTION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B278 **812.1** Evidence that Combined Aliskiren and L-Arginine Treatment Reverses Renovascular Hypertension in an Animal Model **R.V. Tiradentes, C.H. Santuzzi, V. Mengal, N.F. da Silva, H.A. Futuro-Neto, G.R. Abreu and S.A. Gouvea**. Fed. Univ. of Espírito Santo, Brazil and Ctr. Univ. of Espírito Santo.
- B279 **812.2** Vasopressin Type 2 Receptor Activation Increases Renin Expression in Mouse Renal Collecting Duct Cells through cAMP/PKA/CREB Pathway **A.A. Gonzalez, F. Cifuentes, C. Ibaceta, L. Zamora and M.C. Prieto**. Pontifical Catholic Univ. of Valparaíso, Chile and Tulane Univ.
- B280 **812.3** Compromised Salt Dependence of ENaC Activity upon Deletion of AT1 Receptors **M. Mamenko, E. Madden, N. Boukelmoune, O. Zaika and O. Pochynyuk**. Univ. of Texas Hlth. Sci. Ctr. at Houston.

- B281 **812.4** Angiotensin II Induced Hypertension, Renal Damage, and Immune Cell Infiltration in the Dahl Salt-Sensitive Rat **B.M. Wade and D. Mattson**. Med. Col. of Wisconsin.
- B282 **812.5** Rapid and Long-Term Aldosterone Effect on the EGFR and ERK1/2 Phosphorylation in Rat Kidney in Vivo **K.P. Pandolfi, S.J. Szriber, D.C.A. Leite-Dellova and M. Mello-Aires**. Univ. of São Paulo.
- B283 **812.6** Intact Angiotensinogen Consists of Oxidized and Reduced Conformation in Rodent Plasma **R. Satou, A. Katsurada, K. Miyata, H. Kobori and L.G. Navar**. Tulane Univ.

813. SEX DIFFERENCES IN BLOOD PRESSURE AND FLUID VOLUME HOMEOSTASIS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B284 **813.1** Sensitization of Angiotensin II-Elicited Hypertension in Offspring of Hypertensive Pregnant Rats: Evidence of Sex Differences **B. Xue, F. Guo, T.G. Beltz, R.L. Thunhorst, M. Hay and A.K. Johnson**. Univ. of Iowa and Univ. of Arizona.
- B285 **813.2** Estrogen Effects on Neural Activation after Short-Term versus Long-Term Furosemide Treatment in Rats **S.L. Toal and K.S. Curtis**. Oklahoma State Univ. Ctr. for Hlth. Sci.
- B286 **813.3** Estradiol-Modification of Blood Pressure Regulatory Response to Systemic and Central Angiotensin II Administration in Rats **A. Takamata, N. Omura, Y. Nishimura, A. Igarashi and K. Morimoto**. Nara Women's Univ., Japan.
- B287 **813.4** Mechanisms Responsible for Elevated Blood Pressure with Chronic Testosterone Supplement in Hypogonadal Obese Zucker Rats **R.O. Maranon, L.L. Yanes-Cardozo, D. Romero, C. Dalmasso, C. Patil and J.F. Reckelhoff**. Univ. of Mississippi Med. Ctr.
- B288 **813.5** Changes in Body Composition with Chronic Testosterone Supplements in Hypogonadal Obese Zucker Rats **R.O. Maranon, L.L. Yanes-Cardozo, D.G. Romero, C. Patil, C. Dalmasso and J.F. Reckelhoff**. Univ. of Mississippi Med. Ctr.
- B289 **813.6** Effect of Pre- and Perinatal Feeding of High Salt Diet on Cardio-renal Functions of Female Offsprings of Sprague-Dawley Rats **A.K. Oloyo, M.B. Gidado, C.N. Anigbogu and O.A. Sofola**. Univ. of Lagos.
- B290 **813.7** Sex Differences in Lamina Terminalis and Hypothalamic Paraventricular Nucleus Activation in Aging Spontaneously Hypertensive Rats **C. Dalmasso, C.N. Patil, R.O. Maranon and J.F. Reckelhoff**. Univ. of Mississippi Med. Ctr.

814. GENE EDITING, NON-CODING RNA, AND SYSTEMS BIOLOGY/BIOINFORMATICS

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B291 **814.1** A CRISPR/Cas9 System Based Targeted Disruption of a Novel Rat Long Non-coding RNA in a Rat Genetic Model of Hypertension **X. Cheng, S. Miller, W. Filipiak, B. Mell, T. Saunders and B. Joe.** Univ. of Toledo; Washington Univ. in St. Louis and Univ. of Michigan.
- B292 **814.2** A Report for Applying CRISPR/Cas9 Genome Editing Technologies on Mouse Zygotes from Taiwan Transgenic Mouse Model Core Facility **S-K. Chang, I-S. Yu, Y.C. Hsu, M-S. Tsai, C-Y. Chen, C-L. Hong and S-W. Lin.** Ministry of Sci. and Technol., Taipei; Natl. Taiwan Univ. and Natl. Taiwan Univ. Col. of Med.
- B293 **814.3** Development of a Novel *Gper-1* Knockout Rat Model Using a Modified CRISPR/Cas9 Technology **H. Waghulde, S. Miller, W. Filipiak, B. Mell, T. Saunders and B. Joe.** Univ. of Toledo; Washington Univ. and Univ. of Michigan.
- B294 **814.4** Genomic and Phenotypic Rat Strain Profiles for Disease Model Identification **M.R. Dwinell, R. Nigam, J.R. Smith, J. De Pons, S. Laulederkind, V. Petri, G.T. Hayman, S-J. Wang, L. Worthey, M. Shimoyama and H. Jacob.** Med. Col. of Wisconsin.
- B295 **814.5** MicroRNA 29b and Cardiotonic Steroid-Induced Cardiac Fibrosis in Adult Cardiac Fibroblasts **C.A. Drummond, M.C. Hill, C.J. Cooper, J.I. Shapiro and J. Tian.** Univ. of Toledo and Marshall Univ.
- B296 **814.6** Alterations in Global DNA Methylation/Hydroxymethylation and microRNA Expression in a Rat Model of Gulf War Illness **L. Pierce, W. Kurata, K. Matsumoto, D. Farmer and M. Clark.** Tripler Army Med. Ctr., Honolulu.
- B297 **814.7** The Analysis of the Transmission Rate of Locally Administered siRNA to Blood **T. Kokuryo, Y. Yokoyama, J. Yamaguchi and M. Nagino.** Nagoya Univ. Grad. Sch. of Med.
- B298 **814.8** miRNA-Mediated Regulation of mTORC1 Is Important for the Growth of Proximal Tubules in the Mouse Metanephric Kidney **V. Kumar, J. Hassey, D. Romaker and O. Wessley.** Lerner Res. Inst., Cleveland Clin. and Med. Col. of Wisconsin.
- B299 **814.9** Analysis of MicroRNA-22 on Cardiac Hypertrophy Induced by High Fat Diet **E.C. Guedes and G.P. Diniz.** Univ. of São Paulo.
- B300 **814.10** Circadian Regulation of lncRNAs Connects Per1, Endothelin-1, and GR **K. Solocinski, S.J. Barilovits, A.K. Welch, C.S. Wingo, B.D. Cain and M.L. Gumz.** Univ. of Florida and NF/SG Veterans Hlth. Syst.
- B301 **814.11** Heart and Lung bta-miR-22-3p Decrease and bta-miR-125a Increase in Growth-Restricted Fetal Lambs with Sustained In Utero Stress **R. Krauss, B. Phipson, N. Gupta, A. Oshlack, M. Cheung, J. Smolich and S. Pepe.** Murdoch Childrens Res. Inst. and Univ. of Melbourne.

- B302 **814.12** A Physiological Model of the Hunger Response in Humans **S.A. Garan, A.S.V. Preecha, S. Sun, R. White, A.J. Schwartz, R. Barakat, G. Efe, P. He, S. Tan, J. Peng, J.D. Nowak, S. Mehdizadeh, A. Kadivar and G.A. Brooks.** Univ. of California, Berkeley; Lawrence Berkeley Natl. Lab. and Col. of Engin., Univ. of California, Davis.
- B303 **814.13** Using Natural Language Parsing and Artificial Intelligence Techniques to Initiate a Phase Change to Biological Knowledge **S.A. Garan, M. Farrell, T.T. Nguyen, J.J. Wan, Z. He, Y. Xu and G.A. Brooks.** Univ. of California, Berkeley; Lawrence Berkeley Natl. Lab. and Univ. of Waterloo, Canada.
- B304 **814.14** Simulation Studies Informed by RNA-seq Data Suggest the Utility of a Multi-network Bayesian Graphical Model Algorithm for the Study of Hypertension in the Dahl S Rat **A. Dayton, F. Stingo, C. Yang, P. Liu, N.N. Zheleznova, J.D. Bukowy, K-W. Ahn, P. Laud, M. Vannucci, M. Liang and A.W. Cowley.** Med. Col. of Wisconsin; Rice Univ. and MD Anderson Cancer Ctr.
- B305 **814.15** A Free/Libre Open-Source Suite of Interactive Tools for Physiology Data Analysis **A. Dobyms, S.M. Wilson and C.G. Wilson.** Loma linda Univ. Sch. of Med.
- B306 **814.16** Computational Tools for the Creation, Simulation, and Dissemination of Epithelial Cell Models **D.P. Nickerson, K.L. Hamilton, D.A. Beard and P.J. Hunter.** Univ. of Auckland; Univ. of Otago, New Zealand and Univ. of Michigan Med. Sch.

815. AGING AND MUSCLE FUNCTION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B307 **815.1** Response of Aging Laryngeal Muscles to Chronic Electrical Stimulation **J.C. Stemple, T.A. Butterfield, R.D. Andreatta, M. Dietrich, S. Abshire and C.A. McMullen.** Univ. of Kentucky and Rehabil. Sci., Lexington.
- B308 **815.2** Animal Models of Human Muscle Aging and Disease: The Hawk Moth, *Manduca sexta*, Flies Forward **B.W.M. Wone, J. Ojha and G. Davidowitz.** Univ. of Arizona and Univ. of Nevada, Reno.
- B309 **815.3** Excess Body Weight Affects Viscoelastic Properties of Triceps Surae in Older Women **D.P. LaRoche.** Univ. of New Hampshire.
- B310 **815.4** Primary versus Secondary Mitochondrial Function Alterations in Aging Muscle **S. Spendiff, M. Vuda, G. Gousspillou, S. Aare, M-E. Fillion, S. Kapchinsky, J. Morais, R. Jagoe, S. Hettwer, T. Taivassalo and R. Hepple.** McGill Univ.; McGill Univ. Hlth. Ctr.; Univ. of Quebec at Montreal; Jewish Gen. Hosp. and Neurotune, Switzerland.
- B311 **815.5** Restoration of Systemic Growth and Differentiation Factor-11 Levels Reverses Age-Associated Dysfunction in Skeletal Muscle **Y.C. Jang, M. Sinha and A.J. Wagers.** Georgia Inst. of Technol. and Harvard Univ.
- B312 **815.6** Age-Dependant Structural Remodelling in the Left Ventricle of Type 2 Diabetic Goto-Kakizaki Rat **J. Singh, A. D'Souza, K.R. Bidasee and T. Iqbal.** Univ. of Central Lancashire and Univ. of Nebraska Med. Ctr.

- B313 **815.7** Tendon Cells Demonstrate Store-Operated Calcium Entry Capacity and Differences in Calcium Signaling through Aging **K. Johnson, J. Vallejo, M. Brotto and E. Abreu.** Univ. of Missouri-Kansas City
- B314 **815.8** Superior Indices of Neuromuscular Function in Elite Octogenarian Masters Athletes **M-E. Filion, S. Spendiff, S. Taran, M. Allen, G. Power, C. Rice, T. Doherty, J. Morais, R. Hepple and T. Taivassalo.** McGill Univ. and Western Ontario Univ.
- B315 **815.9** Association between Serum Dehydroepiandrosterone Sulfate and Cardiac Autonomic Modulation in Individuals with Different Ages **A.J. Rocha, M.P. Lemos, P.M. Melo, W.L. Santos, M.S. Santos, M. Marocolo Júnior, G.R. Mota and O. Barbosa Neto.** Fed. Univ. of Triângulo Mineiro.
- B316 **815.10** Prevalence of Sarcopenia in Acutely Hospitalized Older Adults **R.R. Deer, S. Goodlett and E. Volpi.** Univ. of Texas Med. Branch.
- B317 **815.11** Effects of Age and Exercise Training on the Expression of Mitochondrial Genes in Skeletal Muscle **J. Sepe, G. Barton, T. Akins, S. McKiernan, J. Aiken and G. Diffie.** Univ. of Wisconsin-Madison and Univ. of Alberta.

816. SMOOTH MUSCLE PHYSIOLOGY/PHARMACOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B318 **816.1** Non-muscle Myosin II Mediates the Formation of Adhesome Signaling Complexes in Response to Contractile Stimulation of Airway Smooth Muscle **W. Zhang and S. Gunst.** Indiana Univ. Sch. of Med.
- B319 **816.2** Large Conductance Voltage- and Ca^{2+} -Activated K^+ Channels Mediate the 17β -Estradiol Inhibitory Effects on Human Urinary Bladder Smooth Muscle Cell Excitability and Contractility **S.P. Parajuli, K.L. Hristov, A. Provence, E.S. Rovner and G.V. Petkov.** Univ. of South Carolina and Med. Univ. of South Carolina.
- B320 **816.3** Functional roles for $\text{K}_{\text{v}7.2}$ and $\text{K}_{\text{v}7.3}$ channels in guinea pig urinary bladder smooth muscle revealed by the novel $\text{K}_{\text{v}7.2/\text{K}_{\text{v}7.3}$ channel opener ICA-069673 **A. Provence, J. Malysz and G.V. Petkov.** Univ. of South Carolina.

817. NUTRITION AND NUTRIENT METABOLISM

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B321 **817.1** Maternal Nutrition Restriction Affects Carbohydrate and Lipid Metabolism in Adult Rat Offspring **D.R.d. Sartori, C.A.E. Pinke, M.M.P. Sartori and J. Buratini Junior.** São Paulo State Univ. and São Paulo State Univ. Col. of Agr. Sci., Botucatu.
- B322 **817.2** Polybrominated Diphenylether Suppression of Phosphoenolpyruvate Carboxykinase Activity Alters Liver Lipid Metabolism **K.R. Cowens and G.B. Carey.** Univ. of New Hampshire.
- B323 **817.3** Effect of an Isolated Soy Protein Preload on Post-Meal Glycemic Control in Healthy Human **H. Kashima, H. Ueoka, S. Uemoto, K. Eguchi, M.Y. Endo, A. Miura and Y. Fukuba.** Prefect. Univ. of Hiroshima and Yasuda Women's Univ., Japan.
- B324 **817.4** High-Fat Diet-Induced Target Organs Damage in Young Rats **V. Aguiar, D. Hukuda, L. Finatti, N. Rodrigues, V. Farah and P. Fiorino.** Mackenzie Univ., Brazil; Sch. of Med., Univ. of São Paulo and Fed. Univ. of São Paulo.
- B325 **817.5** Impaired Glucose Handling Is Revealed in Prostate Cancer Patients **K.M. Di Sebastiano, K.E. Bell, P. Fortin, R. Rachakonda and M. Mourtzakis.** Univ. of Waterloo; McMaster Univ. and Grand River Reg. Cancer Ctr., Ont., Canada.
- B326 **817.6** A High-Fat Diet Activates Inflammatory Signaling in Human Skeletal Muscle Cultures from Severely Obese Women **B.C. Dickens, J. Maples, M.J. Hubal and J.A. Houmard.** Western Kentucky Univ.; Children's Res. Inst., Washington, DC and East Carolina Univ.
- B327 **817.7** Glucose Transporter 4 (GLUT4) Is Not the Only GLUT Responsible for Ca^{2+} /Calmodulin-Dependent Protein Kinase α -Induced Glucose Uptake in Mouse Skeletal Muscle **C.A. Witzak, J.L.A. Ferey, C.A.S. Smith and J.J. Brault.** East Carolina Univ.
- B328 **817.8** Skeletal Muscle Peroxisome Proliferator-Activated Alpha Is Differentially Regulated with Severe Obesity **L.M. Cox, J. Maples, N. Rowland, M.J. Hubal and J.A. Houmard.** Western Kentucky Univ.; Children's Natl. Res. Inst., Washington, DC and East Carolina Univ.
- B329 **817.9** Possible Mechanism for Synaptamide-Induced Neurogenesis **S. Sonti, R. Duclos, R. Loring and S. Gatley.** Northeastern Univ.
- B330 **817.10** Effects of Bisphenol A on C2C12 Myotubes In Vitro **T.Y. Kostrominova.** Indiana Univ. Sch. of Med. Northwest.

818. OBESITY AND SATIETY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B331 **818.1** High Protein Meals Decrease the Ratio of Acyl and Desacyl Ghrelin to Peptide YY in Children with Prader-Willi Syndrome **S.A. Loehr, M.L. MacKenzie, B. Gaylinn, M.O. Thorner and A.M. Haqq.** Univ. of Alberta and Univ. of Virginia Sch. of Med.
- B332 **818.2** Diet-Induced Obesity and Hepatic ER Stress Increase Mig6 and Dampen EGFR Activity **A.J. Lutkewitte, Y-C. Chen, J.L. Hansen and F.T. Patrick.** Indiana Univ. Sch. of Med.
- B333 **818.3** Metabolic Effects of Temporally Targeted Food Restriction in Female Rats with or without Estrogen **R.J. Naukam and K.S. Curtis.** Oklahoma State Univ. Ctr. for Hlth. Sci.
- B334 **818.4** TMEM16B Is a Dominant Component of the Cholecystokinin-Activated Cl⁻ Conductance in Vagal Afferents that Is Down-Regulated in Mice on High Fat Diet **R. Wang, Y. Lu, M.Z. Cicha, M.W. Chappleau, C.J. Benson and F.M. Abboud.** Univ. of Iowa, and VA Med. Ctr.,
- B335 **818.5** MnTBAP Ameliorates Obesity and Metabolic Dysfunction and Limits the TF-PAR2 Pro-inflammatory Pathway in White Adipose Tissue **A.Z. Sosinsky, J.R. Brestoff, T. Brodsky, R. McLoughlin, E. Stansky, L. Fussell, A. Sheppard, M. DiSanto-Rose, L. Cai, E.E. Kershaw and T.H. Reynolds.** Skidmore Col., NY and Univ. of Pittsburgh.
- B336 **818.6** Rapamycin as a Potential Treatment for Obesity **E. Bruce, Y. Sakarya, M.K. Matheny, N.V. Kirichenko, H.Z. Toklu, D. Morgan, N. Tumer, C.S. Carter and P.J. Scarpace.** Univ. of Florida.
- B337 **818.7** Estrogen Effects on Food and Fluid Intake by Ovariectomized Rats during Chronic Dehydration **D. Sloan and K. Curtis.** Oklahoma State Univ. Ctr. for Hlth. Sci.
- B338 **818.8** Ablation of COX-2 Attenuates Adipose Inflammation but Impairs Metabolic Homeostasis in Diet-Induced Obesity **V. Saraswathi, K. Meena, C. Perriotte-Olson, C. Desouza, J. Bowen, N. Adi and R. Ramalingam.** Univ. of Nebraska Med. Ctr. and VA Nebraska Western Iowa Healthcareare Syst., Omaha.
- B339 **818.9** Differential Exposure to Chronic versus Acute Palatable Food Intake on Rat Renal Orexin Receptor 1 and NOX-4 Liver Expression **J. Walker, S. Adeleye, T. Hudson, K. Richardson and D.L. Lee.** Howard Univ. Col. of Med.
- B340 **818.10** Diet-Induced Obesity Alters Muscle Spindle Afferent Function in Adult Male Mice **K. Shama, P. Nguyen, D. Zaytseva and K.A. Wilkinson.** San Jose State Univ.
- B341 **818.11** Mechanisms Responsible for Ceramide-Induced Vascular Dysfunction Observed In Vitro are Operational In Vivo **L. Bharath, T. Ruan, Y. Li, Q. Zhang, E.D. Abel and J.D. Symons.** Univ. of Utah and Univ. of Iowa.

819. EXERCISE AND MUSCLE AND BONE METABOLISM

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B342 **819.1** The Effects of Fertilized Egg Yolk Isolates on Anabolic and Catabolic Signaling in Skeletal Muscle **J.M. Wilson, R.P. Lowery, C.B. Mobley, J.C. Healy, R.M. Thompson, R. Ashton, M. Dariani and M.D. Roberts.** Univ. of Tampa; Auburn Univ. and MYOS Corp.
- B343 **819.2** L-Leucine Increases Skeletal Muscle IGF-1 Peptide but Has no Effect on Akt/mTOR Signaling in Response to Resistance Exercise in Trained Men **D.D. Church, N.A. Schwarz, M. Spillane, S.K. McKinley, T.L. Andre, J.R. Stout, J.R. Hoffman and D.S. Willoughby.** Univ. of Central Florida; Baylor Univ. and Univ. of South Alabama.
- B344 **819.3** Influence of Myosin Heavy Chain Protein Isoforms on Akt/mTOR Signaling and mRNA Expression following Resistance Exercise in Trained Men **A.M. Gonzalez, J.R. Hoffman, J.R. Townsend, A.R. Jajtner, A.J. Wells, K.S. Beyer, D.S. Willoughby, L.P. Oliveira, D.H. Fukuda, M.S. Fragala and J.R. Stout.** Univ. of Central Florida and Baylor Univ.
- B345 **819.4** Effects of Novel Multi-nodal Micro-vibration at Multiple Frequencies on Bone Turnover Markers and Bone Strengthen in Ovariectomized Rats **S. Liu, R. Moncada, V. Schetter and B. Ezenwa.** Univ. of Wisconsin-La Crosse and BEzenwa Biomed. Engin. LLC, Mequon, WI.
- B346 **819.5** Deletion of REDD1 Ameliorates Sepsis-Induced Decrease in Muscle Protein Synthesis but has Divergent Effects on Proteolytic Signaling **J.L. Steiner, K.T. Crowell, S.R. Kimball and C.H. Lang.** Penn State Med. Ctr.
- B347 **819.6** Effects of Bisphosphonate and Endurance Exercise on Cortical Bone Structure and Biomechanical Properties in Ovariectomized Rats **H-S. Lin and T-H. Huang.** Natl. Taiwan Normal Univ. and Natl. Cheng Kung Univ., Taiwan.
- B348 **819.7** The Effects of Endurance Exercise and Caloric Restriction on Bone Marrow Adipocytes and Bone Metabolism in Adult Male Rats **C-Y. Tsai and T-H. Huang.** Natl. Cheng Kung Univ., Taiwan.
- B349 **819.8** The Effects of Endurance Exercise and Caloric Restriction on Geometry and Densitometry of Cortical Bone in Adult Male Rats **T-Y. Tsai and T-H. Huang.** Natl. Cheng Kung Univ., Taiwan.
- B350 **819.9** The mTORC1 Repressor REDD1 Governs Nutrient-Induced Stimulation of Protein Synthesis in Skeletal Muscle **B.S. Gordon, L.S. Jefferson and S.R. Kimball.** Penn State Col. of Med.
- B351 **819.10** Xeno-Klotho Inhibits Parathyroid Hormone Signaling **T. Takenaka, T. Inoue, T. Miyazaki, M. Hayashi and H. Suzuki.** Intl. Univ. of Hlth. and Welfare; Saitama Med. Univ. and Keio Univ., Japan.

820. SEX HORMONE EFFECTS ON AUTONOMIC AND ENDOTHELIAL FUNCTION**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B352 **820.1** Estradiol Effects on Inflammation Related Gene Expression in the Nucleus Tractus Solitarius **M. Hay, M. Hamilton, A.K. Johnson, B. Xue and D. Bowles.** Univ. of Arizona; Pennington Biomed. Res. Ctr., LSU; Univ. of Missouri-Columbia and Univ. of Iowa.
- B353 **820.2** Diabetes and Estrogen: The Role of Oxidative Stress on Endothelial Function in Women **W.H. Jarrard, L. Haack, N. Seigler and R.A. Harris.** Georgia Regents Univ. and Univ. of Ulster, Jordanstown.
- B354 **820.3** Effects of LPS Endotoxemia on Cardiovascular Parameters and Plasma Nitric Oxide of Ovariectomized Rats **J.C. Castardo de Paula, L. de Jager, R.V. da Silva, P. Pinge-Filho and M.C. Martins-Pinge.** State Univ. of Londrina, Brazil.
- B355 **820.4** Sex Differences in GABAergic Neurotransmission to Gastric-Projecting DMV Neurons **T. Babic.** Penn State Hershey Col. of Med.
- B356 **820.5** Sympathetic Baroreflex Sensitivity in Normotensive Pregnant Women **C.W. Usselman, R.J. Skow, M.K. Stickland, R.S. Chari, C.G. Julian, M.H. Davenport and C.D. Steinback.** Univ. of Alberta and Univ. of Colorado Boulder.
- B357 **820.6** The Effects of Menstrual Phase on Brachial Artery Endothelial Function after Mental Stress in Young Women **X. Chen, K. Ueshima, M. Omokute, A. Takamata and K. Morimoto.** Nara Women's Univ., Japan.
- B358 **820.7** Elevated Cardiac Vagal Tone in Hypoestrogenic Active Premenopausal Women with Functional Hypothalamic Amenorrhea **E. O'Donnell, J.M. Goodman, B.L. Morris, J.S. Floras and P.J. Harvey.** Univ. of Toronto; Mount Sinai Hosp., Univ. of Toronto and Women's Col. Hosp., Univ. of Toronto.
- B359 **820.8** Cerebral Blood Flow Regulation Is Affected Throughout the Menstrual Cycle **A. Fox and J.M. Serrador.** VA New Jersey Hlth. Care Syst., East Orange and Rutgers Biomed. and Hlth. Sci., Newark.

821. AUTOPHAGY IN MUSCLE**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B360 **821.1** Autophagosome-Proteolysis Contribute to CKD-Induced Muscle Atrophy **M. Li, W.E. Mitch and X.H. Wang.** Emory Univ. and Baylor Col. of Med.
- B361 **821.2** Daily Heat Stress Treatment Normalizes Denervation-Activated Autophagy and Mitophagy in Mouse Skeletal Muscle **Y. Tamura, Y. Kitaoka, Y. Matsunaga, D. Hoshino and H. Hatta.** Univ. of Tokyo.
- B362 **821.3** Parkin and its Role in Skeletal Muscle Function **C.C.W. Chen and D.A. Hood.** York Univ., Toronto.
- B363 **821.4** Acute Exercise-Induced Mitophagy Is Mediated in Part by PGC-1 α **A. Vainshtein, L.D. Tryon, M. Pauly and D.A. Hood.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.
- B364 **821.5** Acute Endurance Exercise-Mediated Autophagy Occurs in Parallel with the Simultaneous Activation of mTOR **Y. Lee, J-y. Cho, I-H. Cho, E-b. Kang, G. Javan and L. Cosio Lima.** Univ. of West Florida; Korea Natl. Sport Univ. and Alabama State Univ.
- B365 **821.6** Loss of Ulk1 in Skeletal Muscle and Heart Prevents Exercise Protection against Diet-Induced Insulin Resistance **V.A. Lira, J.A. Call, R.C. Laker, A.K. Lira, M. Zhang and Z. Yan.** Univ. of Iowa; Univ. of Georgia and Univ. of Virginia.
- B366 **821.7** Effects of Mechanical Ventilation and Autophagy on Diaphragm Oxidative Stress and Proteolysis **A.J. Smuder, K.J. Sollanek, W.B. Nelson, K. Min, E.E. Talbert and S.K. Powers.** Univ. of Florida.
- B367 **821.8** Exercise Mitigates Aberrant Mitophagy and Cardiovascular Remodeling in Diabetes **S. Givvimani, S. Veeranki, S. Pushpakumar, S. Kundu, L.J. Winchester, N. Metreveli and S.C. Tyagi.** Univ. of Louisville.
- B368 **821.9** Ulk1 Is Required for Lysosome Targeting to Damaged Mitochondria following Acute Exercise **R.C. Laker, V.A. Lira, R.J. Wilson, M. Zhang and Z. Yan.** Univ. of Virginia and Univ. of Iowa.
- B369 **821.10** Mitochondrial Morphology in Patients with End-Stage Renal Disease **J.L. Gamboa, C.M. Derer and T.A. Ikizler.** Vanderbilt Univ. Med. Ctr.
- B370 **821.11** The Effect of Acute Exercise on Heat Stress Response and Autophagy Induction in Humans: Meta-analysis **K. Dokladny, O.B. Myers and P.L. Moseley.** Univ. of New Mexico and Univ. of Copenhagen.

822. EROGENICS AND DETECTION**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B371 **822.1** Histamine Receptor Blockade Does Not Increase Creatine Kinase Concentrations following Muscle Damaging Exercise **M.R. Ely, S.A. Romero, D.C. Sieck, M.J. Luttrell and J.R. Halliwill.** Univ. of Oregon.

B372 **822.2** Designer Steroids and Prohormones in Dietary Supplements: A Strategy for Detection Using a Mammalian Cell-Based Androgen Receptor BioAssay and GC/MS **A.B. Cadwallader, R. Gant-Branum, B. Murray, M. Williamson, M.K. Shelby, R. Heltsley, D.L. Black, W.K. Klipfel and C.C. Spehar.** Aegis Sci. Corp., Nashville.

823. FLUID BALANCE, BLOOD VOLUME REGULATION AND TRAUMA**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B373 **823.1** Hypohydration Does Not Alter Dynamic Balance in Type II Diabetics **J.D. Adams, C.N. Bardis, E.C. Johnson, L.S. Summers, W.G. Murray and S.A. Kavouras.** Univ. of Arkansas.

B374 **823.2** Fluid Restriction during Exercise in the Heat Reduces Tolerance to Central Hypovolemia **Z.J. Schlader, D. Gagnon, E. Rivas, V.A. Convertino and C.G. Crandall.** Texas Hlth. Presbyterian Hosp. Dallas; Univ. at Buffalo; Texas Woman's Univ. and U.S. Army Inst. of Surg. Res., San Antonio.

B375 **823.3** Blood Coagulation during Lower Body Negative Pressure versus Blood Loss in Humans **N. van Helmond, B.D. Johnson, T.B. Curry, A.P. Cap, V.A. Convertino and M.J. Joyner.** Mayo Clin.; Univ. at Buffalo and U.S. Army Inst. of Surg. Res., Fort Sam Houston.

B376 **823.4** The Effects of Blood Re-infusion on Hemodynamics following Blood Removal **B.D. Johnson, N. van Helmond, T.B. Curry, V.A. Convertino and M.J. Joyner.** Univ. at Buffalo; Mayo Clin. and U.S. Army Inst. of Surg. Res., Fort Sam Houston.

B377 **823.5** Mild Dehydration Impairs Executive Function **J. Turner, C.L. Leone, A.T. Luxkaranayagam and N.S. Stachenfeld.** John B. Pierce Lab. and Yale Sch. of Med.

B378 **823.6** Efficacy of Novel Anatomical Sites for Assessment of Muscle Oxygenation during Central Hypovolemia **J.D. Sprick, B.R. Soller and C.A. Rickards.** Univ. of North Texas Hlth. Sci. Ctr. and Reflectance Med. Inc., Westborough, MA.

B379 **823.7** Reproducibility of Near Infrared Spectroscopy-Derived Peripheral Muscle Oxygenation Measurements at Rest and during Central Hypovolemia **G. Pham, V.L. Kay and C.A. Rickards.** Univ. of North Texas Hlth. Sci. Ctr.

B380 **823.8** Faster Lower Limb Blood Pooling Is Associated with Reduced LBNP-Tolerance in Women Prone to Vasovagal Syncope **M. Lindenberger, J. Skoog, H. Zachrisson and T. Länne.** Linköping Univ. and County Council of Östergötland, Sweden.

824. METABOLISM AND ENERGETICS OF MUSCLE AND RELATED TISSUES**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B381 **824.1** *dFatp* Regulates Nutrient Distribution and Long-Term Physiology in *Drosophila* **C.R. Richardson, A.L. Sujkowski and R.J. Wessells.** Wayne State Univ. Sch. of Med.

B382 **824.2** Investigating the Effects of Paraquat on Protein Synthesis in C2C12 Myoblasts **R.V. Musci, F.F. Peelor III, B.F. Miller and K.L. Hamilton.** Colorado State Univ.

B383 **824.3** Assessment of Muscle Protein Synthesis Rates are Dependent upon Individual Protein Synthetic Rates, Content, and Duration of Label Incorporation **C.A. Wolff, P.D. Shipman, F.F. Peelor III, K.L. Hamilton and B.F. Miller.** Colorado State Univ.

B384 **824.4** Ceramide-induced Mitochondrial Fission Is Necessary for Sidestream Cigarette Smoke-Induced Cardiometabolic Disruption **B. Bikman.** Brigham Young Univ.

B385 **824.5** Alteration of Skeletal Muscle Lysophospholipid Metabolism in Mouse and Human Obesity **P.J. Ferrara, T.D. Heden, C.W. Paran, S. Park, J.A. Houmard and K. Funai.** East Carolina Univ.

B386 **824.6** Increased Energy Expenditure and Insulin Sensitivity, but Not Protection from Obesity, in Phosphatidylethanolamine Methyltransferase Knockout Mice on Long-Term High-Fat Diet Feeding **A.R.P. Verkerke, C.W. Paran, J.E. Atkinson and K. Funai.** East Carolina Univ.

B387 **824.7** The Role of Nrf2 in Muscle Phenotype and Mitochondrial Function **M.J. Crilly and D.A. Hood.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.

B388 **824.8** Late-Onset Caloric Restriction Alters Skeletal Muscle Metabolism by Modulating Pyruvate Metabolism **J-X. Yu, S-Y. Lin, Z-J. Li and C-N. Chen.** Chang Gung Univ., Taiwan.

B389 **824.9** Adaptations in Lipid Metabolism in Adipose Tissue Induced by High Intensity Training **L.M. Cordeiro, C.C.L. Moreira, É.G. Mario, A.H. Rodrigues, A.V.M. Ferreira, D.D. Soares and L.M. Botton.** Fed. Univ. of Minas Gerais, Brazil.

B390 **824.10** Modulation of Skeletal Muscle Fatigue Kinetics by Extracellular Glucose and Glycogen Content **E.W. Hesse and J.M. Renaud.** Univ. of Ottawa.

- B391 **824.11** Chronic Binge Alcohol Decreases Skeletal Muscle Oxidative Capacity in Simian Immunodeficiency Virus-Infected Macaques **T. Allerton, P. Berner, L. Simon and P. Molina.** LSU Hlth. Sci. Ctr., New Orleans.
- B392 **824.12** Circulating Levels of Key Myokines and Cytokines Immediately after Treadmill Exercise in Rats Fed Low-Fat or High-Fat Diets **K.A. Stevens, D.M. Weaver, M.A. Grainer, A.M. Bradley, C.D. Wilson, T.D. Ballard and N. Sharma.** Central Michigan Univ.
- B393 **824.13** Acute Reversal of High Fat Diet-Induced Insulin Resistance Is Accompanied by a Restoration of Redox Status in Skeletal Muscle **L.R. Reese, T.R. Ryan, M.J. Torres and P.D. Neuffer.** East Carolina Univ.
- B394 **824.14** Metabolic Flexibility Is Impaired in Myotubes Derived from Severely Obese Humans **J.M. Hinkley, K. Zou, S. Park, D. Zheng and J.A. Houmard.** East Carolina Univ.
- B395 **824.15** Constitutively Active Ca^{2+} /Calmodulin-Dependent Protein Kinase Kinase α Stimulates the Pentose Phosphate Pathway in Mouse Skeletal Muscle **J.L.A. Ferey, J.J. Brault and C.A. Witzczak.** East Carolina Univ.
- B396 **824.16** Repression of ADP Transport by Palmitoyl-CoA Is Attenuated by Exercise Training in Humans **A. Ludzki, S. Pagliarunga, B.K. Smith, E.A.F. Herbst, M.K. Allison, G.J. Heigenhauser and G.P. Holloway.** Univ. of Guelph and McMaster Univ., Canada.
- B397 **824.17** Beetroot Juice Supplementation Does Not Improve Mitochondrial Efficiency or ADP Sensitivity in Humans **J. Whitfield, A.C. Ludzki, G.J.F. Heigenhauser, L.L. Spriet and G.P. Holloway.** Univ. of Guelph and McMaster Univ., Canada.
- B398 **824.18** Mitochondrial Capacity Is Decreased in Skeletal Muscle with Estrogen Depletion **M.J. Torres, L.A. Gilliam, L.R. Reese, K. Buddo, C.S. Smith and D.P. Neuffer.** East Carolina Univ.
- B399 **824.19** Influence of Ischemia on Peripheral and Central Fatigue during Handgrip Exercise **R.M. Broxterman, S.L. Wilcox, J.C. Craig, C. Jia, S. Warren and T.J. Barstow.** Kansas State Univ.
- B404 **825.5** Lipid-Induced Anabolic Resistance in Skeletal Muscle Is Associated with Inflammation in Aging, but Not Obesity **D.A. Rivas, D.J. McDonald, N.P. Rice and R.A. Fielding.** Tufts Univ., Boston.
- B405 **825.6** Effects of Quercetin on Muscle Function during IL-6-Induced Cancer Cachexia **C. Davenport, K. Hetzler and J. Carson.** Winthrop Univ. and Univ. of South Carolina.
- B406 **825.7** One Week of Bed Rest Substantially Reduces Muscle Mass and Induces Insulin Resistance in Healthy, Young Males **M.L. Dirks, B.T. Wall, G.H. Goossens, B. van de Valk and L.J.C. van Loon.** Maastricht Univ., Netherlands and Univ. of Exeter, U.K.
- B407 **825.8** Thrombospondin-1 Protects Heart and Skeletal Muscle Mass from Cigarette Smoke Induced Modifications **M. Olfert, J. Carpenter, J. Stricker, G. Audet and S. Olenich.** West Virginia Univ. Sch. of Med.
- B408 **825.9** The Effect of Hypoxia on Aging Diaphragm Muscle following Life-Long Satellite Cell Ablation **J.L. Brown, A.L. Confides, J.R. Jackson, F.H. Andrade and E.E. Dupont-Versteegden.** Alma Col., MI and Univ. of Kentucky.
- B409 **825.10** Long-Term Capsaicin Administration Effects on Skeletal Muscle Function in Aging Mice **M. Benson, C. Receno, A. Le, S. Ruby, C. Liang, L. DeRuisseau and K. DeRuisseau.** Syracuse Univ. and Le Moyne Col., NY.
- B410 **825.11** Anti-cachectic Role of Neuregulin-1 β in Heart Failure **M. Gupte, C. Galindo, P. Manda, J. Cleator, A. Murphy, E. Kasasbeh and D.B. Sawyer.** Vanderbilt Univ. Med. Ctr.
- B411 **825.12** Transcriptional Activation of Zing Finger Protein 593 during Neurogenic Skeletal Muscle Atrophy **H.C. Orsech and D.S. Waddell.** Univ. of North Florida.
- B412 **825.13** Delayed Activation of Muscle Protein Synthesis following Resistance Exercise in Mice Is mTORC1-Dependent **N.W. Aguirre and K. Baar.** Univ. of California, Davis.
- B413 **825.14** Transcriptional Activation of Neuromuscular Junction Genes Is Altered in Muscle RING Finger 1 Null Mice **D. Tran and D. Waddell.** Univ. of North Florida.
- B414 **825.15** Neurogenic Atrophy-Induced Nicotinic Acetylcholine Receptor ϵ to γ Subunit Switching Is Impaired in Muscle RING Finger 1 Null Mice **H. George and D. Waddell.** Univ. of North Florida.
- B415 **825.16** Effects of Curcumin on the Expression of Antioxidants in Single Myofibers from Aged Mice **C.N. Receno, M.C. Benson and K.C. DeRuisseau.** Syracuse Univ.
- B416 **825.17** Hemodynamic Biomarkers Levels Are Not Dependent on Physical Exercise in Patients with Muscle Atrophy **E.J.R. Garbeloti, R.C.A. Paiva, F.C.P. Lobo, C.E.S. Miranda, V.E. Teixeira and C.B.A. Restini.** Univ. de Ribeirão Preto, Brazil.
- B417 **825.18** Lack of REDD1 Limits Insulin Action on Skeletal Muscle mTORC1 and TSC2 **D.L. Williamson, D.C. Wright and C.M. Dungan.** Univ. at Buffalo.
- B418 **825.19** SNARK Is a Novel Regulator of Muscle Mass and Myocyte Apoptosis **S. Lessard, D. Rivas, K. So, H-J. Koh, M. Hirshman, R. Fielding and L. Goodyear.** Joslin Diabetes Ctr. and Tufts Univ.
- B419 **825.20** Lewis Lung Carcinoma Regulation of Mechanical Stretch-Induced Protein Synthesis in Cultured Myotubes **S. Gao and J.A. Carson.** Univ. of South Carolina.

825. MUSCLE ATROPHY AND HYPERTROPHY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B400 **825.1** Acupuncture Plus Low-Frequency Electrical Stimulation Attenuates Diabetic Myopathy by Enhancing Muscle Regeneration **A. Robinson, J.D. Klein and X.H. Wang.** Emory Univ. and Xavier Univ. of Louisiana.
- B401 **825.2** AMP Deaminase 3 Accelerates Protein Degradation in C2C12 Myotubes **P.R. Davis, C.A. Witzczak and J.J. Brault.** East Carolina Univ.
- B402 **825.3** Phytoecdysteroids Activate PI3K/Akt/mTOR Signaling and Stimulate Protein Synthesis in Skeletal Muscle of Young Mice **K.A. Zwetsloot, R.A. Shanely, C.M. Zemmin, J.L. Redman, S.M. Woerner and J.A. Kesselring.** Appalachian State Univ.
- B403 **825.4** Effect of Resveratrol on Chemokine-Induced Atrophy **R. McCormick, C. Ford, M. Jackson, A. McArdle and A. Vasilaki.** Univ. of Liverpool.

- B420 **825.21** Differential Effects of Testosterone and Trenbolone on Skeletal Muscle Markers of Ribosome Biogenesis **C.B. Mobley, W.C. Kephart, C.D. Fox, V.A. Santucci, D.T. Beck, J.F. Yarrow, J.J. McCarthy, T. Kirby, S.E. Borst and M.D. Roberts.** Sch. of Kinesiol., Auburn Univ.; Univ. of Rhode Island; North Florida/South Georgia Veterans Hlth. Svc. and Univ. of Kentucky.
- B421 **825.22** Effects of Chronic Muscle Disuse on Skeletal Muscle Structure in Older Adults at the Tissue, Cellular and Molecular Levels **D.M. Callahan, T.W. Tourville, M.S. Miller, J.R. Slaughterbeck, P.D. Savage, P.A. Ades, D.W. Maughan, B.D. Beynon and M.J. Toth.** Univ. of Vermont.
- B422 **825.23** STAT3 Regulation in Cachectic Skeletal Muscle after Repeated Eccentric Contractions **J.P. Hardee, S. Gao, K.L. Hetzler, S. Sato, M.J. Puppa and J.A. Carson.** Univ. of South Carolina.

826. MUSCLE PLASTICITY AND GENE REGULATION/EXPRESSION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B423 **826.1** Effects of Leucine Starvation or Supplementation on Oxidative Stress and Markers of Apoptosis in C2C12 Myotubes **A.N. Kavazis, H.W. Hyatt, B.S. Ferguson, C.B. Mobley and M.D. Roberts.** Auburn Univ.
- B424 **826.2** Transcriptional Activation of PGC-1 α in Skeletal Muscle: Influence of Aging and Exercise **H.N. Carter, M. Shuen, R.P. Joseph and D.A. Hood.** York Univ., Canada.
- B425 **826.3** IL15 Promotes Myogenic and Brown Adipose Tissue Associated Genes while Decreasing AMPK Activation in C2C12 Skeletal Muscle Cells **M.J. Abbott and L.P. Turcotte.** Chapman Univ. and Univ. of So. California.
- B426 **826.4** Chronic Binge Alcohol Decreases Mir-206 Expression in the Skeletal Muscle of Simian Immunodeficiency Virus-Infected Macaques **L. Simon, C. Pizzalato and P. Molina.** LSU Hlth. Sci. Ctr., New Orleans.
- B427 **826.5** The Effects of Topical Icing after Contusion Injury on Angiogenesis in Regenerating Skeletal Muscle **J. Peake, D. Singh, Z. Barani Lonbani, M. Woodruff and R. Steck.** Queensland Univ. of Technol.
- B428 **826.6** C/EBP α and C/EBP β Have Unique Functions during Early Myogenesis **E. Cavanaugh and J.X. DiMario.** Rosalind Franklin Univ. of Med. and Sci.
- B429 **826.7** Identifying the Role of EMX2 and the Network of EMX2-Sensitive Genes in Cell Lineage-Dependent Muscle Fiber Type Specification **K. Weimer and J.X. DiMario.** Rosalind Franklin Univ. of Med. and Sci.
- B430 **826.8** Elevated Methylation Status in Old Rat Skeletal Muscle Supports Gene Expression Disparities in Response to Injury **M.A. Naimo, J. Ensey and B.A. Baker.** NIOSH, Morgantown and Sch. of Med., West Virginia Univ.
- B431 **826.9** Effect of Doxorubicin Treatment on Myogenic Regulatory Factor Protein Expression in Skeletal Muscle **C.J. Quinn, E.C. Bredahl, R. Hayward and D.S. Hydock.** Univ. of Northern Colorado.

- B432 **826.10** Does Manipulation of Environmental Oxygen Modify Reactive Oxygen Species Generation during Myogenesis? **R. McCormick, M. Jackson, A. McArdle and A. Vasilaki.** Univ. of Liverpool.
- B433 **826.11** Prox1 Transcription Factor Regulates Satellite Cell and Skeletal Muscle Fiber Phenotype and Function **R. Kivelä, I-E. Salmela, Z. Wiener, H.Y. Nguyen, H. Koistinen and K. Alitalo.** Univ. of Helsinki and Helsinki Univ. Hosp.
- B434 **826.12** Mitochondria-Targeted Antioxidant Treatment Prevents Elevation in Diaphragm Mitochondrial Reactive Oxygen Species and Weakness in Chronic Heart Failure **L.F. Ferreira, P.D. Coblenz, B. Ahn, N. Patel, J.K. Yoo and D.D. Christou.** Univ. of Florida.

827. AUTONOMIC ADJUSTMENTS TO EXERCISE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B435 **827.1** Potassium Channel Dysfunction in Dorsal Root Ganglia Contributes to the Exaggerated Exercise Pressor Reflex in Heart Failure **H. Wang, G.J. Rozanski and I.H. Zucker.** Univ. of Nebraska Med. Ctr.
- B436 **827.2** Whole-Body Heat Stress Alters the Exercise Pressor Reflex in Humans **J. Cui, A. Momen, C.A. Blaha and L.I. Sinoway.** Penn State Col. of Med. and Appalachian Col. of Pharm.
- B437 **827.3** Normality of Heart Rate Variability Is Improved when Steady State Heart Rates Are Matched **B.M. Shafer, P.A. Marqui, D.W. White, B. Fernhall and T. Baynard.** Univ. of Illinois at Chicago.
- B438 **827.4** Renal Vasoconstriction in Response to Muscle Mechanoreflex Activation Similar in Young and Older Healthy Humans **R.C. Drew, C.A. Blaha, M.D. Herr and L.I. Sinoway.** Penn State Col. of Med.
- B439 **827.5** Intrathecal Fentanyl Abolishes the Exaggerated Pressor Response to Cycling Exercise in Never-Treated Hypertensive Men **L.C. Vianna, T.C. Barbosa, I.A. Fernandes, E. Prodel, N.H. Secher and A.C. Nóbrega.** Univ. of Brasília; Fluminense Fed. Univ., Brazil and Univ. of Copenhagen.
- B440 **827.6** Cardiac Vagal Modulation Changes from Supine to Active Standing Correlations with Age in Healthy Sedentary and Physically Active Subjects **P.P. Soares, G.D. Rodrigues and T.R. Gonçalves.** Fluminense Fed. Univ., Brazil.
- B441 **827.7** Augmented Skeletal Muscle Metaboreflex Activation in Patients with Type 2 Diabetes Mellitus **S.W. Holwerda, R.M. Restaino, J.P. Fisher and P.J. Fadel.** Univ. of Missouri-Columbia and Univ. of Birmingham Sch. of Sport, Exer. and Rehab. Sci.

828. HYPOTHALAMIC AUTONOMIC CONTROL OF METABOLISM

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B442 **828.1** Specific Control of Resting Metabolism by Angiotensin AT_{1A} Receptors in Leptin-Sensitive Cells **K.E. Clafin and J.L. Grobe**. Univ. of Iowa.
- B443 **828.2** Activation of Medulla-Projecting Perifornical Neurons Modulates the Adrenal Sympathetic Response to Hypoglycemia: Involvement of Orexin Type 2 (OX₂-R) Receptors **W.S. Korim and A.J.M. Verberne**. Univ. of Melbourne.
- B444 **828.3** Hypothalamic Modulation of Adrenal Sympathetic Nerve Activity and the Glucose Counter-Regulatory Response: Involvement of Medullary and Spinal Glutamate Receptors **A. Sabetghadam, W.S. Korim, I.J. Llewellyn-Smith and A.J. Verberne**. Univ. of Melbourne and Flinders Univ., Australia.
- B445 **828.4** The Role of the Hypothalamus in the Seasonal Response to Adenosine A₁ Receptor Agonist-Induced Hibernation **C. Frare and K.L. Drew**. Univ. of Alaska Fairbanks.
- B446 **828.5** Differential Involvement of POMC and AgRP Neurons in the Regional Sympathetic Responses to Leptin **B.B. Bell, S.M. Harlan, D.A. Morgan and K. Rahmouni**. Univ. of Iowa.
- B447 **828.6** Modulation of Blood Glucose Concentration by Vagal Nerve Stimulation **H.M. Stauss, E.E. Meyers, T.J. Glab and K. Rahmouni**. Univ. of Iowa.
- B448 **828.7** Central Action of Insulin on the Modulation of Autonomic Balance to Control Hepatic Glucose of Wistar and SHR: Any Interaction between Hypothalamic Paraventricular Nucleus and Dorsal Vagal Complex? **I.M.R. Ribeiro, H.C. Ferreira-Neto, N.S. Canteras and V.R. Antunes**. Inst. of Biomed. Sci., Univ. of São Paulo.

829. SYMPATHETIC MECHANISMS IN HEART FAILURE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B449 **829.1** Enhanced Levels of Proteases in Tubular Fluid Activate ENaC in Chronic Heart Failure: Roles for Renal Nerves and Renal Injury **H. Zheng, X. Liu, N.M. Sharma and K.P. Patel**. Univ. of Nebraska Med. Ctr.
- B450 **829.2** Reduced miR-133a Results in Upregulation of Angiotensinogen in the Paraventricular Nucleus of Rats with Chronic Heart Failure **N.M. Sharma, S.S. Nandi, H. Zheng, P.K. Mishra and K.P. Patel**. Univ. of Nebraska Med. Ctr.
- B451 **829.3** Reduced Carotid Body KLF2 Expression Contributes to Autonomic and Respiratory Dysfunction in Chronic Heart Failure **N.J. Marcus, Y. Ding, R. Del Rio and H.D. Schultz**. Univ. of Nebraska Med. Ctr.; Univ. of North Texas and Autonomous Univ. of Chile, Santiago.

- B452 **829.4** In Heart Failure, Can Renal Denervation Attenuate the Increased Cardiac Sympathetic Drive? **M.I. Pinkham, G. Whalley, S.-J. Guild and C. Barrett**. Fac. of Soc. and Hlth. Sci., Unitec Inst. of Technol. and Univ. of Auckland.
- B453 **829.5** Neural Unloading Using Intravenous Vagal Nerve Stimulation for Acute Myocardial Infarction Improves Cardiac Function and Prevents Heart Failure in the Long Term **T. Arimura, K. Saku, T. Kakino, T. Akashi, Y. Murayama, T. Nishikawa, T. Takehara, T. Toyama, T. Kishi, T. Ide and K. Sunagawa**. Kyushu Univ. Grad. Sch. of Med. Sci.

830. SYMPATHETIC MECHANISMS IN HYPERTENSION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B454 **830.1** Reinnervation of Afferent and Efferent Nerves after Catheter-Based Renal Denervation in Sheep **L.C. Booth, E.E. Nishi, S.T. Yao, R. Ramchandra, G.W. Lambert, M.P. Schlaich and C.N. May**. Univ. of Melbourne; Fed. Univ. of São Paulo and Baker IDI Heart & Diabetes Inst., Melbourne.
- B455 **830.2** Blood Pressure Responses to Muscle Sympathetic Nerve Activity Are Accentuated in Smokers **J. Cui, C.A. Blaha, R.C. Drew, M.D. Muller and L.I. Sinoway**. Penn State Col. of Med.
- B456 **830.3** Role of the Renal Nerves in a Conscious Rabbit Model of Chronic Kidney Disease **G.A. Head, S.L. Burke, L.M. van Rensch, Y. Sata, G.W. Lambert, K.M. Denton and M.P. Schlaich**. Baker IDI Heart and Diabetes Inst., Melbourne and Monash Univ., Australia.
- B457 **830.4** Effects of Angiotensin II on Sympathetic Ganglionic Transmission In Vivo **R.M. McAllen and B.O. Bratton**. Florey Inst. of Neurosci. and Ment. Hlth., Parkville, Australia.
- B458 **830.5** Sympathetic Nerve Activity and Arterial Pressure during Development of Obesity in Zucker Fatty Rats **Y. Shiwa, M. Yoshimoto, K. Miki and R. Okano**. Nara Women's Univ., Japan.
- B459 **830.6** Sympathetic Neural Activity during Early Pregnancy in Women with Prior Gestational Hypertension and Preeclampsia **A.S.L. Stickford, S.A. Best, R.S. Parker, M.A. Roberts, B.D. Levine and Q. Fu**. Texas Hlth. Presbyterian Hosp. Dallas and Univ. of Texas Southwestern Med. Ctr.
- B460 **830.7** Leptin Inhibits Presympathetic Neurons in the Rostral Ventrolateral Medulla **H. Gao, H. Munzberg and A.V. Derbenev**. Tulane Univ. and Pennington Biomed. Res. Ctr., Baton Rouge.
- B461 **830.8** Increased Renal Pelvic Pressure Elicits Excitatory or Inhibitory Responses in Rat Renal Afferent Nerves that Is Reduced by Renal Nerve Ablation **L. Janks and M.M. Knuepfer**. St. Louis Univ. Sch. of Med.

831. SYMPATHETIC REGULATION IN DISEASE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B462 **831.1** Inhibition of Endothelin Receptors on Sympathetic Innervation via a PI3K/Akt-Dependent Pathway in Post-infarcted Rats **T.M. Lee and W-T. Chen.** China Med. Univ.-An Nan Hosp., Tainan.
- B463 **831.2** Cardiovascular and Neurophysiological Assessment of Guanethidine-Induced Loss of Postganglionic Neurons in Male Sprague Dawley Rats **M. Zahner, V. Bernardo, C. Tyszkiewicz, A. Foote, K. Cannon, C-N. Liu, C. Okerberg, M. Boucher, I. Pardo, C. Soms and C. Northcott.** Pfizer Inc.
- B464 **831.3** Tonic Effects and Vascular Reactivity in Rats Submitted to Parkinsonism by Infusion of Bilateral 6-OHDA in Substantia Nigra **D. Ariza, C. Higashi, J.G. Gameiro, G.S. Ceravolo, C.C. Crestani and M.C. Martins-Pinge.** State Univ. of Londrina, Brazil and State Univ. of São Paulo.
- B465 **831.4** Primary PCI Is Associated with Different Cardiac Autonomic Patterns in Relation to the Site of Myocardial Infarction **E. Tobaldini, E.M. Fiorelli, M. Prado, A. Queiroz, T. Kara, G. Costantino, A. Belloni, L. Campi, P. Danna, R. Sala, M. Viecca and N. Montano.** Univ. of Milan; Sch. of Phys. Educ. and Sport, Univ. of São Paulo; St. Anne's Univ. Hosp., Brno, Czech Republic and L. Sacco Hosp., Milan.
- B466 **831.5** Cardiac Autonomic Modulation Is Preserved during Sleep in Patients with Spinal Cord Injury **E. Tobaldini, P. Proserpio, K. Sambusida, A. Lanza, T. Redaelli, P. Frigerio, L. Fratticci, V.K. Somers, L. Nobili and N. Montano.** Univ. of Milan; Niguarda Ca' Granda Hosp., Milan and Mayo Clin and Fndn.
- B467 **831.6** Novel Method for Investigating Impaired Blood Pressure Regulation following Subarachnoid Hemorrhage in Conscious Rats **C.L. Schaich, G.C. Wellman and B. Erdos.** Univ. of Vermont.
- B468 **831.7** Exercise Training Restores Sympathetic Response during Exercise in Patients with Acute Coronary Syndrome and Gln27Glu β_2 -Adrenoceptor Polymorphism **L.F. Santos, D.G. Martinez, J.C. Nicolau, H. Graner, M.J. Alves, A. Pereira, I.C. Trombetta, C.E. Negrao and M.U. Rondon.** Sch. of Phys. Educ. and Sport, Univ. of São Paulo; Fed. Univ. of Juiz de Fora, Minas Gerais and Heart Inst. Univ. São Paulo.
- B469 **831.8** Inorganic Nitrate and Nitrite Restore Functional Sympatholysis in Dystrophin-Deficient Mdx Mice **L. Li and G.D. Thomas.** Cedars-Sinai Med. Ctr. and Penn State Col. of Med.
- B470 **831.9** Baroreflex Dysfunction Underpins Mortality in a Rat Model of Hepatic Encephalopathy **S.H.H. Chan and C-Y. Tsai.** Chang Gung Mem. Hosp., Kaohsiung, Taiwan.
- B471 **831.10** Reduced Ability to Maintain Cardiac Output and Arterial Pressure during Coronary Artery Occlusion in Conscious Paraplegic Mice **H.L. Lujan and S.E. DiCarlo.** Wayne State Univ. Sch. of Med.
- B472 **831.11** Excess Nitric Oxide Blunts Presynaptic Adrenergic Transduction in Orthostatic Intolerance **A.T. Del Pozzi, M.S. Medow and J.M. Stewart.** New York Med. Col.

832. CEREBRAL CIRCULATION II

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B473 **832.1** The Angiotensin II Type-1 Receptor Is a Mechanosensor in Cerebral Parenchymal Arteriole Smooth Muscle Cells **P.W. Pires and S. Earley.** Univ. of Nevada Sch. of Med.
- B474 **832.2** Remotely Activated Thrombus Formation in the Common Carotid Artery of Awake Rats **A. Michaelides and K. Pitsillides.** Apostle Barnabas Lyceum, Nicosia, Cyprus and Transonic EndoGear Inc., Davis, CA.
- B475 **832.3** Pulse Pressure Reveals Shear Stress-Dependent eNOS Activity in Mice Cerebral Arteries **A. Raignault, V. Bolduc, F. Lesage and E. Thorin.** Univ. of Montreal; Montreal Heart Inst. and Ecole Polytech de Montreal.
- B476 **832.4** Aldosterone Decreases Nitric Oxide Mediated Dilatation through a Histamine H2 Dependent Mechanism in Intracerebral Arteries from Human and Mice **K.S. Lyngso, F.R. Poulsen and P.B.L. Hansen.** Univ. of So. Denmark and Odense Univ. Hosp.
- B477 **832.5** Flow-Induced Constriction of Cerebral Arteries in Hypertension: A Protective Mechanism against Stroke? **N. Szarka, P. Toth and A. Koller.** Univ. of Pecs Med. Sch.; Univ. of Oklahoma Hlth. Sci. Ctr. and New York Med. Col.
- B478 **832.6** Disruption of Astrocytic Calcium Signaling during Neurovascular Coupling in a Genetic Model of Small Vessel Disease **F. Dabertrand, C. Krøigaard, A. Joutel and M.T. Nelson.** Univ. of Vermont Col. of Med. and INSERM U740, Fac. of Med., Paris.
- B479 **832.7** Mechanisms of Magnesium-Induced Vasodilation in Cerebral Penetrating Arterioles **T. Murata, H.H. Dietrich, T. Horiuchi, K. Hongo and R.G. Dacey.** Shinshu Univ. Sch. of Med., Japan and Washington Univ. Sch. of Med.
- B480 **832.8** In Vitro Model of Brain Trauma: In Isolated Basilar Artery Hemolysed Blood-Induced Constriction Is Inhibited by Calcium Channel Blocker and Increased CO₂ **A. Koller, O. Torok, Z. Vamos and P. Cseplo.** Med. Sch., Univ. of Pecs, Hungary; New York Med. Col. and Petz Aladar Cty. Teaching Hosp., Gyor, Hungary.
- B481 **832.9** Unique Ion Channel Properties of Brain Capillary Endothelial Cells **T. Longden and M. Nelson.** Univ. of Vermont and Univ. of Manchester, U.K.
- B482 **832.10** Hypercapnia Impairs Cerebral Blood Flow Autoregulation in Conscious, Unrestrained Rats **K.R. Rarick, R.P. Ryan and D.R. Harder.** Med. Col. of Wisconsin.
- B483 **832.11** Vertebrobasilar Remodeling in Hypertension: Cause or Consequence **D. Walas and J.F. Paton.** Univ. of Bristol.

833. BAROREFLEX AND CHEMOREFLEX CONTROLS OF THE HUMAN CEREBRAL CIRCULATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B484 **833.1** Cerebral Blood Flow Regulation following Inhalation of Nicotine via Electronic Cigarettes **H.B. Colby, J.D. Sprick, G. Pham, W.H. Cooke, D.L. Fogt and C.A. Rickards.** Univ. of North Texas Hlth. Sci. Ctr. and Univ. of Texas at San Antonio.
- B485 **833.2** Impact of Mild Orthostatic Stress on Aortic-Cerebral Pulsatile Flow Transmission: Insight from the Frequency Domain **J. Sugawara, T. Tomoto, T. Imai and S. Ogoh.** Natl. Inst. of Adv. Indust. Sci., Tsukuba; Univ. of Tsukuba and Toyo Univ., Japan.
- B486 **833.3** Non-linear Relationships between Blood Pressure and Cerebral Blood Flow **S. Saleem, P. Teal, W.B. Kleijn, T. O'Donnell, T. Witter and Y-C. Tzeng.** Victoria Univ. of Wellington and Univ. of Otago, New Zealand.
- B487 **833.4** Reduced Cerebrovascular Response to CO₂ Rebreathing in Spinal Cord Injury **J.W.W. Hamner, J.A. Taylor and C.O. Tan.** Spaulding Rehab. Hosp. and Harvard Med. Sch.
- B488 **833.5** Acute Natural Cocoa Consumption Improves Cerebral Vasodilatory Capacity in Obese Individuals **C. Hurr, M.L. Harrison and R.M. Brothers.** Univ. of Texas at Austin.
- B489 **833.6** Inter-individual Relationships between Sympathetic Arterial Baroreflex Function and Cerebral Perfusion Control in Healthy Males **T.G. Witter, C. Taylor, T. O'Donnell, J. Kusel, P. Allan, M. Berry, B. Walker and Y.C. Tzeng.** Univ. of Otago and Univ. of Western Sydney.
- B490 **833.7** Cerebrovascular Function Is Preserved following Transient Ischaemic Attack and Minor Stroke **P. Allan, J. Faulkner, T. O'Donnell, J. Lanford, T. Witter, B. Woolley, M. Berry, D. Lambrick, L. Stoner and Y-C. Tzeng.** Univ. of Otago; Massey Univ. and Wellington Hosp., New Zealand.
- B491 **833.8** Evidence for Bi-directional Feedback Regulation of Blood Pressure and Cerebral Blood Flow in Humans **Y-C. Tzeng.** Univ. of Otago, New Zealand.

834. BLOOD BRAIN BARRIER, BRAIN BLOOD FLOW AND METABOLISM

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B492 **834.1** SERT and the Blood-Brain Barrier: An In-Depth Analysis of the Male Rat Brain **L.W. Young, E.S. Darios and S.W. Watts.** Michigan State Univ.
- B493 **834.2** Cell Penetrating Peptide Biopolymers for Drug Delivery to the Central Nervous System **J.W.D. McGowan, P.J.S. Vig and G.L. Bidwell.** Univ. of Mississippi Med. Ctr.
- B494 **834.3** Pyruvate Suppresses Hippocampal MMP-2 Activity following Cardiac Arrest-Resuscitation **A.Q. Nguyen, B.H. Cherry, M-G. Ryou, R.A. Hollrah, A.G. Williams, G.F. Scott, A.H. Olivencia-Yurvati and R.T. Mallet.** Univ. of North Texas Hlth. Sci. Ctr.
- B495 **834.4** Hydrogen Sulfide Inhibits Homocysteine-Induced Synaptic Remodeling in Mice Hippocampus via. NMDA Receptor **P.K. Kamat, A. Kalani and N. Tyagi.** Univ. of Louisville.

835. NEUROINFLAMMATION/NEUROPROTECTION/ISCHEMIA

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B496 **835.1** The Neuro-protective Efficacy of Blueberry in an Animal Model of Post-traumatic Stress Disorder **P.J. Ebenezer, A.R. Nair, B. Wilson, L. McLaughlin and J. Francis.** Sch. of Vet. Med., LSU.
- B497 **835.2** Lipocalin 2: Novel Inflammatory Actor in Alzheimer's Disease **U.L.M. Eisel, D.W. Dekens, P.P. DeDeyn and P.J.W. Naudé.** Univ. of Groningen and Univ. Med. Ctr. Groningen, Netherlands.
- B498 **835.3** Early Serum and Microglial Expression of Tumor Necrosis Factor- α after Experimental Traumatic Brain Injury Contributes to Behavioral Deficits **C-C. Wang, C-C. Chio and C-P. Chang.** Chi Mei Med. Ctr., Tainan and Southern Taiwan Univ. of Sci. and Technol.
- B499 **835.4** Calycosin May Improve Outcomes of Ischemic Stroke in Rats by Inhibiting Activated Microglia in Brain **T-W. Kuo and C-P. Chang.** Southern Taiwan Univ. of Sci. and Technol.
- B500 **835.5** Exposure to Optogenetic Blue Light Attenuates Inflammatory Gene Expression in Non-transgenic Murine Microglia **K.P. Cheng, J.C. Williams, K. Eliceiri and J. Watters.** Univ. of Wisconsin-Madison.
- B501 **835.6** Quantification of TGF β 1 and Inflammatory Cytokines in Neurons Exposed to Astrocytes Transfected with Nef **N. Martínez-Orengo, B. Velázquez, V. Vargas and R. Noel.** Ponce Hlth. Sci. Univ. and Univ. of Puerto Rico-Ponce.

**836. NEUROENDOCRINOLOGY/
NEUROIMMUNOLOGY****Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B502 **836.1** Differential Regulation of Vitamin D Receptor Expression and Macrophage Infiltration by Stress in an Animal Model of Endometriosis **A. Lopez, M.L. Cruz, I. Seguinot, Y. Rivera, S. Hernandez, R.A. Isidro and C.B. Appleyard.** Univ. of Puerto Rico, Ponce; Ponce Hlth. Sci. Univ. and Univ. of Puerto Rico, Mayaguez.
- B503 **836.2** Tonic Modulation of Central CRF Circuits by Oxytocin in Response to Peripheral Salt Loading **D. Pati, J.A. Smith, A.D. de Kloet, E.G. Krause and C.J. Frazier.** Univ. of Florida.
- B504 **836.3** Stress-induced Neuroadaptations in the Paraventricular Hypothalamic Nucleus of Animals that Exhibit Persistent Avoidance **A.M. Whitaker, K. Stewart and N.W. Gilpin.** LSU Hlth. Sci. Ctr., New Orleans.
- B505 **836.4** Interleukin-1 Receptor-Expressing Cells In the Arcuate Hypothalamus Mediate Reduced Food Intake After Peripheral Administration Of Interleukin-1 **J.P. Konsman, L. Chaskiel, A. Bristow, A. Blomqvist and R. Dantzer.** CNRS, Univ. of Bordeaux; NIBSC, Potters Bar, U.K.; Univ. Linköping, Sweden and MD Anderson Cancer Ctr.
- B506 **836.5** Chronic Binge Alcohol Administration in Simian Immunodeficiency Virus-Infected Rhesus Macaques Modulates Pre-frontal Cortex Expression of Brain-Derived Neurotrophic Factor and Microtubule-Associated Protein 2 **J.K. Maxi, G.J. Bagby, S. Nelson, P.J. Winsauer and P.E. Molina.** LSU Hlth. Sci. Ctr., New Orleans.

**837. NEUROEXCITABILITY, NEUROTRANSMISSION
AND NEUROPLASTICITY****Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B507 **837.1** Neuron-Targeted Caveolin-1 Improves Cognition and Enhances Hippocampal Plasticity **J.M. Schilling, C.D. Mandyam, S.E. Kellerhals, J. Egawa, V.B. Risbrough, I.R. Niesman, E. Posadas, A.M. Kleschevnikov, D.M. Roth, H.H. Patel, P.M. Patel and B.P. Head.** VA San Diego Healthcare Syst., UCSD; Scripps Inst. and UCSD.
- B508 **837.2** Auditory Learning Down-Regulates Inhibitory Synaptic Function in the Sensory Striatum **C.L. Rodríguez-Deliz, G. von Trapp, T. Mowery, V.C. Kotak and D. Sanes.** Univ. of Puerto Rico, Ponce and NYU.
- B509 **837.3** Sex Differences in Histamine Receptor Expression in Visceral Afferents of Rat: A Potential Mechanism for Sexual Dimorphism in Visceral Afferent Reflex Function **J-N. Li, L-Q. Wang, G-F. Qaio and B-Y. Li.** Harbin Med. Univ., China.
- B510 **837.4** K_v7 Channels Are Potential Regulators of the Exercise Pressor Reflex **A.B. Wright, R. Ramachandra and K.S. Elmslie.** A.T. Still Univ., MO.

- B511 **837.5** Pentylentetrazol-Induced Seizures during Placental Ischemia: A Potential Model of Eclampsia? **J.P. Warrington.** Univ of Mississippi Med Ctr.

**838. NEUROTRANSMISSION AND
SIGNALING MOLECULES****Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B512 **838.1** Cytokine Expression Profiles and Electrophysiological Recordings of Dorsal Root Ganglion Cells in an In Vitro Model of Chronic Pain **C. Staunton, R. Barrett-Jolley, L. Djouhri and T. Thippeswamy.** Univ. of Liverpool; Iowa State Univ. and King Faisal Univ.
- B513 **838.2** Electrophysiological Property of Spinally Projecting Serotonergic Neurons in the Rostroventromedial Medulla in Transgenic Mice Expressing Green Fluorescent Protein **T. Fukushima and Y. Hori.** Dokkyo Med. Univ. Sch. of Med., Japan.
- B514 **838.3** Spinal Nerve Ligation-Induced Nociceptive Behavior and NMDA Receptor-Mediated Synaptic Transmission in the Spinal Dorsal Horn Are Altered in Serine Racemase Knockout Mice **K. Kaneko, T. Fukushima, S. Tanaka and Y. Hori.** Dokkyo Med. Univ., Japan.
- B515 **838.4** Activation of the Ghrelin Receptor Mediates NMDA Receptor Phosphorylation at the NR1 Subunit in the Rat Hippocampus **B.G. Muniz and M. Isokawa.** Univ. of Texas at Brownsville.

839. ASTROCYTE AND NEUROGLIAL INTERACTIONS**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B516 **839.1** Effects of UV Inactivated West Nile Particles on Astrocytic Morphology and Expression of Marker Proteins **R. Kuwar, A. Leis, D. Stokic, J. Fratkin, F. Bai and P. Vig.** Univ. of Mississippi Med. Ctr.; Methodist Rehabil. Ctr. and Univ. of Southern Mississippi.
- B517 **839.2** Induction of Glial Cytokine Expression and Sickness Behavior Precede Microglial Morphological Alterations following Acute Immune Challenge **E. Villanueva, D.M. Norden, P.J. Trojanowski, E. Navarro and J.P. Godbout.** Univ. of California, Merced and The Ohio State Univ.
- B518 **839.3** Astrocytic S100B Protein Modulates Glutamate Uptake and Neutrophil Migration In Vitro **P. Vig, R. Kuwar, A. Leis and D. Stokic.** Univ. of Mississippi Med. Ctr. and Mississippi Methodist Rehab Ctr.
- B519 **839.4** Excitatory Amino Acid Transporters Modulate Synaptic Properties of nTS Cardiorespiratory Neurons **M.P. Matott, E.M. Hasser and D.D. Kline.** Univ. of Missouri-Columbia.
- B520 **839.5** Leptin Acts in the Hypothalamic Paraventricular Nucleus to Increase Sympathetic Nerve Activity: Potential Role of Astroglia **C.J. Madden, Z. Shi, B. Li and V.L. Brooks.** Oregon Hlth. & Sci. Univ.

840. COGNITION AND BEHAVIOR

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B521 **840.1** The Effect of Spinal Cord Injury on Learning and Memory in Rats **J.M. Tieu and M.B. Zimmer**. Ferris State Univ., MI.
- B522 **840.2** The Effects of Perinatal Androgen Deprivation on Body Weight and Spatial Working Memory in Male Rats **B. Shah, A. Yn, T. Khan, D. Fickes, P. Vang, K. Jeong, F. Yousaf, G. Taylor, C. Gopalan and C. Gaebelein**. St. Louis Col. of Pharm. and Univ. of Missouri-St. Louis.
- B523 **840.3** Exercise Enhances Following Sleep in Mice **Y. Yoshioka, S. Chikahisa, N. Shimizu, T. Shiuchi and H. Sei**. Univ. of Tokushima Grad. Sch. and Univ. of Tokushima, Japan.
- B524 **840.4** Physical Exercise Improve Social Interaction Induced by Social-Defeated Stress **A. Otsuka, T. Shiuchi, S. Chikahisa, J. Terao and H. Sei**. Univ. of Tokushima.
- B525 **840.5** The Role of Angiotensin Receptor Type 1 on Corticotropin Releasing Factor Expressing Neurons in Auditory Fear Conditioning **R.C. Hurt, O.P. Keifer, K.J. Ressler and P.J. Marvar**. George Washington Univ.; Emory Univ. and HHMI, Chevy Chase, MD.
- B526 **840.6** Oral Theophylline Improves Smell Function by Increasing Nasal Mucus Sonic Hedgehog **R.I. Henkin, S. Hosein, W. Stateman and A. Knoppel**. The Taste and Smell Clin., Washington, DC.
- B527 **840.7** Perinatal Exposure to Brominated Flame Retardants Reduces Social Recognition Ability in Adult Male Mice **G.M. Gonzalez, M. Valdez, R. Gutierrez, J. Valdez, T. McLaughlin, H. Cherukury, H. Chen, M. Leon-Olea and M. Curras-Collazo**. Univ. of California Riverside and Natl. Inst. of Psychiat., Mexico City.
- B528 **840.8** Aberrant Angiotensin Signaling in a Mouse Model of Post-traumatic Stress Disorder **A.P. Swiercz, L. Hopkins and P.J. Marvar**. George Washington Univ.
- B529 **840.9** Effects of Mthfd1 Gene on Mouse Behavior **E. Pjetri and S.H. Zeisel**. Univ. of North Carolina at Chapel Hill, Kannapolis.
- B530 **840.10** Prefrontal Cortex Traumatic Brain Injury Produces Greater Neurobehavioral Dysfunction and Delayed Behavioral Recovery versus TBI Localized to the Sensorimotor Cortex **J. Mayeux, P. Katz, N. Gilpin and P. Molina**. LSU Hlth. Sci. Ctr., New Orleans.
- B531 **840.11** Comorbid Diabetes and Depression Impacts Diabetic, Cognitive and Affective Outcomes among Mexican Americans **T.P. Nedungadi, L. Johnson, M. Edwards, R. Barber, J. Hall, D. D'Agostino, S. Ross, S. Large and S. O'Bryant**. Univ. of North Texas Hlth. Sci. Ctr.
- B532 **840.12** Recording Auditory and Visual Evoked Responses with Mobile EEG Systems in a Computer-Assisted Rehabilitation Environment **W. Zheng, K. Service, A. Markham and S. Reini**. Naval Hlth. Res. Ctr., San Diego.

B533 **840.13** Morphine Withdrawal Reveals Sex Differences in Contextual Responses during Cued Fear Conditioning and Extinction **J. Chamorro-Ramos, K. Martinez-Casiano, D. Ramos-Ortolaza and A. Torres-Reveron**. Univ. of Puerto Rico at Ponce; Ponce Hlth. Sci. Univ. and Pontifical Catholic Univ. of Puerto Rico at Ponce.

B534 **840.14** Neonatal Exercise Prevents Anxiety-Related Behavior and Improves Episodic Memory in Adult but not in Aged Rats **R.M. da Silva, A.L. de Moraes, J.S. de Melo, P.F. Macedo, L.A. Costa and M. Batista-de-Oliveira Hornsby**. Fed. Univ. of Pernambuco, Brazil.

841. COMPARATIVE NEUROBIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B535 **841.1** Cultured Chick Forebrain Neurons are Functionally Similar to Rodent Counterpart **S.Y. Kuang and B.Z. Gao**. Oakland Univ. William Beaumont Sch. of Med. and Clemson Univ.
- B536 **841.2** Expression and Function of PMCA in Zebrafish Lateral Line Hair Cells **Y-H. Yeh, J-L. Horng and L-Y. Lin**. Natl. Taiwan Normal Univ. and Taipei Med. Univ.
- B537 **841.3** Stereotaxic Coordinates of the Brain of Guinea Pigs **A. Nakasone, H-W.I. Tsai and P.W. Davenport**. Barry Univ., FL and Univ. of Florida.
- B538 **841.4** Mechanisms of Sensory Feedback and Interactions with Neuromodulators in a Rhythmic Pattern Generator **P.S. Dickinson, E.S. Dickinson, K.E. Harmon, X. Qu, A.S. Johnson and O. Eilers**. Bowdoin Col.
- B539 **841.5** Histamine Receptors in Gill of the Bivalve *Crassostrea virginica* and Actions of Histamine at Gill Interfilamental Junctions **A. Harris, J. Harrison, F. Mondelus, E.J. Catapane and M.A. Carroll**. Medgar Evers Col., Brooklyn.
- B540 **841.6** Histamine and Histamine Receptor Involvement in Sensory-Motor Integration of Gill Lateral Cell Cilia Activity in the Bivalve *Crassostrea virginica* **B. Boissette, A. Harris, P. Akande, E.J. Catapane and M.A. Carroll**. Medgar Evers Col., Brooklyn.

842. COMPARATIVE MUSCLE, BEHAVIORAL, AND NUTRITIONAL PHYSIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B541 **842.1** The Catchlike Property in Skeletal Muscle: Influence of Contraction and Muscle-Type on Augmented Contractile Function **J.J. Bowslaugh, W. Gittings and R. Vandenboom**. Brock Univ., Canada.
- B542 **842.2** Developmental and Behavioral Effects of Altered Microbiome in *Drosophila melanogaster* Using Antibiotics and Antifungal Treatments **A.N. Schein and S.A. Blatch**. Stevenson Univ., MD.

B543 **842.3** Rabbits Reproductive and Physiological Performance Traits as Affected by Feeding Refined Plant Oil **A.B. Okab, T.M. Nasser, S.G. Elbanna, M.A. Ayoub and A.I. Al-Haidary.** Col. of Food and Agr. Sci., King Saud Univ.; Inst. of Grad. Studies and Res., Alexandria Univ. and Col. of Agr., Suez Canal Univ., Egypt.

843. COMPARATIVE OSMOIC, IONIC, AND ACID-BASE REGULATION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B544 **843.1** Cardiac pH Regulation and Buffering of the Western Painted Turtle (*Chrysemys picta bellii*) **M.J. Oxendine and D.E. Warren.** Saint Louis Univ.

B545 **843.2** Branchial NH_4^+ -Dependent Acid-Base Transport Mechanisms and Energy Metabolism of Squid (*Sepioteuthis lessoniana*) Affected by Seawater Acidification **P-H. Sung, Y-C. Chen, J-R. Lee, M.Y. Hu, P-P. Hwang and Y-C. Tseng.** Natl. Taiwan Univ.; Natl. Taiwan Normal Univ. and Inst. of Cell. and Organismic Biol., Acad. Sinica, Taipei.

B546 **843.3** Studies of Neurohypophysial System on Epithelial Cells Functions in Cephalopod Embryos **Y-C. Chen, P-H. Sung, J-R. Lee, P-P. Hwang and Y-C. Tseng.** Natl. Taiwan Normal Univ. and Inst. of Cell. And Organismic Biol., Acad. Sinica, Taipei.

B547 **843.4** K^+ Secretion by Ionocytes in the Skin of Medaka Larve **L.L. Yu, S.T. Liu, P.Y. Chen and L.Y. Lin.** Natl. Taiwan Normal Univ.

B548 **843.5** Hormonal Control of Aquaporin 3 in Tilapia Gill: Direct Actions of Prolactin and Cortisol **J.P. Breves, M. Inokuchi, Y. Yamaguchi, A.P. Seale, S. Watanabe, D.T. Lerner, T. Kaneko and E.G. Grau.** Skidmore Col., NY; Univ. of Hawaii, Kaneohe; Univ. of Tokyo and Univ. of Hawaii, Honolulu.

B549 **843.6** Gill Ion Transporter Transcript and Protein Abundance during Developmental Increases in Salinity Tolerance of Atlantic Salmon Smolts **A.K. Christensen, A.M. Regish and S.D. McCormick.** Univ. of Massachusetts Amherst and USGS, Turners Falls, MA.

B550 **843.7** Expression Pattern and RNAi Inhibition of Putative Sodium-Coupled Cation-Chloride Cotransporters in the Mosquito *Aedes aegypti* **C.M. Gillen, D.C. Akuma and P.M. Piermarini.** Kenyon Col. and The Ohio State Univ.

B551 **843.8** Anuran-Like Aquaporins in the Skin and Urinary Bladder of a Urodele, Evidence for Early Gene Duplication in the Lissamphibia **S. Hillyard, Y. Shibata, T. Nagai and M. Suzuki.** Sch. of Dent. Med., Univ. of Nevada Las Vegas; Shizuoka Univ. and Keio Univ. Sch. of Med.

B552 **843.9** Sequencing and Gene Expression of HC-9, an Aquaporin-9 Homolog, in Freeze-Tolerant Cope's Gray Treefrog **B. Stogsdill, P.T. Tsou, J. Frisbie and D. Goldstein.** Wright State Univ.

844. ION CHANNELS AND TRANSPORTS IN HEALTH AND DISEASE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B553 **844.1** WNK3-SPAK/OSR1-NKCC1 Signaling Pathway in Ischemic Brain Injury **G. Begum, S. Wang, K.T. Kahle, L. Li, H. Yuan, Y. Shi, B.E. Shmukler, S-S. Yang, S-H. Lin, S.L. Alper and D. Sun.** Univ. of Pittsburgh; Children's Hosp. Boston and Harvard Med. Sch.; Harvard Univ.; Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. and Tri-Svc. Gen. Hosp., Natl. Def. Med. Ctr., Taipei.

B554 **844.2** Ca^{2+} and pH – Activated Channels in Pancreatic Ductal Adenocarcinoma **D.R.P. Sauter, B. Bonito, M. Rapedius, A. Brüggemann, M. Djamgoz, E.K. Hoffmann and I. Novak.** Univ. of Copenhagen; Imperial Col. London and Technol. GmbH, Munich.

B555 **844.3** ENaC Regulation by $[\text{Ca}^{2+}]_i$ Is Determined by Mitochondrial Ca^{2+} Uptake **T.L. Thai, L.I. Galarza-Paez, L. Yu, H.F. Bao, J.D. Klein, J.M. Sands and D.C. Eaton.** Emory Univ.

B556 **844.4** Systematic Characterization of SLC2A9 (Glut9) Variants Associated with Serum Uric Acid Levels **A. Ruiz and O. Bonny.** Univ. of Lausanne.

B557 **844.5** Functional and Transport Analysis of CLCN5 Mutations Found in Dent Disease Patients **M. Chang, M. Brown, X. Tang, J. Lieske and M. Romero.** Mayo Clin. and Wayne State Univ.

B558 **844.6** New Strategies for an Old Problem: Calcium Regulation in the Apicomplexan parasite, *Toxoplasma gondii* **D.A. Pace and S.N.J. Moreno.** California State Univ., Long Beach and Univ. of Georgia.

B559 **844.7** The Disruption of KCNJ10 (Kir4.1) Depolarizes the Membrane Potential of the CNT and Stimulates the Expression of ENaC in the Medullary Collecting Duct **X-T. Su, C. Zhang, L. Wang, D-H. Lin and W-H. Wang.** New York Med. Col.

B560 **844.8** Inversin Modulates Transepithelial Ion Transport in Mouse Renal Cells **N.H. Kulkarni, R.C. Smith and B.L. Blazer-Yost.** Indiana Univ.-Purdue Univ. Indianapolis.

B561 **844.9** Glycosylation-Dependent Activation of ENaC by the TNF Lectin-Like Domain-Derived Peptide AP301 **W. Shabbir, S. Tzotzos, M. Hasanovic, A. Mohammed, A. Willam, M. Kraihammer, H. Fischer, H. Pietschmann, B. Fischer, R. Lucas and R. Lemmens-Gruber.** Univ. of Vienna; APEPTICO, Vienna and Med. Col. of Georgia.

B562 **844.10** Rotenone, Mitochondrial Complex I Inhibitor, Augments and Hydrogen Peroxide Inhibits L-Type Calcium Current in Arterial Smooth Muscle Cells **R. Ochi, V. Shah, D. Patel, M.S. Wolin and S.A. Gupte.** New York Med. Col.

B563 **844.11** Pyk2-Dependent Phosphorylation of Mitochondrial Ca^{2+} Uniporter Modulates Mitochondrial Ca^{2+} Uptake **J. O-Uchi, S. Hurst, J.M. Fontana, J. Mishra, X. Xu, D. Fu, B.S. Jhun, A. Aperia and S. Sheu.** Thomas Jefferson Univ. and Karolinska Inst.

B564 **844.12** ERP29 Influences CFTR Maturation through a Luminal Y-X-F Motif **L. Saud, J. Podrat and R.C. Rubenstein.** The Children's Hosp. of Philadelphia and Univ. of Pennsylvania Perelman Sch. of Me.

- B565 **844.13** ONK⁺O-Channels: A Tool to Re-program Immortality **S. Gentile and M. Perez-Neut**. Loyola Univ. Chicago, Maywood.
- B566 **844.14** Role of Plasma Dyslipidemia in Regulation of Macrophage K⁺ Channels: Distinct Role of oxLDL and acLDL **C. Osborn, Y. Epshtein and I. Levitan**. Univ. of Illinois at Chicago.
- B567 **844.15** Activation of Ca²⁺-Activated K⁺ Channel (SK4) Rescues Squamous Cancer Cells from Iononmycin-Induced Cell Death **M.Z. Yin, S-W. Park, T.W. Kang, K.S. Kim, J. Lee, J.H. Hah, M.H. Sung and S.J. Kim**. Seoul Natl. Univ. Col. of Med. and Seoul Natl. Univ. Hosp.
- B568 **844.16** Anterograde Trafficking of KCa3.1 by Cytoskeletal Elements and Accessory Proteins in a Polarized Epithelium **K.L. Hamilton, R. Farquhar, S-L. Lee and D.C. Devor**. Otago Sch. of Med. Sci., Univ. of Otago, New Zealand and Univ. of Pittsburgh Sch. of Med.
- B569 **844.17** Correlation of Mesenchymal Differentiation and Ion-Channel Activity in Radiation-Induced Resistant Human Glioblastoma Cell Line **C-C. Liu, Y-M. Huang, S-N. Wu and C-I. Sze**. Natl. Cheng Kung Univ., Taiwan.
- B570 **844.18** The $\alpha 2$ Isoform of Na,K-ATPase Modulates Vascular Tone via Activation of Src Kinase Signaling Pathway: A Lesion from Mouse Model for Familial Hemiplegic Migraine Type 2 **V.V. Matchkov, L. Hangaard, C. Staehr, K. Lykke-Hartmann, Z. Xie and C. Aalkjaer**. Aarhus Univ., Denmark and Marshall Univ.
- B571 **844.19** The Role of Mineralocorticoid Receptor on Human Aortic Endothelial Ion Channel Expression Profile in Chronic Kidney Disease **V. Cazaña-Perez, T. Giraldez, J. Navarro-Gonzalez and D. Alvarez de la Rosa**. Univ. of La Laguna, Tenerife and Univ. Hosp. Nuestra Señora de Candelaria, Santa Cruz de Tenerife, Spain.
- B572 **844.20** Expression and Function of H⁺/K⁺-ATPases in Pancreatic Ductal Adenocarcinoma **M. Tozzi, A. Giannuzzo and I. Novak**. Univ. of Copenhagen.
- B573 **844.21** TRPV4 Channels Modulate Pathological Angiogenesis via Rho/Rho Kinase Pathway **H.C. Cappelli, R.J. Thoppil, R.K. Adapala, S. Paruchuri, J.G. Meszaros and C.K. Thodeti**. Northeast Ohio Med. Univ.
- B574 **844.22** Acid Aspiration-Evoked Respiratory Reflexes Persist in TRPV1 and TRPA1 Knockout Mice **G.G. Paul and B.J. Canning**. Johns Hopkins Asthma and Allergy Ctr. and George Washington Univ.
- B575 **844.23** Metabolic Acidosis, Ocular Pressure and Cysts in NBCe1 Knockout **J.D. Hildenbrand, A-P. Chen, G.M. Landry, H.L. Holmes, M-H. Chang and M.F. Romero**. Mayo Clin.

845. ION CHANNELS, TRANSPORTERS AND PUMPS IN HEALTH AND DISEASE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B576 **845.1** Glycosylated Extracellular Asparagines of the α -Subunit Provide a Connection to the Extracellular Matrix and Facilitate The Shear Force-Dependent Activation of the Human Epithelial Na⁺-Channel **F. Knoepp, P.P. Szczesniak, M. Althaus and M. Fronius**. Justus Liebig Univ., Germany and Univ. of Otago, New Zealand.
- B577 **845.2** Effect of Insulin on Transepithelial Na⁺ Transport in Renal Principal Cells Grown under Normoglycemic, Hyperinsulinemic Conditions **E. Maue, M. Brands and B.L. Blazer-Yost**. Indiana Univ.-Purdue Univ. Indianapolis and Georgia Regents Univ.
- B578 **845.3** The Role of P2X7 Receptor in Estrogen-Induced Proliferation of Breast Cancer Cells **B. Ma**. Second Military Med. Univ., China.
- B579 **845.4** Dysregulation of Capacitative Calcium Entry in Hypertensive Rats Associated to Mitochondrial Dysfunction **I. Méndez-López, G.H. Bomfim, D.C. Musial, J.A. Arranz-Tagarro, J.P. Velasco-Martin, N.H. Jurkiewicz, A. Jurkiewicz, A.G. García and J.F. Padín**. Autonomous Univ. of Madrid and Paulista Sch. of Med., Fed Univ. of Satildejo Paulo.
- B580 **845.5** Molecular Determinants of the Trafficking of the Cold-Activated Transient Receptor Potential Ion Channel TRPM8 **D. Ghosh, G. Owsianik, S. Pinto, R. Vennekens, A. Segal, P.V. Berghe, J. Vriens and T. Voets**. Katholieke Univ. Leuven, Belgium.
- B581 **845.6** TRPV4 Channel Deletion Improves Cardiac Remodeling following Myocardial Injury via Modulation of MRTF-A Pathway **R.K. Adapala, R.J. Thoppil, H.C. Cappelli, D.J. Luther, V.A. Ohanyan, J. Luli, S. Paruchuri, W.M. Chilian, J.G. Meszaros and C.K. Thodeti**. Northeast Ohio Med. Univ.
- B582 **845.7** N-Methyl D-Aspartate Receptors in Human Red Blood Cells in Health and Disease **A. Bogdanova, A. Makhro, P. Hänggi, J.S. Goede and M. Gassmann**. Univ. of Zurich and Univ. Hosp. Zurich.
- B583 **845.8** The Role of Large Conductance Voltage- and Ca²⁺-Activated K⁺ Channels as Low Affinity Receptors for 17 β -Estradiol in Guinea Pig Urinary Bladder Smooth Muscle Excitability **A. Provence, K.L. Hristov, S.P. Parajuli and G.V. Petkov**. Univ. of South Carolina.
- B584 **845.9** Specific Activation of KCa Channels Contribute to Omega 3 Fatty Acid -Induced Pulmonary Vasodilation **N. Chandran, B. Tang, P. Jain and A. Olschewski**. Ludwig Boltzmann Inst., Graz and Med. Univ. of Graz, Austria.
- B585 **845.10** Aldosterone and β -Adrenergic Activation of Colonic K⁺ Secretion Requires BK Channels (K_{Ca}1.1) **S. Halm and D. Halm**. Wright State Univ. Boonshoft Sch. of Med.

- B586 **845.11** IK Channel (SK4) Knockout Mice Have Normal Bladder Function **L. Guo, B.E. Shmukler, B. MacIver, S.L. Alper and W.G. Hill.** Beth Israel Deaconess Med. Ctr.
- B587 **845.12** Plasma Membrane Insertion of KCa2.3 (SK3) Is Dependent upon the SNARE Proteins, Syntaxin-4 and SNAP-23 **S.B. Condliffe, C.A. Bertuccio and D.C. Devor.** Univ. of Otago, New Zealand and Univ. of Pittsburgh.
- B588 **845.13** Role of Endothelial Kir in Flow-Induced Vasodilation via NO Production **S.J. Ahn, J-T. Bian, Y. Epshtein, S. Schwab, S. Phillips and I. Levitan.** Univ. of Illinois at Chicago.
- B589 **845.14** Modulation of the Two-Pore Domain Potassium Channel TASK-1 by Caveolin-3 **C. Kang and K. Hu.** Col. of Pharm., The Ohio State Univ.
- B590 **845.15** Neuroprotective Effect of Sea Anemone Polypeptide BDS-II Toxin : Relationship between Neurodegenerative Disease and Kv3.4 **M.S. Song, P.D. Ryu and S.Y. Lee.** Seoul Natl. Univ.
- B591 **845.16** The Role of Voltage-gated Potassium Channels in Osteogenic Differentiation **J.E. Yang, M.S. Song, P.D. Ryu and S.Y. Lee.** Seoul Natl. Univ. Col. of Vet. Med.
- B592 **845.17** Cobiprostone Activates Human Bronchial Epithelial Cell CIC-2, but Not CFTR **J. Cuppoletti, K.P. Tewari, J. Chakrabarti and D.H. Malinowska.** Univ. of Cincinnati.
- B593 **845.18** Calcineurin Inhibitor Cyclosporine Inhibits the Neuronal K-Cl Co-transporter KCC2 **M. Zessin, C. Boldt, R.A. Deisz, K.I. Blankenstein, S. Bachmann and K. Mutig.** Charité-Med. Univ. and Hosp. Berlin.
- B594 **845.19** The Phosphorylation State of KCC3 Encodes a Potent Molecular Switch of Transporter Activity, Cell Volume, and K⁺ Content **N.C. Adragna, P.K. Lauf, N.B. Ravilla, G. Begum, A. Khanna, D. Sun and K. Kahle.** Wright State Univ.; Univ. of Pittsburgh and Children's Hosp. Boston and Harvard Med. Sch.
- B595 **845.20** Computational Modeling Suggests a Mechanism of Inhibition of SPAK/OSR1 by a Known RFXV Pocket Inhibitor **T.M. Austin, S.L. Deluca, J. Meiler and E. Delpire.** Vanderbilt Univ.
- B596 **845.21** Calcineurin Inhibition Affects Na(K) Cl Cotransporter Activity in Kidney Distal Nephron **K.I. Blankenstein, E.W. Grace, A. Borschewski, D.H. Ellison, K. Mutig and S. Bachmann.** Charité Med. Univ. Berlin and Oregon Hlth. & Sci. Univ.
- B597 **845.22** Higher than Equilibrium Intracellular Cl⁻ Concentration in Dorsal Root Ganglion Neurons of NKCC1 Knockout Mice **F.J. Alvarez-Leefmans and S. Mao.** Wright State Univ. Boonshoft Sch. of Med. and McMaster Univ., Canada.
- B598 **845.23** The Mammalian Bicarbonate Transporter Related Protein BTR1 (*Slc4a11*) Promotes Boron Accumulation In Yeast **C.R. Brotzki, A. Marshall, M.L. Jennings, S.P. Patel and M.D. Parker.** Univ. at Buffalo, SUNY; Univ. of Arkansas for Med. Sci. and VA Western NY Healthcare Syst.
- B599 **845.24** Regulation of Glucose Transport by Insulin/IGF-Like Signaling in *Caenorhabditis elegans* **S. Kitaoka, A.D. Morielli and F-Q. Zhao.** Univ. of Vermont and Col. of Med., Univ. of Vermont.
- B600 **845.25** Analyses of the Urate-Lowering Effects by Zotepine and Chlorprothixene **N. Onizawa, T. Izeki, T. Hori, N. Otani, M. Ouchi, H. Hasegawa and N. Anzai.** Dokkyo Med. Univ. Sch. of Med. and Saitama Med. Ctr., Saitama Med. Univ., Japan.
- B601 **845.26** Heterogeneity of Signal Transduction by Na/K-ATPase α -Isoforms: Role of α 2 Na/K-ATPase **J. Xie, X. Cui, N. Madan, S. Pierre and Z. Xie.** Marshall Univ. and Univ. of Colorado Aurora.
- B602 **845.27** Heterogeneity of Signal Transduction by Na/K-ATPase α Isoforms: Role of α 3 Na/K-ATPase **N. Madan, S. Pierre and Z. Xie.** Marshall Univ.
- B603 **845.28** TRPV4 Channels Enable Na,K-ATPase Activity in the Lens Epithelium to Respond to a Remote Stimulus **N. Delamere and M. Shahidullah.** Univ. of Arizona.
- B604 **845.29** Functional Consequences of the Disease-Causing T613M Mutation of NKAalpha3 for Hippocampal Neurons **N. Fritz, E. Akkuratov, T. Liebmann, M. Lindskog, H. Brismar and A. Aperia.** SciLifeLab, Karolinska Inst., KTH, Solna and Neurosci., Karolinska Inst.
- B605 **845.30** Apoptosis Caused by Excessive Mitochondrial Albumin Uptake in Renal Cells Is Initiated by Increased Mitochondrial Calcium Concentration **J.M. Fontana, N. Fritz, H. Brismar and A. Aperia.** Karolinska Inst., SciLifeLab, Solna.
- B606 **845.31** Ouabain Signaling Requires Angiotensin II Type 1 Receptor Activation **C.D. Conner, M. Duplessis, E.D. Lederer and S.J. Khundmiri.** Robley Rex VA Med. Ctr. and Univ. of Louisville.
- B607 **845.32** Physiological Relevance of Isoform-Specific Voltage Dependence in the Na/K Pump **C.M. Stanley, A. Bernal, D.G. Gagnon and P. Artigas.** Texas Tech Univ. and Texas Tech Univ. Hlth. Sci. Ctr.

846. ALCOHOLIC AND NONALCOHOLIC FATTY LIVER DISEASE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B608 **846.1** HO-1 Induction Attenuates Fructose Mediated Non-alcoholic Fatty Liver in Hepatocytes and Obese Mice: Involves SIRT1 **K. Sodhi, J.I. Shapiro, D. Stec, L. Bellner and N.G. Abraham.** Joan C. Edwards Sch. of Med., Marshall Univ.; New York Med. Col. and Univ. of Mississippi Med. Ctr.
- B609 **846.2** Levels of Metacaspase1 and Chaperones Related to Protein Maintenance in Alcoholic and Non-alcoholic Steatohepatitis **A.S. Mendoza, S.W. French, B. Tillman, B. French, Y. Peng and J. Li.** LA BioMed, Harbor UCLA Med. Ctr.
- B610 **846.3** mTORC1 Inhibition Reduces ER Stress and Ameliorates Alcoholic Liver Injury **S-S. Li, F.A. Ladhani, B. Gao and M. Zang.** Boston Univ. Sch. of Med. and NIAAA, NIH.
- B611 **846.4** A Novel Mouse Model of Accelerated Non-alcoholic Steatohepatitis **P. Malhotra, E. Han, K. Ooka, S. Muthusamy, R.K. Gill, P.K. Dudeja, C. Aloman and W.A. Alrefai.** Univ. of Illinois at Chicago and Jesse Brown VA Med. Ctr.

- B612 **846.5** Liver-Specific Loss of Perilipin 2 Alleviates Hepatic Steatosis and Inflammation **B.P. Atshaves, M. Aljazi, S.D. Olenic, K.A. Fader and C.P. Najt.** Michigan State Univ.
- B613 **846.6** Hepatic Steatosis following Loss or Gain in Body Mass **I.K. Mendes, M. Martins, W. Mury, M. Àguila and T. Brunini.** Rio de Janeiro State Univ.

847. EFFECTS OF DIET AND METABOLITES ON MUCOSAL IMMUNOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B614 **847.1** Butyrate Stimulates the Epithelial Potential to Produce Retinoic Acid Demonstrated in Primary Epithelial Enteroid Systems **C. Verseijden, R. Schilderink, T. Lambers, E.A.F. van Tol and W.J. de Jonge.** Acad. Med. Ctr., Amsterdam and Mead Johnson Nutr., Nijmegen.

848. EFFECTS OF DIET ON GI AND LIVER PHYSIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B615 **848.1** Increased Insulin Resistance by Dextran Sulfate Sodium Is Associated with Increased D-Amino Acids and Lipopolysaccharides in Rat **W. Liu, S. Baker, Q. Feng, R. Arbizu, G. Aljomah, M. Khatib, C. Nugent, R. Baker, Y. Hu and L. Zhu.** Univ. at Buffalo and Shanghai Univ. of Traditional Chinese Med.
- B616 **848.2** Dextran Sulfate Sodium Enhances High Fat Diet-Induced Insulin Resistance in Rat **Q. Feng, S. Baker, W. Liu, R. Arbizu, G. Aljomah, M. Khatib, C. Nugent, R. Baker, Y. Hu and L. Zhu.** Univ. at Buffalo and Shanghai Univ. of Traditional Chinese Med.
- B617 **848.3** Effect of Genistein Diet on Jejunal Contractility, Motility and Morphology in a Mouse Model of Diabetic Obesity **L. Al-Nakkash, S. Schacht, R. Dolan, A. Bhakta, Z. Li, W. Grow, K. Ezell, A. Anderson and L. Leung.** Midwestern Univ., AZ and Basis H.S., Phoenix.
- B618 **848.4** Regulation of the Primary Intestinal Fructose Transporter GLUT5 Is Dependent on Metabolism by FK and on Trafficking by Rab11a-Dependent Endosomes **C. Patel, V. Douard, N. Gao, S. Yu and R.P. Ferraris.** Rutgers New Jersey Med. Sch. and Rutgers Univ Newark.
- B619 **848.5** Sex Differences in Jejunal Mucosal 5-HT (Serotonin) Availability in a Diet-Induced Obesity Mouse Model **M. France, J. Galligan and G. Swain.** Michigan State Univ.

849. GASTRIC PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B620 **849.1** Value of of hemostasis in ulcerative colitis **T.R. Omarov, L.A. Omarova and L. Tell.** RSCUMA and Astana Med. Univ.
- B621 **849.2** Microbial Spectrum of Colon Ulcer Patients, Depending on the Infection *H. pylori* **T.R. Omarov and L.A. Omarova.** RSCUMA and Astana Med. Univ., Kazakhstan.
- B622 **849.3** Corticotropin Releasing Hormone Expression in an Animal Model of Visceral Hypersensitivity **A.A. Mecca, N. El-Ayache and J.J. Galligan.** Michigan State Univ.
- B623 **849.4** Transplantation of Gastric Organoid-Derived Spasmolytic Polypeptide/TFF2-Expressing Metaplasia Cell Lineage Promotes Ulcer Repair in the Aged Stomach **A.C. Engevik, R. Feng, J. Li, M.M. Mahe, S. Oh, E. Aihara, K.A. Engevik, M. Montrose, A. Giraud, E. Choi, J.R. Goldenring, M.A. Helmrath and Y. Zavros.** Univ. of Cincinnati; Cincinnati Children's Hosp. Med. Res. Ctr.; Korea Res. Ctr.; The Royal Children's Hosp., Australia and Nashville VA Med. Ctr. and Vanderbilt Univ. Med. Ctr.
- B624 **849.5** CD44 Plays a Functional Role in *Helicobacter pylori*-Induced Epithelial Cell Proliferation **N. Bertaux-Skeirik, R. Feng, M.A. Schumacher, J. Li, M.M. Mahe, A.C. Engevik, R.M. Peek, K. Ottemann, V. Orian-Rousseau, G. Boivin, M.A. Helmrath and Y. Zavros.** Univ. of Cincinnati; Cincinnati Children's Hosp.; Vanderbilt Univ.; Univ. of California Santa Cruz; Karlsruhe Inst. of Technol. and Wright State Univ.
- B625 **849.6** FFA2 Activation Suppresses Gastric Acid Secretion via 5-HT₃ Receptor Activation in Rats In Vivo **H. Said, Y. Akiba, I. Kaji, K. Narimatsu and J.D. Kaunitz.** West LA VA Med. Ctr.; UCLA and Brentwood Biomed Res Inst.
- B626 **849.7** *Helicobacter pylori* Alters the Expression of Circadian Clock Components PER2 and BMAL1 during Infection **J. Li, N. Bertaux-Skeirik, J. Pruszk, S.R. Moore, C.I. Hong and Y. Zavros.** Univ. of Cincinnati and Cincinnati Children's Hosp. Med. Ctr.
- B627 **849.8** Chronic CO₂ Retention Stimulates Gastric Acid Secretion and Induces Gastric Mucosal Hyperplasia in Rats **J.W. Sherwood, C.S. Landon and J.B. Dean.** Univ. of South Florida.

850. GASTROINTESTINAL NUTRIENT SENSORS**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B628 **850.1** Neurotensin Partially Mediates the Monosodium Glutamate-Induced Peristaltic Reflex **D.M. Kendig, V. Bala, K.S. Murthy and J.R. Grider.** Virginia Commonwealth Univ.
- B629 **850.2** The Effect of Obesogens on the Microbiota and Systemic Health in Zebrafish **K.D. Tousignant and J.K. Uno.** Elon Univ.
- B630 **850.3** Glucose Modulation of Vagal Sensory Signaling Is Compromised in a Mouse Model of Type 2 Diabetes **K. Browning.** Penn State Col. of Med.
- B631 **850.4** Free Fatty Acid Receptor Activation Alters Mesenteric Lymphatic Flow and Fatty Acid Transport in Rats **K. Narimatsu, Y. Akiba, I. Kaji, H. Said and J.D. Kaunitz.** West LA VA Med. Ctr.; UCLA and Brentwood Biomed. Res. Inst., CA.
- B632 **850.5** High Fat Diet Does Not Compromise Vagal Afferent Responses to 5-HT **S.S. Simmonds, S.D. Stocker and K. Browning.** Penn State Col. of Med.

851. GI HORMONES, PEPTIDES AND RECEPTORS**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B633 **851.1** miR-29b Regulates Intestinal Epithelium Homeostasis by Modulating Wnt Co-receptor LRP6 Translation **Y. Li, L. Liu, J.N. Rao, T. Zou, L. Xiao, H.K. Chang, M. Gorospe and J-Y. Wang.** Univ. of Maryland Sch. of Med.; VA Med. Ctr. and NIA, NIH, Baltimore.
- B634 **851.2** Intestinal Insulin Receptor Contributes to Elevated Cholesterol and Stem, Enteroendocrine, and Paneth Cell Adaptations to Obesity **S.F. Andres, M.A. Santoro, A.T. Mah, J.A. Keku, A.E. Bortvedt, R.E. Blue and P.K. Lund.** Univ. of North Carolina at Chapel Hill.
- B635 **851.3** 5-HT₃ Receptor Signaling in a Rat Model of Sex-Specific Visceral Hypersensitivity **N. El-Ayache and J.J. Galligan.** Michigan State Univ.
- B636 **851.4** GLP-2 Reprograms Glucose Metabolism in Intestinal Stem Cells **X. Shi, T. Alves, X-L. Zeng, R. Kibbey, M. Estes and X. Guan.** Baylor Col. of Med. and Yale Univ. Sch. of Med.

852. GROWTH FACTORS, PROLIFERATION, DIFFERENTIATION AND APOPTOSIS**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B637 **852.1** The Neuregulin Receptors ErbB3 and ErbB4 Have Opposing Effects on Intestinal Paneth Cells **D. Almohazey and M.R. Frey.** Univ. of Southern California and Children's Hosp. Los Angeles.

853. IMMUNOLOGY AND MICROBIOLOGY OF THE GUT**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B638 **853.1** Improving the Outcome of Stoma Reversal Surgery: Impact of Microflora **E. Beamish, C. Pattison, J. Johnson, N. Scott, A. Bhowmick, A. Stagg and R. Rigby.** Fac. of Hlth. and Med., Lancaster Univ.; Lancaster Teaching Hosps., NHS Trust, U.K. and Blizzard Inst., Queen Mary Univ. of London.
- B639 **853.2** The Herbal-Derived Honokiol and Magnolol Enhance Host Immune Response to Infection with Methicillin-Sensitive *Staphylococcus aureus* and Methicillin-Resistant *S. aureus* **S.J. Son, M.R. Park, S. Oh and Y. Kim.** Chonbuk Natl. Univ., South Korea.
- B640 **853.3** *Lactobacillus rhamnosus* Strain GG Influences on the Longevity and Immune Response of *Caenorhabditis elegans* to Foodborne Pathogens with Stimulating MicroRNAs **S. Oh, M.R. Park, S.J. Son and Y. Kim.** Chonbuk Natl. Univ., South Korea.
- B641 **853.4** *Bacillus licheniformis* Isolated from Korean Traditional Food Resources Enhances the Lifespan of *Caenorhabditis elegans* through Serotonin Signaling **M.R. Park, S.J. Son, S. Oh and Y. Kim.** Chonbuk Natl. Univ., South Korea.
- B642 **853.5** Protection of Epithelial Barrier Function against Bacterial Infection by the IBD Candidate Gene *PTPN2* **M. Krishnan, R. Alvarez, K.M. Bennett, M.G. Nair, D.D. Lo and D.F. McCole.** Univ. of California Riverside.
- B643 **853.6** The Human Milk Oligosaccharide, 2'-Fucosyllactose, Quenches *Campylobacter jejuni*-Induced Inflammation in Intestinal Mucosa **Z-T. Yu, N.N. Nanthakumar and D.S. Newburg.** Boston Col. and Virginia Tech & VA-MD Reg. Col. of Vet. Med.

854. INTESTINAL INFLAMMATION AND PATHOPHYSIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B644 **854.1** Heterogeneity of Subordination of the IL-18/IFN γ Axis to Caspase-1 among Patients with Crohn's Disease **A. Jarry, C. Bossard, A. Bourreille, C. Volteau, L. Droy, G. Meurette, J-F. Mosnier and C.L. Laboisie.** Université de Nantes and CHU Nantes.
- B645 **854.2** Macrophage-Specific ErbB4 Is Induced by DSS Colitis and Regulates Macrophage Survival **M.A. Schumacher, J.K. Bernard, S. Punit, J. Hsieh and M.R. Frey.** Univ. of So. California and Children's Hosp. Los Angeles.
- B646 **854.3** The Pregnane X Receptor Attenuates Cytokine-Induced Intestinal Epithelial Barrier Dysfunction, an Effect Associated with Inhibition of JNK Activation and Enhanced Autophagy **A. Garg, L. Alston, S. Erickson and S. Hirota.** Univ. of Calgary, Canada.
- B647 **854.4** Gut Bacterial Metabolite Propionate Upregulates Intestinal Epithelial Kruppel-Like Factor 4 Expression via a PPAR- γ -Dependent Mechanism **S. Priyamvada, A.N. Anbazhagan, I. Chatterjee, W.A. Alrefai, P.K. Dudeja and A. Borthakur.** Univ. of Illinois at Chicago.
- B648 **854.5** Increased Serotonin Availability Contributes to Decreased Bone Density in Colitis **B. Lavoie, J.A. Roberts, S.N. Spohn, K.A. Sharkey, J.B. Lian and G.M. Mawe.** Univ. of Vermont and Univ. of Calgary.
- B649 **854.6** Mucosal 5-HT₄ Receptors: A Novel Therapeutic Target in Colitis **S.N. Spohn, B. Lavoie, S.J. MacEachern, J.A. Roberts, R.L. Wilcox, K.A. Sharkey and G.M. Mawe.** Univ. of Vermont; Fletcher Allen Hlth. Care, Burlington and Univ. of Calgary.
- B650 **854.7** Adoptive Transfer of Dendritic Cells Overexpressing FasL Decreases the Proinflammatory Phenotype of Macrophages in a Model of Acute Colitis **R.A. Isidro, J. Cabán, A. López, E. Rivera, M.L. Cruz, S. Hernández, A.A. Isidro and C.B. Appleyard.** Ponce Hlth. Sci. Univ. and Univ. of Puerto Rico – Ponce Campus.
- B651 **854.8** Blocking Interleukin-6 Signalling Ameliorates Gastrointestinal Dysfunction in the *mdx* Model of Duchenne Muscular Dystrophy **J. Manning and D. O'Malley.** University Col. Cork.
- B652 **854.9** Cytokine-Induced Arginase Expression in Intestinal Epithelial Cells Reduce Nitric Oxide Production and Apoptosis **M.M. Talavera, S. Nuthakki, H. Cui, Y. Liu and L.D. Nelin.** Nationwide Children's Hosp., Columbus and Baylor Col. of Med.
- B653 **854.10** Transcriptional Regulation of MFG-E8 by Sp1 and AP-1 in Homeostasis and LPS Stimulation **X. Wang, H-F. Bu, S.X.L. Liu, I. De plaen and X. Tan.** Northwestern Univ., Chicago.
- B654 **854.11** Role of G Protein-Coupled Receptor Kinase 2 in TNF α Signaling in Colon Epithelial Cells **M. Steury and N. Parameswaran.** Michigan State Univ.
- B655 **854.12** Platelet-Activating Factor Regulates T Cell Activation and Trafficking in Dextran Sulphate Sodium Colitis **B. León-Ruiz, Z. Kellermayer, C. Ren, A. Ballesteros-Tato and T. Jilling.** Univ. of Alabama at Birmingham and Univ. of Pecs, Hungary.

B656 **854.13** Bile Acids Regulate Intestinal Epithelial Restitution: Implications for Pathogenesis and Therapy of IBD **N.K. Lajczak, V. Saint-Criq and S.J. Keely.** Royal Col. of Surgeons in Ireland.

B657 **854.14** Mechanisms of Alteration of Epithelial Cell by Associated Adherent-Invasive *E. coli* **G. Iaquinto, A. Marano, A. Perna, V. Rotondi Aufiero, G. Mazzarella and A. De Luca.** Clin.a Santa Rita; Natl. Council Res. and Second Univ. of Naples.

855. MECHANISMS OF INTESTINAL NUTRIENT, WATER AND ELECTROLYTE TRANSPORT

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B658 **855.1** Bile Acid Stimulation of Cl⁻ Secretion Involves Intricate Crosstalk Cascades in Human Colonic T84 Cells **J. Domingue, M. Ao, J. Sarathy, W. Alrefai and M. Rao.** Univ. of Illinois at Chicago; Benedictine Univ., IL and Jesse Brown VA Med. Ctr., Chicago.
- B659 **855.2** Aldosterone Modulates Glucose Absorption in the Jejunum Post Colectomy **M.Y. Khachab, A. Kanaan and E. Deeba.** Univ. of Balamand Fac. of Med. and Med. Sci., Beirut.
- B660 **855.3** Expression and Regulation of Intestine Specific Serotonin Transporter Variant **M. Singhal, D. Jarava, C. Manzella, A. Kumar, P. Malhotra, S. Saksena, W. Alrefai, P.K. Dudeja and R.K. Gill.** Univ. of Illinois at Chicago and Jesse Brown VA Med. Ctr.
- B661 **855.4** Epigenetic Modulation of Intestinal NHE3 Expression by DNA Methylation **A. Kumar, P. Malhotra, H. Coffing, A.N. Anbazhagan, S. Priyamvada, H.R. Krishnan, R.K. Gill, W.A. Alrefai, D.P. Gavin, S.C. Pandey, P.K. Dudeja and S. Saksena.** Univ. of Illinois at Chicago and Jesse Brown VA Med. Ctr.
- B662 **855.5** Phorbol Dibutyrate Regulation of the Cystic Fibrosis Transmembrane Conductance Regulator Does Not Involve MicroRNAs **K. Osmani, M. Ao, J. Domingue, J. Sarathy and M. Rao.** Univ. of Illinois at Chicago and Benedictine Univ., IL.

856. PANCREATIC PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B663 **856.1** Atrial Natriuretic Factor Is Synthetized in the Rat Exocrine Pancreas **A.C. Najenson, M. Bianchi, M.S. Ventimiglia, M.R. Rodriguez, V. Casco, M.S. Vatta and L.G. Bianciotti.** Univ. of Buenos Aires – CONICET and Univ. of Entre Rios, Argentina.
- B664 **856.2** The Lack of Adenylyl Cyclase 1 Impairs the Inhibitory Effects of Cyclic AMP on Cell Migration and Proliferation in Pancreatic Cancer **S.N. Quinn, T. Flakes, E. Holcomb, L. Chavez and M.E. Sabbatini.** Georgia Regents Univ.

- B665 **856.3** Effects of Quercetin in IL-6 and TNF- α Levels in Diabetic Rats **H.S. Gergerlioglu, E.A. Demir, M.I. Alp and M. Oz.** Selcuk Univ., Turkey.
- B666 **856.4** Effects of Quercetin on L-Arginine-Induced Acute Pancreatitis in Rats **S.O. Rotimi, O.A. Rotimi, W.O. Iyanda-Joel, I.B. Adelani, N. Oguamanam and O. Ohamobi.** Covenant Univ., Nigeria.
- B667 **856.5** Effect of Passion Fruit Peel Flour on the Prognosis of Acute Pancreatitis in Experimental Model of Obesity **G.L. Miranda, G.N. Mattos, L.A. Silva-Júnior, V.d. Soares, P.S. Pacheco, E.P.G. Souza, A.S. Moura, R.G. Marques and A.U. Sabaa-Srur.** Fed. Univ. of Rio de Janeiro.

857. TARGETING COLONIC CONTENTS FOR TREATMENT OF DISEASE

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B668 **857.1** VSL#3 Probiotic Stimulates T-Cell Protein Tyrosine Phosphatase-Mediated Protection of Intestinal Epithelial Barrier Function **M. Krishnan, N. Shah, H. Penrose, R.R. Marchelletta and D.F. McCole.** Univ. of California Riverside and UCSD.
- B669 **857.2** Transfer of Obesity via the Gut Microbiome Is Mediated Specifically through Suppression of Non-aerobic Resting Metabolism **J.L. Grobe, S.M. Bahr, B.J. Weidemann, C.M.L. Burnett, N.A. Pearson, O. DeLeon, D.J. Murry and J.R. Kirby.** Univ. of Iowa.
- B670 **857.3** Bile Acids Regulate Colonic Epithelial Defensin Secretion: Implications for Pathogenesis and Therapy of Inflammatory Bowel Disease **N.K. Lajczak, V. Saint-Criq and S.J. Keely.** Royal Col. of Surgeons in Ireland.
- B671 **857.4** Nod1/Nod2 Receptors Modulate the Microbiota-Gut-Brain Axis **M.A. Schneider, Y. Zhang, K.E. Barrett and M.G. Gareau.** UCSD Sch. of Med. and Univ. of California, Davis, Sch. of Vet. Med.

858. CAROTID BODY STRUCTURE AND FUNCTION

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B672 **858.1** Severe Hypoxia Activates BK Channel in Rat Carotid Body Glomus Cells **J. Wang, M. Bompolaki, J.O. Hogan and D. Kim.** Rosalind Franklin Univ. of Med. and Sci.
- B673 **858.2** Carotid Body Denervation Attenuates Sympathetic Nerve Activity, Shifts the Pressure-Diuresis Curve to the Left and Improves Survival in rats with Hypertensive Heart Failure **K. Fujii, K. Saku, T. Kishi, T. Takehara, T. Akashi, Y. Oga, A. Nishizaki, T. Arimura, T. Tohyama, T. Nishikawa and K. Sunagawa.** Kyushu Univ. Grad. Sch. of Med. Sci., Japan.
- B674 **858.3** Carotid Body Denervation Makedly Improves the Survival of Monocrotaline Induced Pulmonary Hypertension Rats **M. Shinoda, K. Saku, K. Abe, T. Takehara, Y. Kuwabara, K. Yoshida, K. Fujii, A. Nishizaki, Y. Oga and K. Sunagawa.** Kyushu Univ. Grad. Sch. of Med.

- B675 **858.4** Central Modulation of Arterial Chemoreceptor Control by Midazolam during Severe Arterial Hypoxia in the Rabbit **A.W. Quail, D.B. Cottee, J.M. Johnstone and S.W. White.** Sch. of Med. and Publ. Hlth., Univ. of Newcastle, Australia.

859. CELLULAR, MOLECULAR AND SYSTEMS INTEGRATION UNDERLYING ADAPTATION AND MALADAPTATION TO HYPOXIA

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B676 **859.1** Rieske Iron-Sulfur Protein in Mitochondrial Complex III Is Essential for the Heterogeneity of Hypoxic Cellular Responses in Pulmonary and Systemic (Mesenteric) Artery Smooth Muscle Cells **Y-X. Wang, A.S. Korde, V.R. Yadav and Y-M. Zheng.** Albany Med. Col.
- B677 **859.2** The Effects of Simulated Intermittent Altitude on Mucosal Immunity **A.D. Blazek, P.J. Anderson, J.G. Brichler, M.K. Slawinski, M.T. Rose, T.E. Kirby, C.B. Swain and N.L. Weisleder.** The Ohio State Univ.
- B678 **859.3** Acute Mountain Sickness, Hypobaric Hypoxia and Exercise Duration All Differentially Affect Fluid Balance Hormones **D.M. DiPasquale, G. Strangman, N.S. Harris and S. Muza.** Univ. of Pittsburgh; Harvard Med. Sch. and U.S. Army Res. Inst. of Envrn. Med., Natick, MA.
- B679 **859.4** Chronic Intermittent Hypoxia Promotes Epigenetic Regulation of Inflammatory Gene Promoters in Microglia **E.A. Kiernan, S.M.C. Smith and J.J. Watters.** Univ. of Wisconsin-Madison.
- B680 **859.5** Electrophysiological Properties of Ventral Medullary Respiratory Neurons in Rats Submitted to Chronic Intermittent Hypoxia **D.J. Moraes, M.P. da Silva, A.S. Mecawi, J. Antunes-Rodrigues, W.A. Varanda and B.H. Machado.** Sch. of Med. of Ribeirao Preto, Univ. of São Paulo.
- B681 **859.6** Arousal from Sleep by Optogenetic Stimulation of C1 Neurons Is Reduced following Sleep Deprivation or Hypoxia, but Restored with Systemic Adenosine 1A Antagonism **P.G. Burke, R.L. Stornetta and P.G. Guyenet.** Univ. of Virginia.
- B682 **859.7** Spinal Oxygen Sensors Drive Sympathetic Activity That Precedes, Predicts and Outlives Phrenic Gasps during Hypoxia in the Absence of the Brainstem **R.J.A. Wilson, F. Derakhshan, A. Roy, M. Baghdadwala, F.B. McDonald, E.C. Scheibli, M.B. Harris and M. Dutschmann.** Univ. of Calgary, Canada; Univ. of Alaska Fairbanks and Florey Inst., Melbourne.
- B683 **859.8** Redox Remodelling in Diaphragm Muscle Adaptation to Chronic Sustained Hypoxia **K.D. O'Halloran, D. Sheehan and P. Lewis.** University Col. Cork.
- B684 **859.9** Hydrogen Peroxide Augments Intracellular Ca⁺⁺ via Voltage-Gated Ca⁺⁺ Channels in Isolated Nucleus Tractus Solitarii Neurons **T.D. Ostrowski, L. Polo-Parada and D.D. Kline.** Univ. of Missouri-Columbia.
- B685 **859.10** Ca_v 3.2 T-Type Ca²⁺ Channels in H₂S-Mediated Hypoxic Response of the Carotid Body **V.V. Makarenko, Y-J. Peng, G. Yuan, A.P. Fox, G.K. Kumar, J. Nanduri and N.R. Prabhakar.** Univ. of Chicago.

860. CONTROL OF BREATHING: CHEMORECEPTION**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B686 **860.1** Positive Interaction between TRPA1 and TRPV1 Channels in Rat Vagal Bronchopulmonary Sensory Neurons **C-C. Hsu and L-Y. Lee**. Univ. of Kentucky.
- B687 **860.2** TRPV4 Agonist GSK1016790A Regulates Respiration through Indirect Activation of Bronchopulmonary Sensory Neurons **Q. Gu, C. Moss, K. Kettelhut, C. Gilbert and H. Hu**. Mercer Univ. Sch. of Med. and Washington Univ. Sch. of Med.
- B688 **860.3** Depressed Hypoxic and Hypercapnic Ventilatory Responses (dHVR and dHCVR) Occur in Mice at the Late Stage of Lethal Avian Influenza A (H5N1) Virus Infection **J. Zhuang, N. Zang, Z. Pollock, C. Ye, J. Tipper and F. Xu**. Lovelace Resp. Res. Inst., Albuquerque.
- B689 **860.4** Prenatal Nicotinic Exposure via Inhibiting the Carotid Body Induces Depressed Hypoxic Ventilatory Response Dependent on $\alpha 7$ nAChRs in Rat Pups **L. Zhao, J. Zhuang, C. Ye and F. Xu**. Lovelace Resp. Res. Inst., Albuquerque.
- B690 **860.5** Testosterone Increase Hypercapnic Ventilatory Response of Adult Male Rats Subjected to Panic Attack Model **L.T. Lopes, R. Gulemetova and R. Kinkead**. *Pediat. Res. Ctr., Ctr. Hosp. Univ. of Québec.*
- B691 **860.6** Influence of Estrous Cycle and Sexual Hormones in Ventilatory Control during Hypercapnia **D.A. Marques, D. de Carvalho, J.A. Anselmo-Franci, K.C. Bicego and L.H. Gargaglioni**. São Paulo State Univ. and Univ. of São Paulo.
- B692 **860.7** Antagonism of Orexin Receptor 1 in the Locus Coeruleus Decreases the Hypercapnic Ventilatory Response in Unanesthetized Rats during Wakefulness **M.C. Vicente, M.B. Dias, K.C. Bicego and L.H. Gargaglioni**. São Paulo State Univ.
- B693 **860.8** 5-HT_{1A} Receptors in the Caudal Nucleus Tractus Solitarius Mediate Arousal to Hypoxic Hypercapnia in Male Rats **J. Vantrease, N. Dudek and K. Scroggin**. Loyola Univ. of Chicago, Maywood.
- B694 **860.9** Assessing the Chemosensitivity of a Potential Bullfrog Homologue to the Mammalian Retrotrapezoid Nucleus **M.D. Reed, K.E. Iceman, M.B. Harris and B.E. Taylor**. Univ. of Alaska Fairbanks and Univ. of South Florida.
- B695 **860.10** A Computational Model of Temperature-Dependent Intracellular pH Regulation **S.A. Contreras, M.C. Quintero, R. Putnam, J. Santin, L. Hartzler and J.M. Cordovez**. Univ. de los Andes, Colombia; Wright State Univ. Boonshoft Sch. of Med. and Wright State Univ.
- B696 **860.11** A Preliminary Ionic Current Model for Central Chemosensitive Neurons **M.C. Quintero, J.M. Cordovez and R.W. Putnam**. Los Andes Univ., Colombia and Wright State Univ. Boonshoft Sch. of Med.
- B697 **860.12** Astrocyte Kir4.1 Channels Contribute to Central Respiratory Drive **V.E. Hawkins and D.K. Mulkey**. Univ. of Connecticut.

- B698 **860.13** Developmental Expression of pH-Sensitive Kir4.1 and Kir5.1 Channels in Serotonergic Neurons **M.M. Puissant, P. Liu and M.R. Hodges**. Med. Col. of Wisconsin.
- B699 **860.14** Mutations in the TASK-3 Potassium Channel Pore Modify Its Inhibition by Breathing Stimulant Compounds **J.F. Cotten, R.H. Chokshi and A.T. Larsen**. Massachusetts Gen. Hosp.

861. CONTROL OF BREATHING: DEVELOPMENT**Poster**

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B700 **861.1** Acute Manipulation of Serotonergic Neurons Alters the Mouse Neonatal Response to Homeostatic Stressors **R. Dosumu-Johnson, A.E. Corcoran, E.E. Nattie and S.M. Dymecki**. Harvard Med. Sch. and Geisel Sch. of Med., NH.
- B701 **861.2** Genomic Tryptophan Hydroxylase 2 Mutation in Rats Increases Mortality and Disrupts Eupneic Breathing during Postnatal Development **M.R. Hodges, K. Kaplan, A.E. Echert, M.M. Puissant and A.M. Geurts**. Med. Col. of Wisconsin.
- B702 **861.3** Effect of Prenatal Nicotine Exposure and Serotonin Deficiency on Arousal to Hypoxia in Rat Pups **C.M. Sirieix, S.Y. Lee and R.A. Darnall**. Geisel Sch. of Med. at Dartmouth.
- B703 **861.4** Functional Recovery from Neonatal Breathing Abnormalities in 5HT-Deficient *Pet-1* Knockout Mice following Developmental Exposure to Nicotine **J.T. Erickson, L.C. Delatour, J.A. Nardone and A.L. Stewart**. The Col. of New Jersey and VA New Jersey Hlth. Care Syst., East Orange.
- B704 **861.5** Prenatal and Early Postnatal Nicotine Exposure Adversely Affects Autoresuscitation in Serotonin-Deficient Rats **S.Y. Lee and E.E. Nattie, Jr.** Geisel Sch. of Med. at Dartmouth.
- B705 **861.6** Postnatal Maturation of the Dorsolateral Pons: Expression of the Transcription Factor FOXP2 and Upper Airway Control **T.G. Bautista, D. Stanić, S.E. Jones and M. Dutschmann**. Florey Inst. of Neurosci. and Ment. Hlth., Univ. of Melbourne.
- B706 **861.7** Maternal Omega-3 Supplementation Reduces Apnea Duration Induced by Laryngeal Chemoreflex Stimulation in Rat Pups **C. Baldy, L. Tenorio Lopes, O. Mercier, T. Seaborn, I. Marc and R. Kinkead**. Laval Univ., Canada.
- B707 **861.8** CB1 Receptors in the Nucleus of the Solitary Tract Decrease the Duration of the LCR in Neonatal Rat Pups **H.F. Hazlett, W.T. Donnelly, R.T. Dillehay, L. White, K.R. Rodgers, D. Bartlett, Jr. and J.C. Leiter**. Geisel Sch. of Med. at Dartmouth.
- B708 **861.9** Lipopolysaccharide Exposure during the Early Postnatal Period Reduces the Volume of Type II Cells in the Developing Rat Carotid Body **Z. Master, A. Mason, A. Porzionato, M. Shirahata and E. Gauda**. Johns Hopkins Med. Instns. and Univ. of Padova.

- B709 **861.10** Changes in Brainstem Inflammatory Gene Expression following Systemic LPS Injections during a Critical Period of Neonatal Development **C.A. Mayer, D. Valerio, C.A. Hodges and P.M. MacFarlane.** Case Western Reserve Univ., Rainbow Babies and Children's Hosp.
- B710 **861.11** Postnatal Development of the Brainstem Perineuronal Net and the Effects of Sustained Hypoxia Exposure during a Critical Period of Neonatal Development **P.M. MacFarlane, C.A. Mayer, D. Camperchioli and C. Stryker.** Case Western Reserve Univ., Rainbow Babies & Children's Hosp.
- B711 **861.12** Is the Catecholaminergic System an Important Mechanism for Respiratory Regulation during Hypercapnia and Hypoxia in Newborn Rats (P7-8)? **L.G. Patrone, A.C. Capalbo, K.C. Bicego and L.H. Gargaglioni.** São Paulo State Univ.
- B712 **861.13** Bicuculline Enhances Basal Ventilation in 12 Day-Old Rats Chronically Treated with Caffeine **N. Uppari, V. Joseph and A. Bairam.** Univ. Laval, CHU de Québec, Res. Ctr.
- B713 **861.14** Changes in the Electrophysiological Properties of Bötzing Complex Post-inspiratory Neurons during Post-natal Development in Rats **D.J. Moraes, M.P. da Silva, W.A. Varanda and B.H. Machado.** Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.

862. LUNG BIOLOGY: ALVEOLAR EPITHELIAL CELL BIOLOGY

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B714 **862.1** Mechanical Wound and Loss of Cell Polarity Decrease ENaC Expression in Alveolar Epithelial Cells **A. Dagenais, S. Xu, O. Achemlal and Y. Berthiaume.** IRCM, Clin. Res. Inst. of Montreal.
- B715 **862.2** A Novel Ovine Primary Alveolar Type II Cell Culture Approach **M.M. Marcinkiewicz, N. Allen, T. Hubert and M.R. Wolfson.** Temple Univ. Sch. of Med.

863. LUNG BIOLOGY: INJURY, REPAIR AND REMODELING

Poster

MON. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B716 **863.1** Sex Differences in the Lung Inflammatory Response to Acute Ozone Exposure **P. Silveyra, N. Cabello and J. Floros.** Penn State Col. of Med.
- B717 **863.2** ATF3 Regulation of IL6 in Response to Acute Ozone Exposure **U. Sinha, V. Mishra, N. Cabello, S. DiAngelo, Z. Chroneos and P. Silveyra.** Penn State Col. of Med. and Univ. of Waterloo, Canada.
- B718 **863.3** Role of miR-27a Mediated Regulation of VAV3 in Sepsis-Induced ARDS **L. Zhou, H. Amatullah, P. Gali, D. Zhou, Y. Shan, P. Hu and C. Dos Santos.** St. Michael's Hosp. and Univ. of Toronto.
- B719 **863.4** Redox Regulation of EGFR Signaling in Innate Airway Epithelial Responses to Injury **D.E. Heppner, M. Hristrova, A. Habibovic and A. van der Vliet.** Univ. of Vermont.
- B720 **863.5** Histone Deacetylase 6 Mediates Cigarette Smoke-Induced Increase in Lung Endothelial Permeability and Susceptibility to Acute Lung Injury **D. Borgas, P. Sakhatsky, J. Newton, E. Chambers, M. Xi, S. Rivera, S. Rounds and Q. Lu.** Providence VA Med. Ctr. and Alpert Med. Sch. of Brown Univ.
- B721 **863.6** Role of SphK1/S1P/Spns2/S1P₁ Signaling in HGF-Mediated Lamellipodia Formation and Migration of Human Lung Endothelial Cells **P. Fu, P. Usatyuk, D.L. Ebenezer and V. Natarajan.** Univ. of Illinois at Chicago.
- B722 **863.7** Gut Commensal Flora and the Inflammasome Modulate the Sterile Inflammatory Response to Ventilated Lung Ischemia Reperfusion **A. Prakash, X. Tian and J. Hellman.** UCSF.
- B723 **863.8** Serum/Glucocorticoid-Regulated Kinase 1 and Transient Receptor Potential Vanilloid Channel 4 Mediate Ventilation-Induced Endothelial Ca²⁺ Influx and Barrier Failure **L. Michalick, M. van der Giet, W. Liedtke and W.M. Kuebler.** Charité, Berlin; Duke Univ. Med. Ctr. and Univ. of Toronto St. Michael's Hosp.
- B724 **863.9** Circulating Endothelial Glycocalyx Fragments Impact Endothelial and Epithelial Repair after Septic Lung Injury **S. Haeger, Y. Yang, R. Zemans, J. McClendon, F. Zhang, L. Li, R. Linhardt and E. Schmidt.** Univ. of Colorado Denver, Aurora; Natl. Jewish Hlth., Denver and Rensselaer Polytech Inst.
- B725 **863.10** Sustained Adenosine Caused Endothelial Mitochondrial Dysfunction: Implications for Cigarette Smoke-Induced Increased Susceptibility to Acute Lung Injury **E.D. Chambers, J. Ko, D. Borgas, J. Newton, S. Rounds and Q. Lu.** Alpert Med. Sch. of Brown Univ.
- B726 **863.11** Abl Family Kinases Differentially Regulate LPS-Induced Endothelial Barrier Dysfunction **A.N. Rizzo, E. Letsiou, M. Brown, J.G.N. Garcia and S.M. Dudek.** Univ. of Illinois at Chicago and Univ. of Arizona.
- B727 **863.12** Microparticles from PAH Rats Increase ICAM-1 Expression in Pulmonary Artery Endothelial Cells **L.A. Hargett, T. Yarbrough, A. Haven and N.N. Bauer.** Univ. of South Alabama.
- B728 **863.13** Pulmonary Vascular Inflammation Promotes Caveolin-1 Degradation, eNOS Uncoupling, and De-differentiation of Endothelial Cells **S.D. Oliveira, M. Castellon, M.G. Bonini, M.H. Elliott and R.D. Minshall.** Univ. of Illinois at Chicago and Univ. of Oklahoma Hlth. Sci. Ctr.
- B729 **863.14** HIF1 α Dependent CXCR4/SDF1 Signaling Promotes Alveolar Type II Cell Spreading and the Restitution of Epithelial Barrier Integrity after Lung Injury **R.L. Zemans, J. McClendon, N. Jansing, Y. Ito, E. Redente, R.J. Mason, R. Tuder and P.M. Henson.** Natl. Jewish Hlth. and Univ. of Colorado Denver.
- B730 **863.15** Acquired CFTR Dysfunction and Chronic Bronchitis in a Novel Ferret Model of COPD **S.V. Raju, J.E. Trombley, V.Y. Lin, H. Kim, L.P. Tang, S.L. Samuel, R. Kumar, L. Winter, C.D. Morrow, T.R. Schoeb and S.M. Rowe.** Sch. of Med., Univ. of Alabama at Birmingham.

- B731 **863.16** MiRNA193b-5p Inhibition Attenuates LPS-Induced Acute Lung Injury through Decreased Occludin Degradation **P.L. Gali, H. Amatullah, D.Y. Zhou, Y. Shan, Y. Amoozadeh, K. Szaszi, P. Hu and C.C. dos Santos.** St. Michael's Hosp. and The Hosp. for Sick Children, Toronto.
- B732 **863.17** Regulation of Radixin Gene Expression in Pulmonary Endothelium by LPS and Cyclic Stretch **D. Adyshev, X. Sun, W. Zhang, J.G. Garcia and S.M. Dudek.** Univ. of Illinois at Chicago and Univ. of Arizona Hlth. Sci. Ctr.
- B733 **863.18** Aspirin-Triggered Resolvin D1 Protects against Cytokine-Induced Alveolar Epithelial Cell Injury **R.R. Cox, O. Phillips, S. Arias, M. Mandry, J. Fukumoto, Y. Cho, R. Lockey and N. Kolliputi.** Univ. of South Florida.
- B734 **863.19** DUOX1 Silencing in Lung Cancer Promotes Epithelial-to-Mesenchymal Transition and Increased Drug Resistance **A.C. Little, M. Hristova and A. van der Vliet.** Univ. of Vermont.
- B735 **863.20** Mitochondrial N-Formyl Peptides Cause Airway and Lung Injury via Formyl Peptide Receptor Activation **C.F. Wenceslau, T. Szasz, C.G. McCarthy and R.C. Webb.** Georgia Regents Univ.
- B736 **863.21** IL-13 Augments Compression-Induced Exosomal Tissue Factor Release from Bronchial Epithelial Cells **J. Mitchel, S. Antoniak, S-H. Kim, M. McGill, S.H. Randell, S. Shore, N. Mackman and J-A. Park.** Harvard Sch. of Publ. Hlth. and Sch. of Med., Univ. of North Carolina at Chapel Hill.
- B737 **863.22** Effects of Acute and Chronic Hyperglycemia on Lung Capillary Permeability **J.S. Clemmer, L. Xiang, S. Lu, P.N. Mittwede and R.L. Hester.** Univ. of Mississippi Med. Ctr.
- B738 **863.23** The Tie2-Agonist Vasculotide Rescues Mice from Lethal Influenza Infection Even with Delayed Administration **M.G. Sugiyama, D.W.M. Hwang, H. Leong-Poi, K. Szaszi, W.M. Kuebler, P. Van Slyke, D.J. Dumont and W.L. Lee.** Univ. of Toronto; St. Michael's Hosp. and Sunnybrook Hlth. Sci. Ctr., Toronto.
- B739 **863.24** Dissecting the Role of TRPC6 Channels in Pulmonary Fibrosis **A. Dietrich, K. Hofmann, M. Koenigshoff and T. Gudermann.** Ludwig Maximilian Univ. and German Lung Res. Ctr., Munich.
- B740 **863.25** Acrolein Induces Epithelial Injury and Remodeling Through Direct Activation of Src **R.A. Bauer, E. O'Brien, D.E. Heppner, A. Habibovic and A. van der Vliet.** Univ. of Vermont.
- B741 **863.26** Nuclear S1P Lyase Regulates Histone Acetylation in *Pseudomonas aeruginosa*-Induced Lung Inflammation **D.L. Ebenezer, P. Fu, E.V. Berdyshev and V. Natarajan.** Univ. of Illinois at Chicago.

TUESDAY, MARCH 31

Anatomy

864. ANATOMY: FORM AND VARIATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D215 **864.1** First Case Report: Supernumerary Humeral Head of Pronator Teres with Median Nerve Embedment **J.M. Miller and R.B. Trelease**. Geffen Sch. of Med., UCLA.
- D216 **864.2** Anatomical Location of Motor Points of the Abductor Hallucis Muscles **J.C.T. Scarpa, A.M. Itezerote, F. Hojaj, M. Andrade, A.L. Jacomo and F.E. Akamatsu**. Univ. of São Paulo.
- D217 **864.3** A New Anatomical Variation in the Brachial Plexus Roots and Its Implications for Neurogenic Thoracic Outlet Syndrome **V. Leonhard, R. Landreth, G. Caldwell, M.N. Coleman and H.F. Smith**. Midwestern Univ., AZ and Arizona State Univ. Sch. of Human Evol. & Soc. Change.
- D218 **864.4** A Surgically Relevant Celiac Trunk Variant Featuring Retro-portal Blood Supply to the Gallbladder and the Right Lobe of the Liver **C. Ramnanan and M. Zeroual**. Univ. of Ottawa Fac. of Med.
- D219 **864.5** A Case of Left Unilateral Femoral Hypoplasia with Vascular Involvement **C. Melovitz-Vasan, P. Varricchio and N. Vasan**. Cooper Med. Sch. of Rowan Univ., NJ and New Jersey Med. Sch., Newark.
- D220 **864.6** Tracking Anatomical Variation of the Bifurcation of the Radial Nerve: Clinical Implication for Physicians **C. Solari, P. Peralta, M. Secko and S. Marquez**. SUNY Downstate Med. Ctr.
- D221 **864.7** The Importance of Variant Anterior Digastric Musculature in Head and Neck Surgery **M.J. Zdilla, H.J. Soloninka and H.W. Lambert**. West Liberty Univ. and West Virginia Univ. Sch. of Med.
- D222 **864.8** Computer Tomography Criterias of Nasal Cavity Constitution for Dacryocystorhinostomy **R. Tulebayev, A. Baimenov, T. Azhenov, B. Zhusupov, G. Mukhamadieva, N. Papulova and A. Mustafin**. Astana Med. Univ., Kazakhstan.
- D223 **864.9** Unilateral Ectopic Insertion of the Pectoralis Minor: Clinical and Functional Significance **E. Goldman, C. Vasan, H. Lopez-Cardona and N. Vasan**. Cooper Med. Sch. of Rowan Univ.
- D224 **864.10** Superficial Palmar Arch and Sensitive Anastomosis of the Hand: Morphologic Types and Topographic Relations **M.D. Barros, A. Welikow, M.C. Mortati, A. Emy, F. Cavalher, J. Oliveira, L. Lemos, M. Mazzeo and M. Caseiro**. Santa Casa de São Paulo Sch. of Med. Sci.
- D225 **864.11** Accessory Thyroid Tissue and Its Possible Clinical Implications **D.A. Sawant and T. Moore**. Alderson Broaddus Univ., WV.
- D226 **864.12** The Relationship between the Foramen Spinosum and the Sphenoidal Emissary Foramen: Implications for Headache and Epistaxis **J.M. Laslo, L.M. Cyrus and M.J. Zdilla**. West Liberty Univ., WV.
- D227 **864.13** Population Diversity in Infraorbital Foramen Location: One Size Fits All? **S. Marquez, T. Adar, L. Dinescu and A.S. Pagano**. SUNY Downstate Med. Ctr.; Kingsbrook Jewish Med. Ctr. and NYU Sch. of Med.
- D228 **864.14** Accurate Morphological Classifications of the Semispinalis Capitis Neck Muscle **S. Michalak, N. Mehrabi and M.T. Bee**. Univ. of Detroit Mercy.
- D229 **864.15** Age-Related Variation in Common Carotid Artery and Aorta Diameters **S.T. Barton, M.T. Bee and M.C. Savoia**. UCSD and Univ. of Detroit Mercy.
- D230 **864.16** Comparative Analysis of Dominant and Non-dominant Hands: A Cadaveric Study **K.L. Lee, O. Summers and G. Nusse**. San Francisco State Univ.
- D231 **864.17** Variants of the Extensor Hallucis Longus Muscle and Their Importance in Tendon Transfer Surgeries **H.W. Lambert, J.E. Paulet, K.M. Addie, J.J. Lear and M.J. Zdilla**. West Virginia Univ. Sch. of Med. and West Liberty Univ., WV.
- D232 **864.18** Unusual Anatomic Variant of the Cauda Equina and Spinal Nerve Roots **A.R. Thompson, J.B. Hanna, P. Krajacic, R. Scopa Kelso and L. Bernardino**. West Virginia Sch. of Osteo. Med.

865. ANATOMY: FUNCTIONAL ANATOMY AND BIOMECHANICS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D233 **865.1** Bipedally Trained Rats Have an Increased Hindlimb Muscle Force-Generating Capacity Compared to Quadrupedally Trained Rats **C.M. Eng, A. Reed and A.D. Foster**. Harvard Univ. and Northeast Ohio Med. Univ.
- D234 **865.2** Effect of Vocalization on Maximal Effort Dynamic Muscle Performance **S.A. Smith and J.S. Smith**. Drexel Univ.
- D235 **865.3** A Coordinated Motion Control of Mono- and Bi-articular Muscles in Tetrapod Limbs: Morphology, Function and Evolution **T. Miyake, T. Tsuji, R. Sato, M. Iwata, K. Yoshimura, Y. Abe, H. Koie and M. Kumamoto**. Keio Univ. Grad. Sch. of Sci. and Technol.; Saitama Univ.; Kanazawa Inst. of Technol.; Aquamarine Fukushima, Marine Sci. Museum; Nihon Univ. and Kyoto Univ.
- D236 **865.4** Finite Element Analysis of Tissues Wrapping around the Knee Joint of Ostriches (*Struthio camelus*) **K.P. Chadwick, V. Allen and J.R. Hutchinson**. Royal Vet. Col., London.
- D237 **865.5** Functional Anatomy of the Jaw Musculature of *Streptopelia decaocto* (Eurasian Collared Dove), Aves: Columbidae **V.M. Trivedi**. Saurashtra Univ., India.
- D238 **865.6** The Ontogeny of Mechanical Advantage in the Masticatory System **S.N. Cobb, O.A.M. Smith and L.C. Fitton**. Hull York Med. Sch., Univ. of York.
- D239 **865.7** Masticatory Biomechanics of the Largest Fossil Rodent **P.G. Cox, A. Rinderknecht and E. Blanco**. Hull York Med. Sch., Univ. of York, U.K.; Natl. Museum of Nat. History, Montevideo and Fac. of Sci., Univ. of the Republic, Uruguay.
- D240 **865.8** Dynamic Standing Balance Is a Predictor of Lower Extremity Musculoskeletal Injury in Collegiate Soccer Players **C. Vasan, S. Edmond and J. Deutsch**. Cooper Med. Sch. of Rowan Univ. and Rutgers Univ.

- D241 **865.9** Functional Morphology of the Remora Adhesive Disc **B. Flammang**. NJIT/Rutgers, Newark.
- D242 **865.10** Biomechanical Properties of the Masticatory System in Ancient Nubian Populations **Q. Wang, D.S. Carlson, P.H. Buschang and P.C. Dechow**. Mercer Univ. Sch. of Med.; Texas A&M Univ. Hlth. Sci. Ctr. Baylor Col. of Dentistry and Texas A&M Univ. Hlth. Sci. Ctr. Baylor Col. of Dent.
- D243 **865.11** Male versus Female Horse Riders: Differences in Musculoskeletal Response to the Force Generated by a Horse at the Trot **M.L. Osborn, J.L. Cornille and E.W. Uhl**. Col. of Vet. Med., Univ. of Georgia and Sci. of Motion, Eatonton, GA.
- D244 **865.12** Forelimb Anatomy of Three Anole Lizards: *Anolis equestris*, *A. frenatus*, and *A. biporcatus* **J. Robertson, B. Gams, S. Gilpin, M. Jordan, M. Elkins, K. Kusumi and R.E. Fisher**. Sch. of Life Sci., Arizona State Univ. and Univ. of Arizona Col. of Med.-Phoenix.
- D245 **865.13** Morphological Constraints in the Craniomandibular Complex of Chisel-Tooth Digging Mole-Rats **A. McIntosh and P. Cox**. Hull York Med. Sch., U.K.
- D246 **865.14** The First Prosthetic Alligator Tail and the Role of the Tail in Normal Terrestrial Locomotion **J.A. Georgi, M.C. Jacofsky and K.R. Manfredi**. Midwestern Univ., AZ and The CORE Inst., Phoenix.
- D247 **865.15** Functional Integration during Development within the Masticatory Apparatus **L.C. Fitton, E. Dickinson, K.R. Swan and S.N. Cobb**. Hull York Med. Sch. and Univ. of York, U.K.
- D248 **865.16** Kinematics of the Fat Pad, Its Central Body, and the Infrapatellar Plica, Newly Described as a Non-isometric Ligament of the Knee **T.V. Smallman, A. Race and K.A. Mann**. SUNY Upstate Med. Univ. and Auburn Community Hosp., NY.
- D249 **865.17** A Study to Analyze Relationship between Radiological Morphometric Measurements of Knee Joint and Symptomatology of Osteoarthritis **S.G. Dixit, V. Kesarwani, A. Elhence and S. Ghatak**. All India Inst. of Med. Sci., Jodhpur.
- D250 **865.18** Ontogenetic Change in Metacarpal, Metatarsal, and Phalangeal Curvature in African Apes **M.L. Burgess and C.B. Ruff**. Johns Hopkins Univ. Sch. of Med.

866. BIOLOGICAL ANTHROPOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Evolution/Anthropology

Presentation time: 12:30 PM–2:15 PM

- D251 **866.1** **Withdrawn.**
- D252 **866.2** Detecting Human Population Diversity within an Archaeological Context: A Comparison of Finite Mixture Analysis and Discriminant Function Analysis **E.R. Agosto**. Univ. of Tennessee, Knoxville.
- D253 **866.3** Sex Determination of Human Crania Using 3D Surface Scanning of the Mastoid Process **C. Wilkinson and D.F. Royer**. Univ. of Colorado Anschutz Med. Campus and Univ. of Colorado Sch. of Med.
- D254 **866.4** Morphology of Sexually Dimorphic Cranial Traits in Postmenopausal Females **A. Cloutier, C. Lampley and N. Shirley**. Lincoln Mem. Univ.-DeBusk Col. of Osteo. Med.
- D255 **866.5** Morphological Variation in the Distal Femur of Three Modern Human Populations **N. Squyres, A. Sylvester and C. Ruff**. Johns Hopkins Sch. of Med. and Sch. of Life Sci., Univ. of Glasgow.
- D256 **866.6** Positional Relationship of the Fibula to Cross-sectional Geometric Properties of the Tibia as Compared in Different Sporting Groups **A.E. Fazlollah, B.M. Auerbach and C. Shaw**. Univ. of Tennessee, Knoxville and Univ. of Cambridge.
- D257 **866.7** Beyond Biomechanics: Bone Strength Properties of Obese Adults **N.M. Reeves**. Univ. of West Georgia and Univ. of Tennessee, Knoxville.
- D258 **866.8** A Predictive Shift: Juvenile Obesity's Effect on Established Predictive Models of Body Mass Estimation **R. Stradleigh, L. Williams and R. Scopa Kelso**. West Virginia Sch. of Osteo. Med.
- D259 **866.9** Radiographic versus Dry Bone Assessment of Sacral Epiphyses **C.L. Fojas, S. Collins and N.R. Shirley**. Univ. of Tennessee, Knoxville and DeBusk Col. of Osteo. Med., Lincoln Mem. Univ.

867. EVOLUTION AND COMPARATIVE ANATOMY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Evolution/Anthropology

Presentation time: 12:30 PM–2:15 PM

- D260 **867.1** Evolution of the Animal Face: From Principles to Mechanisms **A. Abzhanov**. Harvard Univ.
- D261 **867.2** Reevaluation of the Homology of Bones of the Cranial Vault in Tetrapod Vertebrates **H.C. Maddin, N. Piekarski, E.M. Sefton and J. Hanken**. Carleton Univ., Canada and Harvard Univ.
- D262 **867.3** Anatomical Network Analysis of Primate Skull Morphology **B. Esteve-Altava, J. Boughner, R. Diogo and D. Rasskin-Gutman**. ICBiBE, Univ. of Valencia, Spain.
- D263 **867.4** The Ecomorphic Principle: Not Just Convergence Anymore **M. Taylor, J. Klingler, J. Diehl and V. Naples**. Northern Illinois Univ.
- D264 **867.5** Timing of Facial Suture Closure Is Delayed in Gouging versus Non-gouging Marmosets **A.M. Burrows, T.D. Smith, E.L. Durham, C.J. Bonar and C.J. Vinyard**. Duquesne Univ.; Univ. of Pittsburgh; Slippery Rock Univ.; Med. Univ. of South Carolina; Dallas Zoo and Northeast Ohio Med. Univ.
- D265 **867.6** The Biomechanics of Partial Symphyseal Fusion in *Hapalemur* Examined Using Finite Element Analysis **J.A. Ledogar and J.M.G. Perry**. Univ. at Albany, SUNY and Johns Hopkins Univ.
- D266 **867.7** The Jaw Adductor Musculature in Notharctine Primates **J.M.G. Perry**. Johns Hopkins Univ. Sch. of Med.
- D267 **867.8** New Insights into Howler Monkey Vocal Tract Anatomy via 3-Dimensional Imaging Technology **B.M. Shearer, L. Halenar, A. Pagano, J. Reidenberg and J. Laitman**. CUNY Grad. Ctr.; NY Consortium in Evol. Primatol.; Bronx Community Col.; NYU Langone Med. Ctr. and Icahn Sch. of Med. at Mount Sinai.
- D268 **867.9** The Paired Cervico-Cephalic Air Sacs and Their Role in the Vocalizations of Songbirds **A.M. Cozic and D.G. Homberger**. LSU, Baton Rouge.
- D269 **867.10** Proboscidean Jaw Mechanics and the Evolution of the Proboscis and Feeding Apparatus in Extant Elephants **A. Nabavizadeh**. Univ. of Chicago.

- D270 **867.11** Adorsal Longitudinal Ligament in Sea Lampreys (*Petromyzon marinus*): A Novel Structure Involved in Trunk Movements **B.M. Wood, B.E. Kynard and D.G. Homberger**. LSU, Baton Rouge and Univ. of Massachusetts Amherst.
- D271 **867.12** Variation in the Mechanical Properties of Male Genitalia in Harvestmen Is Consistent with Mating Strategy **M. Burns and J.W. Shultz**. San Diego State Univ. and Univ. of Maryland College Park.
- D272 **867.13** Ontogeny in Iguanodontia **C. Sartin and T. Hubner**. Johns Hopkins Sch. of Med. and LWL-Museum für Naturkunde, Münster.
- D273 **867.14** Evidence for Blood Vessels and Physiological Heat Exchange in the Heads of Dinosaurs **W.R. Porter and L.M. Witmer**. Ohio Univ.
- D274 **867.15** Evolutionary Allometry of the Thoracolumbar Region in Quadrupedal Mammals **K.E. Jones**. Johns Hopkins Univ.
- D275 **867.16** Evolutionary Trends in Foot Posture in the Extinct Carnivores Oxyaenidae and Hyaenodontidae (Mammalia: Creodonta) **H.E. Ahrens**. Johns Hopkins Univ. Sch. of Med.
- D276 **867.17** The Evolution of Avian Humeral Rotation and the Disappearance of Avian Manual Digits **W.L. Parsons and K.M. Parsons**. Buffalo Museum of Sci.
- D277 **867.18** Correlation between Form and Function in Evolution of Moles **A. Perepelova**. Zool. Inst., Russia.
- D278 **867.19** Introducing the Comparative Atlas of Vertebrate Embryology Online Database **J.C. Sedlmayr, R.J. Cork, E.R. Schachner, S.J. Rehorek, T.D. Smith, M.A. McNulty, J.M. Ziermann, C.A. Thorn and R. Diogo**. LSU Hlth. Sci. Ctr., New Orleans; Slippery Rock Univ.; Howard Univ. Col. of Med. and LSU Sch. of Vet. Med.
- D279 **867.20** Preliminary Observations from the First Datasets Available on the CAVE (Comparative Atlas of Vertebrate Embryology) Website **R.J. Cork, E.R. Schachner, C.A. Thorn, M.A. McNulty and J.C. Sedlmayr**. LSU Hlth. Sci. Ctr., New Orleans and LSU Sch. of Vet. Med., Baton Rouge.

868. IMAGING: TECHNOLOGY AND METHODS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D280 **868.1** Utilizing Iodine to Image Alligator Soft Tissue Structures with Micro-CT **C.A. Thorn, J.C. Sedlmayr and M.A. McNulty**. LSU Sch. of Vet. Med., Baton Rouge and LSU Hlth. Sci. Ctr., New Orleans.
- D281 **868.2** Optimized Protocol for Mapping Histological Data onto 3D Image Reconstructions **V.B. DeLeon and T.D. Smith**. Univ. of Florida and Slippery Rock Univ.
- D282 **868.3** Visualizing the Process of Metastatic Intravasation In Vivo **C.M. Bailey and P.M. Kulesa**. Brigham Young Univ. Idaho and Stowers Inst. for Med. Res., Kansas City, MO.

869. IMAGING: ANATOMY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:15 PM

- D283 **869.1** Protocol for Swallowing Evaluation of Infants from 0-2 Years Using Videofluoroscopy **D.F. Curcio, H.M. Lederman and M.I.R. Gonçalves**. Santa Casa Sch. of Med. Sci., São Paulo; Icahn Sch. of Med. at Mount Sinai and Fed. Univ. of São Paulo.
- D284 **869.2** Infrared Thermal Imaging to Collect Quantitative Surface Temperatures from Mice in Unilateral Limb Heating Study **H.L. Tamski and M.A. Serrat**. Marshall Univ. Joan C. Edwards Sch. of Med.
- D285 **869.3** Validating the Biological Activity of Fluorescently-Labeled IGF1 for In Vivo Imaging **G. Ion and M.A. Serrat**. Marshall Univ.
- D286 **869.4** Bilateral Rounding of the Shoulders Obstructs Vertebral Vein Drainage of the Vertebral Venous Plexus/Batson's Plexus: MRI/MRA/MRV **J.D. Collins, E.H. Saxton, H. Gelabert and A. Carnes**. UCLA David Geffen Sch. of Med.
- D287 **869.5** Use of High-Resolution Magnetic Resonance Imaging to Reconstruct Recurrent Laryngeal Nerve Structure in 3D **N.L. Mason, S. Robison, A. Benvie and J.J. Wisco**. Brigham Young Univ.; Utah Valley Univ. and Univ. of Utah Sch. of Med.

870. DEVELOPMENT AND GROWTH: BIRTH DEFECTS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Developmental Biology

Presentation time: 12:30 PM—2:15 PM

- D288 **870.1** Muscular and Skeletal Anomalies in Human Trisomy in an Evo-Devo Context Using 3-D Imaging and Anatomical Dissections, with Notes on Down Syndrome, Cyclopia and Medical Implications **C.M. Smith, J.M. Ziermann and R. Diogo**. Howard Univ. Col. of Med.
- D289 **870.2** Development of Brain and Spinal Cord in Anencephaly **M.K. Anand, M. Verma and C.J. Lakhani**. Gujarat Adani Inst. of Med. Sci., Bhuj, India and All India Inst. of Med. Sci., New Delhi.
- D290 **870.3** Michel's Syndrome: 2nd Case Reported in Brazil, 8th in Medical Literature **S. Uzeda, L.O.C. Moraes, D.F. Curcio and L.G. Alonso**. Univ. of Bahia State, Brazil; Santa Casa Sch. of Med. Sci., São Paulo; Icahn Sch. of Med. at Mount Sinai and Fed. Univ. of São Paulo.
- D291 **870.4** Adipose Tissue Infiltration of Bone Marrow and Skeletal Muscle in Children with Mild Spastic Cerebral Palsy **D.G. Whitney, H. Singh, F. Miller, M.F. Barbe, J.M. Slade and C.M. Modlesky**. Univ. of Delaware; Nemours Al duPont Hosp. for Children, Wilmington; Temple Univ. Sch. of Med. and Michigan State Univ.

871. DEVELOPMENT AND GROWTH: LIMBS**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Developmental Biology

Presentation time: 12:30 PM—2:15 PM

- D292 **871.1** The Evolution of Preaxial Polarity and Regenerative Capacities in Amphibian Limbs **N.B. Fröbisch, C. Bickelmann and F. Witzmann**. Natural History Museum, Leibniz Inst. for Res. on Evol. and Biodiversity, Berlin.
- D293 **871.2** The Ontogeny of mRNA Expression of Dlx-3, Dlx-5, and Msx-2 during Embryonic Development of the Chick Limb **B.G. Riehl, A.T. Ray and J. Maze**. Lander Univ., SC.
- D294 **871.3** Lmx1b-Mediated *Emx2*-Associated Regulatory Region Active during Limb Development **E.J. Kim, E. Haro, C.U. Pira, L. Tegeler and K.C. Oberg**. Loma Linda Univ.
- D295 **871.4** Evidence for Lmx1b Self-Regulation during Limb Dorsalization **C.D. Spady, E. Haro, L. Tegeler, C.U. Pira and K.C. Oberg**. Loma Linda Univ.
- D296 **871.5** Identification of Potential Lmx1b-Regulated Enhancers during Limb Development **E. Haro, L. Tegeler, C.U. Pira and K.C. Oberg**. Loma Linda Univ.

872. DEVELOPMENT AND GROWTH: CRANIOFACIAL**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Developmental Biology

Presentation time: 12:30 PM—2:15 PM

- D297 **872.1** The Chick Scleral Ossicle System: Unravelling the Induction and Patterning of the Conjunctival Papillae **K.A. Jourdeuil and T.A. Franz-Odenaal**. Dalhousie Univ. and Mount Saint Vincent Univ., Canada.
- D298 **872.2** Neural Crest-Derived Epithelial Cells: Problems in the Middle Ear **A.S. Tucker, J.C. Fuchs and H. Thompson**. King's Col. London.
- D299 **872.3** Cardiopharyngeal Field, Head and Heart Muscle Development, and Associated Syndromes in Humans **J.M. Ziermann, F. Fahimuddin, A. Forrester, S. Singh and R. Diogo**. Howard Univ. Col. of Med.
- D300 **872.4** Concurrent Growth of Craniofacial Structures and the Aerodigestive Tract of Human Infants: Clinical Applications **D.F. Curcio and J.T. Laitman**. Santa Casa Sch. of Med. Sci., São Paulo and Icahn Sch. of Med. at Mount Sinai.

- D301 **872.5** Genetic Analysis of Pitx2 Function in Zebrafish Development **Y. Ji and J. Amack**. SUNY Upstate Med. Univ.
- D302 **872.6** Vascular Endothelial-Derived Growth Factor Is Required for Proper Formation and Patterning of Intramembranous Bones **T.A. Franz-Odenaal and J. Jabalee**. Mount Saint Vincent Univ. and Dalhousie Univ., Canada.
- D303 **872.7** Comparative Morphometric Analysis of Cranial Sutures of Zebrafish and Chicken **M.S. Beckett and T.A. Franz-Odenaal**. Dalhousie Univ. and Mount Saint Vincent Univ., Canada.
- D304 **872.8** Connective Tissue Growth Factor (CTGF/CCN2) Is Essential for Secondary Palatogenesis **J.T. Tarr, C. Mundy, H. Hendses, A.G. Lambi, J.P. Bradley and S.N. Popoff**. Temple Univ. Sch. of Med.
- D305 **872.9** Embryonic Origin and Patterning of Cranial Muscle in the Mexican Axolotl (*Ambystoma mexicanum*) **E.M. Sefton and J. Hanken**. Harvard Univ.
- D306 **872.10** A Recessive ENU Screen Identifies *Memo* as a Novel Gene Driving Palatogenesis and Cranial Base Development **E. Van Otterloo, D. Clouthier, L. Niswander and T. Williams**. Univ. of Colorado Denver, Aurora.
- D307 **872.11** Facial Development and Alterations in FGF Signaling in a Mouse Model of Crouzon Syndrome **K. Brakora, Y. Ho, A. Lainoff, J. Wong, S-G. Gong, B. Hallgrímsson and R. Marcucio**. UCSF and UCSF Sch. of Dent.
- D308 **872.12** The Craniofacial-Specific Role of the Ribosomal Gene *Polr1c* and Its Role in Treacher Collins Syndrome **A. Achilleos, G. Bugarinovic and P.A. Trainor**. Stowers Inst. for Med. Res., Kansas City, MO.

873. DEVELOPMENT AND GROWTH: NEURAL CREST AND PLACODES**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Developmental Biology

Presentation time: 12:30 PM—2:15 PM

- D309 **873.1** The Role of the Neural Crest Derived Periocular Mesenchyme in the Development of the Conjunctival Papillae **K.A. Jourdeuil, K.M. Wilson and T.A. Franz-Odenaal**. Dalhousie Univ. and Mount Saint Vincent Univ., Canada.
- D310 **873.2** Gut Epithelium-Derived Sonic Hedgehog Regulates the Extracellular Matrix during Formation of the Intestinal Nervous System **N. Nagy and A.M. Goldstein**. Massachusetts Gen. Hosp., Harvard Med. Sch.
- D311 **873.3** Novel Co-factors for the Vertebrate Six1 Transcription Factor are Candidates for Branchiootorenal Spectrum Disorders **S.A. Moody, K.M. Neilson, G. Abbruzzese, K.L. Kenyon and D. Alfandari**. George Washington Univ.; Hobart and William Smith Cols. and Univ. of Massachusetts Amherst.

**Last Day to
Visit Exhibits**

**Tuesday, March 31
9:00 AM – 4:00 PM**

874. DEVELOPMENT AND GROWTH: GENE AND PROTEIN EXPRESSION**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Developmental Biology

Presentation time: 12:30 PM–2:15 PM

- D312 **874.1** Sodium Nitrate Decreases Agrin-Induced AChR Clustering **C. White and W.A. Grow**. Midwestern Univ., AZ.
- D313 **874.2** Myostatin Inhibitors Affect MyoD and Myogenin Expression **J. Sohn and W.A. Grow**. Midwestern Univ., AZ.
- D314 **874.3** A Novel Approach to Identify the Sex of Marine Turtles **B. Tezak and J. Wyneken**. Florida Atlantic Univ.

875. DEVELOPMENT AND GROWTH: ORGANOGENESIS**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Developmental Biology

Presentation time: 12:30 PM–2:15 PM

- D315 **875.1** Seahorses: Osteogenesis and Caudal Fin Loss **T.A. Franz-Odenaal and D. Adriaens**. Mount Saint Vincent Univ., Canada and Ghent Univ., Belgium.
- D316 **875.2** The Marsupial Intervertebral Disc: An Anatomical Characterization **J.A. Maier, E. Jauregui and K.E. Sears**. Univ. of Illinois at Urbana-Champaign.
- D317 **875.3** Identification of Putative Co-receptors for Neuropilin2a **F. Onyike, S. Flores, J. Parris, N. Sallada, J. Singh, I. Basurto, J. Bhadra, R. Barton, B. Berger and M.K. Iovine**. Lehigh Univ.
- D318 **875.4** The Hapln1a-ECM Influences Sema3d Signal Transduction during Fin Regeneration **M.K. Iovine and J. Govindan**. Lehigh Univ.
- D319 **875.5** Comparative Morphological Characteristics of Spleen in Prenatal Ontogenesis **S. Kozhanova, G. Yesbolatova, G. Sagimova, T. Dosaev and A. Aubakirov**. Semey State Med. Univ.; Med. Univ. Astana and Asfendiyarov Kazakh Natl. Med. Univ., Kazakhstan.
- D320 **875.6** Change of PACAP Receptor Expressing Cells during the Development of Granular Duct in Male Mouse Submandibular Glands **N. Nonaka and M. Nakamura**. Showa Univ., Japan.
- D321 **875.7** Role of Junction Plakoglobin in Development of Ciliated Organs **A. Dasgupta and J.D. Amack**. SUNY Upstate Med. Univ.
- D322 **875.8** Stromally Expressed β -Catenin Modulates Wnt9b in the Ureteric Epithelium **D. Bridgewater and F. Boivin**. McMaster Univ., Canada.
- D323 **875.9** Evaluation of the In Vivo Role of Cold-Inducible RNA Binding Protein in Breast Development and Disease **D.A. Lujan and R.S. Hartley**. Univ. of New Mexico Hlth. Sci. Ctr.

- D324 **875.10** A Computational Model of Tissue Movements during Early Heart Assembly **D.G. Isai, A. Aleksandrova, E. Kosa, B.J. Rongish and A. Czirok**. Univ. of Kansas Med. Ctr.
- D325 **875.11** 3D Visualization of the Glomerulus within Kidney Tissue Made Transparent through Passive Optical Clearing **T. Conciatori, M. Sandig, A. De Santis-Smith, K. Rogers and B. Allman**. Western Univ., Canada.
- D326 **875.12** Morphometric Analyses Reveal Airway Branching Variations in Human Lungs **M.M. De Leon and C.C. Lewis**. Samuel Merritt Univ., CA.

876. REGENERATIVE MEDICINE, STEM CELLS, WOUND HEALING AND BIOENGINEERING**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Regeneration/Tissue Engineering**Regenerative Medicine (Stem Cells, Tissue Regeneration, Biomaterials)**

Presentation time: 12:30 PM–2:15 PM

- D327 **876.1** Moderate Exercise Does Not Reverse Adverse Effects of Stress on Cutaneous Wound Healing **A. Monte-Alto-Costa, B. Saguie and B. Romana-Souza**. State Univ. of Rio de Janeiro.
- D328 **876.2** Blockade of Glucocorticoid Receptors Improves Cutaneous Wound Healing in Stressed Mice **T.F. Almeida, T.C. Pires and A.M.A. Costa**. Fed. Univ. of Rio de Janeiro and State Univ. of Rio de Janeiro.
- D329 **876.3** Connexin 43 Antisense Therapy Modulates Connexin Expression and Wound Repair in Nitrogen Mustard Injured Mouse Skin **Y-c. Chang, H-Y. Chang, R.A. Hahn, E.E. Lee, K.K. Svoboda, M.K. Gordon and D.R. Gerecke**. Rutgers U and Texas A&M Univ., Baylor Col of Dent.
- D330 **876.4** Enhancement of Wound Healing with Dietary Ketosis: In Vivo and In Vitro Experiments **S.L. Kesl, M.Y. Jung, J.W. Sherwood, M. Wu, L.J. Gould and D.P. D'Agostino**. Morsani Col. of Med., Univ. of South Florida.
- D331 **876.5** Effects of Thrombopoietin on Longitudinal Mouse Hind Limb Crush Injury Model **G.A. Rothchild, K. Lipking, T. McKinley, M.A. Kacena and G. Sandusky**. Indian Univ. Sch. of Med., Indianapolis.
- D332 **876.6** Stimulation of Fibroblast Proliferation Mediated by *Calendula officinalis* through PI3K Dependent Pathway and Identification of Bioactive Compounds Responsible for Wound Healing Potential **M. Dinda, U. Dasgupta and P. Karmakar**. Jadavpur Univ., Kolkata.
- D333 **876.7** Regeneration of Dentin-Pulp Complex Using Biophysical Cues **X. Liu**. Texas A&M Univ. Baylor Col. of Dent.
- D334 **876.8** Breastmilk Imparts the Mother's Stem Cells to the Infant **F. Hassiotou, A. Mobley, D.T. Geddes, P.E. Hartmann and T.M. Wilkie**. Sch. of Chem. and Biochem., Univ. of Western Australia and Univ. of Texas Southwestern Med. Ctr.
- D335 **876.9** **Withdrawn.**

- D336 **876.10** Corneal Injury and Repair in the Zebrafish **J. Roell, A. Antoine and P.J. Lafontant**. DePauw Univ.
- D337 **876.11** Post-pneumonectomy Lung Deformation Is Associated with Alveolar Type II Cell Apoptosis and Altered Parenchymal Mechanics **A. Ysasi, B. Gibney, R. Bennett, K. Chamoto, M. Ackermann, A. Tsuda, M. Konerding and S. Mentzer**. Brigham and Women's Hosp.; Univ. Med. Ctr., Johannes Gutenberg Univ. Mainz and Harvard Sch. of Publ. Hlth.
- D338 **876.12** Single-Cell Genomics of Post-pneumonectomy Peripheral Lung Regeneration **R.D. Bennett, A.B. Ysasi, J.M. Belle, W. Wagner, M.A. Konerding, P. Blainey, S. Pyne and S.J. Mentzer**. Brigham and Women's Hosp.; Univ. Med. Ctr., Johannes Gutenberg Univ. Mainz; Broad Inst. of MIT and Harvard and CR Rao Adv. Inst. of Math., Stats. & Computer Sci., Hyderabad.
- D339 **876.13** Structural Remodeling of the Post-pneumonectomy Lung Is Characterized by Septal Retraction and Alveolar Duct Dilation **W. Wagner, A. Ysasi, R. Bennett, C. Valenzuela, M. Ackermann, A. Tsuda, M. Konerding and S. Mentzer**. Brigham and Women's Hosp.; Univ. Med. Ctr. of Johannes Gutenberg Univ. and Harvard Sch. of Publ. Hlth.
- D340 **876.14** Simultaneous Electrospun-Electrosprayed Biocomposite Nanostructured Substrates for Bone Tissue Engineering **S.D. Kumar, C. Gandhimathi, J.R. Venugopal, S.W. Tay and S. Ramakrishna**. Lee Kong Chian Sch. of Med., Nanyang Technol. Univ., Singapore and Natl. Univ. of Singapore.
- D341 **876.15** Selectively Ablating Malignant Melanoma Cell with Combined Therapy of Cold Atmospheric Plasma and Polymersomes Loaded with Protoporphyrin IX **M. Wang, H. Yazici, A. Gonzales, M. Keidar and T. Webster**. Northeastern Univ.; George Washington Univ. and King Abdulaziz Univ., Saudi Arabia.
- D342 **876.16** Fabricating Microporous Nano Silver Bacterial Cellulose Scaffolds Using a Laser-Cutting Instrument for Bone Tissue Regeneration **P.M. Favi, S.P.O. Alvarez, M. Gao, M. Kachole and T.J. Webster**. Northeastern Univ.

Biochemistry and Molecular Biology

877. CHROMATIN STRUCTURE AND GENE EXPRESSION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A1 **877.1** Transcriptional Elongation Requires DNA Double Strand Break and Repair **H. Bunch, T. Westerling, B. Lawney, Y. Wang, M. Brown and S.K. Calderwood**. Beth Israel Deaconess Med. Ctr. and Dana-Farber Cancer Inst., Harvard Med. Sch.
- A2 **877.2** Role of the MicroRNA-Processing Enzyme *Drosha* in Vascular Development **A. Hata, X. Jiang, G. Lagna and D. Hart**. UCSF.
- A3 **877.3** Epigenetic and Transcriptome Dynamics in Spermatogonial Stem Cell Development **J. Liao, S.H. Ng, W-Y. Chan and T-L. Lee**. Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong.
- A4 **877.4** Unraveling Mechanistic Features of RNA Polymerase II Termination by the 5'-3' Exoribonuclease Rat1 **J. Park, M. Kang and M. Kim**. Seoul Natl. Univ.
- A5 **877.5** Immobilization-Induced Rat Skeletal Muscle Atrophy Enhances Histone Modification through HDAC4 **T. Yoshihara, S. Machida, Y. Kurosaka, R. Kakigi, N. Ichinoseki-Sekine, T. Tsuzuki, Y. Takamine, T. Sugiura and H. Naito**. Juntendo Univ.; Wayo Women's Univ.; The Open Univ. of Japan and Yamaguchi Univ., Japan.
- A6 **877.6** Role of H3K36me2 in Palmitate Induced Metabolic Memory in Human Podocytes **S. Kumar and K. Tikoo**. NIPER, SAS Nagar, Punjab, India.
- A7 **877.7** MARCC (Matrix-Assisted Reader Chromatin Capture): ChIP-less Analysis of Chromatin States **Z. Su, M.D. Boersma, J-H. Lee, S. Liu, B.A. Garcia and J.M. Denu**. Univ. of Wisconsin-Madison and Univ. of Pennsylvania.
- A8 **877.8** EZH2 Overexpression in Malignant Melanoma Represses E-Cadherin and Promotes Invasion **D. Sengupta, N. Avaritt and A.J. Tackett**. Univ. of Arkansas for Med. Sci.
- A9 **877.9** RNAi and Chromatin Remodeling Pathways Regulate Reproductive Phenotypic Plasticity in *C. elegans* **D.A. Jackson, S.E. Hall and M.C. Ow**. Syracuse Univ.
- A10 **877.10** TOR and Proteasomal Regulation of Ribosomal Protein Gene Expression **B. Uprety and S.R. Bhaumik**. So. Illinois Univ. Sch. of Med. Carbondale.
- A11 **877.11** Distinct Mechanisms Regulate *IL1B* and *TNF* Gene Expression **S.H. Pulugulla, J. Adamik, D.L. Galson and P.E. Auron**. Duquesne Univ. and Univ. of Pittsburgh.
- A12 **877.12** Peptide Microarrays to Examine RNA Polymerase II Binding Protein Domains **A.P. Lothrop, J.R. Cannon and S.M. Fuchs**. Tufts Univ.
- A13 **877.13** Examining Changes to Chromatin during Chronological Aging in Budding Yeast **I. Quasem and S.M. Fuchs**. Tufts Univ.
- A14 **877.14** Epigenetic Enzymes are Replaced in Atherogenesis and Regulatory T Cell Conversion by Groups of Upregulated Enzymes **Y. Shao, V. Chernaya, H. Wang and X-f. Yang**. Temple Univ. Sch. of Med.
- A15 **877.15** The Brahma Chromatin Remodeling Complex and its Multiple Roles in Regulating Circadian Transcription **R.S. Kwok, Y.H. Li and J.C. Chiu**. Univ. of California, Davis.
- A16 **877.16** PAX3-FOXO1 Directed Transcriptional Activation Is Mediated by PAX3 and FOXO1 Recognition Sequences **T. Cherlin, M. Bratton and K. Johanson**. Xavier Univ. of Louisiana.

- A17 **877.17** Analysis of Functional Features of CTD Kinases by Irreversible Imbibition Strategy **J. Liu, J. Rodriguez, J. Gregorio, S. Tseng and A. Ansari.** Univ. of Wisconsin-Madison.
- A18 **877.18** Biochemical and Biophysical Characterization of Histone Deacetylase Recruitment to the Sin3L/Rpd3L Corepressor Complex **R.D. Marcum and I. Radhakrishnan.** Northwestern Univ.
- A19 **877.19** Molecular Evaluation of Transformation-Induced Methylation of the High Mobility Group A1 Chromatin Binding Proteins **K. Bufkin, R. Nelson, J. Deng and T.F. Sumter.** Winthrop Univ., SC.
- A20 **877.20** Using Comparative Genomics to Study DNA Sequences of the Muller F Element from *Drosophila biarmipes* **M. Sears, E. Frick and K.J. Saville.** Albion Col., MI.
- A21 **877.21** Comparative Genomic Analysis of Euchromatic and Heterochromatic Chromosomal Regions of two species of *Drosophila* **G.F. Jager and K.J. Saville.** Lansing Catholic H.S. and Albion Col., MI.
- A22 **877.22** Evaluating the Role of Histone H2A Variants and Epigenetic Modification in the DNA Repair System of Bdelloid Rotifers **M.A. McFadden, J.S. Higgins and A.M. Schurko.** Hendrix Col., AK.

878. GENOMIC DIVERSITY AND STABILITY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A23 **878.1** Characterization of HS29K Nucleoid Associated DNA Binding Protein with Mn²⁺- SOD Activity from Halophilic Archaeon *Halobacterium salinarum* Strain H3 **R.P. Kotipatruni and S. Tangirala.** Univ. of Hyderabad and Washington Univ. in St. Louis.
- A24 **878.2** Molecular Characterization of Extrachromosomal MicroDNAs in Human Cancer Cell Lines Using Synthetic Minicircles **D.R. Pan, L.W. Dillon and A. Dutta.** Univ. of Virginia Sch. of Med.
- A25 **878.3** Characterization of a Putative Fanconi Anemia D2 Protein Histone-Binding Domain and Chromodomain **N.G. Howlett, P.A. Azzinaro and K.L. Paquin.** Univ. of Rhode Island.
- A26 **878.4** Frequency and Mechanism of Expansion of the C-terminal Domain of Yeast RPB1 **S. Morrill and S. Fuchs.** Tufts Univ.
- A27 **878.5** Taking the Yeast Genome by "Storm": Beginning to Simplify *Saccharomyces cerevisiae* **C. Lin and A.M. Tartakoff.** St. John's Univ., NY and Case Western Reserve Univ.
- A28 **878.6** Unleashing the True Recombination Power of RecA by Conjugational Screening of Random Mutants in the MAW Region **K.S. Herlambang, T. Kim and M.M. Cox.** Univ. of Wisconsin-Madison.
- A29 **878.7** Analysis of the Stability of a Type III Secretion System Containing Pathogenicity Island in the Human Pathogen *Vibrio cholerae* **M.C. Peters, M.R. Carpenter and F. Boyd.** Univ. of Delaware.
- A30 **878.8** Repair Proteins and Transcription Factors Compete **S.P.G. Moore, J. Kruchten, K.J. Toomire and P.R. Strauss.** Northeastern Univ.

- A31 **878.9** Localization to the Nuclear Pore Complex Is Required for Stabilizing CAG Repeats **X.A. Su, V. Dion, S.M. Gasser and C.H. Freudenreich.** Tufts Univ.; Friedrich Miescher Inst. for Biomed. Res., Basel and Univ. of Lausanne.
- A32 **878.10** The Role of *Escherichia coli* Protein H-NS in Chromosome Integrity **C. Pina and S.T. Lovett.** Brandeis Univ.

879. SIGNALING REPAIR AND REPAIR MECHANISMS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM—1:35 PM

- A33 **879.1** Requirement of Saw1 during Single-Strand Annealing in *Saccharomyces cerevisiae* **A.D. Miller, L. Nalbandyan, M. Mrdroosian and P.L. Fischhaber.** California State Univ. Northridge.
- A34 **879.2** Characterization of hNek10 and hNek5 Kinases in DNA Damage Response **P.F. Papa, T.D.M. Hanchuk and J. Kobarg.** CNPEM and UNICAMP, Campinas, Brazil.
- A35 **879.3** Structure-Specific Endonuclease XPF-ERCC1 Plays a Critical Role in DNA Interstrand Crosslink Repair that Is Compromised in Patients with Fanconi Anemia **C. Kim, C. Holland, F. Li, E.Y. Shim and S.E. Lee.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Vanderbilt Univ.
- A36 **879.4** Delta-Tocotrienol Mediates the Cellular Response to Radiation-Induced DNA Damage through Upregulation of Anti-apoptotic Effectors in Human Lung Fibroblast Cell Lines **K.M. Folkers, M. Satyamitra and V. Srinivasan.** Henry M. Jackson Fndn. for Adv. of Military Med. and Armed Forces Radiobiol. Res. Inst., Bethesda.
- A37 **879.5** Sexual Healing: Examining the Role of Meiosis Genes in DNA Damage Repair **E.Y. Jasso, L.A. Hattabaugh and A.M. Schurko.** Hendrix Col., AR.
- A38 **879.6** The Role of DNA Damage in the Pathogenesis of Nitrate Tolerance **Y. Mikhed, M. Oelze, S. Kröller-Schön, E. Zinssius, M. Mader, P. Stamm, P. Welschhof, T. Münzel and A. Daiber.** Med. Ctr., Johannes Gutenberg Univ. of Mainz.
- A39 **879.7** Function of the N-terminal Segment of the RecA-Dependent Nuclease Ref **R.H. Dvorak, A.J. Gruber, T.M. Olsen and M.M. Cox.** Univ. of Wisconsin-Madison.
- A40 **879.8** Interplay between Artemis and TDP1 in Sensitivity to Radiomimetic Agents **A. Kawale, T. Zhou, K. Akopiants and L. Povirk.** Virginia Commonwealth Univ.
- A41 **879.9** Role of Yeast Rad51 Interface Residue F187A and DNA Binding Loop 1 Residue F290 in Coordinating DNA Binding, ATPase, and DNA Strand Exchange Activities **M.C. Silva, N. Villanueva, T.R. Mandigo, X-X. Nguyen and S.W. Morrical.** Univ. of Vermont Col. of Med.
- A42 **879.10** MCM8-9 Complex Promotes Resection of Double-Strand Break Ends by Mre11-Rad50-Nbs1 Complex **A. Dutta and K. Lee.** Univ. of Virginia.
- A43 **879.11** Base Flipping in Lesion Search and Recognition by the Human Thymine DNA Glycosylase Revealed by Single Molecule Imaging **I. Tessmer, C.N. Buechner, A. Maiti and A. Drohat.** Univ. of Wuerzburg and Univ. of Maryland Baltimore.
- A44 **879.12** Mismatch Tolerance during Homologous Recombination in Mammalian Cells **S. Li, B.C. Waldman and A.S. Waldman.** Univ. of South Carolina.

- A45 **879.13** Analysis of the Mechanism of DNA Damage and Replication Arrest-Induced Histone mRNA Decay **P. Panomwan and C. Smythe**. Univ. of Sheffield.
- A46 **879.14** FRET Studies of DNA Pol β Mutator I260Q: The Critical Role of Fingers Domain Movements and Nucleotide Selection **J.B. Towle-Weicksel, B.E. Eckenroth, M. Moreno, S. Doublé and J.B. Sweasy**. Yale Univ. and Univ. of Vermont.
- A47 **879.15** Insights into the Mechanism Regulating the DNA Damage Response in *Acinetobacter baumannii* **C. Ching and V.G. Godoy**. Northeastern Univ.
- A48 **879.16** The DNA Damage Response Induces Autophagy via Mec1(ATR) and Tel1(ATM) to Regulate the Initiation of Anaphase **V.V. Eapen, D.P. Waterman, A. Bernard, J. Ang, D.J. Klionsky and J.E. Haber**. Brandeis Univ. and Univ. of Michigan.
- A49 **879.17** A Novel Truncated Form of DNA Polymerase β Protein in Mouse and Zebrafish Early Stage Embryos **B.S. Dobosh, N.L. Kaplan, S.P.G. Moore and P.R. Strauss**. Northeastern Univ.
- A50 **879.18** ATR Homolog Mec1 Is Differentially Regulated at Different Times of DNA Damage-Dependent Cell Cycle Arrest **G. Memisoglu, K. Lee, V.E. Eapen and J.E. Haber**. Rosenstiel Basic Med. Sci. Res. Ctr., Waltham, MA.
- A51 **879.19** Proximal and Distal interactions of Fanconi Anemia Protein FANCD2 with Genomic Interstrand Crosslinks **M. Paramasivam, P.A. Muniandy, W. Wang and M.M. Seidman**. NIA, NIH, Baltimore and Univ. of Maryland Sch. of Med.
- A52 **879.20** Dampening Checkpoint Signaling via Coordinated BRCT-Domain Interactions **J.R. Cussiol, C.M. Jablonowski, A. Yimit, G.W. Brown and M.B. Smolka**. Cornell Univ. and Univ. of Toronto.
- A53 **879.21** Novel Role of Ten-Eleven-Translocation Methylcytosine Dioxygenase 1 in DNA Damage Response **K.J. Kuhns, J.B. Coulter and J.P. Bressler**. Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Kennedy Krieger Hugo Moser Res. Inst., Baltimore.
- A54 **879.22** Two photolyases in *Agrobacterium tumefaciens* **T. Lamparter, F. Zhang, I. Oberpichler, N. Krauß and P. Scheerer**. Karlsruhe Inst. of Technol.; Queen Mary Sch. of Biol. and Chem. Sci. and Charité, Berlin.
- A55 **879.23** Structural Basis for Specificity of Common PARP and Tankyrase Inhibitors **H. Schuler, A-G. Thorsell, T. Ekblad, T. Karlberg, M. Klepsch, A.F. Pinto, L. Tresaugues and M. Moche**. Karolinska Inst.
- A56 **879.24** Dampening Checkpoint Signaling via Coordinated Action of DNA Repair Scaffolds and the Pph3 Phosphatase **C.M. Jablonowski, J.R. Cussiol, S.L. Oberly and M.B. Smolka**. Cornell Univ.
- A57 **879.25** The In Vitro Characterization of the Role of Rad57 in Rad51 Catalyzed Homologous Recombination Repair **M. Cusano, C. Ezenduka and M. Sweazy**. Univ. of Saint Joseph, CT.

880. TRANSCRIPTIONAL REGULATION**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A58 **880.1** Insights into Homodimerization of the Transcription Factor ETS1 **D. Samorodnitsky, C. Szyjka and G. Koudelka**. Univ. at Buffalo.
- A59 **880.2** Characterization of a PecS Family Transcriptional Regulator in *Vibrio vulnificus* **N. Bhattacharyya, T. Lemon and A. Grove**. LSU, Baton Rouge.
- A60 **880.3** Homocysteine Induces DNA Methyltransferase 1 Transcription through the cAMP Response Element in the DNMT1 Promoter **A.M. Alenad**. Sch. of Biol. Sci., Southampton Univ., UK.
- A61 **880.4** The Molecular Mechanism of Bcl-3 Co-transactivation in Skeletal Muscle Atrophy **D. Seto, S. Kandarian and R. Jackman**. Boston Univ.
- A62 **880.5** Identification and Verification of Changes in Gene and Protein Expression from Limited Samples **E. Lin, K.J. Oh, S.T. Okino, N. Liu and Y. Wang**. Bio-Rad Labs., Hercules, CA.
- A63 **880.6** Evolution of Novel Response Element Specificity in the Glucocorticoid Receptor **W.H. Hudson and E.A. Ortlund**. Emory Univ.
- A64 **880.7** Expression of Nephhrin, a Podocyte-Specific Protein, Depends on MafB and Ligands of Nuclear Receptors **M. Motojima, M. Kinomura, T. Matsusaka and I. Ichikawa**. Tokai Univ. and Okayama Univ. Hosp., Japan.
- A65 **880.8** Foxc1 and Foxc2 Cooperate in Maintaining Glomerular Podocytes **M. Motojima, T. Kume, T. Matsusaka and I. Ichikawa**. Tokai Univ., Japan and Northwestern Univ., Chicago.
- A66 **880.9** Transcriptional Regulation of Cell Cycle Promoting Genes by Ikaros in Leukemia **E. Dovat, J.L. Payne, C. Gowda and C. Song**. Lebanon Valley Col., PA; Loma Linda Univ. and Penn State Col. of Med.
- A67 **880.10** Discoidin Domain Receptor 1 Is a Novel Transcriptional Target of ZEB1 in Breast Epithelial Cells Undergoing H-Ras-Induced Epithelial to Mesenchymal Transition **A. Moon, M. Koh, Y. Woo, D. Lee, R.R. Valiathan, H.Y. Jung, S.Y. Park, Y.N. Kim, H-R.C. Kim and R. Fridman**. Col. of Pharm., Duksung Women's Univ.; Wayne State Univ.; Seoul Natl. Univ. Col. of Med. and Natl. Cancer Ctr., South Korea.
- A68 **880.11** Role of Zinc-Binding Protein-89 in Regulation of Matrix Metalloproteinase-3 Expression in Response to Cytokines **S.F. Seutter, G. Gorski, J. Chun, S. Scianni and R.C. Borghaei**. Philadelphia Col. of Osteo. Med.
- A69 **880.12** Glutamine tRNA_{CUG}-Dependent, Nitrogen-Responsive Nuclear Gln3 and Gat1 Localization **J.J. Tate, R. Rai and T.G. Cooper**. Univ. of Tennessee, Memphis.
- A70 **880.13** Characterization of RING Finger/SPRY Domain Containing 1 (Rspry1) and NEFA-Interacting Nuclear Protein 30 (Nip30) Transcriptional Regulation **P. Duffin and D. Waddell**. Univ. of North Florida.

- A71 **880.14** Rrd1p, an RNA Polymerase II-Specific Prolyl Isomerase and Activator of Phosphoprotein Phosphatase, Promotes Transcription Independently of Rapamycin Response **R. Sen, S. Malik, S. Frankland-Searby, B. Uprety, S. Lahudkar and S.R. Bhaumik.** Southern Illinois Univ. Sch. of Med.
- A72 **880.15** The Small Molecule ppGpp Induces Expression of the *xdhABC* Gene Cluster in *Streptomyces coelicolor* **S. Sivapragasam and A. Grove.** LSU, Baton Rouge.
- A73 **880.16** Interactions of FOXO1 Truncations with DNA **B. McDaniel, A. Weatherspoon, R. Haynes, T. Cherlin, M. Mottamal and K. Johanson.** Xavier Univ. of Louisiana.
- A74 **880.17** Silent Circuit Affects Metabolism in *Escherichia coli* K12 **V.L. McEneaney and J.E. Lopilato.** Simmons Col., MA.
- A75 **880.18** The Gln3 Response to Nitrogen-Rich Environments Is Independent of Vam6-, Gtr1/2-, Ego1/3-Dependent TorC1 Activation **T.G. Cooper, J.J. Tate, I. Georis, R. Rai, F. Vierendeels and E. Dubois.** Univ. of Tennessee, Memphis and Rech. Microbiol. J.-M. Wiame.
- A76 **880.19** Site-Directed Mutagenesis of the Ferric Uptake Regulator from *Klebsiella oxytoca*: in Vitro and in Vivo Effects on Protein Function **B. Oglevie and J. Hernandez.** Midwestern Univ.
- A77 **880.20** Characterization of the Transcriptional Regulation of Tetratricopeptide Repeat Doman 39c in Skeletal Muscle **D. Waddell and J. Menke.** Univ. of North Florida.
- A78 **880.21** Kinetic Control of a Developmental Switch: Design of a "Kinetic Rheostat" in a Bent Protein-DNA Complex with Application to Human Sex Reversal **J.D. Racca, Y-S. Chen, V. Bhatnagar, N.B. Phillips and M.A. Weiss.** Case Western Reserve Univ.
- A79 **880.22** Mth1 Regulates the Interaction between the Rgt1 Repressor and the Ssn6-Tup1 Corepressor Complex by Modulating PKA-Dependent Phosphorylation of Rgt1 **A. Roy and J-H. Kim.** George Washington Univ.
- A80 **880.23** RET-Dependent Transcriptional Changes of Cell Signaling Proteins in Neuroblastoma Cells **E.Y. Flores and Q. Vega.** Montclair State Univ.
- A81 **880.24** Role of Ets and Runx Family Transcription Factors in the Regulation of Human LAT Gene Expression **L. Glowka, M. Easley and T.S. Finco.** Agnes Scott Col., GA.
- A82 **880.25** DNA Methylation Inhibitor Regulates Guanylyl Cyclase/Natriuretic Peptide Receptor-A Gene Expression in Mesangial Cells **P. Kumar and K.N. Pandey.** Tulane Univ. Hlth. Sci. Ctr. and Sch. of Med.
- A83 **880.26** Down-regulation of STAT3 by AZT Treatment **Z.M. Garayalde-Batista, K. Marquez and D. Gómez-Garzón.** Univ. Metropolitana, San Juan, PR.
- A84 **880.27** PAF49 Acetylation Affects the Assembly of the PAF49/PAF53 Heterodimer with Pol I **L. Rothblum, Y. Penrod and K. Rothblum.** Univ. of Oklahoma Col. of Med. and Oklahoma State Dept. of Hlth.
- A85 **880.28** Regulation of Chromatin Accessibility by GPS2-Mediated Inhibition of Ubiquitin Signaling on Selected Promoters **M.D. Cardamone, B. Tanasa, J. Huang, C. Cederquist, M.G. Rosenfeld and V. Perissi.** Boston Univ. Sch. of Med. and UCSD.
- A86 **880.29** Maternal High Fat Programs Hepatic *Il-6* Expression through Differential DNA Methylation in Male Pups **A. Kriska, H. Wang, H. Chen and Y-X. Pan.** Univ. of Illinois at Urbana-Champaign.
- A87 **880.30** Angiogenin Interacts with Heat Shock Factor 1 **K.M. Bultman, A.W. Uebersohn and K.A. Dickson.** Lawrence Univ., WI and UCSF.
- A88 **880.31** *dFoxo* Dependent Transcription of the Heat Shock Proteins **M. Donovan and M.T. Marr.** Brandeis Univ.
- 881. INTRINSICALLY DISORDERED PROTEINS, IDPS: PROTEIN FOLDING AS A REGULATORY PHENOMENON III**
- (Poster Session I scheduled on Sunday;
Poster Session II scheduled on Monday)
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B
- Presentation time:* 12:05 PM–1:35 PM
- A89 **881.1** Allosteric Functional Switch in Poliovirus 3C Protease **Y.M. Chan and D.D. Boehr.** Penn State
- A90 **881.2** Probing the Molecular Interactions of Bovine Gamma B Crystallins with NMR Spectroscopy **A. Payan, D. Barnard, V. Sgheiza, J. Mills, G. Thurston and L.V. Michel.** Rochester Inst. of Technol.
- A91 **881.3** Modulation of Metal–Amyloid- β Reactivity by a Rationally Designed Small Molecule for Elucidating the In Vivo Link of Metal–Amyloid- β Complexes to the Pathogenesis of Alzheimer's Disease **M.W. Beck, S.B. Oh, R.A. Kerr, H.J. Lee, S.H. Kim, S. Kim, M. Jang, B.T. Ruotolo, J-Y. Lee and M.H. Lim.** Ulsan Natl. Inst. of Sci. and Technol.; Univ. of Michigan; Asan Med. Ctr., Seoul and Univ. of Ulsan Col. of Med., South Korea.
- A92 **881.4** The Exchanged EF-Hands in Calmodulin and Troponin C Alter the Interaction with Orai1 **D. Jensen, M. Thomas, K. Schafer and C-C. Wei.** Southern Illinois Univ. Edwardsville.
- A93 **881.5** Misfolded Proinsulin Presenting an Unpaired Thiol Is Recognized and Targeted for ERAD by Specific Luminal Components in the ER **A-M. Kelemen and P.J. Lin.** Grad. Col. of Biomed. Sci., Western Univ. of Hlth. Sci.
- A94 **881.6** Nuclear Magnetic Resonance Studies of Polyglutamine's Misfolded Conformation in the Aggregated State **P.C.A. van der Wel.** Univ. of Pittsburgh Sch. of Med.
- A95 **881.7** Role of Cyclophilin on Amyloid Formation and Protein Disaggregation **N.C. Maiti, P. Mondal and S. Das.** CSIR-Indian Inst. of Chem. Biol., Kolkata.
- A96 **881.8** Macromolecular Crowding Enhances the Efficiency of the Chemical Chaperone, Betaine in Inhibiting Protein Aggregation **S. Mittal and L.R. Singh.** ACBR, Univ. of Delhi.
- A97 **881.9** Role of N-Acetylaspartate in Alzheimer Disease **M. Warepam and L.R. Singh.** ACBR, Univ. of Delhi.
- A98 **881.10** Length and Flexibility of the Disordered Tether Region of the PKA Regulatory Subunit Modulates Phosphorylation Kinetics of PKA within an AKAP Complex **M.J. Rigatti, P.J. Michalski, I.I. Moraru and K.L. Dodge-Kafka.** UConn Hlth. Ctr. and Jackson Laboratory.
- A99 **881.11** Activating Biological Functions of Proteins with Gas Molecules **J.E. Lyza, R.M. DeVries and R.W. Clark.** Valparaiso Univ.

- A100 **881.12** Ca²⁺-Induced Domain-Domain and Protein-Protein Interaction in NADPH Oxidase 5 and Dual Oxidase **C-C. Wei and D. Jensen**. So. Illinois Univ. Edwardsville.
- A101 **881.13** Probing the Roles of Phenylalanine-23 and Glutamate-15 in the ADP-Glucose Pyrophosphorylase from *Thermodesulfovibrio yellowstonii* **E. Yik, M. Susoeff, E. Pushkarev, S. Kaur and C.R. Meyer**. California State Univ. Fullerton.
- A102 **881.14** Structure-Function Studies of the *Thermotoga maritima* ADPGlucose Pyrophosphorylase: Probing the Role of the C-Terminus in the glgC and glgD Subunits **C. Vu, I. Huang and C.R. Meyer**. California State Univ. Fullerton.
- A103 **881.15** Probing the Role of Ser-48 in the Regulation of *Deinococcus radiodurans* ADP Glucose Pyrophosphorylase **L. Ong, A. Le-Pham, M. Mowery and C.R. Meyer**. California State Univ. Fullerton.
- A104 **881.16** Regulators of G-protein Signaling Proteins: Conformational Dynamics and Allosteric Control **H. Vashisth**. Univ. of New Hampshire.

882. PROTEIN FOLDING AND MISFOLDING

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A105 **882.1** Refolding of Denatured-Reduced Lysozyme in the Presence of Native Templates **S. Kumar, S. Jayanthi and T.K.S. Kumar**. Univ. of Arkansas.
- A106 **882.2** Pi-System Stabilization of a 220 Å³ Buried Solvent Network **C.N. Woods, W.R.P. Novak, D.P. Grilley and T.M. Weaver**. Univ. of Wisconsin-La Crosse and Wabash Col., IN.
- A107 **882.3** The Tale of Two Domains **M.R. Wimmer, D.P. Grilley and T.M. Weaver**. Univ. of Wisconsin-La Crosse.
- A108 **882.4** Towards the Quantification of the Proteostasis Capacity of a Cell **D.M. Hatters, R. Wood, T. Vöpel, A. Sharma and S. Ebbinghaus**. Univ. of Melbourne and Ruhr-Univ. Bochum, Germany.
- A109 **882.5** Proteins as Play-Doh: Evolution May Utilize Local Structural Plasticity to Alter Protein Folds **T.N. Szyszka, V.K. Kumirov and M.H.J. Cordes**. Univ. of Arizona.
- A110 **882.6** Carboxy-Terminal Disruption of HpmA265 Caused by Trypsin and Its Effect on Stability and Activity **K.J. Adamczak, D.P. Grilley and T.M. Weaver**. Univ. of Wisconsin-La Crosse.
- A111 **882.7** Molecular Regulation of G-Protein-Coupled Receptor, Lysophosphatidic Acid Receptor 1, Trafficking to the Cell Surface **J. Zhao, J. Wei, R.K. Bowser and Y. Zhao**. Univ. of Pittsburgh.
- A112 **882.8** A Cell-Free Investigation of the Relationship between Myoglobin Expression, Globin Stability and Heme Affinity **P.P. Samuel, G.N. Phillips and J.S. Olson**. Rice Univ.
- A113 **882.9** Use of Gradient Gel Filtration to Simultaneously Exchange Buffer, Purify and Refold Denatured Proteins **S. Chaudhry, M. Burnett and O. Odunuga**. Stephen F. Austin State Univ.

- A114 **882.10** Probing the Role of an Intermediate State in TDP-43: A Gateway to Developing New Biomarkers and Therapies for Neurodegenerative Disease **B.C. Mackness, M.T. Tran, L.M. Deveau, S.E. Avendano-Vazquez, R. Matthews, O. Bilsel, F. Massi and J.A. Zitzewitz**. UMass Med. Sch.
- A115 **882.11** Engineering Compartmentalized Optogenetic Protein Misfolding Stress Sensors **C.L. Moore, S. Santiago, N.B. Lu and M. Shoulders**. MIT.
- A116 **882.12** Sequence and Misfolding in the Ancient TIM Barrel Motif **K. Halloran, S. Chakravarthy, T. Irving, O. Bilsel and C.R. Matthews**. UMass Med. Sch. and Illinois Inst. of Technol.
- A117 **882.13** Expression and Purification of Wild Type and Variant Ribonuclease Inhibitor Proteins **S.M. Prophet, A.W. Ubersohn, G.W. Dods and K.A. Dickson**. Lawrence Univ., WI and UCSF.
- A118 **882.14** Collapsed Structure at the C-Terminus of SOD1: Implications for ALS **N. Cohen, D. Rosenman, O. Bilsel, A.E. Garcia and C.R. Matthews**. UMass Med. Sch. and Rensselaer Polytech Inst.
- A119 **882.15** Transient Expression of Intrinsically Disordered Proteins Fuels the Emergence of Adaptive Protein-Based Heritable Traits **D. Jarosz**. Stanford Univ. Sch. of Med.

883. PROTEIN SYNTHESIS AND TURNOVER II

(Poster Session I scheduled on Sunday)

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A120 **883.1** Analysis of Mutations in the Conserved C-Terminal Diglycine of SUMO Protein in *Tetrahymena thermophila* **R. Louer, J.D. Forney and A.M. Nasir**. Purdue Univ.
- A121 **883.2** A Bipartite Interaction between Hsp70 and CHIP Regulates Ubiquitination of Chaperoned Client Proteins **R.C. Page, H. Zhang and C. McGlone**. Miami Univ.
- A122 **883.3** Mechanisms of Selectivity during Stationary Phase Mitophagy **H. Abeliovich, K. Simpson-Lavy, J. Dengjel and G. Tal**. Hebrew Univ. of Jerusalem and Univ. of Freiburg.
- A123 **883.4** The FP Domains of PI31 and Fbxo7 Have the Same Protein Fold but Very Different Modes of Protein-Protein Interaction **J. Shang, X. Huang and Z. Du**. Southern Illinois Univ. Carbondale.
- A124 **883.5** Phosphorylation Regulates SLIMB-PERIOD Interactions and Protein Degradation **A.J. Contreras, Y. Li, C. Tabuloc and J. Chiu**. Univ. of California, Davis.
- A125 **883.6** Ubiquitination Catalyzed by the Ubiquitin Conjugating Enzyme, UbcH7 Inhibits the Degradation of Proteasome Substrates **E.A. Whitcomb and A. Taylor**. USDA at Tufts Univ.
- A126 **883.7** Understanding the Molecular Basis of MIC-CAP Syndrome through Structural and Functional Studies of the Deubiquitinase AMSH **R.K. Shrestha, J.A. Ronau and C. Das**. Purdue Univ.
- A127 **883.8** Understanding the Formation of the MCT-1:DenR Complex, a Translational Enhancer for Lymphoma Survival **S.D. Stowe, M.C. Cavalier, R. Godoy-Ruiz, K.M. Varney, P.T. Wilder, R.B. Gartenhaus and D.J. Weber**. Univ. of Maryland Sch. of Med.

- A128 **883.9** Mechanism of Boc3Arg Mediated Degradation **Y. Shi, M.J.C. Long, A. Kobjack, S. Li and L. Hedstrom.** Brandeis Univ.
- A129 **883.10** Mechanistic Characterization of the HECT Domain Ubiquitin Ligase Nedd4-2 **D.R. Todaro, A.C. Augustus-Wallace and A.L. Haas.** LSU Hlth. Sci. Ctr.-New Orleans.
- A130 **883.11** Molecular Mechanism for Cereblon-Dependent Inhibition of AMP-Activated Protein Kinase **S.-J. Yang, K.M. Lee, S. Jeon Je and C.-S. Park.** Gwangju Inst. of Sci. and Technol., South Korea and Univ. of Texas Southwestern Med. Ctr.
- A131 **883.12** Identification and Characterization of Mutants Related to LRS1 in *Arabidopsis thaliana* **H.A. Yerecic, P.T. Erickson and F.L. Erickson.** Salisbury Univ., MD.
- A132 **883.13** Optimizing a ClpP^{TRAP} Assay for Studying Degradation under Stressful Conditions in *E. coli* **P. Ngo, T. Von Rosen and C.N. Peterson.** Suffolk Univ., MA.
- A133 **883.14** Poly-ubiquitin Chains Paradox: Development of Novel and Selective Poly-ubiquitin Binding Domains **M. Mason, J. Bellam and J. Strickler.** LifeSensors Inc., Malvern, PA.

884. CELL SYSTEMS AND METABOLISM

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A134 **884.1** Phospholipids in Subunit III Regulate Structural Rearrangements in Cytochrome *c* Oxidase of *Rhodobacter sphaeroides* **L.J. Prochaska, K.S. Alnajjar and T.L. Cvetkov.** Wright State Univ. Boonshoft Sch. of Med.
- A135 **884.2** *Atp10c* Heterozygous Mice Represent a Genetic Model of Insulin Resistance Associated with Diet-Induced Obesity and Altered Glucose Uptake via Both Insulin-Dependent and Independent Pathways **S.E. Hurst, L. Amelse, L. Zhao and M. Dhar.** South Col. Sch. of Pharm.; Col. of Vet. Med., Univ. of Tennessee and Univ. of Tennessee, Knoxville.
- A136 **884.3** Distinct Pathways of Vincristine Induced Cell Death in Primary Acute Lymphoblastic Leukemia Cells **A. Rathi, W.N. Hittelman and T.C. Chambers.** Univ. of Arkansas for Med. Sci. and MD Anderson Cancer Ctr.
- A137 **884.4** The Effects and Angiogenic Features of Adrenomedullin in Obese Rats **M. Yurekli and A.A. Culum.** Inonu Univ., Turkey.
- A138 **884.5** Ursolic Acid Mediated Inhibition of Human Prostate Cancer Cell Growth In Vitro Involves Alterations in Cell Cycle Related Protein Expression **R. Hurta, J. Kim, A. Catalli and C. Neto.** Univ. of Prince Edward Island; NRC Canada, Charlottetown and Univ. of Massachusetts Dartmouth.
- A139 **884.6** NuSAP Governs Centrosome Oscillation by Regulating Kif22 Generated Polar Ejection Force **C. Li and Y.-C. Liou.** Natl. Univ. of Singapore.
- A140 **884.7** NuSAP Stabilizes Kinetochore Microtubules by Attenuating MCAK Depolymerization **C. Li and Y.-C. Liou.** Natl. Univ. of Singapore.
- A141 **884.8** TGF- β and Wnt Crosstalk Require SMAD 3 for Msi1 Induction in Colon **A.R. Wolfe, F. Blanco, E. Spears, D. Dixon and K. Neufeld.** Univ. of Kansas and Univ. of Kansas Med. Ctr.
- A142 **884.9** The Phylogeny of NPC1: The Evolution of a Gene-Diet Interaction **J.J. Castillo, V.O. Shah, R.A. Heidenreich and W.S. Garver.** Univ. of New Mexico.
- A143 **884.10** Analysis of Hyperstable Ciliary Microtubule Protofilaments **R.W. Linck, X. Fu, J. Lin, C. Ouch, A. Scheffer, W. Steffen, P. Warren and D. Nicastro.** Univ. of Minnesota; Brandeis Univ. and Med. Sch., Hannover.
- A144 **884.11** The Effects of 4-Hydroxy-5-Methyltetrahydrofolate on Folate-Mediated One-Carbon Metabolism **E.V. Grant, D.N. Stover, M.S. Field and P.J. Stover.** Cornell Univ.
- A145 **884.12** Regulation of Hepatic Gluconeogenesis by NT-PGC-1 α , the Short Isoform of PGC-1 α **J.S. Chang and H.-J. Jun.** Pennington Biomed. Res. Ctr., Baton Rouge.
- A146 **884.13** Serum Cytokine, Chemokine and Hormone Levels in Saudi Adults with Pre-diabetes: A One-Year Prospective Study **N. Al-Daghri, A. Ajlan, H. Alfawaz, S. Yakout, N. Aljohani, S. Kumar and M. Alokail.** King Saud Univ.; King Saud bin Abdulaziz Univ. for Hlth. Sci. and Warwick Univ.
- A147 **884.14** RCAN1 Suppresses Mitochondrial Fission, Protecting the Heart from Calpain-Mediated Damage **V. Parra, D. Rotter, Z. Pedrozo and B.A. Rothermel.** Univ. of Texas Southwestern Med. Ctr. at Dallas.
- A148 **884.15** Three-Dimensional Cell Culture of Rat Hepatocytes in Sub-microliter Hydrogel Wells **V. Paliwal, J. Clough and J. Kumpati.** Milwaukee Sch. of Engin. and Univ. of Arkansas.
- A149 **884.16** The Differential Effect of TGF β Stimulation on Erlotinib-Resistant and -Sensitive NSCLC **M.J. Krentz, B. Blankenship and E.P. Black.** Univ. of Kentucky.
- A150 **884.17** Overexpression of Different S6Ks Isoforms in the Central Nervous System by Adenoviral Vectors in Mice for Obesity-Related Studies **M.R. Tavares, I.C.B. Pavan, L.B. Freitas, F.C. Ferreira and F.M. Simabuco.** Univ. of Campinas, Brazil.
- A151 **884.18** Role of NudE in Transporting Golgi Outposts during Dendrite Morphogenesis **A. Abellaneda, A. Arthur, S. Yang and J. Wildonger.** Univ. of Wisconsin-Madison.
- A152 **884.19** Effect of Elevated Levels of the Human Mitochondrial DNA 4977-bp Common Deletion in Cell Cultures **M. Gulfo, S. Gautam, N. Horan, R. O'Donnell and W. Pogozelski.** SUNY Geneseo.
- A153 **884.20** Protein Interactions at the C-Terminus of Essential Cell Division Protein FtsZ Modulate Z-Ring Dynamics in *Escherichia coli* **M.G. Viola and J.L. Camberg.** Univ. of Rhode Island.
- A154 **884.21** An Efficient Method for Purification of Galectin-12 Protein and Analysis of Binding Specificity **S.-H. Yeh and L. Wan.** Natl. Def. Med. Ctr. and China Med. Univ., Taiwan.
- A155 **884.22** Screening and Characterization of Hyper Jasmonic Acid Producing Mutant of *Lasiodiplodia theobromae* **D.D. Patel and V.R. Thakkar.** BRD Sch. of Biosci., Sardar Patel Univ., India.
- A156 **884.23** Serum Level of ANGPTL6 in Metabolic Syndrome and Its Up- and Downstream Targets **B.I. Yeh and J. Namkung.** Yonsei Univ. Wonju Col. of Med., South Korea.
- A157 **884.24** Analyzing the Metabolic Microenvironment of Co-cultured Stem Cells and Cardiomyocytes **A.S. Ferng, A.O. Medina, D. Schipper, A. Connell, K. Penick and Z. Khalpey.** Univ. of Arizona.

- A158 **884.25** Palmitoleic Acid (C16:1n7) Treatment Enhances Fatty Acid Oxidation and Oxygen Consumption in White Adipocytes **M.I.C. Alonso-Vale, M.M. Cruz, A. Bolsoni-Lopes, R.D.C.C. de Sá and P.B.M. de Andrade**. Fed. Univ. of São Paulo; Cruzeiro do Sul Univ., São Paulo and Univ. of São Paulo.
- A159 **884.26** Gcn5-Like Protein 1 Regulates Unfolded Protein Response and Hepatic Glucose Production **L. Wang, I. Scott, K. Han and M. Sack**. NHLBI, NIH and Univ. of Pittsburgh.
- A160 **884.27** Examination of Metabolism and Cellular Health in a *Saccharomyces cerevisiae* Model for TPI Deficiency **K.M. Squires, C. Barnes, K. Koziara, I. Fischer, A. Lellock and S. Hrizo**. Slippery Rock Univ.
- A161 **884.28** Differential Effect of High Fat Diet on Male Mice on Energy Intake, Hormones, Cellularity and Morphology of Tissue **A. Miller, S. Chakraborty, N. Wong, D. Adhikary and T.R. Chakraborty**. Adelphi Univ.; Cross Island Lab., Mineola and New York City Col. of Technol./CUNY.
- A162 **884.29** Hepatic Metabolism of 3-Hydroxypropionate, a Byproduct in Propionic Acidemia **K.A. Wilson, Y. Han, J. Koshy, H. Brunengraber, G.P. Tochtrop and G. Zhang**. Case Western Reserve Univ.
- A163 **884.30** Ketones Increase ROS by Upregulating NADPH Oxidases in T1D Liver and Hepatocytes **P. Kanikarla Marie and S. Jain**. LSU Hlth. Sci. CTr., Shreveport.
- A164 **884.31** Investigation of *Nocardioides* sp. Metabolic, Structural, Biochemical Properties, and Its Potential Role in the Sulfur Cycle **K.K. Lachmayr and E. Oduaran**. Roger Williams Univ.
- A165 **884.32** Morphological Alteration of Murine MC3T3-E1 Osteoblastic Cells Induced by Inorganic Polyphosphate **K. Tsutsumi, N. Saito, Y. Kawazoe, H-K. Ooi and T. Shiba**. Hokkaido Univ. Fac. of Hlth. Sci.; Hokkaido Univ. Grad. Sch. of Med.; Regenetics Inc., Tokyo and Azabu Univ., Japan.
- A166 **884.33** A Structural Analysis of the PKC δ VIII Variant Region and Cross Talk with Cell Survival Pathways **A.C. Anselme, A. Roki, K.A. Urbina, B.M. Brooks, I. Semer, N.A. Patel and A.C. Shor**. Saint Leo Univ., FL; James A. Haley Veterans Hosp., Tampa and Univ. of South Florida.
- A167 **884.34** Age-Associated Alterations in Mitochondrial Architecture and Motility in Vascular Smooth Muscle **S. Chalmers, C. Saunter, J.M. Girkin and J.G. McCarron**. Univ. of Strathclyde and Durham Univ., U.K.
- A168 **884.35** NOX2-Dependent ROS Production Is Essential for the Response to Endurance Exercise in Skeletal Muscle **C. Henriquez-Olguin, D. Valladares, A. Diaz-Vegas, Y. Utreras-Mendoza, C. Campos, P. Llanos, A. Contreras-Ferrat, A. Espinosa, F. Altamirano, M. Arias Calderón and E. Jaimovich**. Univ. of Chile and Univ. of California, Davis.
- A169 **884.36** Altered ATP Extrusion and Mitochondrial Calcium Transients in Aged Mice **A. del Campo, I. Contreras, Y. Utreras and E. Jaimovich**. Univ. of Chile.
- A170 **884.37** Regulation of Betaine Homocysteine Methyltransferase by 3',5'-Adenosine Bisphosphate **O. Dorosheva and B. Spiegelberg**. Rider Univ., NJ.
- A171 **884.38** Large-Scale Integrated Microfluidics for Protein Modification Discovery in Quasi-cellular Environments **A. Tzur, M. Noach, H. Nevenzal, Y. Glick, E. Chorni, D. Avrahami, E. Barbiro-Michaely and D. Gerber**. Bar-Ilan Univ.
- A172 **884.39** Characterization of Aldolase and Transaldolase Activities in *Acidobacterium capsulatum* **H. Wall, P. Trujillo, A. Broad and L. Sommerville**. Fort Lewis Col., CO.
- A173 **884.40** Chemical Dissection of the Cell Cycle: Identification of Novel Compounds for Dissecting the Mechanisms of Cell Division and Developing Cancer Therapies **J. Torres and S. Senese**. UCLA.
- A174 **884.41** The Mid1 and Mid2 Ubiquitin Ligases Associate with Astrin and Regulate Astrin Levels during Cytokinesis to Promote Proper Cell Abcission **J. Torres and A. Gholkar**. UCLA.
- A175 **884.42** Plasma-Membrane Repair Is Regulated Extracellularly by Proteases Released from Lysosomes **T. Castro-Gomes, M. Corrotte, C. Tam and N.W. Andrews**. Univ. of Maryland College Park.
- A176 **884.43** *Drosophila melanogaster* with a Glycolytic Enzymopathy Exhibit Altered Circadian Patterns but Not Altered Egg Production and Fertilization Levels **R. Hollingsworth, E. Finver, J. Stonebraker and K. Yacobucci**. Slippery Rock Univ.
- A177 **884.44** Mutations at Proposed Phosphorylation Sites in Flagellar Inner Arm Dynein Protein IC138 of *Trypanosoma brucei* **K.T. Rios, T.A. Takats, M.L. Fuhrman, A.L. Volpe and A.L. Springer**. Siena Col., NY.
- A178 **884.45** Supplementation of Folic Acid Attenuates Hepatic Inflammation in High Fat Diet Fed Mice **V. Sid, Y. Shang, L. Sarna, P. Wang, Y.L. Siow and K. O.** Univ. of Manitoba and St. Boniface Hosp. Res. Ctr.
- A179 **884.46** Quantifying Ligand Binding and Signal Transduction in *Escherichia coli* Using the Taz Chimera **R. Desmond and A.J. Piefer**. Hartwick Col., NY.
- A180 **884.47** Effects of Cadmium on Epigenetics of Cytoskeletal Genes in CHO Cells **I. Colón Rodríguez and J.A. Negrón Berrios**. Inter American Univ. of Puerto Rico-Barranquitas.
- A181 **884.48** Enzyme Activities of Muscle Tissue Lysates Can Be Unexpectedly Affected by Protease Inhibitor Cocktails **C.S. Hoegler, T. Cassella and C.F. Blando-Hoegler**. Mount St. Mary Col. and Pace Univ., NY.
- A182 **884.49** Determination of Methods to Separate and Analyze Small and Large Chain Isoprenoids from *Mycobacterium tuberculosis* **A.R. Guthrie and F.M. Mann**. Winona State Univ.
- A183 **884.50** Optimization of a Copper Sulfate Method to Quantify Hemoglobin for Use in Underdeveloped Countries **M.S. Stumpf and T. Randolph**. Saint Louis Univ.
- A184 **884.51** Site-Specific Synergistic and Antagonistic Interactions of Calcium and Zinc on Mitochondrial Function **M.S. Sharaf, M.R. van den Heuvel, D. Stevens and C. Kamunde**. Atlantic Vet. Col., Univ. of Prince Edward Island.
- A185 **884.52** *MTND1* Mutation Causes Dysfunction of Lactate Turnover by Metabolic Shift from Anabolism to Catabolism in hiPSC-Derived Hepatocytes **Y-M. Han, I. Im, J-H. Choi and H. Yoo**. KAIST, Daejeon and Asan Med. Ctr. Children's Hosp., Univ. of Ulsan Col. of Med., South Korea.
- A186 **884.53** Determination of Citrate Synthase and Phosphoenolpyruvate Carboxykinase Expression in Eared Grebes (*Podiceps nigricollis*) Preparing for Migration **V.K. Thorngren, A. Brent, S. Luu, A. Bergen, C. Grey, H.I. Ellis and J.J. Provost**. Univ. of San Diego.
- A187 **884.54** Glycoprotein Labeling with Click Chemistry **Z. Wu, X. Huang, A. Burton and K. Swift**. Biotechnne, MN and Biotechnne, Bristol, U.K.
- A188 **884.55** Mutational Analysis of the Cell Division Inhibitor MinC **C.J. LaBreck and J.L. Camberg**. Univ. of Rhode Island.

- A189 **884.56** Neuronal Nitric Oxide Synthase Phosphorylation under Normal and Insulin-Resistant Conditions in Mouse Skeletal Muscle **K. Hinchee-Rodriguez, R. Kar, M.L. Adamo, B.S. Masters and L.J. Roman.** Univ. of Texas Hlth Sci. Ctr. at San Antonio.
- A190 **884.57** Identification of Suppressor Genes in the Yeast Model of Cystinosis **J. Simpkins, K. Rickel, M. Madeo, B. Ahlers, H. Nelson and S. Phillips Vitiello.** Augustana Col., SD and Sanford Res., Sioux Falls, SD.
- A191 **884.58** Inflammatory and Metabolic Changes following Bariatric Surgery **N.N. Wijayatunga, V.G. Sams, C.D. Blackledge, N. Siriwardhana, M.L. Mancini, G.J. Mancini and N. Moustaid-Moussa.** Col. of Human Sci., Texas Tech Univ. and Univ. of Tennessee Med. Ctr., Knoxville.
- A192 **884.59** Increasing Cell Potential of a Microbial Fuel Cell Using Enzyme Modification **E.J. Moore and A.J. Piefer.** Hartwick Col., NY.
- A193 **884.60** IRBIT Is a Novel Regulator of Ribonucleotide Reductase in Higher Eukaryotes **M. Dasso and A. Arnaoutov.** NICHD, NIH.
- A194 **884.61** Time-Course Characterization of Burn-Induced Coagulopathy Using a Systems Biology Approach **S. Srinivasan, J.W. Shupp, D. Donohue, B.N. Hamilton, L.T. Moffatt, R. Hammamieh and M. Jett.** The Geneva Fndn., Tacoma, WA; MedStar Washington Hosp. Ctr.; MedStar Hlth. Res. Inst., Washington, DC and U.S. Army Ctr. for Envrn. Hlth. Res., Fort Detrick, MD.
- A195 **884.62** MnSOD/SOD2 Upregulation Sustains the Warburg Effect via Mitochondrial ROS and AMPK-Dependent Signaling in Cancer **P.C. Hart, M. Mao, A.L. de Abreu, K. Fricano, D. Ekoue, R.D. Minshall, A.M. Diamond and M. Bonini.** Univ. of Illinois at Chicago.
- A196 **884.63** Cytochrome P450 Expression Revealed in Long Bone Growth Plates **S.P. Panda, D.L. Kellogg III, K. Tang and B.S.S. Masters.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- A197 **884.64** Therapeutic Effects of Pure *Aloe vera* Gel on Alloxan-Induced Diabetic Animal Models **N.A. Imaga, G.E. Obominiru, O.O. Oyadina and U.A. Okafor.** Fac. of Basic Med. Sci., Univ. of Lagos, Nigeria and Albany State Univ.
- A198 **884.65** Tissue Homocysteine Levels are Negatively Correlated with Mitochondrial ETC Complex I Gene Expression in Mice **R. Cueto, H. Shan, X. Yang and H. Wang.** Temple university.
- A199 **884.66** Detection and Identification of Biochemical Molecules Secreted by Entamoeba Varieties for Taxa Discrimination Based on Aggregative Behavior **S. McDonough, J. Leitao and A. Espinosa.** Roger Williams Univ.
- A200 **884.67** Hypothetical Protein Synw_0921 and Copper Response in *Synechococcus* sp. WH8102 **A. Gnann, A. George Thompson and M. McEvoy.** Univ. of Arizona.
- A201 **884.68** Peroxiredoxin 3 Has a Crucial Role in the Contractile Function of Skeletal Muscle via Regulating Mitochondrial Homeostasis **Y.J. Shin, J.Y. Choi, K-P. Lee and K-S. Kwon.** Korea Res. Inst. of Biosci. and Biotechnol., Daejeon.
- 885. LIPID METABOLISM AND DISEASES**
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:55 PM—2:25 PM*
- A202 **885.1** Peroxiredoxin 2 Deficiency Exacerbates Platelet Activation in Apolipoprotein E-Deficient Mice **S.b. Wang, J.Y. Jang, J.Y. Baek and T-s. Chang.** Ewha Womans Univ.
- A203 **885.2** Using Yeast to Develop Anti-Tumor Therapeutic Agents That Cause Liponecrotic Death of Cancer Cells by Remodeling Lipid Metabolism **V. Titorenko, A. Arlia-Ciommo, A. Leonov and A. Piano.** Concordia Univ., Canada.
- A204 **885.3** Hepatic Carboxylesterase 1 Is Essential for Both Normal and Farnesoid X Receptor-Controlled Lipid Homeostasis **J. Xu, Y. Li and Y. Xu.** Northeast Ohio Med. Univs.
- A205 **885.4** Atorvastatin Induces Hepatic NgBR Expression by Regulating Geranylgeranylation of Rho Protein **W. Zhang, Y. Chen, Y. Duan and J. Han.** Nankai Univ., China.
- A206 **885.5** Deregulation of Mitochondrial Sphingolipid Metabolism in Diabetes **S.A. Novgorodov, C.L. Riley, J. Yu and T.I. Gudz.** Med. Univ. of South Carolina.
- A207 **885.6** NEFAs Activate the Oxidative Stress-Mediated NF- κ B Signaling Pathway to Induce Inflammatory Response in Calf Hepatocytes **X. Li, G. Liu and X. Shi.** Jilin Univ., China.
- A208 **885.7** Demethyleneberberine Attenuates Free Fatty Acid- and High Fat Diet-Induced Hepatic Lipotoxicity by Activating AMP-Activated Protein Kinase **X. Qiang, L. Xu, P. Zhang, Y. Zhang and H. Zhou.** China Pharmaceut. Univ., Nanjing and Virginia Commonwealth Univ.
- A209 **885.8** Improvement on Lipid Abnormalities in Diabetes by *Eryngium carlinae* **R. Noriega-Cisneros, R. Salgado-Garciglia, M. Clemente-Guerrero, C. Cortés-Rojo, E. Esquivel-Gutiérrez, R. Montoya-Pérez and A. Saavedra-Molina.** Univ. Michoacana de San Nicolás de Hidalgo, Mexico.
- A210 **885.9** ApoE Containing HDL Subspecies: Their Ability to Inhibit Key Steps in the Atherosclerotic Process **E. Newman, A. Heink, S. Davidson, J. Melchior, S. Street and A. Shah.** Cincinnati Children's Hosp. Med. Ctr.; Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol. and Univ. of Cincinnati Metab. Dis. Inst.
- A211 **885.10** Induction of Neuron-Specific Degradation of Coenzyme A Reduces Motor Coordination in Mice **R. Leonardi and S. Jackowski.** West Virginia Univ. and St. Jude Children's Res. Hosp.
- A212 **885.11** Bis(monoacylglycero)phosphate: An Unusual Macrophage-Associated Phospholipid **Z. Akgoc, S. Iosim and T.N. Seyfried.** Boston Col.
- A213 **885.12** Topological Difference but Dysfunctional Conservation of Cardiolipin Remodeling in Yeast and Mammals **S.M. Claypool, Y-W. Lu, L. Galbraith, E. Gottlieb and F.M. Vaz.** Johns Hopkins Univ. Sch. of Med.; Univ. of Glasgow and Acad. Med. Ctr., Amsterdam.
- A214 **885.13** Sphingolipid Pathway Regulates Innate Immune Responses at the Fetomaternal Interface during Pregnancy **K. Mizugishi and K. Yamashita.** Kyoto Univ. Hosp.

- A215 **885.14** Novel Regulatory Mechanism in Pancreatic beta-Cell Dysfunction **G. Lee**. Sch. of Biol. Sci., Seoul Natl. Univ.
- A216 **885.15** Ablation of Perilipin 1 Alters Whole Body Glucose Homeostasis **J-H. Sohn, Y.K. Lee, J.S. Han and J.B. Kim**. Seoul Natl. Univ. Sch. of Biol. Sci.
- A217 **885.16** The Effects of Cinnamon Extract on 3T3-L1 Pre-adipocyte Differentiation and Cell Size **A. Stockert, D. Kinder, E. Freeh, S. Newstead and A. Aulthouse**. Ohio Northern Univ.
- A218 **885.17** Macrophage Very Low Density Lipoprotein Receptor Regulates Adipose Tissue Inflammation in Obesity **K.C. Shin**. Sch. of Biol. Sci., Seoul Natl. Univ.
- A219 **885.18** Silibinin Protects Hepatocytes from Lipotoxicity by Inducing AMPK Phosphorylation and miRNA130a Expression **I. Barbagallo, G. Li Volti, L. Vanella, A. Zappalà, F. Galvano and F. Salomone**. Univ. of Catania and Hosp. of Acireale, Italy.
- A220 **885.19** Sphingosine 1 Phosphate Synthesis Controls the Preservation of Epithelial Barrier during MDCK Cell Differentiation **B.J. Santacreu, N.B. Sterin de Speziale and N.O. Favale**. Fac. of Pharm. and Biochem., Univ. of Buenos Aires.
- A221 **885.20** Importance of the Sphingolipid Metabolism in the Acquisition of Final MDCK Differentiation **L.G. Pescio, N.O. Favale and N.B. Sterin de Speziale**. Fac. of Pharm. and Biochem., Univ. of Buenos Aires.
- A222 **885.21** Alcohol Induces Angiopoietin Like-3 in the Liver: Implications for Alcohol-Induced Hypertriglyceridemia **P. Sadana, J. Burke, A. Jogasuria, A. Darvesh, W. Geldenhuys, J. Wu and M. You**. Northeast Ohio Med. Univ.
- A223 **885.22** Glycerol-3-Phosphate Generation in Liver of Mice with Non-acholic Fatty Liver Disease Treated with *Momordica charantia* **B.S.O. Lemos, M.A.R. Garófalo, I.C. Kettelhut and M.E.S.M. Santos**. Univ. of São João Del Rei and Ribeirão Preto Med. Sch., Univ. of São Paulo.
- A224 **885.23** Metabolism of 4-Hydroxynonenal in Rat Organs in Response to Ethanol Feeding **Z. Jin, I. Tsai, X. Sun, G. Tochtrop and G. Zhang**. Case Western Reserve Univ.
- A225 **885.24** ATGL-Catalyzed Lipolysis Regulates SIRT1 to Control PGC-1 α /PPAR- α Signaling **A. Sathyanarayan, S.A. Khan, M.T. Mashek and D.G. Mashek**. Univ. of Minnesota.
- A226 **885.25** Targeting *Plasmodium falciparum* Phosphoethanolamine Methyltransferase for Malaria Therapy **C. Ben Mamoun and V. Kumar**. Yale Univ.
- A227 **885.26** The Association of Lipoprotein Lipase and Phosphatidylinositol 3-Kinase with Macrophage Lipid Accumulation **E.R. Courage, M.N. Fitzpatrick, R.F. Elliott, Y. Yang and R.J. Brown**. Mem. Univ. of Newfoundland.
- A228 **885.27** Monolysocardiolipin/Cardiolipin Ratio of Intact Leukocytes as Novel Tool for the Screening of Barth Syndrome **A. Corcelli, R. Angelini, S. Lobasso, A. Bowron and C.G. Steward**. Univ. of Bari Aldo Moro; Univ. Hosps. Bristol and Bristol Royal Hosp. for Children.
- 886. PROTEIN-LIPID INTERACTIONS AND LIPID BINDING PROTEINS**
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:55 PM–2:25 PM*
- A229 **886.1** Investigating Membrane Binding Properties of Marburg and Ebola Virus Matrix Protein - VP40 **K.J. Wijesinghe and R.V. Stahelin**. Univ. of Notre Dame and IU Sch. of Med.-South Bend.
- A230 **886.2** Hsp70 Associates with Lipid Membranes as Part of the Extracellular Export Mechanism **A. De Maio, V. Lopez, G. Armijo, D.M. Cauvi and N. Arispe**. UCSD and Uniformed Svcs. Univ. of Hlth. Sci.
- A231 **886.3** Functional Studies of Ebola Virus Matrix Protein VP40 **K. Del Vecchio, S. Soni, E. Adu-Gyamfi, E. Ollmann Saphire and R. Stahelin**. Univ. of Notre Dame; Indiana Univ. Sch. of Med. and The Scripps Res. Inst.
- A232 **886.4** Live-Cell Imaging of Ebola Virus Matrix Protein VP40 **C.T. Frick, E. Ollmann-Saphire and R.V. Stahelin**. Univ. of Notre Dame; The Scripps Res. Inst. and Indiana Univ. Sch. of Med., South Bend.
- A233 **886.5** Intracellular Trafficking of Vitamin E by the α -Tocopherol Transfer Protein **S. Chung, J. Atkinson, R. Parker and D. Manor**. Case Western Reserve Univ.; Brock Univ., Canada and Cornell Univ.
- A234 **886.6** Investigating the Role of Cellular Lipid Recognition in Trafficking and Viral Particle Formation by Ebola Virus Matrix Protein VP40 **K.A. Johnson and R.V. Stahelin**. Univ. of Notre Dame and Indiana Univ. Sch. of Med., South Bend.
- A235 **886.7** Discovery of Ceramide 1-Phosphate Binding Proteins **C.M. Shirey and R.V. Stahelin**. Univ. of Notre Dame and Indiana Univ. Sch. of Med., South Bend.
- A236 **886.8** A Pressure-Dependent Model for the Regulation of Lipoprotein Lipase by Apolipoprotein C-II **N. Meyers, M. Larsson, G. Olivecrona and D.M. Small**. Boston Univ. Sch. of Med. and Umea Univ., Sweden.
- A237 **886.9** Serum Amyloid A 1.1 Forms a Conformational Temperature Sensor at the Lipid Surface **O. Gursky, M. Faendrich and S. Jayaraman**. Boston Univ. Sch. of Med. and Ulm Univ., Germany.
- A238 **886.10** Characterization of the C-Terminal Domain of Human Apolipoprotein A-I via a Novel Apolipoprotein Chimera **J.V. Horn, R.A. Ellena, J.J. Tran, V. Narayanaswami and P.M. Weers**. California State Univ. Long Beach.
- A239 **886.11** Biochemical Characterization of the Interaction between Hsp70s and Lipids **B. Kdeiss, C. McCallister and N. Nikolaidis**. California State Univ. Fullerton.
- A240 **886.12** The Two Faces of Pal: Elucidating the Two Orientations of Pal Protein in *Escherichia coli* **B. D'Arcy, J. Shaw, M. Pichichero and L.V. Michel**. Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol. and Rochester Gen. Hosp.

- A241 **886.13** All or Nothing Surface Exposure of the Lipoprotein Pal in *Escherichia coli* **J. Shaw, V. MacPherson, D. Barnard, B. D'Arcy, M. Pichichero and L.V. Michel.** Sch. of Chem. and Mat. Sci., Rochester Inst. of Technol. and Rochester Gen. Hosp.
- A242 **886.14** Determining the Role of Oxysterol Binding Protein-Related Protein 4 in Cell Proliferation and Survival **A. Pietrangelo, M. Charman and N.D. Ridgway.** Dalhousie Univ., Canada.
- A243 **886.15** Making the Membrane Disappear with Spontaneous Membrane Translocating Peptides **W.C. Wimley, T. Fuselier and J. He.** Tulane Univ. Sch. of Med.
- A244 **886.16** A Study of Lipid Interactions for the Exchangeable PAT Protein, Perilipin 3 **S.S. Rathnayake, M. Mirheydari, H. Frederick, S. Cocklin, E.K. Mann and E.E. Kooijman.** Kent State Univ. and Drexel Univ. Col. of Med.
- A245 **886.17** High Resolution Field Cycling NMR Relaxometry Identifies Novel Phospholipid Binding Sites on PTEN and the Akt1 PH Domain **M.F. Roberts, B. Stec, C.S. Gradziel, Y. Wei and A.G. Redfield.** Boston Col. and Brandeis Univ.
- A246 **886.18** Competition Binding between a Monoclonal Antibody and Serum Albumin for Several Lysophosphatidic Acid Isoforms in Solution **J. Wojciak and J. Fleming.** Lpath Inc., San Diego.
- A247 **886.19** Molecular Mechanism of ESCRT-III Filament Formation **J. McCullough, L.A. Colf, M.G. Saunders, M.S. Lalonde, G. Mercenne, W.I. Sundquist and A. Frost.** Univ. of Utah.
- A248 **886.20** Novel Antiviral Agents: Design, Identification and Characterization of Interfacially Active Peptide Entry inhibitors **J. He and W.C. Wimley.** Tulane Univ.
- A249 **886.21** **Withdrawn.**
- A250 **886.22** Autoregulation of the Nervous Wreck F-BAR Domain Favors Self-Assembly and Membrane Deformation **C. Kelley, E. Messalaar, T. Eskin, T. Stanishneva-Konovalova, O. Sokolova and A. Rodal.** Brandeis Univ. and M.V. Lomonosov Moscow State Univ.
- A251 **886.23** What Makes Phosphatidylserine a Novel Regulator of Ceramide-1-Phosphate Transfer Proteins? **X. Zhai, D.K. Simanshu, H.M. Pike, J. Mundy, J.G. Molotkovsky, D.J. Patel, L. Malinina and R.E. Brown.** Univ. of Minnesota, Austin; Mem. Sloan Kettering Cancer Ctr.; Univ. of Copenhagen and Shemyakin Ovchinnikov Inst. of Bioorg. Chem., Russian Acad. of Sci., Moscow.
- 887. PLANT METABOLISM**
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:05 PM—1:35 PM*
- A253 **887.1** Plant Growth Promoting Activity, Induction of Systemic Resistance and Control of Collar Rot Disease in *Arachis hypogaea* L. by a Novel *Pseudomonas* Species **R.R. Patel, V.R. Thakkar and R.B. Subramanian.** BRD Sch. of Biosci., Sardar Patel Univ.
- A254 **887.2** Effects of Metal Ions on Proanthocyanidin-Protein Interactions **M.A. Geibel and A.E. Hagerman.** Miami Univ.
- A255 **887.3** Mechanism of Plant Growth Promoting Activity of *Burkholderia* Species **V.R. Thakkar and R.R. Patel.** BRD Sch. of Biosci., Sardar Patel Univ.
- A256 **887.4** Histopathology for the Influence of CMV Infection on Tomato Cellular Structures **M.S. Montasser and A.M. Al-Ajmy.** Univ. of Kuwait.
- A257 **887.5** Decreasing Ruminant Methane Production through 3-Deoxyproanthocyanidin-Rich Forages **R.J. Sepela and A.E. Hagerman.** Miami Univ.
- A258 **887.6** Species-Specific Enzymatic Tolerance of Sulfide Toxicity in Plant Roots and Comparative Susceptibility between Plant and Catfish Tissue **N.M. Martin, Y. Kobayashi and B.R. Maricle.** Fort Hays State Univ., KS.
- A259 **887.7** Target and Non-target Metabolomics Profiling of Different Barley Varieties Affected by Enhanced Ultraviolet Radiation and Various C:N Stoichiometry **M. Oravec, K. Novotná, P. Rajsnerová, B. Veselá, O. Urban, P. Holub and K. Klem.** Czechglobe, Brno and Mendel Univ., Czech Republic.
- A260 **887.8** Use of Antagonistic Peptide Technology to Determine the CLE Peptides that Regulate Root Growth in *Arabidopsis* **S. Hasan, A. Racolta, M. Wierzba and F. Tax.** Univ. of Arizona.
- A261 **887.9** Systems Analysis of Soybean Seed Development: Lipid Body Ontogeny **J.A. Miernyk, R.S. Wilson, M.L. Johnston and J.J. Thelen.** USDA, Columbia and Univ. of Missouri-Columbia.
- A262 **887.10** Early Changes in Host Response to *C. Liberibacter asiaticus* Infection in Citrus **E. Chin, D. Mishchuk, C. LeVesque, E. Foster, K. Godfrey and C. Slupsky.** Univ. of California, Davis and California Citrus Res. Bd., Riverside.
- A263 **887.11** Substrate Specificity for Grape L-Idonate Dehydrogenase **S. Steiner and K. McKinley.** Hanover Col., IN.
- A264 **887.12** Defense Responses of *Nicotiana benthamiana* 14-3-3 Genes in Virus-Induced Effector-Triggered Immunity **J.L. Spencer, S. Sobhanian and M.A. Sacco.** California State Univ. Fullerton.
- A265 **887.13** Cloning and Expression of Cryptochrome Proteins from *Arabidopsis thaliana* **J. Dyer and M. Philippe.** Montclair State Univ.

- A266 **887.14** The Comparison of Growth, Bioaccumulation of Heavy Metals, and *Cia7* Gene Expression Levels between Two Strains of *Chlamydomonas reinhardtii* **J. Garcia, Jr., L. De Llano, A. Sanchez, Jr. and R. Ynalvez**. Texas A&M Intl. Univ.
- A267 **887.15** Diversification of Tyrosine Biosynthetic Pathways in Plants: Non-plastidic, Tyrosine-Insensitive Prephenate Dehydrogenases in Legumes **H.A. Maeda, C.A. Schenck and S. Chen**. Univ. of Wisconsin-Madison.
- A268 **887.16** Cloning and Expression of Cryptochrome Proteins from Sunflower **J. Vercellino and J. Dyer**. Montclair State Univ.
- A269 **887.17** Identification and Sequence Comparison of Carbohydrate Oxidase Enzyme from Plant Sources **K.R. Daggett and J.A. Maki**. The Col. of St. Scholastica, MN.
- A270 **887.18** The Activation of Dopa Activity in Polyphenol Oxidases by Catechol **J.M. McCluskey, M.B. LeMon and P.J. Stein**. The Col. of St. Scholastica, MN.
- A271 **887.19** Heavy Metals and Gene Expression in Plant Stomata **Y.M. Hernández Miranda and J.A. Negron**. Inter American Univ. of Puerto Rico-Barranquitas.
- A272 **887.20** Isopentenyl Diphosphate Inhibition of Thiamin Diphosphate Enzymes, Especially Deoxyxylulose 5-Phosphate Synthase **T.D. Sharkey, A. Banerjee and L.E. Cheaney**. Michigan State Univ.
- A273 **887.21** Lipid Reservoir Remodeling during Plant Germination **S. Parekh, G. Waschatko, N. Billecke, S. Schwendy, H. Jaurich, M. Bonn and T. Vilgis**. Max Planck Inst. for Polymer Res. Mainz.
- A274 **887.22** Foliage Accumulation of Aliphatic Hydrocarbons in *Solanum melongena* Grown on Crude Oil Polluted and Remediated Agricultural Soil **R.C. Ohiri, E.E. Basse and B. Onyegeme-Okerenta**. Univ. of Port Harcourt, Nigeria.
- A275 **887.23** Engineering High Value Oil Production into Biofuel Crops **J. Chappell, C. Kempinski and Z. Jiang**. Univ. of Kentucky.
- A276 **887.24** Inositol Signaling Interactors as Potential Regulators of Growth, Energy Sensing, and Biomass in Plants **J.L. Donahue, F.L. Erickson, E. Ananieva, S.P. Williams, P. Rangarajan and G. Gillaspay**. VPI and State Univ.; Salisbury Univ., MD and Des Moines Univ.
- A277 **887.25** Variations in the Phytochemical and Antioxidant Activity of some Nigerian and Imported Fruits: A comparative study **O.A. Adeyemo, O. Adebesein, F.T. Adekoya, S. Adenekan and Y. Agbabiaye**. Univ. of Lagos, Nigeria.
- A278 **887.26** Systems Metabolic Engineering of *Arabidopsis* for Increased Cellulose Production **J.Y. Yen, G.E. Gillaspay and R.S. Senger**. Virginia Tech.
- A279 **887.27** The Role of Copper in the Oxidative Stress Response of *Chlamydomonas reinhardtii* to Heat Shock **M. Brann and O. Marcu**. Wellesley Col., MA and NASA Ames Res. Ctr., Moffett Field, CA.
- A280 **887.28** The Impact of Gene Duplication and Divergence on the Formation of Protein Complexes **A.B. Mehrtash, L.D. Holappa and E.M. Kramer**. St. Mary's Univ., TX and Harvard Univ.
- A281 **887.29** Gene Silencing to Increase Senescence in Cotton **M.L. Pixa, J. Donahue, S.P. Williams, P. Velander, S. James and G. Gillaspay**. Virginia Tech.
- A282 **887.30** Characterization of Suspected Cyclic di-GMP Metabolizing Genes in *Streptomyces scabies* **B.N. Bickers and J.A. Bennett**. Otterbein Univ., OH.

888. MOLECULAR MECHANISMS OF INFECTION AND IMMUNITY III

(Poster Session I scheduled on Sunday;
Poster Session II scheduled on Monday)

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A283 **888.1** Reevaluation of Molecular Mechanisms of Syk Activation **M.S. Mansueto, R. Miller, L. Rakhilina, A. Reens, A. Chi and B-S. Pan**. Merck Res. Labs., Boston.
- A284 **888.2** Lysine Malonylation as a New Inflammatory Signal **S. Galvan-Pena and L.A.J. O'Neill**. Sch. of Biochem. and Immunol., Trinity Col. Dublin.
- A285 **888.3** Genetic Engineering of the Murine Melanoma D5.1G4 to Express a Model Antigen for Evaluation of Anti-tumor CD8⁺ T Cell Responses **S.L. Woodall and K.M. Hargadon**. Hampden-Sydney Col., VA.
- A286 **888.4** A Cell-Permeable Phosphoantigen Prodrug Increases Response of V γ 9V δ 2 T Cells to Target Cells **A.M. Kilcollins, J. Li, C-H.C. Hsiao and A.J. Wiemer**. Univ. of Connecticut.
- A287 **888.5** Discovery of *Plasmodium falciparum* Antigens on the Surface of the Gametocyte-Infected Erythrocyte as Novel Candidates for the Development of Transmission-Blocking Vaccines **D. Tao, R. Pastrana-Mena, A. Tripathi, H. Zhang and R.R. Dinglasan**. Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- A288 **888.6** Acetylation of Human Mitochondrial Citrate Carrier Modulates Citrate/Malate Exchange to Sustain NADPH Production during Macrophage Activation **E.M. Palmieri, A. Menga, V. Porcelli, C.L. Pierri, D.C. Hooper and A. Castegna**. Univ. of Bari Aldo Moro, Italy and Thomas Jefferson Univ.
- A289 **888.7** Myeloid Thrombomodulin Regulates Vascular Inflammation in Abdominal Aortic Aneurysm **H-L. Wu, K-C. Wang and G-Y. Shi**. Natl. Cheng Kung Univ., Taiwan.
- A290 **888.8** Lectin-Like Domain of Tumor Endothelial Marker 1 Regulates Lipopolysaccharide-Induced Inflammatory Response **G-Y. Shi, C-Y. Ma and H-L. Wu**. Natl. Cheng Kung Univ., Taiwan.
- A291 **888.9** The Role of RING Dimerization in the E3 Ubiquitin Ligase Activity of the TRIM5 α Retroviral Restriction Factor **D. Ivanov, Z. Yudina, R. Johnson, N. Biris, A.B. Taylor, P.J. Hart and B. Demeler**. Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

- A292 **888.10** Characterization of the Immunological Properties of Retina-Specific Basigin Variant-1 **J.D. Ochriotor, K.B. Russell and K.M. McBride**. Univ. of North Florida.
- A293 **888.11** Exploring Suppressor of IKK Epsilon's Interaction with Cytoskeletal Proteins **J.B. Knoblauch, K.F. Lawrence and J.K. Bell**. Univ. of San Diego and Virginia Commonwealth Univ.
- A294 **888.12** Recognition Specificity of Leukocyte Integrin $\alpha_M\beta_2$ (Mac-1, CD11b/CD18) and its Functional Consequences **N.P. Podolnikova, V.K. Lishko, T.A. Haas and T.P. Ugarova**. Arizona State Univ. and Univ. of Saskatchewan.
- A295 **888.13** Molecular Indicators of Inflammation along Pathological Time-line of Post-traumatic Stress Disorder **S. Muhie, A. Gautam, N. Chakraborty, R. Hammamieh, J. Meyerhoff and M. Jett**. Frederick Natl. Lab for Cancer Res.; The Geneva Fndn., Tacoma and U.S. Army Ctr. for Envrn. Hlth. Res., Fort Detrick, MD.
- A296 **888.14** Targeting the γ -Herpesvirus Bcl-2 – Mediated Inhibition of Autophagy and Apoptosis **M. Su, Y. Mei, C. Colbert and S. Sinha**. North Dakota State Univ.
- A297 **888.15** Examining Fruit Flies with a Glycolytic Deficiency for Infection Susceptibility **A.J. Zelasco, R.C. Hollingsworth, J.A. Bible, A.H. Zelasco, S.L. Hrizo and E.X. Finver**. Slippery Rock Univ.
- A298 **888.16** Investigate Cigarette Smoke-Induced Interleukin-1 β Release and the Underlying Mechanism in Ovarian Cancer Cells **W.K. Sumanasekera, K. Truong and T. Beckmann**. Sullivan Univ. Col. of Pharm., KY.
- A299 **888.17** The Regulation and Role of L-Glutamine in B-Cell Activation **S.A. Heyse, T. Connolly and T.C. Chiles**. Boston Col.
- A300 **888.18** Neurotensin and Corticotropin-Releasing Hormone Synergistically Activate Human Microglia through Mammalian Target of Rapamycin Complex 1 **A.B. Patel, I. Tsilioni and T.C. Theoharides**. Tufts Univ. Sch. of Med.
- A301 **888.19** The N-Terminal Box 1 Tyrosine in the TIR Domain of TLR9 Is Critical for Endoplasmic Reticulum Egress and Maturation of the Receptor **C. Biswas, S. Rao, K. Slade, D.W. Hyman, D. Dersh, A. Mantegazza, Y. Argon, M. Marks and B.M. Edward**. Children's Hosp. of Philadelphia.
- A302 **888.20** A Novel Mouse Model to Study Chronic-Progressive Multiple Sclerosis **F. Gomez-Rivera, I. Raphael and T.G. Forsthuber**. Univ. of Puerto Rico at Ponce and Univ. of Texas at San Antonio.
- A303 **888.21** *Drosophila* FoxO Promotes Viral Immunity through the RNAi Pathway **M. Spellberg and M. Marr**. Brandeis Univ.
- A304 **888.22** Lysophosphatidylcholine Acyltransferase-2 Co-localises with TLR4 and Regulates Macrophage Inflammatory Gene Expression in Response to LPS **W. Abate and S.K. Jackson**. Peninsula Schs. of Med. and Dent.. Plymouth Univ., U.K.
- A305 **888.23** Dysregulated Cell Signaling in LPS-Stimulated Macrophages by Myeloid-Specific Conditional Knock Out of the Catalytic Subunit of Protein Phosphatase 2A **L. Sun, T. Pham and T.P. Shanley**. Univ. of Michigan Med. Sch.
- A306 **888.24** Extracellular RNA Activates Neutrophils via Toll-Like Receptor 7 **Y. Feng, H. Chen, G. Xu, L. Zou and W. Chao**. Massachusetts Gen. Hosp.
- A307 **888.25** LPS-Activated Scavenger Receptor SREC-I Can Induce Entry of TLR4 into Lipid Microdomains, Mediate Signal Transduction and Trigger Cytokine Release **A. Murshid, J. Gong and S.K. Calderwood**. Beth Isreal Deaconess Med. Ctr., Harvard Med. Sch. and Boston Univ. Med. Ctr.

889. SIGNALING IN DISEASE AND THERAPY**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A308 **889.1** Nrf2 Repression by Endoplasmic Reticulum Stress Facilitates Nonalcoholic Steatosis Progression to Steatohepatitis **J.H. Koo and S.G. Kim**. Seoul Natl. Univ. Col. of Pharm.
- A309 **889.2** Epigenetic Modification of the *Cpt1a* Gene at Birth by Developmental Bisphenol A Exposure May Program Microvesicular Steatosis in Adult Male Rats Consuming a High-Fat Diet **R.S. Strakovsky, H. Wang, N.J. Engeseth, J.A. Flaws, W.G. Helferich, S. Lezmi and Y-X. Pan**. Univ. of Illinois, Urbana.
- A310 **889.3** The Inability of Spry2 to Inhibit B-Raf V600E Activity Is Required for Induction of Resistance to B-Raf Inhibitor in B-Raf V600E Cells **B-I. Han, J-H. Ahn, G-H. Jang, N-Y. Kim and M. Lee**. Incheon Natl. Univ. and Korea Res. Inst. of Biosci. and Biotechnol., Daejeon.
- A311 **889.4** Kinome Screen Reveals SGK1 as a Therapeutic Target for NF2: Inhibition of mTORC1/2 Is More Effective than Rapamycin **R. Beauchamp, M. James, V. Wagh, P. DeSouza, W-N. Zhao, A. Stemmer-Rachamimov, S. Plotkin, J. Gusella, S. Haggarty and V. Ramesh**. Massachusetts Gen. Hosp.
- A312 **889.5** Pharmacological and Genetic Targeting of Rac1-Signaling: Protection from Anticancer Drug-Induced Normal Tissue Damage and Prevention of Chemical Hepatocarcinogenesis **G. Fritz, C. Henninger, J. Ohlig, A. Bopp, F. Wartlick and M. Merx**. Heinrich Heine Univ. Düsseldorf, Med. Fac.
- A313 **889.6** Examining the Impact of Point Mutations L1569H and L1663T on the Stability and the Secondary Structure of the Human Notch 2 Heterodimerization Region **I.M. Schoppa and S.M. Kim**. Wellesley Col., MA.
- A314 **889.7** The N Terminus-Mediated Regulatory Role of Type VI Adenylyl Cyclase in the Heart **Y-S. Wu, C-C. Chen, C-L. Chien, H-L. Lai, S-T. Jiang, W-P. Chen and Y. Chern**. Inst. of Biomed. Sci., Acad. Sinica, Taipei; Natl. Taiwan Univ.; Natl. Lab. Animal Ctr., Tainan and Natl. Defense Med. Ctr., Taipei.
- A315 **889.8** Anti-angiogenic Role of Glutaredoxin-1 in Hind Limb Ischemia **Y. Watanabe, C.E. Murdoch, R.A. Cohen and R. Matsui**. Boston Univ. Sch. of Med.
- A316 **889.9** Study of the Structural Composition and Stability of the Critical Interfacial α -Helix in the Negative Regulatory Region of the Notch Receptor **W.S. Ma and A. Wo**. Wellesley Col.

- A317 **889.10** The Effects of EGCG-Stearate on the Cellular Processes of HSV-1 Infected Vero Cells **V.M. Paschalis and Q.C. Vega**. Montclair State Univ.
- A318 **889.11** Blocking Glycoprotein-130 Pathway Decreases Bladder Cancer Growth **D.T. Martin, J.M. Steinbach, W.M. Saltzman and R.M. Weiss**. Yale Univ. and Univ. of Louisville.
- A319 **889.12** Antioxidant Effects of Nordihydroguaiaretic Acid on Oxidative Stress in *Caenorhabditis elegans* **A.M. Korell and P.T. Erickson**. Salisbury Univ., MD.
- A320 **889.13** Single-Pedicled Fasciocutaneous Flap Survival in Aged Rat Model of Chronic Alcoholism **E. Aksamitiene, S. Roy, K. Hobelmann, J. Rodin, G.V. Staltari, E.A. Pribitkin and J.B. Hoek**. Thomas Jefferson Univ.

890. EXTRACELLULAR MATRICES IN HEALTH AND DISEASE II

(Poster Session I scheduled on Monday)

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A321 **890.1** Lewis^x Promotes Migration of Oral Cancer Cells by Glycosylation of Epidermal Growth Factor Receptor **W-L. Lin, Y-S. Lin, G-Y. Shi, C-F. Chang and H-L. Wu**. Natl. Cheng Kung Univ., Taiwan.
- A322 **890.2** Structure-to-Function Characterization of *Saccharomyces cerevisiae* *STT3* **E.M. Ngwa and M. Aebi**. ETH Zurich.
- A323 **890.3** O-GlcNAcylation Affects the Tumorigenic Potential of Cervical Cancer Cells **N.M. Jaskiewicz, S. Parisi, C. Hermawan and D.H. Townson**. Univ. of New Hampshire.
- A324 **890.4** A Laminin 511 Matrix Is Regulated by TAZ and Functions as the Ligand for the $\alpha 6\beta 1$ Integrin to Sustain Breast Cancer Stem Cells **A.M. Mercurio, C. Chang, H. Gao, B. Pursell, J. Mao, K.K. McKee, P.D. Yurchenco and H.L. Goel**. UMASS Med. Sch. and Robert Wood Johnson Med. Sch.
- A325 **890.5** Role of CD47 in Triple Negative Breast Cancer **S. Kaur, S.P. Singh, A.G. Elkahloun, W. Wu, T. Song, A. Arora and D.D. Roberts**. NCI, NIH; NIAID, NIH and NHGRI, NIH.
- A326 **890.6** Pathological Lymphangiogenesis Is Regulated by Galectin-8-Dependent Crosstalk among VEGF-C, Podoplanin and Integrin Pathways **W-S. Chen, Z. Cao, H. Leffler, U.J. Nilsson, L. Xia and N. Panjwani**. Tufts Univ., Boston; Lund Univ., Sweden and Oklahoma Med. Res. Fndn.
- A327 **890.7** Molecular Characterization and Structural Determination of Nod2, an Innate Immune Receptor **M.L. Lauro, C. Grimes and B. Bahnson**. Univ. of Delaware.
- A328 **890.8** Hypo-glycosylated Human Follicle-Stimulating Hormone (hFSH²¹) Exhibits Higher Endocytic Rate for Recombinant hFSH Receptor than Fully-Glycosylated hFSH (hFSH²⁴) **R.E. Elsaid, V.Y. Butnev, V.Y. Butnev, J.V. May and G.R. Bousfield**. Wichita State Univ.
- A329 **890.9** Protein N-Glycosylation Is an Excellent Target for Developing Novel Breast Cancer Therapeutics **K. Baksi, A. Banerjee, U. Katiyar and D.K. Banerjee**. Univ. Central del Caribe, Sch. of Med.; Univ. of Puerto Rico Sch. of Med. and Inst. of Funct. Nanomaterials, San Juan, PR.

- A330 **890.10** DC-SIGN Binds 2-Fucosyl-Lactose at Concentrations Available in Human Milk **R.D. Cummings, Y. Yu, Y. Lasanajak, R. Buck, G. Duska-McEwen, P. Prieto and D.F. Smith**. Emory Univ. Sch. of Med. and Abbott Nutr., Columbus.
- A331 **890.11** Interaction of Disialyl Gangliosides GD2/GD3 with Growth Factor Receptors Sustains the Stem Cell Phenotype of Breast Cancer **Y-J. Liang**. Taoyuan Chang Gung Mem. Hosp., Taiwan.
- A332 **890.12** The Role of the C1q Domain of Zebrafish Otolin 1a in Otolith Morphogenesis **O. Das, D. Kadosh, A. Balogun, L. Heng, Y-J. Kang and R. Kollmar**. SUNY Downstate Med. Ctr.; Univ. at Buffalo and Univ. of Illinois at Urbana-Champaign.
- A333 **890.13** UVA Radiation Disturbed Type I Collagen Fibrillation by Enhancing Early Glycation **W. Liu, G.W. Dombi, C. Seneviratne and J.A. Dain**. Univ. of Rhode Island and Col. of the North Atlantic, Canada.
- A334 **890.14** Cell Surface Glycans as Markers of Shear Stimulated Stem Cells **L.D. Weinstock, A.E. Adeniran-Catlett, F.K. Bozal and S.K. Murthy**. Northeastern Univ.
- A335 **890.15** Deletion of Integrin-Associated CD151 Impairs Branching Morphogenesis and Activity of Progenitor Cells in the Mammary Gland **X. Yang and L.A. Baldwin**. Univ. of Kentucky.
- A336 **890.16** The Functional and Structural Analysis of a Mimetic Peptide of Human Hepatic Lipase **B.M. Coady, E.R. Courage, M.N. Fitzpatrick, K.E. Hickey, V.K. Booth and R.J. Brown**. Mem. Univ. of Newfoundland.
- A337 **890.17** Enhanced Self-Association of Mucins Possessing the Tn and Sialyl Tn Carbohydrate Cancer Antigens **C.F. Brewer, K.E. Haugstad, T.A. Gerken, B.T. Stokke and M. Sletmoen**. Albert Einstein Col. of Med.; Norwegian Univ. of Sci. and Technol. and Case Western Reserve Univ.
- A338 **890.18** The Effect of Mechanotransduction and ECM Proteins on the Development of Calcific Nodules: A Model System for CAVD **L. Baugh, G. Huggins, P.W. Hinds and L.D. Black**. Tufts Univ. and Sackler Sch. of Grad. Biomed. Sci., Tufts Med. Ctr.

891. ENZYME ALLSOTERY AND DYNAMICS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM—2:25 PM

- A339 **891.1** Characterization of Catalytically Relevant Fast Dynamics at the Active Site of Formate Dehydrogenase **Q. Guo, P. Pagano, H. Ye, C. Cheatum and A. Kohen**. Univ. of Iowa.
- A340 **891.2** Dynamic Regulation of p97 ATPase Activity by p37 and p47 Is Impaired in Pathogenic p97 IBMPFD/ALS Mutants **X. Zhang, L. Gui, T-F. Chou, D. Wong and D. Moen**. Harbor-UCLA and LABioMed, Torrance.
- A341 **891.3** Allosteric Ligand Specificity Determining Regions in the Dihydrofolate Reductase Family **N.M. Goodey, M. Little and S. Patel**. Montclair State Univ.
- A342 **891.4** Correlation between *Bacillus subtilis* RNase P Conformational Change and Dynamics of P4 Helix Mimic in RNase P RNA **Y. Chen, A.T. Frank, K. Petzold, X. Liu, C.L. Brooks III, H.M. Al-Hashimi and C.A. Fierke**. Univ. of Michigan; Karolinska Inst. and Duke Univ.
- A343 **891.5** Multiwavelength Collisional Quenching to Study Ligand Protein Interactions in Glutamate Dehydrogenase **C. Li and J.E. Bell**. Univ. of Richmond.

- A344 **891.6** The Linkage between Folding Cooperativity and Allostery: Glutamate Dehydrogenase **A. Tata, G. Kingdom and J.E. Bell.** Univ. of Richmond.
- A345 **891.7** Effect of Allosteric Mutations on Conformational Equilibrium of DHFR **M. Okondo, S. Cho and N. Goodey.** Montclair State Univ.
- A346 **891.8** Ramachandran Outliers in Protein Conformational Switches **K.H.J. West, R.D. Luke and W.R.P. Novak.** Wabash Col., IN.
- A347 **891.9** Probing the Mechanism by which Proteins Designed De Novo Function in Living Cells **K. Digianantonio and M. Hecht.** Princeton Univ.
- A348 **891.10** Tracing an Allosteric Pathway in *Escherichia coli* ADP-Glucose Pyrophosphorylase **B.L. Hill, J. Wong, F.B. Huerta, T.E. Manley, B.M. May and M.A. Ballicora.** Loyola Univ. Chicago.
- A349 **891.11** Study of Lactate Dehydrogenase Kinetics in Trehalose Solutions: Temperature Effect **J.M. Hernández-Meza and J.G. Sampedro.** Autonomous Univ. of San Luis Potosí, Mexico.
- A350 **891.12** Probing the Role of E304, K310, and P288 in the Allosteric Regulation of *Agrobacterium tumefaciens* ADPGlucose Pyrophosphorylase **H. Sayed, V. Duong and C.R. Meyer.** California State Univ. Fullerton.
- A351 **891.13** Studying *B. stearothermophilis* DHFR Y127A Mutant and Investigating Its Effect on Catalytic Activity **S.S. Cho, M. Okondo and N. Goodey.** Montclair State Univ.
- A357 **892.6** *E. coli* 16S Ribosomal RNA Degradation Pathways during Starvation and by Quality Control **S. Sulthana, G.N. Basturea, S. Tofajjen Hossain and M.P. Deutscher.** Univ. of Miami.
- A358 **892.7** Methionine Misacylation of tRNA on CaMKII in Response to ER Stress **X. Wang and T. Pan.** Univ. of Chicago.
- A359 **892.8** Discriminating Nature of the *B. anthracis* Aspartyl-tRNA Synthetases **J. Erskine and K. Sheppard.** Skidmore Col., NY.
- A360 **892.9** Dual Routes for *B. subtilis* Asparaginyl-tRNA Formation **H. Raff and K. Sheppard.** Skidmore Col., NY.
- A361 **892.10** Two Distinct Routes for Asparaginyl-tRNA Formation in *B. halodurans* **N. Nair and K. Sheppard.** Skidmore Col., NY.
- A362 **892.11** Discriminating Nature of the Aspartyl-tRNA Synthetases from Three Human Pathogens **M. Islam and K. Sheppard.** Skidmore Col., NY.
- A363 **892.12** Expanding the Genetic Code with Pyroglutamate **I. Da Silva and K. Sheppard.** Skidmore Col., NY.
- A364 **892.13** eYFP Reporter System for Pyroglutamate Incorporation **M. Calzini, S. Zhen and K. Sheppard.** Skidmore Col., NY.
- A365 **892.14** Contribution of tRNA^{Met} Core Flexibility to Aminoacylation **L. Macnamara and R. Alexander.** Wake Forest Baptist Med. Ctr.
- A366 **892.15** Fyn Kinase Is Responsible for Tyrosine Phosphorylation of Mitochondrial Ribosomal Proteins **H. Koc, J.L. Miller-Lee and E.C. Koc.** Marshall Univ. Sch. of Pharm.; Penn State and Marshall Univ. Sch. of Med.
- A367 **892.16** The Role of RNA Binding by eIF4G in mRNA Recruitment to the Human Ribosome **N. Villa and C. Fraser.** Univ. of California, Davis.

892. ENZYMOLOGY OF TRANSLATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A352 **892.1** Spermine specifically inhibits the RRF (ribosome recycling factor) reaction: In its presence, RRF still stimulates protein synthesis **N. Iwakura, A. Giuliadori, A. Kaji and H. Kaji.** Jefferson Med. Col.; Sch. of Biosci. and Biotechnol., Univ. of Camerino, Italy and Univ. of Pennsylvania Sch. of Med.
- A353 **892.2** Use of the Photoconvertible Fluorescent Protein Dendra2 to Track the Fate of Existing and Newly Synthesized Nrf2 under Basal and Induced Conditions in Single Live Cells **A. Flores and I. Arinze.** Meharry Med. Col.
- A354 **892.3** Refolding and Purification of Unmodified Human Elongation Factor 2 for the In Vitro Reconstitution of Diphthamide Synthesis **N.B. Patel, J.R. Ostovitz and J.E. Weldon.** Towson Univ., MD.
- A355 **892.4** Alternative Start Codon Is Associated to Production of Human Non-hypusinated EIF5A1 Isoform A **K.D. Pereira, L. Tamborlin, I.C.P.A. Almeida, L. Meneguello, R.F. Lourenço and A.D. Luchessi.** Sch. of Applied Sci., State Univ. of Campinas, São Paulo.
- A356 **892.5** Function and Regulation of Resistance Genes in Ketolide producing Bacteria **M.M. Almutairi, D.A. Hansen, S. Rose, S. Douthwaite, D.H. Sherman and A.S. Mankin.** Univ. of Illinois at Chicago; Univ. of Michigan and Univ. of Southern Denmark.
- A368 **893.1** Growth Factor Influences Rab5 Function in Breast Cancer **N. Porthier and M.A. Barbieri.** Florida Intl. Univ.
- A369 **893.2** Mapping G Protein-Coupled Receptor (GPCR) Docking Site on GPCR Kinase 2: New Insights from Intact Cell Studies **R. Sterne-Marr, K. Michalski, A. Beutrait, T. Lopez, K. Mannix, D. McDonald, A. Cutter, C. Francis, C. Medina, A. Hebert, M. Bouvier and J. Tesmer.** Siena Col., NY; Univ. of Montreal and Univ. of Michigan.
- A370 **893.3** Evolutionarily Divergent Proteins Utilize the G α -Binding and Activating Motif as a Conserved Module for Trimeric G Protein Activation **K. Sharma, B.D. Coleman, A. Marivin, J. Casler, L.T. Nguyen and M. Garcia-Marcos.** Boston Univ. Sch. of Med.
- A371 **893.4** Structural Basis for G α i Activation by a Non-receptor Protein **M. Garcia-Marcos, A. Ibanez de Opakua, K. Sharma, N. Merino, L.T. Nguyen, M. Villate, A. Leyme, A. Marivin, V. DiGiacomo and F.J. Blanco.** Boston Univ. and CIC-BioGune, Derio, Spain.
- A372 **893.5** Structural Analysis of the Constitutive Activity of the Chemokine Receptor CCR1 **C.T. Gilliland, I. Kufareva and T.M. Handel.** Skaggs Sch. of Pharm. and Pharmaceut. Sci., UCSD.

893. G PROTEINS AND PROTEIN KINASES

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A373 **893.6** RIN1 Mediated Rescue of Rab5 Activity: A Novel Insight on Pseudomonas-Phagosome Interaction **S. Mustafi, C. Stefansin, M. Ayala, M-L. Veisaga and M.A. Barbieri.** Florida Intl. Univ.
- A374 **893.7** Neutron Crystal Structure of Ras GTPase Sets New Paradigm for GTP Hydrolysis **R. Knihtila, G. Holzapfel, K. Weiss, F. Meilleur and C. Mattos.** Northeastern Univ.; North Carolina State Univ. and Oak Ridge Natl. Lab.
- A375 **893.8** Lysophosphatidic Acid Signaling Stimulates Cell Growth and Migration through Na⁺-H⁺ Exchanger Isoform 1 Phosphorylation at Multiple Locations **W. Swanson, K. Nordby, J.J. Provost and M.A. Wallert.** Minnesota State Univ. Moorhead and Univ. of San Diego.
- A376 **893.9** Phosphorylation of the Na⁺-H⁺ Exchanger Isoform 1 Initiated by α_1 -Adrenergic Receptor Signaling Regulates Cell Growth and Movement **A. Pius, A. Wood, J.J. Provost and M.A. Wallert.** Minnesota State Univ. Moorhead and Univ. of San Diego.
- A377 **893.10** Expression, Purification, and Crystallization of the K-Ras Q61L and D92Y Mutations **J. Henao, J.A. Parker and C. Mattos.** Northeastern Univ.
- A378 **893.11** C-Terminal Mutants of G α 12 Selectively Impaired in Ric-8a Binding **A.W. Schmitt, D.N. Brawley and T.E. Meigs.** Univ. of North Carolina Asheville.
- A379 **893.12** Probing the Structure and Function of the Helix-5 Water-Mediated Network in H-Ras **J.N. Sanchez, K. Marcus and C. Mattos.** Northeastern Univ.
- A380 **893.13** A Superfamily Reunion: Conserved Water Analysis of Small GTPases Using the Crystallography Tool DRoP **K. Marcus and C. Mattos.** Northeastern Univ.
- A381 **893.14** Daple, a Wnt Signaling Regulator, Is a Non-receptor GEF for Trimeric G Proteins **A. Marivin and M. Garcia-Marcos.** Boston Univ.
- A382 **893.15** Allosteric Control of Conformational States in Ras Regulate the Intrinsic Hydrolysis Reaction in the Complex with Raf **C.W. Johnson, S. Fetics, K. Davis, J. Rodriguez and C. Mattos.** Northeastern Univ. and North Carolina State Univ.
- A383 **893.16** Molecular Docking Analysis Identifies Potential Antagonists of Misregulated G α Proteins **J. Carroll, V. Ceja-Ruiz, K. Turcic, E. Jenkins, R. Habbal, M. Raub, J. Cruz, D.E. Walters and R. Pals-Rylaarsdam.** Benedictine Univ. and Col. of Pharm., Rosalind Franklin Univ. of Med. and Sci.
- A384 **893.17** A Protein Kinase C-Activated Motility Signaling Pathway in Human Breast Cells **S.A. Rotenberg, X. Zhao and S. De.** Queens Col. of CUNY and The Grad. Ctr., CUNY.
- A385 **893.18** Regulation of Ras1 through Phosphorylation in *Sachharomyces cerevisiae* **X. Jin, S.J. Starke, Y. Li and Y. Wang.** Saint Louis Univ.
- A386 **893.19** Identification of G α 12 and G α 13 Determinants of Binding to Cell Adhesion Proteins **J.R. Sims, J.G. Warstler, K.L. Huffman and T.E. Meigs.** Univ. of North Carolina at Asheville.
- A387 **893.20** Rapid In Vivo Screen of Pancreatic Adenocarcinoma Therapeutics **O. Ocal, V. Pashkov, G.H. Swift, R.A. Brekken and T.W. Wilkie.** Univ. of Texas Southwestern Med. Ctr.
- A388 **893.21** RGS6 Negatively Regulates D₂ Dopamine Receptor-Mediated Inhibition of Tyrosine Hydroxylase Ser40 Phosphorylation in Nigrostriatal Dopamine Neurons **Z. Luo, B. Maity, J. Yang, S. Alberico, K. Narayanan and R.A. Fisher.** Univ. of Iowa.
- A389 **893.22** Dynamin 2-Dependent Endocytosis Is Required for Normal Megakaryocyte Development **S. Giannini, M. Bender, R. Grozovsky, T. Jonsson, H. Christensen, F. Pluthero, W.H. Kahr, K.M. Hoffmeister and H. Falet.** Brigham and Women's Hosp.; Harvard Med. Sch.; The Hosp. for Sick Children, Toronto and Univ. of Toronto.
- A390 **893.23** Probing the Ras-Membrane Interaction from a Structural Biology Perspective **J.A. Parker and C. Mattos.** Northeastern Univ.
- A391 **893.24** A Yeast Two-Hybrid Screen with the Cnidarian G alpha Subunit from the Coral *Acropora palmata* **D.S. Witherow, P. Kumar, B. Mason and V.Z. Slepak.** Univ. of Tampa; James Cook Univ., Australia and Univ. of Miami Miller Sch. of Med.
- A392 **893.25** Impairments in Rho GTPase Signaling Mediate the Inhibitory Effects of Metformin on the Survival and Migration of Neuroblastoma Cells **A. Kumar, N. Al-Sammarraie, D. DiPette and U.S. Singh.** Univ. of South Carolina Sch. of Med.

894. PROTEASE: STRUCTURE AND REGULATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A393 **894.1** Lowbush Blueberry Component Pterostilbene Inhibits the Matrix Metalloproteinase and the Urokinase Signaling Systems in Human Prostate Cancer Cells via Alterations in Cellular Signal Transduction Pathways **C. Stetson, J. Kim, B. Elwood, J. McCallum and R. Hurta.** Univ. of Prince Edward Island, Canada and Agr. & Agri-Food Canada, Charlottetown.
- A394 **894.2** Caspase-9b Directly Interacts with c-IAP1 to Drive an Agonist-Independent Activation of the NF- κ B Pathway and the Enhancement of Tumorigenicity in Non-Small Cell Lung Cancer **N.T. Vu, M.A. Park, M.D. Shultz, A.C. Ladd and C.E. Chalfant.** Virginia Commonwealth Univ. and Hunter Holmes McGuire VA Med. Ctr.
- A395 **894.3** Affinity Switch during Proteasome Core Particle Maturation that Regulates Pba1–Pba2 and Regulatory Particle Association **P. Wani, M. Rowland, A. Ondracek, E. Deeds and J. Roelofs.** Kansas State Univ. and Univ. of Kansas.
- A396 **894.4** Elucidating Anthrax Lethal Factor Interactions with MAP Kinase Kinase Substrates **A.B. Goldberg, R. Ngongoni and B.E. Turk.** Yale Univ. Sch. of Med.
- A397 **894.5** Drug Design Investigation of both Traditional FDA Drugs and POSS to Serve as an Effective HIV Protease Inhibitor **I. Anastasakis, B. Miller III, J. Tshishimbi and C. Parish.** Univ. of Richmond.
- A398 **894.6** The Serine Protease PARK13 Degrading Misfolded Parkinson's Disease Proteins and Confers Cellular Protection **I. Basak, K.S. Patil, J.P. Larsen and S.G. Møller.** St. John's Univ., NY and Stavanger Univ. Hosp., Norway.
- A399 **894.7** Caspase1 Has Transcriptional Regulatory Effects Independent from That Mediated by IL1 β and IL18 – Our Microarray and Meta-analysis of Six Other Microarray Datasets **Y. Li, Y. Yin, H. Wang and X-f. Yang.** Temple Univ. Sch. of Med.

- A400 **894.8** Investigating the Flap Dynamics of HIV-1 Protease **D.R. Stevens, B.R. Miller, R. Stansbury, G. Springsted, C. Phelan and C.A. Parish.** Univ. of Richmond.
- A401 **894.9** Gene Expression Profiling of Zebrafish (*Danio rerio*) Exposed to the Steroidogenesis Inhibitor Ketoconazole **M.J. See, D. Bencic, R.-L. Wang, D.L. Villeneuve, G.T. Ankley and A.D. Biales.** U.S. EPA, Cincinnati and U.S. EPA, Duluth.
- A402 **894.10** Substrate Polyubiquitination Increases the Unfolding Ability of the 26S Proteasome **D.A. Kraut, K. Bard, N. Nassif and G. Chirico.** Villanova Univ.
- A403 **894.11** 26S Proteasome ATPase Mutants Have Higher Unfolding Abilities **H. Kim and D.A. Kraut.** Villanova Univ.
- A404 **894.12** Identification of Prolyl Endopeptidase Inhibitory Peptides from *Lactobacillus helveticus* Digestion of Four Recombinant Bovine Caseins **A.K. Vishram and B.A. Clack.** Stephen F. Austin State Univ.
- A405 **894.13** V-ATPase-Mediated Activation of Cellular and Secreted Cathepsins: Exploring Their Role in Breast Cancer Metastasis **A.M. Hinton.** Denison Univ., OH.
- A406 **894.14** Phosphorylation Regulates Caspases Using Diverse Mechanisms **J.A. Hardy, B. Serrano, S.J. Eron, E.M. Delgado-Velazquez and Y. Zhao.** Univ. of Massachusetts Amherst and U.S. Navy, Great Lakes, IL.

895. STRUCTURAL ENZYMOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:55 PM–2:25 PM

- A407 **895.1** Mammalian Diacylglycerol Kinase Epsilon: Expression in Sf21 Cells, Purification, and Characterization **W.J. Jennings, S.P. Doshi, A.M. Won, C.M. Yip and R.M. Eppard.** McMaster Univ. and Univ. of Toronto.
- A408 **895.2** Structural Basis for Bacterial Quorum Sensing-Mediated Oxalogenesis **J. Oh, E. Goo, I. Hwang and S. Rhee.** Seoul Natl. Univ.
- A409 **895.3** Structural Insights into a Novel Esterase EstDL136 **S. Kim and S. Rhee.** Seoul Natl. Univ.
- A410 **895.4** Caught in the Act: Snapshots of Sulfur Insertion by Lipoyl Synthase **M.I.H. McLaughlin, N.D. Lanz, P.J. Goldman, K.H. Lee, S.J. Booker and C.L. Drennan.** MIT and Penn State.
- A411 **895.5** The X-Ray Crystallographic Structure of Endoxylanase Xyn10C from *Xanthomonas axonopodis* at 1.6 Angstrom Resolution **A.B. Murray.** Winthrop Univ., SC.
- A412 **895.6** Structural Development of Enzymes Toolbox for Natural Product Biosynthesis **F. Wang, S. Singh, K. Helmich, W. Xu, E. Brady, T. Huber, J. Clinger, C. Bingman, M. Miller, J. Thorson and G. Phillips, Jr.** Rice Univ.; Univ. of Kentucky Col. of Pharm. and Univ. of Wisconsin-Madison.
- A413 **895.7** Structure of a Bacterial Ketoisomerase/N-acetyltransferase **D.P. Chantigian, J.B. Thoden and H.M. Holden.** Univ. of Wisconsin-Madison.
- A414 **895.8** Biophysical Characterization of Metal-Deficient SOD5 **J. Waninger-Saroni, J.E. Gleason, A.B. Taylor, S.P. Holloway, V.C. Culotta, J. Hart and A. Galaledeen.** St. Mary's Univ., TX; Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Johns Hopkins Univ.
- A415 **895.9** Structural and Functional Analyses of Carbohydrate Binding Module Family 36 of Xylanase from *Paenibacillus campinasensis* **H-T. Chang, Y-S. Wang, K-J. Yang, Y-J. Chen, C-H. Ko and D-L.M. Tzou.** Inst. of Chem., Acad. Sinica, Taipei and Natl. Taiwan Univ.
- A416 **895.10** Determining the Molecular Basis for Differential Peroxidation Sensitivity in Peroxiredoxin 1 and 2 **J. Bolduc, J. Reisz-Haines, K. Nelson, C. Furdui and W.T. Lowther.** Wake Forest Sch. of Med.
- A417 **895.11** Expression, Purification and Crystallization of the Xanthmonal Avirulence Protein, AvrBs1.1, and Its Target in *Capsicum annuum*, the Transcription Factor WRKY-1 **J.M. Tesney and J.C. Hurlbert.** Winthrop Univ.
- A418 **895.12** Multiple Solvent Crystal Structures of Phage P22 Tailspike Protein: An Analysis of Binding Site Hot Spots and Surface Hydration **P.L. Donohue, M.D. Smith, N. Broecker, C. Doering, C. Mattos and S. Barbirz.** Northeastern Univ. and Univ. Potsdam, Germany.
- A419 **895.13** Characterization and Comparison of Beta-Lactoglobulin Orthologs **J.M. Crowther, G. Jameson, A. Hodgkinson and R. Dobson.** Sch. of Biol. Sci., Univ. of Canterbury; Massey Univ. and AgRes. Ltd., Ruakura Res. Ctr., New Zealand.
- A420 **895.14** Structural Perspectives on the Mechanism of the Radical SAM Enzyme, Spore Photoproduct Lyase **A. Benjdia, K. Heil, A. Winkler, T. Carell and I. Schlichting.** INRA, Jouy-en-Josas; Max Planck Inst. for Med. Res., Heidelberg and Ludwig Maximilians Univ. Munich.
- A421 **895.15** Fusing an Open Reading Frame on Either Side of pfu Polymerase Does Not Affect Its Activity **M.B. Rashid and S. Nayeem.** Univ. of Houston-Clear Lake.
- A422 **895.16** Natural Low Molecular Mass Organic Compound Shows Catalytic Activity **M. Kobayashi, T. Nishiyama, Y. Hashimoto and T. Kumano.** Univ. of Tsukuba Grad. Sch. of Life and Envrn. Sci.

896. SECOND MESSENGERS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:05 PM–1:35 PM

- A423 **896.1** Characterization of a NosP Signal Transduction Pathway in *Shewanella oneidensis* **L-M. Nisbett, B. Bacon and E. Boon.** Stony Brook Univ.
- A424 **896.2** Cross-Talk between the Growth Factor and Estrogen Signaling Pathways in Control of Breast Cancer **K. Applebaum and M.K. Holz.** Yeshiva Univ., NY.
- A425 **896.3** Cross-talk between Autophagy and Mitophagy Regulates Shear-induced Nitric Oxide Production in Endothelial Cells **L. Bharath, T. Ruan, A. Sargsyan, R. Goodrich, T. Forostyan, R. Mueller, Y. Han, P.V.A. Babu, S. Boudina, T. Graham and J.D. Symons.** Univ. of Utah.
- A426 **896.4** Regional Variation of Calcium Transients within Neonatal Cardiomyocyte **C. Alvarez.** San Diego State Univ.
- A427 **896.5** Cyclic AMP/PKA-Mediated Regulation of Mitochondria and Branched-Chain Amino Acid Metabolism in S49 Lymphoma Cells **A. Wilderman, Y. Guo, A. Divakaruni, G. Perkins, L. Zhang, A. Murphy, S.S. Taylor and P.A. Insel.** UCSD.

- A428 **896.6** Role of Store Operated Calcium Entry in Ellagic Acid Induced Cytotoxicity in Jurkat T Cells **S. Kaul, M. Baker, D. Thomas and D. Bose.** Western New England Univ. Col. of Pharm. and Thomas J. Long Sch. of Pharm. and Hlth. Sci., CA.
- A429 **896.7** Comparative Effects of Avocado Oil and Losartan on Brain Mitochondrial Function and Calcium Transport in Hypertensive Rats **N.F. Cabrera-Nuñez, C.I. Garcia-Berumen, J.L. Hernandez de la Paz, A. Raya-Farias, E. Calderon-Cortes, A. Saavedra-Molina, R. Salgado-Garciglia and C. Cortes-Rojo.** Univ. Michoacana de San Nicolás de Hidalgo, Mexico.
- A430 **896.8** Role of Calcium in Regulating the Production of Urine by the Malpighian Tubules of *Rhodnius prolixus* **N. Hassan, P. Gioino, G. Katselis and J. Ianowski.** Univ. of Saskatchewan.
- A431 **896.9** Putative Role of Glutathione S-Transferases as Mediators of Cell Growth, Development, and Differentiation in the Eukaryotic Model Organism, *Dictyostelium discoideum* **M. Garige and E. Walters.** Howard Univ.
- A432 **896.10** Pim1 Is a Novel Kinase That Phosphorylates eNOS at Ser-633 and Enhances Angiogenesis in Diabetic Mice **M. Chen, B. Yi and J. Sun.** Thomas Jefferson Univ.
- A433 **896.11** Rad Phosphorylation via β -Adrenergic Signaling Modulates Its Association with the Calcium Channel **C.N. Withers, J. Satin and D.A. Andres.** Univ. of Kentucky.
- A434 **896.12** Lethal Arg9Cys Phospholamban Mutation Increases the Mitochondrial Fission Protein (Drp-1) Activity **S. Yokoe, E. Zvaritch, O. Sizova, T. Miyake, A.C.T. Teng, A.O. Gramolini, D.H. MacLennan and M. Asahi.** Osaka Med. Col. and Univ. of Toronto.
- A435 **896.13** The Role of PIKfyve in the Neutrophil Innate Immune Response **M.K. Winkler, R.M. Dayam, C. Choy, C-X. Sun, R. Botelho and M. Glogauer.** Ryerson Univ., Canada and Univ. of Toronto.
- A436 **896.14** PDE5 Inhibition with Sildenafil Blocks Induction of Carboxylesterase3 and Reduces Cell Necrosis and Autophagy in Acute Alcohol-Induced Injury in Heart **A. Samidurai, L. Xi, A. Das, F.N. Salloum, S. Omar and R.C. Kukreja.** Virginia Commonwealth Univ.
- A437 **896.15** Notch and Hypoxia Inducible Factor Cooperate in the Generation of Hemangioblast and in Sprouting Angiogenesis **A. Calderon and D.L. Ramirez-Bergeron.** Case Western Reserve Univ. Sch. of Med.
- 897. CANCER TREATMENT: THE WAR AT 44**
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:05 PM–1:35 PM
- A438 **897.1** Activation of Caspase-Dependent Apoptosis by Intracellular Delivery of Cytochrome c-Based Nanoparticles **T.J. Gonzalez-Robles, M. Morales-Cruz, C.M. Figueroa and K. Griebenow.** Univ. of Puerto Rico.
- A439 **897.2** Role of Nuclear Heme Oxygenase-1 in Bortezomib-Induced Cell Death **G. Li Volti, D. Tibullo, I. Barbagallo, L. Vanella and F. Di Raimondo.** Univ. of Catania, Italy.
- A440 **897.3** Relationship between Pain, C-Reactive Protein and Cytokines in Patients with Head and Neck Cancer **S.A. Gouvea, K.G. Oliveira, P.M. Abreu, S.V. von Zeidler and N.S. Bissoli.** Fed. Univ. of Espírito Santo, Brazil.
- A441 **897.4** Angiotensin-(1-7) as an Antinociceptive Agent in Cancer-Induced Bone Pain **B.L. Forte, L.M. Slosky, W.D. Staatz, T.M. Largent-Milnes and T.W. Vanderah.** Univ. of Arizona.
- A442 **897.5** Vascular Disrupting Activity of OXi8006 in Endothelial Cells and Its Phosphate Prodrug OXi8007 in Breast Tumor Xenografts in Vivo **S.O. Odutola, T.E. Strecker, M.S. Cooper, J.K. Tidmore, A.K. Charlton-Sevcik, M.T. MacDonough, M.B. Hadimani, A. Ghatak, R. Lopez, L. Li, L. Liu, R.P. Mason, D.J. Chaplin, K.G. Pinney and M.L. Trawick.** Baylor Univ.; Univ. of Texas Southwestern Med. Ctr. and OXiGENE Inc., San Francisco.
- A443 **897.6** Generation of Superoxide and Toxicity of Amino Alcohols to K562 and HepG2 Cancer Cells **A. Shastri, M.L. Boylan and J.E. Spallholz.** Texas Tech Univ.
- A444 **897.7** *Rumex crispus* Phytochemicals: Chemopreventative Potential for Human Colon Carcinoma **D.A. Lee and B.A. Clack.** Stephen F. Austin State Univ.
- A445 **897.8** Another Reason to Eat Your Broccoli: Naturally Occurring Isothiocyanates Inhibit Deubiquitinating Enzymes **A.P. Lawson, M.J.C. Long, Y. Qian, R. Coffey, E. Weerapana, F. El Oualid and L. Hedstrom.** Brandeis Univ.; Boston Col. and UbiQ, Amsterdam.
- A446 **897.9** Integration of Enzymatic Transformation and Self-Assembly for Future Cancer Therapy **B. Xu, X. Du, J. Zhou, J. Shi and J. Li.** Brandeis Univ.
- A447 **897.10** Targeted Delivery of Cytochrome c-Based Nanoparticles Coated with a Poly(lactic-co-glycolic Acid)-Poly(ethylene Glycol)-Folate Conjugate to HeLa Cells **M. Morales-Cruz, A. Cruz, T. González-Robles, C. Figueroa, L. Muñoz, A. Molina and K. Griebenow.** Univ. of Puerto Rico, Rio Piedras Campus.

- A448 **897.11** Nano-formulation Enhances the Anti-angiogenic Potential of Tunicamycin **D.K. Banerjee, A. Banerjee, A. Seijo, J.E. Serrano, L. Perez, L. Linares, M. Ramos and K. Baksi.** Univ. of Puerto Rico Sch. of Med.; Inst. of Funct. Nanomaterials, San Juan and Univ. Central del Caribe, Sch. of Med.
- A449 **897.12** Structure/Function Characterization of S100B Inhibitors at Sites 2/3 within Malignant Melanoma **M.C. Cavalier, P.T. Wilder, T.H. Charpentier and D.J. Weber.** Univ. of Maryland Sch. of Med. and Thomas Jefferson Univ.
- A450 **897.13** Doxorubicin-Coupled MNPs-Fe₃O₄ with Electromagnetic Radiation Improve the Effectiveness of Doxorubicin on the T47D Human Ductal Breast Tumor Cell Line **S.A. Alobaid, S. Sinha and M.J. Rossi.** Univ. of New Haven.
- A451 **897.14** Therapeutic Targeting of Nuclear γ -Tubulin in RB1-Negative Tumors **L. Lindström, S. Lehn, R. Hellsten, E. Nilsson, E. Crneta, R. Olsson and M. Alvarado-Kristensson.** Lund Univ., Sweden.
- A452 **897.15** The Glucose Ketone Index Calculator: A Simple Tool to Assess Therapeutic Efficacy for Metabolic Management of Brain Cancer **J.J. Meidenbauer and T.N. Seyfried.** Boston Col.
- A453 **897.16** A Quantum Mechanical Study of Tautomeric Triggers of Bergman Cyclization **A.K. Jaini and C. Parish.** Univ. of Richmond.
- A454 **897.17** Zfra Activates Novel Memory Spleen Cells to Block Cancer Growth, Stemness, and Metastasis In Vivo **C-Y. Lu, Y-A. Chen, M-H. Lee, S-R. Lin, W-J. Wang, H-F. Chen, W-P. Su and N-S. Chang.** Natl. Cheng Kung Univ.; Natl. Taiwan Univ. and SUNY Upstate Med. Univ.
- A455 **897.18** New α -(N)-Heterocyclic Thiosemicarbazones Compounds Including the Cu²⁺ and Pd²⁺ Complexes: Applications towards Potential Anti-cancer Agents **R.E. Scott, B. McGill, W. Carroll and E.C. Lisic.** Tennessee Technol. Univ.
- A456 **897.19** Host Directed Autoantibodies that Fuel Tumor Progression **A. Jain, P.M. Abadir and N.S. Fedarko.** Johns Hopkins Univ.
- A457 **897.20** A Trojan Horse for Light-Triggered Delivery of Toxic Iron to Cancer Cells **E.N. Boice and D.M. Kurtz, Jr.** Univ. of Texas at San Antonio.
- A458 **897.21** Identification of Novel Chemotherapies Targeting Mitochondrial-Cell Communication **I. Paudel, M.A. Giulianotti, G.S. Welmaker and J.W. Chambers.** Florida Intl. Univ. and Torrey Pines Inst. for Molec. Studies, Port St. Lucie, FL.
- A459 **897.22** Molecular Mechanism of Action of 5-Azacytidine and its Resistance in MDA-MB 435 Cells **A.C. DiNatale, J.S. Hellreich and R. O'Donnell.** SUNY Geneseo.
- A460 **897.23** Resveratrol and Radiation: Cytotoxicity and Cell Cycle Analysis **M.J. Gillard, K.D. Upham, W.K. Pogozelski and R.W. O'Donnell.** SUNY Geneseo.
- A461 **897.24** Synthesis and Studies of a New Series of Potential Anti-Cancer Agents: Thiazole-Thiosemicarbazone Compounds and Their Pd²⁺ and Cu²⁺ Metal Complexes **V.G. Rand, J.D. Conner, S.D. Simpson, A.L. Koch and E.C. Lisic.** Tennessee Technol. Univ.
- A462 **897.25** Binding of Calcineurin Homologous Protein Isoforms 1 and 2 for the Na/H⁺ Exchanger Isoform 1 Using Recombinant Fluorescent Proteins **E.J. Fray, M.A. Wallert and J.J. Provost.** Univ. of San Diego and Minnesota State Univ. Moorhead.
- A463 **897.26** Calcium-Dependent Chemotherapeutic Mechanisms of Resveratrol **J. Kenealey.** Brigham Young Univ.
- A464 **897.27** Investigating the Mechanism of Action of Sulforaphane in a Human Leukemia Cell Line **P.M. Fields, J.C. Grom and R.W. O'Donnell.** SUNY Geneseo.
- A465 **897.28** Antibody Directed Enzyme Prodrug Therapy: Discovery of Novel Genes, Isolation of Novel Gene Variants and Production of Long Acting Drugs for Efficient Cancer Treatment **S.K. Goda.** Anti-doping Lab., Doha, Qatar.
- A466 **897.29** Hyal-2 antibody mediates cancer suppression via Hyal-2/WWOX/Smad4 signaling **N-S. Chang, W-P. Su and W-J. Wang.** Natl. Cheng Kung Univ.; NYS Inst. of Basic Res. for Develop. Disabil. and SUNY Upstate Med. Univ.
- A467 **897.30** Extraction of Anti-cancer Water Soluble Compounds from *Rumex crispus* **M. Bhandari and B.A. Clack.** Stephen F. Austin State Univ.
- A468 **897.31** Testing Novel Depsipeptides for Histone Deacetylases Inhibitor Activity **C. Mitchell, S.A. Carle, S. Enos, J.S. Miller, X. Zang, D. Vallabhaneni and L. Peraro.** Hobart & William Smith Cols., ny.
- A469 **897.32** Novel Cancer Therapy: Targeting Methionine Metabolism **K.V. Venkatachalam.** Nova Southeastern Univ.
- A470 **897.33** Cancer Immunotherapy via Regulation of the Ubiquitin Proteasome Pathway **S. Kumar, J. Wu, J. LaRocque, S. Agarwal, J. Marblestone, M. Kodrasov, J. Weinstock and M. Mattern.** Progenra Inc., Malvern, PA.

Nutrition

898. GLOBAL NUTRITION: DIETS AND FOODS

Poster

(Sponsored by: Global Nutrition Council)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C1 **I 898.1** Commercial Snack Food Consumption among Children 6-23 Months in Urban Cambodia, Nepal, and Senegal **A.M. Pries, A.B. Feeley, K. Mengkheang, I. Adhikary, A. Ndiaye and S.L. Huffman.** Helen Keller Intl. ; JB Consultancy, South Africa and Univ. of California, Davis.
- C2 **II 898.2** Comparison of Four Different Supplementary Foods in the Treatment of Moderate Acute Malnutrition in Children Under Five in Sierra Leone **B. Marron, J. Green, L. Jayson, D. Suri, S. Marcus, J. Boiteau, M. Manary, P. Webb and B. Rogers.** Friedman Sch., Tufts Univ. and Washington Univ. in St. Louis.
- C3 **I 898.3** Women's Economic Autonomy, Education, and Experience of Domestic Violence Are Associated with Household Food Security among Pregnant Women in MINIMat Study in Bangladesh **S. Kulkarni, E.A. Frongillo, Jr., R.T. Naved and E-C. Ekström.** Univ. of South Carolina; ICDDR,B, Dhaka and Uppsala Univ.
- C4 **II 898.4** Systematic Review of the Dietary Intakes of Adolescent Girls in Low- and Middle-Income Countries **V.A. Elliot, C.K. Lutter, S. Lamstein, P. Koniz-Booher and L.E. Caulfield.** Johns Hopkins Univ.; PAHO, Washington, DC and JSI, Rosslyn, VA.
- C5 **I 898.5** Maternal Knowledge and Attitudes in Relation to Complementary Feeding Initiation in Rural Bangladesh **A. Owais, D.G. Kleinbaum, P.S. Suchdev, A.S.G. Faruque, S. Das and A.D. Stein.** Emory Univ. and ICDDR,B, Bangladesh.
- C6 **II 898.6** The Message Environment and Salience of Infant and Young Child Feeding Messages for Health Workers, HIV-Infected and HIV-Uninfected Mothers in Urban Haiti **E. Fox, G. Pelto, V. Rouzier, M.G. Debrosse, K. Rasmussen, S. Young, B. Strupp, J.W. Pape and D. Pelletier.** Cornell Univ.; GHESKIO, Post-au-Prince, Haiti and Weill Med. Col., Cornell Univ.
- C7 **I 898.7** Determinants of Community Health Worker Performance in Nutrition Education in a Multi-tasked Setting in Rural Zimbabwe **R.A. Kambarami, M.N.N. Mbuya, J.H. Humphrey and R.J. Stoltzfus.** Cornell Univ.; Zvitambo, Harare and Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C8 **II 898.8** Artisanal Solar Drying of Nutritional and Medicinal Plants of High Cultural Value in Rural Panama **I. Bermudez, T. van der Have, O.I. Bermudez and J. dePerez.** Technol. Univ., Panama; Catholic Univ. of Leuven and Tufts Univ. Sch. of Med.
- C9 **I 898.9** Are Complementary Foods Provided to 6-24 Months Old Children Meeting the World Health Organization Guidelines? Demographic and Health Survey Data from Four Countries **B.P. Marriott, P. Nasarre, F. Lee, A.Z. Poole and J.C. Wallingford.** Med. Univ. of South Carolina and Nutrispectives Inc., Spokane.
- C10 **II 898.10** Differences in Preference and Preparation of Millet Porridge (Tô) between Urban and Rural Areas in Mali and its Impact on Satiety **M. Diarra, I. Nkama, F. Cisse, P.C. Torres-Aguilar and B.R. Hamaker.** Rural Economic Inst., Bamako, Mali; Univ. of Maiduguri, Nigeria and Purdue Univ.
- C11 **I 898.11** Milk Composition Produced from Malawi Zebu-Friesian Crosses and Susceptibility to Environmental Stress **J.C. Allen and S.R. Neba.** North Carolina State Univ.
- C12 **II 898.12** Qualitative Research to Understand Caregiver Feeding Behaviors and Attitudes in Rural Bangladesh **Z.T. Chowdhury, K.M. Hurley, M. Jahan, S. Kodish, S. Shaikh, S. Mehra, K.P. West, Jr. and P. Christian.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and JiVitA Proj., Bangladesh.
- C13 **I 898.13** Addressing Environmental Determinants of Food Insecurity in Rural Guatemalan Communities **E. Lee, P. deFulladolsa, R. Sibrian, M.J. Medina and O.I. Bermudez.** Sch. of Med., Tufts Univ and Reg. Prog. for FNS in Central America, San Salvador.
- C14 **II 898.14** Maternal Food Insecurity Is Associated with Loss of Fat, but not Lean Mass during Lactation among Ugandans of Mixed-HIV Status **E.M. Widen, B.K. Natamba, S. Collins, H. Kahn, N. Sirotnin, S. Ghosh, J.K. Griffiths and S.L. Young.** Columbia Univ.
- C15 **I 898.15** The Effectiveness of Two Ready-to-Use Supplementary Foods (RUSFs) Differing in Dairy Protein Content on Growth and Nutritional Status of Young Children: A Pilot Study in Preschools in Guinea-Bissau **N. Schlossman, P. Batra, E. Balan, W. Pruzensky, K. Shae, M. Schleicher, L. Urban, E. Saltzman and S. Roberts.** Global Food & Nutr. Inc., Washington, DC; USDA at Tufts Univ. and Intl. Partnership for Human Develop., Leesburg, VA.
- C16 **II 898.16** The Impact of Tubaramure, a Food-Assisted Integrated Health and Nutrition Program in Burundi, on Children's Development **D.K. Olney, J.L. Leroy, L. Bliznashka and M. Ruel.** Intl. Food Policy Res. Inst., Washington, DC.
- C17 **I 898.17** Effect of Small-Quantity Lipid-Based Nutrient Supplement (SQ-LNS) on Breast Milk Vitamin A Concentration among Ghanaian Women **M.K. Klevor, M.J. Haskell, A. Lartey, S. Adu-Afarwuah, M. Zeilani and K.G. Dewey.** Univ. of California, Davis; Univ. of Ghana; Food and Agr. Org of U.N., Rome and Nutriset S.A.S., Malaunay, France.
- C18 **II 898.18** *Nutrition Links* – Building Capacity for Sustainable Lives in Ghana **G.S. Marquis, E.K. Colecraft, R. Aryeetey, A. Lartey, S. Clark, F. Aboud, T. Gyorkos, B. Aidam and R. Owusu.** McGill Univ.; Univ. of Ghana and World Vision, Washington, DC.
- C19 **I 898.19** The Effects of a Nutrition-Sensitive Agricultural Intervention on Social Support, Food Security and Maternal Self-Efficacy in Complementary Feeding **D. Toure, R. Rawat, D. Harvey, M. Mwanamwenge and D.L. Pelletier.** Cornell Univ.; Intl. Food Policy Res. Inst., Dakar and Health, Concern Zambia.
- C20 **II 898.20** Changes in Dietary Variety Scores over Six Months among 4- to 8-Year-Old Zambian Children **B.L. Lewis, B. Dyer, W. Siamusantu, R.D.W. Klemm, S.A. Talegawkar, K.J. Schulze, A.C. Palmer and K.P. West.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Natl. Food & Nutr. Commission, Lusaka, Zambia.

- C21 **I 898.21** The Price of Oil: Behavior Change Communication and Increased Oil Ration Improve Mothers' Uses of Vegetable Oil in Preparing Food Aid Rations for Children in Malawi **L. Jayson, S. Passarelli, D. Suri, G. Maganga, S. Marcus, P. Webb and B. Rogers.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ.
- C22 **II 898.22** Does Market Access Protect Children against Poor Health Conditions at Birth? **A.F. Darrouzet-Nardi and W.A. Masters.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ.
- C23 **I 898.23** Children Receiving Complementary Food Supplements Have Higher Nutrient Intakes from Home Foods in JiVitA-4 Trial, Rural Bangladesh **R.K. Campbell, K.M. Hurley, A.A. Shamim, S. Shaikh, Z.T. Chowdhury, S. Mehra, S. de Pee, T. Ahmed, K.P. West, Jr. and P. Christian.** Johns Hopkins Sch. of Publ. Hlth.; World Food Prog., Rome and ICDDR,B, Dhaka.
- C24 **II 898.24** Ethnobotanical Cultural Values and Uses of Nutritional and Medicinal Plants in Rural Panama **I. Bermudez, T. van der Have, O.I. Bermudez and J. dePerez.** Technol. Univ., Panama; Catholic Univ. of Leuven and Tufts Univ. Sch. of Med.
- C25 **I 898.25** Women's Nutrition and Empowerment Are Improved through Participation in an Integrated Agriculture and Nutrition Program in Burkina Faso **D.K. Olney, L. Bliznashka, A. Pedehombga, A. Dillon, M. Ruel and J. Heckert.** Intl. Food Policy Res. Inst., Washington, DC; Helen Keller Intl., Burkina Faso and Michigan State Univ.
- C26 **II 898.26** The impact of Tubaramure, a Food-Assisted Integrated Health and Nutrition Program In Burundi, on Maternal and Child Anemia **J.L. Leroy, D.K. Olney and M. Ruel.** Intl. Food Policy Res. Inst., Washington, DC.
- C27 **I 898.27** A Systematic Review of the Conceptualization and Measurement of Sustainable Diets **A.D. Jones, L. Hoey, J. Blesh, A. Green, L. Miller and L. Shapiro.** Univ. of Michigan.
- C28 **II 898.28** Implementation of a National Training System to Address Nutrition Transition at Primary Care in Mexico **W. Gonzalez, A. Bonvecchio, J. Rivera, L. Magaña, A. Villa de la Vega, C. Rosas and L. Neufeld.** Natl. Inst. of Publ. Hlth., Mexico; Secy. of Hlth., Mexico and Global Alliance for Improved Nutr., Switzerland.
- C29 **I 898.29** Gender Differences in Body Image Perception, Weight Management Practices, and Food Choices of High School Students in the Bangkok Metropolitan Region **P. Chongwatpol and G.E. Gates.** Oklahoma State Univ.
- C30 **II 898.30** Perspectives of Food Availability, Healthfulness and Modernity among Adolescents in India **N. Shaikh, A. Maxfield, U. Ramakrishnan, S. Patil and S. Cunningham.** Emory Univ. and BLDE Univ., India.
- C31 **I 898.31** Water Source and Distance Is Associated with Hygiene Behaviors in Karamoja, Uganda **S.B. Ickes and L.E. Pugh.** Col. of William and Mary, VA.
- C32 **II 898.32** At-Scale Delivery of Essential Nutrition Interventions in India Is Limited by Variable Gaps in Policy, Design, Implementation and Demand **R. Avula, S.S. Kim, N. Kohli, S. Chakrabarti, P. Tyagi, K. Singh, M. van den Bold, S. Kadiyala and P. Menon.** Intl. Food Policy Res. Inst., New Delhi; Intl. Food Policy Res. Inst., Washington, DC and London Sch. of Hyg. & Trop. Med.
- C33 **I 898.33** Understanding Differing Household Consumption of Native and Traditional Crops in Cochabamba, Bolivia **A. Keleman, D.L. Humphries, X. Cadima F. and S. Abasto.** Yale Univ.; Fndn. PROINPA, Cochabamba and Fac. of Med., Univ. Mayor de San Simon, Bolivia.
- C34 **II 898.34** Breastfeeding Difficulties at Three Months are Associated with Formula Use in Vietnam **M.E. Henry, P. Christian, S.S. Kim, P. Nguyen, R. Rawat and P. Menon.** Johns Hopkins Sch. of Publ. Hlth. and Intl. Food Policy Res. Inst., Washington, DC.
- C35 **I 898.35** Ghanaian Mothers' Complementary Feeding Practices and Perception on Children's Health **B. Egyir and S.A. Ramsay.** Univ. of Idaho.
- C36 **II 898.36** Comparison of International Dietary Guidelines and Food Guides in Twelve Countries across Stages of the Nutrition Transition **J. Mattei, S. Gicevic, V. Malik, A. Aftosmes-Tobio, D. Spiegelman and W.C. Willett.** Harvard Sch. of Publ. Hlth.
- C37 **I 898.37** Traditional Foods Made from Sorghum and Millet in Mali Have Slower Gastric Emptying than Pasta, Potatoes, and Rice **F. Cisse, D.P. Erickson, A.R. Opekun, B.L. Nichols and B.R. Hamaker.** Purdue Univ.; Inst. of Rural Econ. of Mali, Barmako and Baylor Col. of Med.
- C38 **II 898.38** Psychosocial Determinants of Exclusive Breast-Feeding in Rural Kenya **C.A. Gewa and J. Chepkemboi.** George Mason Univ. and Kombewa Dist. Hosp., Kenya.
- C39 **I 898.39** Urbanization, Markets, and Malnutrition in Rural Farm Households **A.F. Darrouzet-Nardi.** Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ.
- C40 **II 898.40** Effects of Two Ready to Use Supplementary Foods Containing Different Levels of Dairy Protein on Mother's Nutritional Status In Rural Guinea-Bissau **N. Schlossman, P. Batra, E. Balan, W. Pruzensky, E. Saltzman and S. Roberts.** Global Food & Nutr. Inc., Washington, DC; USDA at Tufts Univ. and Intl. Partnership for Human Develop., Leesburg, VA.
- C41 **I 898.41** Counseling on Infant and Young Child Feeding Practices for HIV-Infected Women in Malawi's Option B+ Prevention of Mother-to-Child Transmission Program **V.L. Flax, G. Hamela, I. Mofolo, M.C. Hosseinipour, I. Hoffman and S. Maman.** Univ. of North Carolina at Chapel Hill and UNC Proj., Malawi.
- C42 **II 898.42** Food Frequency Consumption and Food-Related Habits among Brazilian Students **N. Woolley.** UCLA.
- C43 **I 898.43** An Atole Fortified with 21 Vitamins and Minerals Improves Nutritional Status of 6 to 72 Month-Old Children in 6 Nurseries in Guatemala City **L.M. Villanueva, A.M. Palacios, D. Cuy Castellanos and G.A. Reinhart.** Mathile Inst. for Adv. of Human Nutr., Dayton and Univ. of Dayton.
- C44 **II 898.44** Sub-optimal Infant and Young Child Feeding Practices in Singida, Tanzania Are Associated with Food Insecurity **M.V. Santoso, H. Larkin, Y.B. Chung, V.M. Ota, R.N. Bezner Kerr and S.L. Young.** Cornell Univ.
- C45 **I 898.45** Resilience Factors for Food and Nutrition Security in Guatemalan Communities **P. deFulladolsa, A. Rivas, R. Sibrian, E. Lee and O.I. Bermudez.** Reg. Prog. for FNS in Central America, San Salvador and Sch. of Med., Tufts Univ.

- C46 **II 898.46** Linking National Data on Food Availability and Child Nutrition Outcomes in 45 Less Developed Countries to Identify Appropriate Amounts of Foods in National Supplies **J.E. Arsenault and R.J. Hijmans**. Univ. of California, Davis.
- C47 **II 898.47** Diarrhea In HIV-Exposed Tanzanian Infants Is Reduced with Maternal Antiretroviral Therapy **K. Sztam, E. Liu, K. Manji, R. Kupka, R. Kisenge, S. Aboud, R. Bosch, W. Fawzi and C. Duggan**. Boston Children's Hosp.; Harvard Sch. of Publ. Hlth. and Muhimbili Univ. of Hlth. and Allied Sci., Tanzania.
- C48 **I 898.48** Is the LDL/HDL- Cholesterol Ratio a Better Risk Indicator for Coronary Heart Disease than the TC/HDL-Cholesterol Ratio? **E. Davis, F. Huffman and E. Onuoha**. The Brooklyn Hosp. Ctr. and Florida Intl. Univ.
- C49 **II 898.49** α 2-Heremans-Schmid Glycoprotein Polymorphism and HOMA-IR in Young Mexican Adults **K.N. Robinson, C. Marques, F.C.D. Andrade, C. Aradillas-Garcia and M. Teran-Garcia**. Auton. Univ. of San Luis Potosi, Mexico and Univ. of Illinois, Urbana.
- C50 **I 898.50** Vitamin A Deficiency and Mother-Infant Correlations in Bolivia **A.W. Cattran, R. Burke, A. Lipus, R. Revollo, V. Iñiguez, J.S. Leon and P. Suchdev**. Rollins Sch. of Publ. Hlth., Emory Univ.; La Paz Svc. Dept. of Hlth., Bolivia; Univ. Mayor de San Andrés, La Paz and Ctrs. for Dis. Control and Prevent.
- 899. GLOBAL NUTRITION: COGNITIVE**
- Poster**
- (Sponsored by: Global Nutrition Council)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C51 **I 899.1** Markers of Environmental Enteric Dysfunction are Associated with Neurodevelopment in Tanzanian Children **A. Etheredge, K. Manji, C. McDonald, M. Kellogg, H. Tran, K. Gosselin, A. Gewirtz, R. Kisenge, S. Aboud, D. Bellinger, W. Fawzi and C. Duggan**. Boston Children's Hosp. ; Muhimbili Univ. of Hlth. and Allied Sci., Tanzania; Georgia State Univ. and Harvard Sch. of Publ. Hlth.
- C52 **II 899.2** The Long-Term Impact of Water and Sanitation on Childhood Cognition **N.R. Wulan, E.R. Smith, E.L. Prado, M.S. Apriatni, H. Muadz and A. Shankar**. Summit Inst. of Develop., Indonesia; Harvard Univ.; Univ. of California, Davis and Mataram Univ., Indonesia.
- C53 **I 899.3** Associations between Linear Growth and Language Development in Ghana, Malawi, and Burkina Faso **E.L. Prado, S. Abbeddou, S. Adu-Afarwuah, M. Arimond, P. Ashorn, U. Ashorn, K.H. Brown, S. Hess, A. Lartey, K. Maleta, E. Ocansey, J.B. Ouedraogo, J. Phuka, J. Somé, S.A. Vosti, E. Yakes Jimenez and K.G. Dewey**. Univ. of California, Davis; Univ. of Ghana; Univ. of Tampere Sch. of Med.; Univ. of Malawi Col. of Med.; DRO, Burkina FASO and Univ. of New Mexico.
- C54 **II 899.4** Breastfeeding Practices Are Associated with Child Development in Vietnamese Children **P.H. Nguyen, A. DiGirolamo, I. Gonzalez-Casanova, H. Pham, T.V. Truong, S. Nguyen, R. Martorell and U. Ramakrishnan**. Thai Nguyedn Univ. of Med. and Pharm.; Intl. Food Policy Res. Inst., Hanoi; Emory Univ. and Georgia State Univ.
- C55 **I 899.5** Measuring Brain Function in Newborns in Rural Gambia **S. Lloyd-Fox, D. Halliday, K. Begus, M.K. Darboe, A.M. Prentice, S.E. Moore and C.E. Elwell**. Univ. of London; University Col. London; Intl. Nutr. Gp., Keneba, Gambia; London Sch. of Hyg. & Trop. Med. and Univ. of Cambridge.
- 900. NUTRITION ACROSS THE LIFESPAN: NUTRITION, NEUROBIOLOGY, MOOD AND BEHAVIOR**
- Poster**
- (Sponsored by: Medical Nutrition Council)
- (Cosponsored by: Aging and Chronic Disease RIS, Obesity RIS and Nutrition Translation RIS)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C56 **I 900.1** Perinatal Choline Supplementation Reduces Amyloidosis and Increases Cholinergic Marker Expression in the Hippocampus of the APPswePS1dE9 Alzheimer's Disease Model Mice **T.J. Mellott, O.M. Huleatt, B.N. Shade, S.M. Pender, Y.B. Liu and J.K. Blusztajn**. Boston Univ. Sch. of Med.
- C57 **II 900.2** Effects of Dietary Blueberry on Cognition and In Vivo and In Vitro Inflammatory Status **M.G. Miller, D.R. Fisher, M.E. Kelly, D.F. Bielinski and B. Shukitt-Hale**. USDA at Tufts Univ.
- C58 **I 900.3** Greater Total Fluid Intake Is Associated with Better Mood in a Cross-Sectional Cohort of Healthy Adults **J.H. Bottin, G. Lemetais, P. Picard, L. Jimenez and E.T. Perrier**. Danone Res., Palaiseau, France.
- C59 **II 900.4** Dietary Supplementation with Quercetin Rejuvenates Cognitive Performance Independent of Adult Hippocampal Neurogenesis **K. Du, S.D. Perez, P.T. Kozak, A.A. Sheriff, J.H. Baxter, R. Vazhappilly and J.S. Rhodes**. Univ. of Illinois, Urbana and Abbott Nutr., Columbus.
- C60 **I 900.5** High Maternal Choline Consumption during Pregnancy and Nursing Alleviates Deficits in Social Interaction and Improves Anxiety-Like Behaviors in the BTBR T+itpr3tf /J Mouse Model of Autism **E.A. Langley, M. Krykbaeva, J.K. Blusztajn and T.J. Mellott**. Boston Univ. Sch. of Med.
- C61 **II 900.6** Relationship of 6-n-Propylthiouracil Taste Sensitivity to Alcohol and Caffeine Intakes among Ethnically Diverse College Students **S.E. Choi**. Queens Col., NY.
- C62 **I 900.7** Resistance of LDL against Oxidation Is Related to Macular Pigment Density and Cognition in Healthy Older Adults **T.M. Scott, C-Y.O. Chen, R. Vishwanathan, E.S. Mohn, A.J. Roe and E.J. Johnson**. USDA at Tufts Univ.
- C63 **II 900.8** Disordered Eating Behaviors and Nutritional Issues in Children with Fetal Alcohol Spectrum Disorders **S. Smith, R. Amos-Kroohs, L. Chin, B. Fink and J. Wozniak**. Univ. Wisconsin-Madison and Univ. of Minnesota.
- C64 **I 900.9** Effect of Almond Consumption on the Neural Response in the Left Insula **R.D. Sayer, J. Dhillon, G.G. Tamer, Jr., W.W. Campbell and R.D. Mattes**. Purdue Univ.

- C65 **II 900.10** Infant Performance on a Behavioral Memory Task Is Not Sensitive to Variations in Iron Status in 4-6 Month-Old Infants, Even After Accounting for Attention **M.A. Orsillo, J.E.H. Nevins, R.L. Canfield and J.D. Haas.** Cornell Univ.
- C66 **I 900.11** A Novel Method to Determine the Relationship between EEG Measures and Behavioral Measures of Infant Recognition Memory in the Context of Nutrition **S.M. Stoyell, J.E. Nevins, M.A. Orsillo, S.S. Robertson, R.L. Canfield and J.D. Haas.** Cornell Univ.
- C67 **II 900.12** Predicting Iron-Dependent Changes in Energy Expenditure from Changes in EEG Power as a Function of Cognitive Workload **L.R. Tate, M.J. Wenger, L.E. Murray-Kolb and J.D. Haas.** Univ. of Oklahoma; Cornell Univ. and Penn State.
- C68 **I 900.13** Infant Diet and Resting Frontal 6-10 Hz Power at 9 Months Are Associated with Gender-Related Differences in Child Temperament at 3 Years **R.T. Pivik, A. Andres, K.P. Jarratt, M.A. Cleves and T.M. Badger.** Arkansas Children's Nutr. Ctr. and Univ. of Arkansas for Med. Sci.
- C69 **II 900.14** Short Sleep Duration: Effects on Nutrient Intake and Mood State **A.E. Rehagen, S. Harris and L. Cialdella-Kam.** Case Western Reserve Univ.
- C70 **I 900.15** Effects of a Proprietary Spearmint Extract on Cognitive Function and Tolerance Parameters in Men and Women with Age-Associated Memory Impairment **C.M. Cook, K.A. Herringer, K.M. Nieman, K.D. Sanoshy, B.A. Fonseca, A.L. Schild, K.M. Kelly, A.L. Lawless, K.C. Maki and M.A. Ceddia.** Biofortis Clin. Res., Addison, IL and Kemin Foods, LC, Des Moines.
- C71 **II 900.16** Internalizing and Externalizing Behaviors: Associations with Food Consumption in U.S. Adolescents **D.T. Chiu, K.M. Hurley, A.W. Riley and Y. Wang.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Sch. of Publ. Hlth. and Hlth. Professions, Univ. at Buffalo, SUNY.
- C72 **I 900.17** Measuring Perception and Cognition in the Context of Iron Deficiency: Three Approaches **M.J. Wenger, D.M. DellaValle, S.E. McKinzie, L.E. Todd and J.D. Haas.** Univ. of Oklahoma; Med. Univ. of South Carolina; Cornell Univ. and Fairleigh Dickinson Univ.
- C73 **II 900.18** Gestational Deficits have Selectively Negative Long-Term Effects on Cognitive Control among Female Preadolescents **N.A. Khan, L.B. Raine, E.S. Drollette, M.R. Scudder, A.F. Kramer, S.M. Donovan and C.H. Hillman.** Univ. of Illinois at Urbana-Champaign.
- C74 **I 900.19** Impact of Eating Behaviors and Cravings on Gestational Weight Gain and Diet **A. Lopez-Cepero, K. Leung, S. Corvera, T. Moore and M.C. Rosal.** Univ. of Puerto Rico Med. Sci. Campus and UMass Med. Sch.
- C75 **II 900.20** Association between Binge Drinking and Food Addiction in College Students **M. Dopler-Nelson and L.K. Ackerson.** Univ. of Massachusetts Lowell.
- C76 **I 900.21** Relationship between Cognitive Function and Metabolic Risk Factors in Korean Elderly **O. Lee, S.Y. Moon, S-U. Lee, D. Hyun, J.H. Moon and Y. Chung.** Yongin Univ.; Sch. of Med., Ajou Univ.; Jungsun Hosp. and KAERI, Daejeon, South Korea.
- C77 **II 900.22** Effects of Body Weight Perception and Goals on Consumption Behaviour among College Students **N.L. Mardiyati, W. Song, A.A. Opoku-Acheampong, C.A. Miller, T. Kidd and W. Wang.** Kansas State Univ.
- 901. NUTRITION ACROSS THE LIFESPAN: EARLY CHILDHOOD NUTRITION**
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)*
- C78 **I 901.1** Mothers' Child-Feeding Practices Are Associated with Children's Sugar-Sweetened Beverage Intake **S. Park, R. Li and L. Birch.** Ctrs. for Dis. Control and Prevent. and Univ. of Georgia.
- C79 **II 901.2** Effects of Cow Milk versus Extensive Protein Hydrolysate Formulas on Infant Cognitive Development **J.A. Mennella, J.C. Trabulsi and M.A. Papas.** Monell Chem. Senses Ctr., Philadelphia and Univ. of Delaware.
- C80 **I 901.3** Commercial Complementary Foods in Nine Countries **J. Wallingford.** Nutrispectives, Spokane.
- C81 **II 901.4** Production and Quality Evaluation of Weaning Food from Soybean (*Glycine max*), Maize (*Zea mays*) and Sweet Potato (*Ipomoea batatas*) Blends **I.O. Banjoko, O.T. Oyelola, R.O. Fakorede and O.O. Banjoko.** Yaba Col. of Technol., Nigeria.
- C82 **I 901.5** Weight Gain Velocity of Formula-Fed Infants and Risk of Overweight at Age 5 Years **M.A. Cleves, P.H. Casey, T.M. Badger and A. Andres.** Arkansas Children's Nutr. Ctr. and Univ. of Arkansas for Med. Sci.
- C83 **II 901.6** Caregiver Feeding Style Questionnaire: Reduced Version for Toddlers **L.R. Edelson, C. Mokdad and K. van der Horst.** Nestlé Res. Ctr., Lausanne.
- C84 **I 901.7** Total Energy Expenditure of Infants with Congenital Heart Disease Postsurgical Intervention **J.C. Trabulsi, S.Y. Irving, M.A. Papas, C. Hollowell, C. Ravishankar, V.A. Stallings and B. Medoff-Cooper.** Univ. of Delaware; Univ. of Pennsylvania Sch. of Nursing and Children's Hosp. of Philadelphia.
- C85 **II 901.8** Gut Peptide Concentrations Prior to Feeding in Healthy Infants **S.L. Anderson, J.A. Mennella, M.A. Papas and J.C. Trabulsi.** Univ. of Delaware and Monell Chem. Senses Ctr., Philadelphia.
- C86 **I 901.9** Exclusive Breastfeeding Protective for Growth Trajectory to 5 Years in a WIC Cohort **L.C. Arevalos, L.M. Nicholson and P.C. Papathakis.** California Polytech State Univ., San Luis Obispo.
- C87 **II 901.10** Aluminum and Other Metal Content of Oral Pediatric Medications **R.A. Yokel, S.E. Seger and J.M. Unrine.** Univ. of Kentucky.
- C88 **I 901.11** Relationship of Percentage of Adequacy and Distribution of Macronutrients in the Diet of the Mother-Child Dyad of Schoolchildren of Arandas, Jalisco, Mexico **L. Miranda Ríos, E.M. Vasquez-Garibay, E. Romero-Velarde, M.E. Nuño-Cosío and L.R. Campos-Barrera.** Univ. of Guadalajara and Inst. Alteño para el Desarrollo de Jalisco, Mexico.
- C89 **II 901.12** Plasma 3-epi-25-Hydroxyvitamin D3 in Very Low Birth Weight Preterm Infants in Canada during the First Five Weeks after Birth **M. Djekic-Ivankovic, G. Jones, M. Kaufmann and H. Weiler.** Univ. of Belgrade; Sch. of Dietetics and Human Nutr., McGill Univ. and Queen's Univ., Canada.

- C90 **I 901.13** Toddler Feeding Practices in Early Head Start and Migrant/Seasonal Early Head Start Mothers **G. Voorheis, P. Papathakis and L. Nicholson.** California Polytech State Univ., San Luis Obispo.
- C91 **II 901.14** Exploratory Study of Factors Associated with the Healthfulness of Parental Responses to In-Store Child Food Purchasing Requests **E. Calloway, N. Ranjit, C. Roberts-Gray, S. Sweitzer, K. McInnis, M.J. Romo-Palafox and M. Briley.** Gretchen Swanson Ctr. for Nutr., Omaha; Univ. of Texas at Austin; Third Coast Res., Galveston and Univ. of Texas Sch. of Publ. Hlth., Austin.
- C92 **I 901.15** A Study of Feeding Problems in Infancy and Early Childhood in Ibadan, Nigeria **F.O. Samuel, C.P. Ugochukwu and Z.O. Odukale.** Univ. of Ibadan, Nigeria.
- C93 **II 901.16** Usual Intakes of Nutrients among Children 2-5 Years in Hays County, Texas Reveal Nutritional Risk **B.R. Markides, S.H. Crixell, B.J. Friedman, L. Biediger-Friedman and H. Kotwal.** Texas State Univ.
- C94 **I 901.17** Relationship of Nutritional Risk, Body Mass Index, and Cognitive Functioning in Preschoolers **D.L. Tande, A. Kehn, L.D. Whigham and J.N. Roemmich.** Univ. of North Dakota; Univ. of Texas at El Paso and USDA, Grand Forks.
- C95 **II 901.18** Malnutrition and Early Feeding Practices among 0-2 Year-Old Children in Lebanon **N. Hwalla, L. Nasreddine, F. Naja and R. Zgheib.** Amer. Univ. of Beirut.
- C96 **I 901.19** Growth of Infants Fed Formula with Prebiotics and Probiotics **P. Strong, A. Kirchoff, C. Harris and C.L. Berseth.** Mead Johnson Pediat. Nutr. Inst.
- C97 **II 901.20** Low Prevalence of Vitamin D Deficiency in Irish Toddlers Despite Northerly Latitude and High Prevalence of Inadequate Intakes **M.E. Kiely, C. O'Keefe, E. McCarthy, L.C. Kenny, J.O. Hourihane and D. Murray.** University Col. Cork.
- C98 **I 901.21** Infant Weight Gain in Week 1 and Body Mass Index at Age 2: A Prospective Cohort Study in an Urban Population **L.A. Burnham, A. Merewood, M. Torjman, N. Chen, X. Grossman, S. Matlak and L. Feldman-Winter.** Boston Med. Ctr.; Jefferson Med. Col. and Children's Reg. Hosp., CMSRU, Camden, NJ.
- C99 **II 901.22** Diet Quality Improves for Parents and Children When Almonds Are Incorporated into Their Diets: A Randomized Crossover Study **A.M. Burns, M.A. Zitt, C.C. Rowe, W.J. Dahl and B. Langkamp-Henken.** Univ. of Florida.
- C100 **I 901.23** Gut Hormone Levels in Preterm Infants as Predictors of Feeding Intolerance **K.M. Hart, L. Kim, M. Zaman, C. Grimont, D. D'Onofrio, S.D. Freedman and C.R. Martin.** Boston Univ. Sch. of Med.; Philadelphia Col. and Beth Israel Deaconess Med. Ctr.
- C101 **II 901.24** Early Childhood Cognitions of Food, Nutrition, and Health **S.A. Ramsay, L-L. Tsao, M. Ferrante, J. Lanigan and J.L. Susan.** Univ. of Idaho; Washington State Univ. and Univ. of Colorado Anschutz Med. Campus.
- C102 **I 901.25** No Long-Term Effect of Soy Infant Formula on Reproductive Organs Size at Age 5 Years **A. Andres, M.B. Moore, L.E. Linam, P.H. Casey, M.A. Cleves and T.M. Badger.** Arkansas Children's Nutr. Ctr. and Univ. of Arkansas for the Med. Sci.
- C103 **II 901.26** Isoflavones Increase Susceptibility for Kawasaki Disease in Early Childhood **M.A. Portman, S. Navarro and J.W. Lampe.** Seattle Children's Res. Inst. and Fred Hutchinson Cancer Res. Ctr., Seattle.
- C104 **I 901.27** Maternal Dietary Quality Affects Breast Milk Composition **A. Penfield-Cyr, P.G. Panagos, N. Shivappa, M.D. Wirth, J.R. Hebert and S. Sen.** Brigham and Women's Hosp.; Thomas Jefferson Univ. Hosp. and Univ. of South Carolina.
- C105 **II 901.28** Quality of the Early Infant Diet across the Eight Low and Middle Income Countries from the Malnutrition and Enteric Disease Study **R. Chandyo, B.L. Maciel, R. Ambikapathi, C. Patil, A. Bose, C. Amour, M. Islam, A. Turab, P. Bessong and L. Caulfield.** Univ. of Bergen; State Univ. of Ceará, Brazil; FIC, NIH; Univ. of Illinois at Chicago; Christian Med. Col. & Hosp., Vellore, India; Haydom Lutheran Hosp., Tanzania; ICDDR,B, Bangladesh; Aga Khan Univ., Pakistan; Univ. of Venda, South Africa and Johns Hopkins Sch. of Publ. Hlth.
- C106 **I 901.29** Design and Implementation of a Sensory-Based Exotic Fruit and Vegetable Nutrition Education Classroom Intervention Targeting Pre-K through First Grade Children in Southern Illinois **S. Kannan.** Southern Illinois Univ. Carbondale.

902. COMMUNITY AND PUBLIC HEALTH NUTRITION: HEALTH DISPARITIES AND PROMOTING HEALTH IN DIVERSE POPULATIONS

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)

- C107 **II 902.1** Regional Differences in Sugar-Sweetened Beverage Intake among U.S. Adults **S. Park, L.C. McGuire and D.A. Galuska.** Ctrs. for Dis. Control and Prevent.
- C108 **I 902.2** Efficacy Perceptions of Fruit and Vegetable Parenting Practices in Low-Income Diverse Mothers of Preschoolers **L.H. Shriver and C. Buehler.** Univ. of North Carolina at Greensboro.
- C109 **II 902.3** Health-Related Risk Factors of Chinese Students in South Korea **J. Kim, R. Gao and J. Lee.** Seoul Women's Univ. and Kyonggi Univ., South Korea.
- C110 **I 902.4** Salivary Biomarkers for Chewing Betel (*Areca*) Nut **A.A. Franke, A.J. Mendez, J.F. Lai, C. Arat-Cabading, X. Li and L.J. Custer.** Univ. of Hawaii Cancer Ctr. and Univ. of Guam Sch. of Nursing and Hlth. Sci.
- C111 **II 902.5** Validation of a Sun Exposure Questionnaire among Subjects with Type 2 Diabetes Residing in South Florida **F.G. Huffman, J.C. Exebio, G.G. Zarini, J.A. Vaccaro and S. Ajabshir.** Florida Intl. Univ.
- C112 **I 902.6** Relationship between Microalbuminuria and Serum Vitamin D Levels in African Americans with Type 2 Diabetes **G.G. Zarini, L. Shaban, J.C. Exebio, J.A. Vaccaro, S. Ajabshir and F.G. Huffman.** Florida Intl. Univ. and Kuwait Univ.
- C113 **II 902.7** Anthropometric Measures of Obesity and Insulin Resistance in Turkish Patients with Type 2 Diabetes **S. Sukhram, C. Moore, R. Raiola and F. Huffman.** Col. of Staten Island and Florida Intl. Univ.

- C114 **I 902.8** Relationship between Intake of Phylloquinone (Vitamin K1) with Blood Lipids and Biomarkers of Glucose Homeostasis in Haitian Americans and African Americans with and without Type 2 Diabetes **R. Basiri, G.G. Zarini, J.A. Vaccaro, J.C. Exebio and F.G. Huffman.** Florida State Univ. and Florida Intl. Univ.
- C115 **II 902.9** Child Obesity and acanthosis nigricans in the Children's Healthy Living Program **R. Novotny, F. Li, M.K. Fialkowski, D. Vargo, A.R. Areta, J. Deenik, R.T. Leon Guerrero and J.H. Kim.** Univ. of Hawaii at Manoa; American Samoa Community Col.; Col. of Nat. and Applied Sci., Univ. of Guam and Northern Marianas Col.
- C116 **I 902.10** Disordered Eating Behaviors among College Students: Does Nutrition Major Matter? **Z. Yu, J. Snyder, M. Tan, J. Ross and J. Shank.** Univ. of North Florida.
- C117 **II 902.11** Effects of Neighborhood Social Norms on Children's Diets and Weight Outcome in China **H. Xue, H. Wang and Y. Wang.** Univ. at Buffalo and Chinese CDC, Beijing.
- C118 **I 902.12** The Recession Is Associated with Increased Risk of Overweight and Obesity among Children in California **V.M. Oddo and J.C. Jones-Smith.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C119 **II 902.13** The Prevalence and Associated Factors of Diabetes in Pulmonary Tuberculosis Patients in Rural China **J. Cai, A. Ma, Y. Wang, Q. Wang, X. Han, S. Zhao and Y. Ma.** Med. Col. of Qingdao Univ.; Sch. of Publ. Hlth., Lanzhou Univ. and Linyi Hosp., China.
- C120 **I 902.14** Suburban and Rural Women: Internationally the Most Vulnerable to Food Insecurity **D. Dallmann, H. Melgar Quinonez and T. Ballard.** McGill Univ., Sainte anne de Bellevue and U.N. Food and Agr. Org., Italy.
- C121 **II 902.15** Live Well Springfield: Neighborhood-Level Baseline Survey Results of a Collaborative Community Transformation Movement **E. Carbone, E. Puleo, J. Mushenko, T. Paradis, H. Stenger, J. Nelson Peterman, K. Wicks, C. Ratte and J. Collins.** Univ. of Massachusetts Amherst; Baystate Med. Ctr. and Pioneer Valley Planning Commission, Springfield, MA.
- C122 **I 902.16** Mixed Methods Assessment of Health Tracking Use by Diverse, Urban Youth **S. Schaefer and C. Carter Ching.** Univ. of California, Davis.
- C123 **II 902.17** Greater Home Fruit and Vegetable Availability among Underserved Families after Participating in a Nutrition Program: The Athletes for Life Study **A. Chavez, N.C. Crespo, E. Ghan, L. Hartmann, M. Bruening and S. Vega-López.** Arizona State Univ.
- C124 **I 902.18** Diet during Pregnancy and Disparities in Fetal Growth: The NEST Cohort **M.A. Mendez, S.C. Grabich, S. Nahm, S.K. Murphy and C. Hoyo.** Univ. of North Carolina at Chapel Hill; Duke Univ. Med. Ctr. and North Carolina State Univ.
- C125 **II 902.19** Food System Disparities **J.D. Burke.** Univ. of New Hampshire.
- C126 **I 902.20** Fruit and Vegetable Consumption in Periurban Lima **M.E. Penny, K.S. Meza, H.M. Creed-Kanashiro and J. Donovan.** Intl. Nutr. Inst. (IIN), Lima, Peru and World Agroforestry Ctr., Kenya.
- C127 **II 902.21** Young Children's Screen Time and Obesity in the U.S. Affiliated Pacific: The Children's Healthy Living Program **F. Li, C. Nigg, K. McGlone, M. Fialkowski, L. Wilkens, Y. Paulino, T. Belyeu-Camacho, A. Bersamin, A. Areta and R. Novotny.** Univ. of Hawaii; Univ. of Guam; Northern Marianas Col.; Univ. of Alaska and American Samoa Community Col.
- C128 **I 902.22** Determinants of Young Children's Sleep Duration in the U.S. Affiliated Pacific: The Children's Healthy Living Program **F. Li, R. Novotny, M. Fialkowski, L. Wilkens, K. McGlone, M. Uchima, R. Nelson, A. Bersamin and A. Vargo.** Univ. of Hawaii; Univ. of Guam; Northern Marianas Col.; Univ. of Alaska and American Samoa Community Col.
- C129 **II 902.23** An Intervention to Co-package Zinc and Oral Rehydration Salts Improves Health Provider Prescription and Maternal Adherence to WHO-Recommended Diarrhea Treatment in Western Guatemala **M.L. Roche, R. García Meza and M. Vossenaar.** Micronutrient Initiative, Canada and CeSSIAM, Guatemala.
- C130 **I 902.24** Visitation and Physical Activity Intensity at Rural and Urban Parks **J.N. Roemmich and L.K. Johnson.** USDA, Grand Forks.
- C131 **II 902.25** Registration and Management of Chinese Community Tuberculosis Patients in the Northwest of China **X. Wang, J. Cai, D. Wang, Q. Wang, H. Liang, A. Ma, E. Schouten and F. Kok.** Med. Col. of Qingdao Univ.; Changji Ctr. for Dis. Control and Prevent., Xinjiang Uygur Auton. Reg., China and Wageningen Univ., Netherlands.
- C132 **I 902.26** The Association between Increased Economic Resources and Birth Weight among Native Americans in California: A Natural Experiment **J.C. Jones-Smith, W. Dow and V. Oddo.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and Univ. of California Berkeley Sch. of Publ. Hlth.
- C133 **II 902.27** The Direct and Indirect Effects of Socioeconomic Status and Acculturation on Physical Activity and BMI within Country Rural-to-Urban Migrants **A. Hilmers, A. Bernabe-Ortiz, R. Gilman, A. McDermott, L. Smeeth and J. Miranda.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.; Univ. Peruana Cayetano Heredia, Lima and London Sch. of Hyg. and Trop. Med.
- C134 **I 902.28** Prevalence and Risk Factors of Reported Infections among Pregnant Adolescents **C.C. Akoh, E. Pressman, E. Cooper, R.A. Queenan and K.O. O'Brien.** Cornell Univ. and Univ. of Rochester Sch. of Med.
- C135 **II 902.29** Self-Concept and Obesity Risk in Low Income Diverse Preschoolers **M. Cardel, L.L. Bellows, R.E. Boles, P.L. Davies, W.J. Gavin and S.L. Johnson.** Univ. of Colorado Anschutz Med. Campus and Colorado State Univ.
- C136 **I 902.30** Health Disaster in Least Developed Countries because of Low Nutrition and Affordability **A.G. Rizwan.** Univ. of Punjab, Pakistan.

903. COMMUNITY AND PUBLIC HEALTH NUTRITION: FOOD ENVIRONMENT

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)

- C137 **II 903.1** Using the Delphi Technique to Establish a Nutrient Profiling System for Pre-packed Food **N. Ma, G. Zhang and C. Wang.** COFCO Corp., Beijing.
- C138 **I 903.2** Manganese Accumulation in Leaves and Radishes Grown in Manganese Supplemented Soils **K. Garcia, H. Douglas, S. Clarke-Lambert, K. Ruddock and D. Skeete.** Medgar Evers Col., Brooklyn.
- C139 **II 903.3** Using an Expert Panel to Test a New Nutrient Profiling System for Pre-Packed Food **G. Zhang, N. Ma and C. Wang.** COFCO Corp., Beijing.
- C140 **I 903.4** Heavy Metal Contents in *Celosia argentea*, *Lycopersicon esculentum* and Aloe Vera Planted on Contaminated Abule Egba Dump Soil **O. Oyelola, I. Banjoko, I. Ajiboshin, A. Ajayi and I. Babatunde.** Fed. Univ. of Technol.; Yaba Col. of Technol. and Univ. of Lagos, Nigeria.
- C141 **II 903.5** Cost of Nutrients Analyses Using the National Health and Nutrition Examination Survey: A Focus on Grain Foods **V. Fulgoni III and Y. Papanikolaou.** Nutr. Impact LLC, Battle Creek and Nutr. Strategies Inc., Paris, Canada.
- C142 **I 903.6** Customers' Perception of Restaurant Food Environment by Regions in Korea **J-S. Choe, Y. Kim, Y. Park and S. Lee.** Agrifood Resources, RDA, South Korea and Seoul Natl. Univ.
- C143 **II 903.7** Intra-month Availability of Sugar-Sweetened Beverages in the Homes of Supplemental Nutrition Assistance Program Preschoolers **K.R. Lora, A. Ferris and D. Wakefield.** Univ. of Oklahoma Hlth. Sci. Ctr. and Univ. of Connecticut Hlth. Ctr.
- C144 **I 903.8** Research of the Head Family Food's Conception Perceived by the Different Age Groups **H-K. Chung and M-H. Kim.** Hoseo Univ., South Korea.
- C145 **II 903.9** Cost and Availability of Gluten-Free Food Products in Northwestern México **M. Arias-Gastélum, F. Cabrera-Chávez, M. Delgado-Uriarte, M. Vergara-Jiménez, J. Magaña-Gómez, D. Magaña-Ordorica and N. Ontiveros.** Autonomous Univ. of Sinaloa, Mexico.
- C146 **I 903.10** The Impact of Crunchy Wednesdays on Happy Meal Fruit Orders in McDonald's Restaurants in France from 2009 to 2013 **A. Drewnowski, S. Michels and D. Leroy.** Univ. of Washington and Protéines, Paris.
- C147 **II 903.11** Effects of MSG on Neuronal Cells **M. Dopler-Nelson, E. Merlino, S. Lee and T. Shea.** Univ. of Massachusetts Lowell.
- C148 **I 903.12** Taiwanese Elders Who Eat with Others Have a Better Diet and Health **M-S. Lee, H-L. Cheng and M.L. Wahlqvist.** Sch. of Publ. Hlth., Natl. Defense Med. Ctr., Taipei and Natl. Hlth. Res. Insts., Miaoli Cty., Taiwan.
- C149 **II 903.13** Worksite Supports for Healthy Eating Reported by Employed Adults **S.J. Onufrak, S. Park, J. Kimmons and D. Harris.** Ctrs. for Dis. Control and Prevent.
- C150 **I 903.14** Improving the U.S. Food Environment through Reformulation: A Comparison of Two Nutrient Profiling Models **G. Masset, A. Vlassopoulos, M. Potter, F. Leroy and B.M. Vecchio.** Nestec SA, Switzerland.
- C151 **II 903.15** Fast Food Environment among Low-Income Communities in the Pacific Region: Findings from the Children's Healthy Living Program **E. Dela Cruz-Talbert, F. Li, M. Fialkowski, L. Wilkens, R. Leon-Guerrero, J. Kim, A. Bersamin and R. Novotny.** Univ. of Hawaii; Univ. of Guam; Northern Marianas Col. and Univ. of Alaska.
- C152 **I 903.16** Integration of a New Food into Daily Food Systems: A Story of Almond in South Korea **S-K. Lee, S.Y. Nam, K.W. Kim and M.K. Kim.** Inha Univ.; Seoul Women's Univ. and Natl. Cancer Ctr.
- C153 **II 903.17** Comparative Performance of NEMS-S Surveys in Latino Corner Stores in the Greater Boston Area **E.B. Caplan, R. Kanter, R. Bearup, N.W. Solomons and O.I. Bermudez.** Tufts Univ., Boston and CeSSIAM, Guatemala.
- C154 **I 903.18** Advice and the Reality of Snacking Habits: A Worldwide Perspective **A. Vlassopoulos, G. Masset, M. Potter, A. Eldridge, F. Leroy and B.M. Vecchio.** Nestle Res. Ctr., Lausanne.
- C155 **II 903.19** Employed U.S. Adults' Support for Food and Beverage Worksite Wellness Strategies and Sugar-Sweetened Beverage Intake during the Workday **S.H. Lee-Kwan, L. Pan, J. Kimmons, J. Foltz and S. Park.** Ctrs. for Dis. Control and Prevent.
- C156 **I 903.20** Livestock Diversity and Food Security in Smallholder Farming Households in Haiti **J.J. Malard, H. Melgar-Quiñonez, D. Dallmann and M. García Winder.** McGill Univ. and Inter-Amer. Inst. for Cooperation in Agr., Washington, DC.
- C157 **II 903.21** Cafeteria Managers' Perceptions and Promotion of School Salad Bars **K. Skelton, M. Bruening, M. Adams, P. Ohri-Vachaspati, J. Hurley and J. Simpson.** Sch. of Nutr. and Hlth. Promotion., Arizona State Univ.
- C158 **I 903.22** Decision to Frequent a Restaurant Type Is Influenced by Individual Characteristics of Wisconsin Residents **S. Bhutani, D.A. Schoeller, M. Walsh and C. McWilliams.** Univ. of Wisconsin-Madison.
- C159 **II 903.23** Neighborhood Social Cohesion Is Associated with Food Security Status in Households with and without Children in the U.S. **L.H. Martini, M.P. Burke and N. Younginer.** Univ. of South Carolina and Food Res. and Action Ctr., Washington, DC.
- C160 **I 903.24** Analysis of the Dietary Intakes of Canadian Adults **M. Ahmed, J. Arcand, A. Schermeel and M. L'Abbe.** Univ. of Toronto.

904. COMMUNITY AND PUBLIC HEALTH NUTRITION: POLICY AND SYSTEMS APPROACHES IN COMMUNITY AND PUBLIC HEALTH NUTRITION

Poster

(Sponsored by: Community and Public Health Nutrition RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C161 **II 904.1** Total and Added Sugars: Are Restrictive Guidelines Achievable? **J.M. Erickson and J. Slavin.** Univ. of Minnesota, St. Paul.
- C162 **I 904.2** Socio-demographic Characteristics and Active Behaviors in Schoolchildren of Arandas, Jalisco, Mexico **E.M. Vasquez-Garibay, L. Miranda-Rios, E. Romero-Velarde, M.E. Nuño-Cosío and L.R. Campos-Barrera.** Univ. of Guadalajara and Inst. Año para el Desarrollo de Jalisco.
- C163 **II 904.3** Overweight and Obesity in School Age Population Beneficiaries of School Breakfasts Program in San Luis Potosí, Mexico **M.d.C. Morales-Ruan, I. Mendez Gomez-Humaran, L. Cuevas-Nasu and T. Shamah-Levy.** Natl. Inst. of Publ. Hlth., Cuernavaca.
- C164 **I 904.4** Living Alone Showed Significant Associations with Dietary Quality and Health among South Korean Adults **S-Y. Nam and S-K. Lee.** Inha Univ., South Korea.
- C165 **II 904.5** Who Reads Nutrition Labels? Label Usage by College Students in a Dining Hall Setting **M.J. Christoph and B.D. Ellison.** Univ. of Illinois at Urbana-Champaign.
- C166 **I 904.6** Building Multisectoral Nutrition Systems: The Roles and Experiences of Boundary-Crossing Actors in Four African Countries **D. Pelletier, S. Gervais, H. Hafeez-ur-Rehman, D. Sanou and J. Tumwine.** Cornell Univ.
- C167 **II 904.7** An Exploration of Health, Nutrition and Community Experiences of Gardeners at Wangari Gardens **T. George, D. Humphries, T. Kershaw and J. Singer.** Sch. of Publ. Hlth., Yale Univ. and Wangari Gardens, Washington, DC.
- C168 **I 904.8** Improvement in Provincial Plans for Nutrition through Targeted Technical Assistance and Local Advocacy in Vietnam **J. Harris, P.H. Nguyen, Q. To, N. Hajeebhoy, L. Phan, H. Vu, E.A. Frongillo, K. Lapping and P. Menon.** Intl. Food Policy Res. Inst., Washington, DC; Univ. of South Carolina; FHI360, Viet Nam and Save the Children, Washington, DC.

905. NUTRITIONAL EPIDEMIOLOGY: INNOVATION AND VALIDATION OF DIETARY ASSESSMENT TOOLS AND THEIR APPLICATIONS

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C169 **II 905.1** The National Cancer Institute's Dietary Assessment Primer **S.M. Krebs-Smith, S.I. Kirkpatrick, A.F. Subar, A.B. Rodgers, T.E. Schap, J. Reedy, M.M. Wilson, C.K. De Aguiar and F.E. Thompson.** NCI, NIH, Rockville and Univ. of Waterloo, Canada.
- C170 **I 905.2** A Correlation Study of Docosahexaenoic Acid Intake with Its Levels in Breast Milk in Chinese Lactating Women **H-t. Li, Y. Zhang, L. Yu, M. Liu, M. Bai and J-m. Liu.** Sch. of Publ. Hlth., Peking Univ.; Weihai Maternal & Child Hlth. Hosp. and Wyeth Nutr. Sci. Ctr., China.
- C171 **II 905.3** Probabilistic Bioactive Food Compound Intakes in the European BACCHUS Project **S. Pigat and R. O'Connor.** Creme Global, Dublin.
- C172 **I 905.4** Estimates of the Quality of Complementary Feeding among Vietnamese 6-23 Month Olds Varied by How Commercial Baby Cereals Were Classified in 24-Hour Recalls **T.T. Nguyen and N. Hajeebhoy.** FHI 360, Viet Nam.
- C173 **II 905.5** Investigating Bioaccessibility of Methylmercury from Seafood Commonly Consumed in North America **M. Siedlikowski, M. Bradley and N. Basu.** Sch. of Dietetics and Human Nutr., McGill.
- C174 **I 905.6** Associations of Dietary Carbohydrate Quality with Daily Interstitial Glucose Patterns in Community-Dwelling Individuals: A Pilot Study **M.A. McCrory and A.F. Amankwaah.** Georgia State Univ. and Purdue Univ.
- C175 **II 905.7** An Examination of the Relationships between Dietary Diversity, Nutritional Status, and Food Security across Seasons in Bangladesh **J.L. Waid.** Helen Keller Intl., Dhaka.
- C176 **I 905.8** Development and Validation of a Dietary Portfolio Score for Use among Hypercholesterolemic Individuals **V.H. Jayalath, C. Ireland, D. Faulkner, A. Mirrahimi, K. Srichaikul, R. de Souza, J. Sievenpiper, C. Kendall, P. Couture, B. Lamarche, P. Jones, J. Frohlich and D. Jenkins.** St. Michael's Hosp., Toronto; McMaster Univ., Ont.; Univ. of Toronto; Univ. Laval, Que.; Univ. of Manitoba and Univ. of British Columbia.
- C177 **II 905.9** Preliminary Characterization of Pediatric Oncology Patients Comparing Traditional Nutrition Assessment to Subjective Global Nutrition Assessment **K. Watts, D. Gonzales-Pacheco, S. Abraham and C. Wong.** Univ. of New Mexico.
- C179 **II 905.10** Simple Liking Survey Associates with Weight Loss Success in a Worksite Intervention **M. Sharafi, P. Faghri, T. Huedo-Medina and V.B. Duffy.** Univ. of Connecticut.

906. NUTRITIONAL EPIDEMIOLOGY: NUTRITION AND CHRONIC DISEASE EPIDEMIOLOGY

Poster

(Sponsored by: Nutritional Epidemiology RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)

- C180 I **906.1** **Withdrawn.**
- C181 II **906.2** Iron Status and Mortality in Stable and Unstable Coronary Artery Disease Patients **W. Ling, X. Li, D. Ding, Y. Zhang, D. Su, M. Wang, M. Xia, J. Qiu and G. Hu.** Sun Yat-sen Univ.; Gen. Hosp. of Guangzhou Military Command, China and Pennington Biomed. Res. Ctr., Baton Rouge.
- C182 I **906.3** Breakfast Eating and Incident Coronary Heart Disease in a Large Prospective Cohort of American Women **L.E. Cahill, S.E. Chiuve, R.A. Mekary, M.K. Jensen, A.J. Flint, F.B. Hu, K.J. Mukamal, K.M. Rexrode and E.B. Rimm.** Harvard Sch. of Publ. Hlth.; Brigham and Women's Hosp. and Harvard Med. Sch.; MCPHS Univ., Boston and Beth Israel Deaconess Med. Ctr.
- C183 II **906.4** Vitamin K Status in Black and White Older Adults and Its Relationship with Cardiovascular Disease Risk **K. Shea, S.L. Booth, T.E. Brinkley and S.B. Kritchevsky.** Tufts Univ., Boston and Wake Forest Med. Ctr.
- C184 I **906.5** Hypohydration and Vascular Atherosclerosis **D. Bougatsas, S.A. Kavouras, E. Georgousopoulou, K. Manolopoulou and D.B. Panagiotakos.** Harokopio Univ., Greece and Univ. of Arkansas.
- C185 II **906.6** Fruit and Vegetable Intake Is Associated with Lower Framingham Risk Scores in Korean Men **Y-J. Bae and M-K. Choi.** Shinhan Univ. and Kongju Natl. Univ., South Korea.
- C186 I **906.7** The Effect of Dietary Intake and Lifestyle Factors on Hypertriglyceridemia Prevalence: National Health and Nutrition Examination Survey (NHANES), 2003-2010 **L. Sutherland and D.L. Gee.** Central Washington Univ.
- C187 II **906.8** Greater Fasting Insulin Is Associated with Prevalent Hypertension and Left Ventricular Hypertrophy in Black and White Adults **B.A. Gower, N. Bush, K. Pearson, S. Judd, J.M. Shikany, V. Howard, E. Soliman and G. Howard.** Univ. of Alabama at Birmingham and Wake Forest Univ.
- C188 I **906.9** Prevalence, Risk Factors, Knowledge of Hypertension and Dietary Intake of Ghanaian Nurses in Northern Region **C.K. Kubuga, E.A. Owusu, J. Zanu, K.W. Lee and W. Song.** Michigan State Univ. and Univ. for Develop. Studies, Ghana.
- C189 II **906.10** Nutritional Intervention Decreases Risk of Metabolic Syndrome and Improves Quality of Diet **C. Fleetwood, A. Campa, S.S. Martinez, T. Stewart, L. Seminario, D. Gracia and M.K. Baum.** Florida Intl. Univ. and Borinquen Hlth. Care Ctr., Miami.
- C190 I **906.11** Elevated Serum Oxychlordane Is Associated with Increased Risk of Metabolic Syndrome: Results from the National Health and Nutrition Examination Survey 1999-2004 **D.L. Gee and C.J. Nikolaus.** Central Washington Univ.
- C191 II **906.12** The Alternate Healthy Eating Index Is Associated with the Metabolic Syndrome in Latino Adults: Results from the Hispanic Community Health Study/Study of Latinos **J. Mattei, D. Sotres-Alvarez, M. Daviglius, L.C. Gallo, M. Gellman, S. Hooshmand, F. Hu, K.L. Tucker, W.C. Willett, A.M. Siega-Riz, L. Van Horn and R.C. Kaplan.** Harvard Sch. of Publ. Hlth.; Univ. of North Carolina at Chapel Hill; Univ. of Illinois, Chicago; San Diego State Univ.; Univ. of Miami; Univ. of Massachusetts Lowell and Albert Einstein Col. of Med.
- C192 I **906.13** Dairy Consumption and Metabolic Syndrome: A Meta-analysis of Observational Studies **Y. Kim and Y. Je.** Kyung Hee Univ., South Korea.
- C193 II **906.14** Early Growth and Dysmetabolism at 11.5 Years: A Cohort Analysis of the PROBIT Study **E. Oken, K. Tilling, S. Rifas-Shiman, R. Patel, J. Thompson, M. Kramer and R. Martin.** Harvard Med. Sch.; Univ. of Bristol and McGill Sch. of Med.
- C194 I **906.15** Breastfeeding Is Associated with Lower Adiposity and Cardiometabolic Alterations at 4 Years of Age **I. Ramirez-Silva, J.A. Rivera Dommarco, B. Trejo-Valdivia, R. Martorell, A.D. Stein, U. Ramakrishnan, I. Romieu and A. Barraza-Villarreal.** Natl. Inst. of Publ. Hlth., Cuernavaca; Emory Univ. and Intl. Agency for Cancer, Lyon.
- C195 II **906.16** **Withdrawn.**
- C196 I **906.17** Diet Quality and Acculturation are Associated with Metabolic Syndrome in Females for South Asian Americans **S.A. Khan and R.T. Jackson.** Univ. of Maryland College Park.
- C197 II **906.18** A Review and Meta-analysis of Red Meat Consumption and Type 2 Diabetes **L.C. Bylsma, P.E. Miller and D.D. Alexander.** EpidStat Inst., Ann Arbor.
- C198 I **906.19** Urinary Concentrations of Phytoestrogens Are Not Associated with Risk of Type 2 Diabetes: The Singapore Chinese Health Study **A. Pan, M. Talaei, J-M. Yuan, B-L. Lee, C.N. Ong and W-P. Koh.** Natl. Univ. of Singapore Sch. of Publ. Hlth.; Univ. of Pittsburgh Cancer Inst. and Duke-NUS Grad. Med. Sch. Singapore.
- C199 II **906.20** Inverse Association between Vitamin D Status and Diabetes in a Clinic-Based Sample of Hispanic Adults in Puerto Rico **C. Palacios, G. Ramos-Trautmann, L. González, G. Díaz-Luquis and C.M. Perez.** Grad. Sch. of Publ. Hlth., Med. Sci. Campus, Univ. of Puerto Rico.
- C200 I **906.21** Circulating Biomarkers in Breast Cancer Prognosis and Survival: A Systematic Review **J. Cheng, S. Liu and F.F. Zhang.** Tufts Univ. Friedman Sch. of Nutr. Sci. and Policy.
- C201 II **906.22** Circulating Folate Levels and Colorectal Adenoma: A Meta-analysis **J. Youn and J.E. Lee.** Sookmyung Women's Univ., South Korea.

- C202 **I 906.23** Coffee Consumption and Risk of Prostate Cancer **S.M. Nelson, S.J. Weinstein and D. Albanes.** NCI, NIH, Rockville.
- C203 **II 906.24** Serum 25-Hydroxyvitamin D3 and Mammography Density among Mexican Women **I. Romieu, A. Amadou, S. Rinaldi, V. Fedirko, C. Biessy, M. Lajous, E. Yunes, R. Lopez-Ridaura, G. Torres Mejia and E. Ortiz-Panozo.** Intl. Agcy for Res. on Cancer, Lyon; Emory Univ. and Natl. Inst. of Publ. Hlth., Mexico City.
- C204 **I 906.25** Dietary Sodium Intake and Cardiometabolic Conditions in Adult Survivors of Childhood Cancer: A Report from the St. Jude Lifetime Cohort Study **S. Liu, F.F. Zhang, R. Ojha, J. Lanctot, W. Chemaitilly, K. Krull and M. Hudson.** Tufts Univ., Boston and St. Jude Children's Res. Hosp.
- C205 **II 906.26** Role of Baseline Nutritional Status on the Effect of a Multivitamin on Cancer in the Physicians' Health Study II **H.D. Sesso, W.G. Christen, R.J. Glynn, J.E. Manson, J.E. Buring and J.M. Gaziano.** Brigham and Women's Hosp.
- C206 **I 906.27** Whole Grains and Cereal Fiber in Relation to Cancer Risk: A Systematic Review **N. Makarem, J. Nicholson, E.V. Bandera, N. McKeown and N. Parekh.** NYU; NYU Med. Sch.; Rutgers Cancer Inst. of New Jersey and USDA at Tufts Univ.
- C207 **II 906.28** Coffee Consumption and Risk of Lung Cancer in the NIH-AARP Diet and Health Study **K.A. Guertin, N.D. Freedman, E. Lofffield, B.I. Graubard, N.E. Caporaso and R. Sinha.** NCI, NIH.
- C208 **I 906.29** Soy and Cruciferous Vegetables Intake and Side Effects of Endocrine Therapy in Caucasian and Chinese Breast Cancer Patients **T. Fung, S. Gomez, Y.T. Hwang, C. Dash, L. Allen, L. Hilakivi-Clarke and J. Wang.** Simmons Col., MA; Natl. Taipei Univ.; Cancer Prevent. Inst. of California, Fremont and Georgetown Univ.
- C209 **II 906.30** Associations between Folate Biomarker Levels and Renal Function among Adults in the U.S. **J. Hu, W. Juan and N.R. Sahyoun.** Univ. of Maryland College Park and FDA.
- C210 **I 906.31** Dietary Flavonoid Intake and Weight Change **M.L. Bertoia, E.B. Rimm, K.J. Mukamal, F.B. Hu, W.C. Willett and A. Cassidy.** Harvard Sch. of Publ. Hlth.; Beth Israel Deaconess Med. Ctr. and Univ. of East Anglia Norwich Med. Sch., U.K.
- C211 **II 906.32** Does Secondhand Smoke Exposure Moderate the Association between Food Insecurity and Asthma among Children? **M. Ding and C.A. Zizza.** Auburn Univ.
- C212 **I 906.33** Plasma Nutrient Biomarkers are Associated with Waist-to-Height Ratio in Youth with Type 1 Diabetes: SEARCH for Diabetes in Youth Nutrition Ancillary Study **S. Wang, J. Crandell, S. Couch, I. King, J. Lawrence, D. Dabelea, A. Lamichhane, G. Kim, R. Bell, S. Zhu and E. Mayer-Davis.** Zhejiang Univ., China; Univ. of North Carolina at Chapel Hill; Univ. of Cincinnati; Univ. of New Mexico; Kaiser Permanente Southern California; Univ. of Colorado Denver; Seattle Children's Hosp. and Wake Forest Sch. of Med.
- 907. NUTRITION EDUCATION AND TEACHING: NUTRITION EDUCATION IN MEDICAL AND OTHER PROFESSIONAL SCHOOLS**
- Poster**
- (Sponsored by: Nutrition Education in Professional Schools Subcommittee)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)*
- C213 **II 907.1** Mapping Nutrition Competencies across the Medical Curriculum in an Entry Level Medical Course **C.A. Nowson, J. Wells and R. Perlestein.** Sch. of Exercise and Nutr. Sci.
- C214 **I 907.2** Hydration and Dietetic Practice in the United Kingdom **P. Douglas, L. McGuffin, L. Fitzpatrick, L. Ball, J. Crowley, C. Laur, M. Rajput-Ray, J. Gandy and S. Ray.** UK & Global Need for Nutr. Educ./Innovation Prog.
- C215 **II 907.3** Pilot Evaluation of a Nutrition Training Intervention for Pre-registration Pharmacists in Northern Ireland **P. Douglas, L. McGuffin, C. Laur, K. Burnett, S. Ray and H. McCarthy.** Ulster Univ. & MRC HNR Cambridge Univ. and Ulster Univ. Sch. of Pharm. and Pharmaceut. Sci.
- 908. NUTRITION EDUCATION AND TEACHING: NUTRITION EDUCATION FOR PRACTICING CLINICIANS**
- Poster**
- (Sponsored by: Nutrition Education in Professional Schools Subcommittee)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)*
- C216 **I 908.1** Dietetics Professionals Recognize Beans as Different Carbohydrate for Adults with Type 2 Diabetes **D.M. Winham and A.M. Hutchins.** Iowa State Univ. and Univ. of Colorado Colorado Springs.
- C217 **II 908.2** Pregnancy Weight Management among Women's Health Providers: Knowledge, Perceptions and Practices **S. Earl, L. Giles, W. Palmer and J. Welsh.** Children's Healthcare of Atlanta.

**909. NUTRITION EDUCATION AND TEACHING:
INNOVATIONS IN UNDERGRADUATE,
GRADUATE AND MEDICAL
NUTRITION EDUCATION**

Poster

(Sponsored by: Nutrition Education in Professional Schools Subcommittee)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C218 I **909.1** Use of Online Collaborative Case Study Modules for Obesity Education **W. Bignell and J.G. Fischer.** Univ. of Georgia.
- C219 II **909.2** Perceptions and Practices of Meal Preparation among College Students Participating in Cooking Classes **S.E. Alsing, B.T. Pope, M.A. Wyatt, C. Tsui, M.J. Wells, K.J. Farr and N. Hongu.** Univ. of Arizona.
- C220 I **909.3** Confronting Public Nutrition Misconceptions: Using Timelines and Backchannels to Promote Engagement and Critical Reasoning **M-J. Ludy, C.M. Hamady, C.M. Haar and E.K. Plaine.** Bowling Green State Univ.
- C221 II **909.4** The Gut Microbiota for Health Experts Exchange: An Online Network for Sharing Knowledge **P. Enck, K. Campbell, J. Tap, P-Y. Arnoux and J-M. Antoine.** Univ. Hosp. Tübingen; Res. Inst. in Agr. Sci., INRA, Jouy-en-Josas; RCA Factory Healthcare, Paris and Danone, Paris.
- C222 I **909.5** Interactive Learning Assessment: Simulating Professional Nutrition Practice **E. Yakes Jimenez, V. Svihla, T. Castillo, T. McKay and A. Cantarero.** Univ. of New Mexico

**910. NUTRITION EDUCATION AND BEHAVIOR
SCIENCE: EVIDENCE-BASED NUTRITION
EDUCATION: DEVELOPMENT, TESTING,
AND EVALUATION**

Poster

(Sponsored by: Nutrition Education and Behavior Science RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C223 II **910.1** The Shaping Healthy Choices Program Intervention Had a Sustained Positive Impact on BMI Percentiles **R.E. Scherr, M. Dharmar, J.D. Linnell, J.J. Bergman, K.M. Brian, M. Briggs, G. Feenstra, J.C. Hillhouse, C.L. Keen, L.M. Nguyen, L.L. Ontai, S.E. Schaefer, M.H. Smith, T. Spezzano, F.M. Steniberg, C. Sutter, H.M. Young and S. Zidenberg-Cherr.** Univ. of California, Davis and Univ. of California, Oakland.

- C224 I **910.2** Skin Carotenoids Correlate with Plasma Carotenoids and Reported Intake in 4th-Grade Children **L.M. Nguyen, R.E. Scherr, I.V. Ermakov, W. Gellermann, J.D. Linnell, C.L. Keen, S. Miyamoto, F.M. Steinberg, H.M. Young and S. Zidenberg-Cherr.** Univ. of California, Davis; Univ. of Utah and Sch. of Nursing, Univ. of California, Davis, Sacramento.
- C225 II **910.3** Obesity and Nutrition Education, Integrating Structural Factors, Increases Knowledge and Applied Learning **A. McEligot, E. Gonzalez, L. Chandler, S. Bell, M. Haro Isidro, N. Tran, L. Pillazar and L. Kaiser.** California State Univ. Fullerton and Univ. of California, Davis.
- C226 I **910.4** Teachers Don't Know What They Don't Know about Nutrition: A Case for Improving Professional Development **J.D. Linnell, M.H. Smith, K.M. Brian, R.E. Scherr and S. Zidenberg-Cherr.** Univ. of California, Davis.
- C227 II **910.5** Piloting of a Learner-Centered Nutrition Curriculum for School Nutrition Staff **A.M. Jones, K.M. Brian, M. Briggs and S. Zidenberg-Cherr.** Univ. of California, Davis and Univ. of California Coop. Ext. Placer/Nevada Counties.
- C228 I **910.6** Cross-Sectional Evaluation Supports Face Validity of Theory-Driven Digital Nutrition Education Program about Dietary Sodium for SNAP-Ed **L.D. Archibeque and B. Lohse.** Penn State.
- C229 II **910.7** Can Nutrition Education Support Academic Achievement? Evidence Supporting Integration of Food and Nutrition Education into Intermediate Curricula **V. Carraway-Stage, K.M. Kolasa, S.R. Diaz and M.W. Duffrin.** East Carolina Univ.; Brody Sch. of Med. and Diaz Consulting LLC, WV.
- C230 I **910.8** Physical Activity Guide Development for Parents of Preschoolers: Qualitative Analysis **C. Delaney, J.T. Martin-Biggers and C. Byrd-Bredbenner.** Rutgers Univ.
- C231 II **910.9** Fruit and Vegetable Guide Development for Parents of Preschoolers: Qualitative Analysis **C. Delaney, J. Martin-Biggers and C. Byrd-Bredbenner.** Rutgers Univ.
- C232 I **910.10** NutriGuides' Mobile App for Development and Education of the Academy Evidence-Based Nutrition Practice Guidelines **P.J. Ziegler and A. Acosta.** Acad. of Nutr. and Dietetics, Chicago.
- C233 II **910.11** eDSME: Convergence of Behavioral and Instructional Design Theory Online to Provide Diabetes Self-Management Education/Support **L.L. Brown and J.Z. Ilich.** Florida State Univ.
- C234 I **910.12** Survey of Knowledge and Attitudes toward Nutrition in a Class of First Year Medical Students Prior to Exposure to a Nutrition Curriculum **M. Markell.** SUNY Downstate Med. Ctr.
- C235 II **910.13** Using an "App" for Online Nutrition Education with Participants in the Special Supplemental Nutrition Program for Women, Infants and Children **T. Whited, L.P. Kim and S.E. Whaley.** Pepperdine Univ. and PHFE-WIC Prog.

911. NUTRITION EDUCATION AND BEHAVIOR SCIENCE: NUTRITION EDUCATION AND BEHAVIOR CHANGE

Poster

(Sponsored by: Nutrition Education and Behavior Science RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C236 I 911.1 One-Year and Two-Year Effects of the USDA Fresh Fruit and Vegetable Program (FFVP) on Students' Fruit and Vegetable Intake Frequency and Variety **Y-C. Lin, E.B. Foland, A. Caito-Sipe and A.D. Fly**. Sch. of Publ. Hlth., Indiana Univ. and Indiana Dept. of Educ.
- C237 II 911.2 Association of Video Game Playing and Lifestyle Behaviors in Adults **C. Cemelli, J. Burris and K. Woolf**. NYU Steinhardt.
- C238 I 911.3 Supporting Autonomy in a Nutrition Intervention for Overweight/Obese Children Using Self-Determination Theory with Motivational Interviewing **A.M. Maia and A. White**. Univ. of Maine.
- C239 II 911.4 Examine the Knowledge of Nutrition and Physical Activity among 3rd-Graders Using Two Different Teaching Methods in Elementary School **S. Melhorn, T. Crook, J. Phelps and R. Hakkak**. Univ. of Arkansas for Med. Sci.
- C240 I 911.5 Self-Efficacy Is Associated with Healthy Eating Behaviors for Fifth Grade Students **E. Hall, W. Chai, W. Koszewski and J.A. Albrecht**. Univ. of Nebraska-Lincoln and Univ. of North Dakota.
- C241 II 911.6 Camp NERF: Feasibility, Acceptability, and Potential Efficacy of a Theory-Based Nutrition Education Recreation and Fitness Program Aimed at Preventing Unhealthy Weight Gain in Disadvantaged Children during Summer Months **L.C. Hopkins, A. Rose and C. Gunther**. The Ohio State Univ.
- C242 I 911.7 Evaluating Effectiveness of the Arkansas Expanded Food and Nutrition Education Program on Changing Food Resource Management and Nutrition Practice Outcomes **A. Brite-Lane, J. Phelps, S. Fuller, T. Crook and R. Hakkak**. Univ. of Arkansas for Med. Sci. and Univ. of Arkansas Div. of Agr. Res. and Ext.
- C243 II 911.8 Interest of Kuwait University Students in Nutrition Information **F. El-Sabban**. Kuwait Univ.
- C244 I 911.9 Knowledge and Behaviors Related to Current Diet and Physical Activity Guidelines and Recommendations among African American Parents of Young Children **A. Jazwa, J. Kareem, F. Keong, D. Henderson and J. Welsh**. Children's Healthcare of Atlanta; Emory Univ. and Georgia State Univ.
- C245 II 911.10 Dietary Habit and Nutrition Knowledge of High School Students in Incheon Area **Y.A. Kim and A. Ko**. Inha Univ. and Grad. Sch. of Educ., Inha Univ.
- C246 I 911.11 HomeStyles: Using Behavior Change Theory to Promote Preschooler and Family Health **J. Martin-Biggers, M.M. Koenings, N. Hongu, J. Worobey and C. Byrd-Bredbenner**. Rutgers Univ.-New Brunswick and Univ. of Arizona

- C247 II 911.12 A Study of Factors Related with Beverage Intake of High School Girls in Incheon Area, Korea **Y.A. Kim and S. Jin**. Inha Univ., South Korea.
- C248 I 911.13 "Choose Your Plate": A Nutritional Education Curriculum Intended to Create Young Health Advocates **A. Gupta**. Oakland Univ. William Beaumont Sch. of Med.
- C249 II 911.14 Drinking Water upon Awakening, a Habit Related to a Higher Total Fluid Intake and Water Intake **I. Guelinckx, R. Pohan, R. Monrozier and S. Bardosono**. Danone Res., Palaiseau; AQUA Group, Jakarta and Univ. Indonesia.
- C250 I 911.15 Maintenance Hemodialysis Lifestyle Intervention Trial: A Pilot and Feasibility Study **J.L. Barnes, A. Harris and K.R. Wilund**. Univ. of Illinois, Urbana.
- C251 II 911.16 Evaluation of Dietary Behavior and Nutrient Intake in Patients with Tourette Syndrome **H. Liang, X. Sun, A. Ma and Y. Liu**. Med. Col. of Qingdao Univ. and Col. of Basic Sci. of Qingdao Univ., China.

912. MEDICAL NUTRITION COUNCIL: INTERVENTIONS FOR THE TREATMENT AND PREVENTION OF NUTRITION-RELATED DISEASES

Poster

(Sponsored by: Medical Nutrition Council)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C252 I 912.1 Personalized Prevention of Colorectal Cancer Trial **X. Zhu, C. Yu, M.J. Shrubsole, X. Deng, E. Shubin, J.M. Engle, W. Zheng, H.J. Murff, D.L. Seidner, R.M. Ness and Q. Dai**. Vanderbilt Univ.
- C253 II 912.2 Cranberries and Urinary Tract Infection: Assessment of the Evidence **D. Liska and K. Maki**. Biofortis Nutr. Res., Addison, IL.
- C254 I 912.3 Effect of Almonds on Glucoregulation and CVD Risk Factors in Patients with Type 2 Diabetes **C-M. Chen, J-F. Liu, C-L. Huang, A-T. Hsirh, S-F. Weng, S-C. Li, T-Y. Chao and C-Y.O. Chen**. Shih-Chien Univ., Taiwan; Chang Gung Univ. of Sci. and Technol., Taiwan; Taipei Med. Univ. Hosp.; Taipei Med. Univ. Shuang Ho Hosp.; Taipei Med. Univ. and USDA at Tufts Univ.
- C255 II 912.4 Bombesin Preserves the Exocrine Pancreas and Gut-Islet Axis during Parenteral Nutrition **J.C. Neuman, J.F. Pierre, M.T. Cadena, M.F. Thompson, R.A. Busch, A.F. Heneghan, C.M. Cham, E.K. Jones, G.E. Groblewski, E.B. Chang, K.A. Kudsk and M.E. Kimple**. William S Middleton Mem. VA Hosp.; Univ. of Wisconsin-Madison and Univ. of Chicago.
- C256 I 912.5 Long-Term Effect of a Pulse-Based Diet and Exercise Training Intervention on Body Composition and Dietary Intake in Women with Polycystic Ovarian Syndrome **L.E. McBrearty, G.A. Zello, J.J. Rooke, S. Serrao, R.A. Pierson, D.R. Chizen and P.D. Chilibeck**. Col. of Pharm. and Nutr.; Col. of Kinesiol. and Col. of Med., Univ. of Saskatchewan.
- C257 II 912.6 Identification of Risk Factors and Clinical Measures for Pediatric Eating Disorder Patients **J. Hall, M. Portilla, T. Crook, J. Phelps and R. Hakkak**. Univ. of Arkansas for Med. Sci.

- C258 I 912.7 Use of Specific Carbohydrate Diet in a Severe Case of Ulcerative Colitis **M. Nirmalraj and B. Khandalavala**. Univ. of Nebraska Med. Ctr.
- C259 II 912.8 Replacing Dietary Meat with Fish Increases Plasma Glucose without Affecting Protein Glycation **N.A. Raad, D.S. Rehder, N. Sherma, B.L. Beezhold, C.S. Johnston, C. Borges and K. Sweazea**. Arizona State Univ. and Benedictine Univ., IL.
- C260 I 912.9 Does Coconut Oil Have Side Effects? **M. Harris, J. Fernandez and A. Hutchins**. Univ. of Colorado Colorado Springs.
- C261 II 912.10 Effect of Iodine Supplementation on Iodine Status, Thyroid Function, Body Composition, and Resting Metabolic Rate in Women **P. Panth, N.M. DiMarco and L. Petterborg**. Texas Woman's Univ., Denton and Texas Woman's Univ., Dallas.
- C262 I 912.11 Therapeutic Use of Ground Flaxseeds for Type 2 Diabetes **K. Ricklefs, C.S. Johnston and K.L. Sweazea**. Sch. of Nutr. and Hlth. Promotion, Arizona State Univ.
- C263 II 912.12 The Effect of Almond Consumption on Postprandial Metabolic Response in High-Risk Pregnant Women **M.N.R. Lesser, L. Sawrey-Kubicek, K. Mauldin and J. King**. Children's Hosp. Oakland Res. Inst., CA.

913. MEDICAL NUTRITION COUNCIL: NUTRITION AND INFLAMMATION

Poster

(Sponsored by: Medical Nutrition Council)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C264 I 913.1 Innate Immune Sensing of a Bacterial Protein in the ER of the Intestine by IRE1b **J. Cho and W.I. Lencer**. Boston Children's Hosp. and Harvard Med. Sch.
- C265 II 913.2 The Impact of a Polyphenol Treatment on TNF- α -Induced Cytokine Release from C2C12 Myotubes **K.E. Earl, A. Lightfoot and A. McArdle**. Univ. of Liverpool.
- C266 I 913.3 Associations between Markers of Inflammation and Hemoglobin Concentration: Implications for Diagnosis of Anemia in Women of Reproductive Age **F. Ashour, Y. Addo, K. Sullivan, P. Suchdev, Z. Mei, V. Temple, D. Raiten and R. Flores-Ayala**. NICHD, NIH; Rollins Sch. of Publ. Hlth., Emory Univ.; Ctrs. for Dis. Control and Prevent. and Sch. of Med. and Hlth. Sci., Univ. of Papua New Guinea.
- C267 II 913.4 Serum Fatty Acids Concentrations Are Associated with Plasma Adipokines during Pregnancy **J. Lepsch, T. Pinto, D. Farias, A. Franco-Sena, F. Rebelo, N. Lima, J. Vaz, M. Cunha and G. Kac**. Fed. Univ. of Rio de Janeiro.
- C268 I 913.5 Loss of Lipoprotein Lipase Expression Reduces Circulating Monocytes and Decreases Bone Marrow Myeloid Proliferation **C.L. Chang, A.J. Murphy, I.J. Goldberg and R.J. Deckelbaum**. Columbia Univ. and NYU.
- C269 II 913.6 Induction of Autophagy by Zinc during Acute Ethanol Intoxication in Mice **J.P. Liuzzi and S. Nambiar**. Florida Intl. Univ.
- C270 I 913.7 Plasma IL-6 Levels are Elevated during the Third Trimester in Alcohol-Exposed Women with Children Diagnosed with Fetal Alcohol Spectrum Disorder Compared to Alcohol-Exposed Women with Normally Developed Children **K.D. Sowell, J.Y. Uriu-Adams, J.L. Graham, C.D. Chambers, C.D. Coles, L. Yevtushok, N. Zymak-Zakutnya, W. Wertelecki and C.L. Keen**. Univ. of California, Davis; UCSD; Emory Univ.; Rivne Oblast Med. Diagnostic Ctr. and OMNI-Net, Ukraine; Khmelnytsky Perinatal Hosp. and OMNI-Net, Ukraine and Univ. of South Alabama.
- C271 II 913.8 Hepcidin, Iron Status and Inflammation in School-Aged Nepalese Children **S. Baker, K. Schulze, L. Wu, P. Christian and K.P. West, Jr.** Johns Hopkins Bloomberg Sch. of Publ. Hlth.
- C272 I 913.9 Inflammatory Markers and Nutrients Intake in Korean Patients with Non-alcoholic Fatty Liver **S.K. Kim, H.S. Lim and Y.H. Kwon**. Soonchunhyang Univ. and Soonchunhyang Univ. Bucheon Hosp., South Korea.
- C273 II 913.10 Activation of TLR2 or TLR4 Induces ER Stress Leading to Inflammasome-Mediated IL-1 β Secretion in Monocytes **D. Hwang, R. Snodgrass and S. Huang**. USDA, Davis and Univ. of California, Davis.
- C274 I 913.11 Immunomodulatory Effects of Methyl 2-[Propanamide-2'-Methoxycarbonyl]-Benzoate in Macrophages: Involvement of Akt/PI3k/NF- κ B Signaling Pathway **H-W. Lee and I. Kwon**. Sch. of Pharm., Sungkyunkwan Univ., South Korea.
- C275 II 913.12 Interaction between NLRP3 Inflammasome and Sirt1/6: Metabolomics Approach **H.J. Lee, Y-S. Hong and S.J. Yang**. Chonnam Natl. Univ., South Korea.
- C276 I 913.13 High-Calorie Diet Induced Elevation in Calprotectin and Lipocalin-2 Correlates with Changes in Gut Bacteria and Their Metabolites in a Porcine Model **S. Radhakrishnan, L. Reddivari, H. Yu, R. Knight and J. Vanamala**. Penn State ; Zhejiang Univ. of Technol., China and Univ. of Colorado Boulder.
- C277 II 913.14 Human Milk Stimulates Resolution of Acute Inflammation **H. Arnardottir, S. Orr, J. Dalli and C.N. Serhan**. Brigham and Women's Hosp. and Harvard Med. Sch.
- C278 I 913.15 Ferulic Acid Ethyl Ester Attenuates Inflammatory Response by Suppressing ROS-Related NF- κ B Signaling Pathway in LPS-Induced RAW264.7 Cells **M-J. Seo, J-K. Kim, S-H. Lee, F-F. Wang, Y-R. Kang, M-H. Kang, Y-I. Kwon and H-D. Jang**. Hannam Univ., South Korea.

914. MEDICAL NUTRITION COUNCIL: NUTRITION AND THE MICROBIOME

Poster

(Sponsored by: Medical Nutrition Council)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C279 I 914.1 Infant Gut Microbiota Composition and Metabolism Can Be Influenced by Extensively Hydrolyzed Casein In Vitro **G. Gross, P. de Boer, I. Bobeldijk-Pastorova, A.M.T. Ouwens, E.A.F. van Tol and B.J.F. Keijser.** Mead Johnson Pediat. Nutr. Inst. and TNO, Zeist, Netherlands.
- C280 II 914.2 Relationship between Intestinal Microbiota and Clinical Characteristics of Patients with Early Stage Breast Cancer **J.-M. Bard, H.T. Luu, F. Dravet, C. Michel, T. Moyon, A. Pagniez, H. Nazih and C. Bobin-Dubigeon.** ICO René Gauducheau; UFR Pharm. and INRA, Nantes.
- C281 I 914.3 Altering the Gut Microbiome to Improve Tolerability of Metformin **M.R. Johnson, J.H. Burton, F.L. Greenway and M.L. Heiman.** Pennington Biomed. Res. Ctr., Baton Rouge and MicroBiome Therapeut., Broomfield, CO.
- C282 II 914.4 Changes in the Intestinal Microbiota and Host Inflammatory Gene Expression in Pigs Fed a Flavanol-Enriched Cocoa Powder **S. Jang, J. Sun, P. Chen, S. Lakshman, A. Molokin, J. Harnly, J.F. Urban, Jr., C.D. Davis and G. Solano-Aguilar.** USDA, Beltsville and ODS, NIH.
- C283 I 914.5 Changes in Microbiome Profiles and Nutrient Absorption in Intestine by Soy Protein **J. Lim, S. Kim, J. Choi and X. Chen.** Kyungpook Natl. Univ., South Korea.
- C284 II 914.6 **Withdrawn.**

915. NUTRIENT-GENE INTERACTIONS: CHRONIC DISEASE

Poster

(Sponsored by: Nutrient-Gene Interactions RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C285 I 915.1 MC4R Genotype, Weight Retention and Glucose Metabolism in Women with History of Gestational Diabetes **A.M. Carvalho, H. Liu, S. Zhang, L. Wang, H. Tian, H.-L. Cheng, W. Li, Y. Zheng, T. Huang, G. Hu and L. Qi.** Harvard Sch. of Publ. Hlth.; Tianjin Women's and Children's Hlth. Ctr., China and Pennington Biomed. Res. Ctr., Baton Rouge.

- C286 II 915.2 Functional Studies of the Putative Organic Cation Transporter SLC22A23 **N.A. Chaity.** Univ. of Manitoba.
- C287 I 915.3 All *trans*-Retinoic Acid Mediates Wnt/ β -Catenin Signaling through MED28 in Human Colon Cancer Cells **N.-T. Hsieh, C.-Y. Huang, C.-I. Li and M.-F. Lee.** China Med. Univ. and Chang Jung Christian Univ., Taiwan.
- C288 II 915.4 Effect of Glutathione S-Transferase M1 and T1 Polymorphisms on Lymphocyte DNA Damage of Korean Subclinical Hypertensive Patients after Kale Juice Supplementation **M.-H. Kang, J.-H. Han, H.-J. Lee and T.-S. Kim.** Hannam Univ. and Hlth. & Living Co. Ltd., South Korea.
- C289 I 915.5 Diet-Gene Interaction in Arachidonic and Docosahexaenoic Acid Synthesis Shows Compensatory Upregulation **H. Su, D. Zhou, Y.-X. Pan and M.T. Nakamura.** Univ. of Illinois at Urbana-Champaign and Jiangnan Univ., China.

916. NUTRIENT-GENE INTERACTIONS: EXERCISE

Poster

(Sponsored by: Nutrient-Gene Interactions RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C290 II 916.1 Influence of Exercise Training on Markers of Tumor Microenvironment in Breast Cancer: A Comprehensive Meta-analysis from 15 Trials **R. Ramirez Velez, J.F. Meneses-Echávez, E. González Jiménez, J.S. Río-Valle and J.E. Correa-Bautista.** Univ. Santo Tomás, Colombia; Univ. of Granada, Spain and Univ. del Rosario, Colombia.
- C291 I 916.2 Placental Transcriptomic Changes Due to Maternal Exercise are Dependent on Maternal Diet and Offspring Sex **K. Shankar, S.J. Borengasser, J. Faske, P. Kang, Y. Zhong and K.M. Thakali.** Arkansas Children's Hosp. and Univ. of Arkansas for Med. Sci.

917. NUTRIENT-GENE INTERACTIONS: BIOACTIVES

Poster

(Sponsored by: Nutrient-Gene Interactions RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C292 II 917.1 Inhibitory Effects of Butein on Adipocyte Differentiation through Upregulation of Nrf-2/HO-1 Pathway in 3T3-L1 Adipocyte **J. Lee and J. Yang.** Chungbuk Natl. Univ., South Korea.
- C293 I 917.2 R- α -Lipoic Acid Potentiates Fasting-Induced Transcription and Secretion of Hepatic Fibroblast Growth Factor21 **R. Moreau, M. Xia and A. Pashaj.** Univ. of Nebraska-Lincoln.

- C294 **II 917.3** Peptidoglycan Recognition Proteins Are Differentially Regulated by Time and Long-Chain Polyunsaturated Fatty Acids in Neonatal Pig Intestinal Epithelial Cells, IPECJ2 **L.O. Nieforth, J. Odle and S.K. Jacobi.** North Carolina State Univ.
- C295 **I 917.4** Nobiletin Attenuates High Glucose-Induced Lipid Accumulation in HepG2 Hepatocytes through Activation of AMP-Activated Protein Kinase-Dependent Signaling **Y. Park, T. Yuk and J. Lee.** Chungbuk Natl. Univ., South Korea.
- C296 **II 917.5** Cardiometabolic Profiles and Gene Expression following Fish Oil Supplementation: Is There a Role for FADS Genotypes? **K. Roke, M. Zulyniak, C. Gerling, J. Whitfield, L. Spriet and D.M. Mutch.** Univ. of Guelph, Canada.
- C297 **I 917.6** The Hypolipidemic Effect of Curcumin Involves Up-Regulation of CD36 Expression in Response to Higher Tissue Levels of cAMP **J-M. Zingg, S.T. Hasan, K. Nakagawa, E. Canepa, R. Ricciarelli, L. Villacorta, A. Azzi and M. Meydani.** Tufts Univ.; Univ. of Genoa and Univ. of Michigan.
- 918. DIET AND CANCER: CLINICAL AND HUMAN STUDIES**
- Poster**
- (Sponsored by: Diet and Cancer RIS)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C298 **II 918.1** Effect of a Low Glycemic Index Diet on Prostate-Specific Antigen **S. Nishi, C. Ireland, L. Augustin, V. Jayalath, C. Kendall and D. Jenkins.** Univ. of Toronto and St. Michael's Hosp.
- C299 **I 918.2** Effect of Heterocyclic Amines from Meat Intake on Oxidative Stress According to GSTT1 Polymorphism **A.M. Carvalho, A.A. Carioca, J. Steluti, A.P. Loureiro, G. Gattas, R. Fisberg, L. Qi and D. Marchioni.** Univ. of São Paulo and Harvard Sch. of Publ. Hlth.
- C300 **II 918.3** Metabolite Biomarkers for Assessing the Integrity of Human Plasma and Serum **S. Zhang, D. Sheldon and B.S. Kristal.** Brigham and Women's Hosp., Harvard Med. Sch.
- C301 **I 918.4** Serum Cytokines Are Associated with Colorectal Polyp Number and Type in Adult Males **S.S. Comstock, D. Xu, K. Hortos, B. Kovan, S. McCaskey, D.R. Pathak and J.I. Fenton.** Michigan State Univ. and Tri-County Gastroenterol., PC, Clinton Twp., MI.
- C302 **II 918.5** Prostate Specific Antigen Ratio Is Negatively Associated with Blood Cadmium Concentration and Smoking Status **T.M. Vance and O.K. Chun.** Univ. of Connecticut.
- C303 **I 918.6** Selection Criteria of the Dietary Index in Clinical Trial and Intervention with Patients with Breast Cancer **P.F. Di Pietro, E.d. Santos, A.L. Cardoso, S. de Liz and S.K. Oliveira.** Fed. Univ. of Santa Catarina and Santa Catarina Fed. Inst. of Educ., Sci. and Technol., Brazil.
- C304 **II 918.7** Adherence to the World Cancer Research Fund/American Institute for Cancer Research Guidelines of Women during Breast Cancer Treatment **P.F. Di Pietro, T.P.F.P.F. Bavaresco, R. dos Santos, S. de Liz, A.L. Cardoso, M.A. de Assis and F.G.K. Vieira.** Fed. Univ. of Santa Catarina, Brazil.
- C305 **I 918.8** Blueberries Attenuate DNA Damage in Postmenopausal Women **S.A. Johnson, R.G. Feresin, N. Navaei, M.L. Elam, S. Hooshmand, M.E. Payton, C.W. Levenson and B.H. Arjmandi.** Florida State Univ.; San Diego State Univ. and Oklahoma State Univ.
- C306 **II 918.9** Relationship between Level of HbA1C and Breast Cancer Outcomes **F. Jousheghany, J. Phelps, T. Crook and R. Hakkak.** Univ. of Arkansas for Med. Sci.
- C307 **I 918.10** Global DNA Methylation and Hydroxymethylation Differ in Hepatocellular- and Cholangio-Carcinoma and Relate to Survival Rate **S. Udali, P. Guarini, S. Moruzzi, A. Ruzzenente, S.A. Tammen, A. Guglielmi, S. Conci, P. Pattini, S-W. Choi and S. Friso.** Univ. of Verona; Friedman Sch. of Nutr. Sci. and Policy, Tufts Univ. and CHA Univ., Seoul.
- C308 **II 918.11** Fatty Acid Patterns and the Risk of Prostate Cancer in the Physicians' Health Study **M. Yang, A. Ayuningtyas, S.A. Kenfield, H.D. Sesso, H. Campos, J. Ma, M.J. Stampfer and J.E. Chavarro.** Harvard Sch. of Publ. Hlth.; UCSF and Brigham and Women's Hosp., Harvard Med. Sch.
- C309 **I 918.12** Polyphenolics from Mango (*Mangifera Indica* L.) Suppress Breast Cancer Ductal Carcinoma In Situ Proliferation in Both In Vitro and In Vivo Models for Cancer **M.J. Nemec, H. Kim, A.B. Marciante, R.C. Barnes, S.T. Talcott and S.U. Mertens-Talcott.** Texas A&M Univ.
- 919. VITAMINS AND MINERALS: B VITAMINS AND ONE-CARBON METABOLISM**
- Poster**
- (Sponsored by: Vitamins and Minerals RIS)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C310 **II 919.1** The Role of Serine Hydroxymethyltransferase and Methylene-Tetrahydrofolate Dehydrogenase in Genome Stability **A. DiRisio, E. Kamynina and P.J. Stover.** Cornell Univ.
- C311 **I 919.2** Cystathionine Gamma-Lyase Inhibition in Primary Human Hepatocytes Affects the Production of Hydrogen Sulfide Biomarkers through the Transsulfuration Pathway **B. DeRatt, R. da Silva, M. Ralat, R.L. Jacobs and J.F. Gregory.** Univ. of Florida and Univ. of Alberta.
- C312 **II 919.3** Supplementation of Aging Transgenic Mice with Folic Acid and Folinic Acid Alleviates Alzheimer's Disease-Associated Neuronal Amyloid- β Pathological Progression and Genomic Expression Profiles **T-F. Chen, H-C. Hsu, M-J. Chiu and R-F.S. Huang.** Natl. Taiwan Univ. Hosp.; Fu-Jen Univ., Taiwan and Natl. Taiwan Univ.
- C313 **I 919.4** Maternal Intake of Vitamin B6 and Maternal and Cord Plasma Levels of Pyridoxal 5' Phosphate in a Cohort of Canadian Pregnant Women and Newborn Infants **D.Y. Kim, L. Plumpre, S. Masih, C.E. Visentin, K-J. Sohn, A. Ly, A.Y. Lausman, H. Berger, R. Croxford, D.L. O'Connor and Y-I. Kim.** Univ. of Toronto.
- C314 **II 919.5** The Role of Glycine N-Methyltransferase in Cellular 1-Carbon Metabolism **E. Chiang, H-A. Ko, Y-C. Wang, Y-H. Huang, Y-J. Lin, Y-M. Chen and F-Y. Tang.** Natl. Chung Hsing Univ. and China Med. Univ., Taiwan.

- C315 **I 919.6** Does the Addition of Ascorbic Acid to Freshly Prepared Serum Samples Improve the Stability of Folate Forms during Multiple Analyses and Long-Term Storage? **Z. Fazili, M.R. Sternberg and C.M. Pfeiffer.** Ctrs. for Dis. Control and Prevent.
- C316 **II 919.7** Metabolic Alterations in Mice Lacking a Major Folate Catabolic Enzyme **B. Fekry, N.I. Krupenko and S.A. Krupenko.** Univ. of North Carolina at Chapel Hill, Kannapolis.
- C317 **I 919.8** Maternal Choline Supplementation Modulates Fetal Growth Patterns in a Mouse Model of Placental Insufficiency **J.H. King, S.T. Kwan, J. Yan, V.G. Fomin, M.S. Roberson and M.A. Caudill.** Cornell Univ.
- C318 **II 919.9** **Withdrawn.**
- C319 **I 919.10** Effects of Folic Acid Deficiency on the Murine Mammary Gland **S.G. Miszewski, G.E. Berryhill, R. Green, A.D. Borowsky, J.W. Miller and R.C. Hovey.** Univ. of California, Davis; Univ. of California Davis Med. Ctr., Sacramento and Rutgers Univ.
- C320 **II 919.11** Vitamin B12, Folate and Homocysteine Levels in the U.S. Urban Minority Mothers Post Delivery **R. Raghavan, G. Wang, Z. Chen and X. Wang.** Johns Hopkins Bloomberg Sch. of Publ. Hlth. and NICHD, NIH.
- C321 **I 919.12** Genetic Factors Influence Choline Dynamics in Pregnant and Lactating Women **A.B. Ganz, K. Shields, J. Yan, V. Cohen, C. Swersky, V. Formin, J. Stover, J. Lovesky, S. Mohan, Y. Lopez, J. Chuang, B. Carrier, G. Vitiello, O. Malysheva and M. Caudill.** Cornell Univ.
- C322 **II 919.13** Maternal Folic Acid/Vitamin B12 Imbalance Programs Hepatic Gene Expression in Female Offspring **A. Aljaadi, R. Aleliunas, M. Glier, T. Green, J. Miller and A. Devlin.** Univ. of British Columbia and Rutgers Univ.
- C323 **I 919.14** Maternal Folate Status during Lactation and Its Relation with Betaine and Homocysteine in a Group of Healthy Canadian and New Zealand Women **R.A. Stamm, T.J. Green and L.A. Houghton.** Univ. of Otago, New Zealand and Univ. of British Columbia.
- C324 **II 919.15** Effects of Maternal Vitamin B₆ diets on mRNA Expression of Genes Involved in Brain Development in Hippocampus of the Offspring **M. Ribeiro de Almeida, L. Mabasa, C. Crane, C.S. Park, V.P. Venâncio, M.L. Pires Bianchi and L.M. Greggi Antunes.** North Dakota State Univ. and Sch. of Pharmaceut. Sci. of Ribeirão Preto, Brazil.
- C325 **I 919.16** Role of Trifunctional Enzyme MTHFD1 in Maintenance of DNA Stability **E. Kamynina, M.S. Field and P.J. Stover.** Cornell Univ.
- C326 **II 919.17** The Effects of Folate Deficiency and Folic Acid Supplementation on Folate Absorption and Metabolism in a Mouse Model **J. Warzyszyńska, D. Im, N. Bloemen, K-J. Sohn, S-E. Kim, A. Zuchniak, S. Aufreiter, D. O'Connor and Y. Kim.** Univ. of Toronto; St. Michael's Hosp. and The Hosp. for Sick Children, Toronto.
- C327 **I 919.18** Dysfunctional Cardiac Fatty Acid Metabolism in Cystathionine-beta-Synthase +/- Mice with Obesity **M.B. Glier, R.B. Wambolt, R.P. da Silva, S.L. Gerrard, R.E. Aleliunas, R.L. Jacobs, M.F. Allard and A.M. Devlin.** Univ. of British Columbia and Univ. of Alberta.
- C328 **II 919.19** Niacin Intakes and Status of Healthy Adults Living in Republic of Korea **Y-N. Kim, J.Y. Choi and Y-O. Cho.** Duksung Women's Univ., Seoul.
- C329 **I 919.20** Xanthurenic Acid Is Associated with Higher Insulin Resistance and Higher Odds of Diabetes **C. Reginaldo, P. Jacques, T. Scott, G. Oxenkrug, J. Selhub and L. Paul.** Friedman Sch. of Nutr., Tufts Univ.; USDA at Tufts Univ. and Tufts Univ. Sch. of Med.
- C330 **II 919.21** Vitamin B6 Status and Its Relationship with Polyunsaturated Fatty Acid Concentrations during Pregnancy **M.F. Mujica-Coopman, D.R. Farias, A. Brito, L.H. Allen, G. Kac and Y. Lamers.** Univ. of British Columbia; Univ. of Chile; Fed. Univ. of Rio de Janeiro and USDA, Univ. of California, Davis.
- C331 **I 919.22** Variability in Plasma Free Choline and Its Relation with Diet and Potential Plasma Biomarkers **A. Wiedeman, R. Dyer and S. Innis.** Univ. of British Columbia.
- C332 **II 919.23** Effects of Disrupted Serine Hydroxymethyltransferase 1 (*Shmt1*) Gene Expression on Motor Function and Myelin Degeneration in Vitamin B12 Deficient Mice **E.B. Awuah, M.S. Field and P.J. Stover.** Cornell Univ.

920. VITAMINS AND MINERALS: MICRONUTRIENT INTERVENTIONS

Poster

(Sponsored by: Vitamins and Minerals RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C333 **I 920.1** A Decrease in γ -Tocopherol Associates with Impaired Muscular Performance after Anterior Cruciate Ligament Surgery **T. Barker, V.T. Henriksen, V.E. Rogers and R.H. Trawick.** Intermountain Healthcare, Murray, UT.
- C334 **II 920.2** Effects of Iron Supplementation on DNA Damage of Lymphocytes in Rats **A. Ma, L. He, Y. Sun, J. Cai, H. Zhang, Y. Wang and D. Wu.** Med. Col. of Qingdao Univ., China and USDA at Tufts Univ.
- C335 **I 920.3** Effect of High-Dose Vitamin D on Antimicrobial Peptides in Ventilator-Dependent Critically Ill Patients **J.L. Jones, J.A. Alvarez, J.E. Han, L. Hao, E.D. Chiang, L. Brown, V. Tangpricha, G.S. Martin and T.R. Ziegler.** Emory Univ.
- C336 **II 920.4** Stable Iron Isotopic Techniques and Plasma Hcpidin Profiles to Optimize Iron Supplementation Regimens **D. Moretti, J. Goede, Z. Christophe, D.W. Swinkels, H. Tjalsma, A. Melse and M.B. Zimmermann.** ETH Zürich; Univ. Hosp. Zürich; Radboud Univ. Med. Ctr., Netherlands and Wageningen Univ., Netherlands.
- C337 **I 920.5** The Impact of High-Dose Vitamin D on Hemoglobin Concentrations in Critical Illness **E.M. Smith, J.L. Jones, J.E. Han, J.A. Alvarez, E.D. Chiang, G.S. Martin, T.R. Ziegler and V. Tangpricha.** Emory Univ.
- C338 **II 920.6** **Withdrawn.**
- C339 **I 920.7** Dietary-Induced Obesity Disturbs Iron Homeostasis and Alpha-Synuclein Expression in C57BL/6J Mouse Brains **A. Byrd, J. Plummer, K. Erikson and J. Han.** North Carolina A&T State Univ. and Univ. of North Carolina at Greensboro.

- C340 **II 920.8** Effects of Ester-C® and Ascorbic Acid on Gastrointestinal Outcomes: A Randomized, Double-Blind Trial **Q. Ye, M. Combs and S.H. Mitmesser.** NBTY Inc., Ronkonkoma, NY.
- C341 **I 920.9** Impact of Calcium Intake Levels on Urinary and Fecal Losses of Sodium, Potassium and Magnesium **M. Kern, H. Tsunoda, C. Shaw, A. de Castro, M. Braun, B.R. Martin and C.M. Weaver.** San Diego State Univ.; Dupont Nutr. & Hlth. and Purdue Univ.
- C342 **II 920.10** Low Status of Vitamin C Promotes Oxidative Stress in Healthy Adults **M. Waly, Z. Al Attabi and N. Guizani.** Sultan Qaboos Univ., Oman.
- 921. VITAMINS AND MINERALS: TRACE ELEMENT TRANSPORT AND HOMEOSTASIS IN HEALTH AND DISEASE**
- Poster**
(Sponsored by: Vitamins and Minerals RIS)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C343 **I 921.1** Associations between Amniotic Fluid Minerals and Fetal Ultrasound Measurements **L.M. Knipping, K.G. Koski and R.I. Cue.** Sch. of Dietetics and Human Nutr., McGill Univ.
- C344 **II 921.2** Relation of Copper Toxicosis in Dogs and Wilson Disease to the Appearance of a Small Copper Carrier in Blood Plasma and Urine **S. Flynn, M. Dolphin, M. Tellez, H. Fieten, S. Weldy, A. Muchenditsi, S. Lutsenko and M.C. Linder.** California State Univ. Fullerton; Johns Hopkins Univ.; Univ. of Utrecht and Serrano Animal and Bird Hosp., Lake Forest, CA.
- C345 **I 921.3** The Zinc Transporting Network Is a Central Component of Dysregulation in Breast Cancer **P. Chandler, B. Kochupurakkal, V. Lopez, S. Alam, D. Soybel and S. Kelleher.** Penn State; Dana-Farber Cancer Inst. and Consumnes River Col., CA.
- C346 **II 921.4** Placental Zip 8 Expression Is Associated with Heme and Non-heme Iron Trafficking Proteins **Y. Ru, C.E. Thomas, E.M. Cooper, I. Hamza, E.K. Pressman, R. Guillet and K.O. O'Brien.** Cornell Univ.; Sch. of Med., Univ. of Rochester and Univ. of Maryland College Park.
- C347 **I 921.5** Iron Distribution in Dietary-Induced Obese Mice Tissues **J.E. Whitaker and J. Han.** North Carolina A&T State Univ.
- C348 **II 921.6** Chromium Intake and Its Relationship with Blood Glucose in Healthy Korean Adults **M-K. Choi, M-H. Kim, Y-J. Bae and H-S. Lee.** Kongju Natl. Univ.; Korea Natl. Univ. of Transportation; Shinhan Univ. and Korea Hlth. Indust. Develop. Inst., Cheongju.
- C349 **I 921.7** Silicon Intake and Its Relationship with Bone Mineral Density in Healthy Korean Adults **M-K. Choi, H-J. Kim, M-H. Kim and Y-J. Bae.** Kongju Natl. Univ.; Korea Natl. Univ. of Transportation and Shinhan Univ., South Korea.
- C350 **II 921.8** Binding of Trivalent Chromium to Transferrin Is Sufficiently Rapid to be Physiologically Relevant **J.B. Vincent, G. Deng and K. Wu.** Univ. of Alabama.
- C351 **I 921.9** Coordinated Expression of Human Placental Iron Transporters **C.M. Best, E. Pressman, C. Cao, I. Hamza, E. Cooper, R. Guillet and K.O. O'Brien.** Cornell Univ.; Univ. of Rochester Sch. of Med. & Dent.; Boston Children's Hosp. and Univ. of Maryland College Park.
- 922. DIETARY BIOACTIVE COMPONENTS: ANTIOXIDANT AND ANTI-INFLAMMATORY EFFECTS OF DIETARY BIOACTIVE COMPONENTS**
- Poster**
(Sponsored by: Dietary Bioactive Components RIS)
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B
- Presentation time:* 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)
- C352 **II 922.1** Effects of Konjac Glucomannan and Inulin Oligosaccharide on the Colonic Mucosa Barrier, Antioxidant Enzyme Gene Expression and Gut-Associated Lymphoid Tissue Immunity in Mice **H-L. Chen, W-T. Wu and Y-C. Han.** Asia Univ. and Sch. of Nutr., Chung Shan Med. Univ., Taiwan.
- C353 **I 922.2** A *Lycium chinense* Beverage Alleviated Inflammation in Overweight Subjects with High LDL Cholesterol Level: A Double-Blinded, Randomized, Placebo-Controlled Study **Y. Ahn, Y. Lee, Y. Lim and O. Kwon.** Ewha Womans Univ., South Korea.
- C354 **II 922.3** Curcumin (CurcuWIN™) Improves Antioxidant Capacity and Reduces Inflammation following Downhill Running-Induced Muscle Damage **V. Juturu, K. Sahin, R. Pala, M. Tuzcu, N. Sahin, O. Ozdemir and J. Deshpande.** OmniActives Hlth. Technols. Inc., NJ and Firat Univ., Turkey.
- C355 **I 922.4** Effects of Chronic and Acute Grape Consumption on Gene Expression of Inflammatory Mediators in PBMC **A.M. Stevens, K.A. Giebler, Q. Hu, S.A. Ford and F.M. Steinberg.** Univ. of California, Davis.
- C356 **II 922.5** Antioxidant Characteristics of Algal *Sagassum muticum* Yendo Fensholt and *Ishige okamurae* Yendo Based on Its Total Phenolic Content **J-H. Lee.** Kongju Natl. Univ., South Korea.
- C357 **I 922.6** Effects of Probiotics on Glycemic Control and Inflammation in Type 2 Diabetes Mellitus: A Randomized, Double-Blind, Placebo-Controlled Study **H.S.D. Martino, L.B. Tonucci, K.M.O. Santos, L.L. Oliveira and S.M.R. Ribeiro.** Fed. Univ. of Viçosa and Brazilian Agr. Res. Corp. (Embrapa)
- C358 **II 922.7** Dietary Strawberries Increase Glutathione in Obese Participants with Above Optimal Serum Lipids **S. Morris, N. Betts, T.J. Lyons and A. Basu.** Oklahoma State Univ. and Queen's Univ. of Belfast.

- C359 I 922.8 Green Tea Consumption Reduces Oxidative DNA Damage and Lipid Peroxidation in Smokers and Non-smokers **Y. Liu, Z. Wang, A.D. Fly and J.E. Klaunig**. Indiana Univ. Sch. of Publ. Hlth.
- C360 II 922.9 (-)-Epigallocatechin-3-Gallate Protects against TNF alpha and Hydrogen Peroxide-Induced Apoptosis in a Cell Culture Model of Parkinson's Disease **Q. Xu, A.G. Kanthasamy and M.B. Reddy**. Iowa State Univ.
- C361 I 922.10 Antioxidant Properties in Functional Kimchi **S.A. Kang, M-j. Kim, T-S. Kim, K-h. Jang, E. J. Cho and K-Y. Park**. Hoseo Univ.; Sungkyunkwan Univ.; Kwangwon Natl. Univ. and Pusan Univ., South Korea.
- C362 II 922.11 Egg Yolks Attain Anti-inflammatory Properties after Partial Delipidation **Q. Shen, K. Riedl, R.M. Cole, C. Lehman, L. Xu, H. Alder, M. Belury, S. Schwartz and O. Ziouzenkova**. The Ohio State Univ.
- C363 I 922.12 Antioxidant and Behavioral Effects of Canine Health Supplement in Dogs **S.M. Talbott, N. Chevreau and W.M. Barnett**. LifeVantage and LifeVantage, Sandy, UT.
- C364 II 922.13 Neutrophil Elastase Responses in Smokers and Nonsmokers Consuming Dried Plums **S. Nelson, A. Zawilski, B. McGill, M. McIntosh, M. Kern, M.Y. Hong and S. Hooshmand**. San Diego State Univ.
- C365 I 922.14 Sugars and Citric Acid Differently Modulate DPPH Antioxidant Activity in Polyphenol-Rich Fruit Juices **S. Kranz and B. Bolling**. Univ. of Connecticut and Univ. of Wisconsin-Madison.
- C366 II 922.15 Dried Plums Promote Increased Antioxidant Capacity in Smokers and Nonsmokers **A. Zawilski, S. Nelson, B. McGill, M. McIntosh, M.Y. Hong, S. Hooshmand and M. Kern**. San Diego State Univ.
- C367 I 922.16 Anti-obesity Effect of Chungkugjang in 3T3-L1 Adipocytes **S.A. Kang, M-J. Kim, J-A. Kim, H-S. Kim, K-G. Jung, S-H. Kim, J-K. Kim and B. Hwang**. Hoseo Univ. and Sungkyunkwan Univ., South Korea.
- C368 II 922.17 Blueberry Puree Increases HDL-Cholesterol in Rats **D. Gillespie, K.T. Gottschall-Pass and M.I. Sweeney**. Univ. of Prince Edward Island.
- C369 I 922.18 Avenanthramide-Enriched Oats Have an Anti-inflammatory Action: A Pilot Clinical Trial **D.L. McKay, C-Y.O. Chen, F.W. Collins and J.B. Blumberg**. USDA at Tufts Univ. and Agr. and Agri-Food Canada, Ottawa.
- C370 II 922.19 Antioxidant Status in Healthy Humans after Acute Consumption of Juçara Fruits (*Euterpe edulis*) **P.F. Di Pietro, A.L. Cardoso, F.G.K. Vieira, B.C.B. Boaventura, S. de Liz, G.S. Borges, M.A.A. de Assis, R. Fett and E.L. da Silva**. Fed. Univ. of Santa Catarina, Brazil.
- C371 I 922.20 Antioxidant and Antiinflammatory Properties of Freeze-Dried Cranberry Powder in Ovariectomized Rats **K. Lee, H. Jung, K.T. Hwang and H. Kwak**. Seoul Natl. Univ. and Korea Natl. Open Univ.
- C372 II 922.21 Dehydroglyasperin C Suppresses NF- κ B-Dependent Inflammation from Acute Lung Injury through Nrf2 Activation in Mice **J.Y. Seo, H.K. Ji, M.S. Kim, S.J. Kang, G.R. Jo, Z. Erdenebileg, S.S. Lim and J-S. Kim**. Sch. of Food Sci. and Biotechnol., Kyungpook Natl. Univ. and Hallym Univ., South Korea.
- C373 I 922.22 Effect of Freeze-Drying and Hot-Air-Drying Methods on the Anti-oxidative Activities of Selected Sprouts **J-H. Yoo, Y. Liu, H. Park, J. Shin and H-S. Kim**. SookMyung Women's Univ. and Joongbu Univ., South Korea.
- C374 II 922.23 Sulforaphane Reduces Inflammatory Gene Expression in Microglia from Aged Mice **B.E. Townsend, J.L. Rytych and R.W. Johnson**. Univ. of Illinois at Urbana-Champaign.
- C375 I 922.24 Photoprotective Effects of Pistachio Antioxidants in a 3-Dimensional Human Skin Equivalent Tissue Model **C-Y.O. Chen, A. Smith, J.B. Blumberg and J. Garlick**. USDA at Tufts Univ. and Tufts Univ. Sch. of Dent.
- C376 II 922.25 Scavenging of Toxic Acrolein by Resveratrol and Hesperetin: Reaction Kinetics and Adducts Identification **W. Wang, J.R. Rocca, P. Sarnoski, A. Jia and L. Gu**. Univ. of Florida and Nanjing Univ. of Sci. and Technol.
- C377 I 922.26 Modulatory Effects of *Acanthopanax koreanum* Nakai on Oxidative Stress Induced by Combination of Alcohol and High-Fat Diet in C57BL/6j Mice **H-i. Kim, H-j. Jeon, M.Y. Park and O. Kwon**. Ewha Womans Univ., South Korea.
- C378 II 922.27 The Effects of a Single Bolus of *Capsosiphon fulvescens* Supplement on a Postprandial Oxidative Stress Induced by a Challenge of High-Fat Formula in Healthy Subjects **Y.R. Lee, H-i. Kim, Y.j. Kim and O. Kwon**. Ewha Womens Univ., South Korea.
- C379 I 922.28 Evaluation of Analytical Methods for Measuring Plasma Antioxidant Capacity by Comparing with Urinary 8-Isoprostane Concentration **S.G. Lee, T. Wang, T.M. Vance, P. Hurbert, S.I. Koo and O.K. Chun**. Univ. of Connecticut.
- C380 II 922.29 Estimation of Dietary Flavonoid Intake and Major Food Sources of Korean Adults – The Korea National Health and Nutrition Examination Survey (KNHANES) 2007-2012-* **S. Jun, S. Shin, S. Kim, C. Min, S. Park and H. Joung**. Grad. Sch. of Publ. Hlth. and Inst. of Hlth. and Envrn., Seoul Natl. Univ.
- C381 I 922.30 *Cornus officinalis* Modulates the Production of Proinflammatory Molecules in Lipopolysaccharide-Activated RAW264.7 Macrophages **N. Akhavan, R.G. Feresin, S.A. Johnson, S. Pourafshar, M. Elam, Y-H. Hsieh, G. Salazar and B.H. Arjmandi**. Florida State Univ.
- C382 II 922.31 A Comparative Study of the Ability to Inhibit Digestive Enzymes by Polyphenolic Extracts Isolated from Tea, Black Legumes and Pigmented Fruits and Vegetables **Y. Tan, Y. Zhang and S. Chang**. Mississippi State Univ.
- C383 I 922.32 Dietary Soy Protein Concentrate Suppresses Colonic Inflammation and Loss of Gut Barrier Function In Vitro and in Mice **J.D. Lambert, Z.T. Bitzer, A.L. Wopperer and R.J. Elias**. Penn State

923. DIETARY BIOACTIVE COMPONENTS: CARDIOVASCULAR EFFECTS OF DIETARY BIOACTIVE COMPONENTS

Poster

(Sponsored by: Dietary Bioactive Components RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—1:45 PM (I); 1:45 PM—2:45 PM (II)

- C384 **II 923.1** A Polyphenol Rich Sumac Sorghum Cereal Alters Lipoprotein Subfractions Resulting in a More Cardioprotective Lipoprotein Profile **K.K. Hicks, R.L. Walzem, R.J. Carroll and N.D. Turner.** Texas A&M Univ.
- C385 **I 923.2** The Impact of Virgin Coconut and Safflower Oils on Lipids and Cytokines in Postmenopausal Women **M. Harris, L. Fryda and A. Hutchins.** Univ. of Colorado Colorado Springs.
- C386 **II 923.3** Fish Oil Supplementation May Improve Partial Thromboplastin Time in Individuals with Blood Type A **C.A. Thompson-Felty, C.S. Johnston and A. Ryder.** Sch. of Nutr. and Hlth. Promo., Arizona State Univ.
- C387 **I 923.4** The Effect of Wild Blueberry Juice Consumption in Women at Risk for Type 2 Diabetes **K. Stote, M. Sweeney-Nixon, T. Kean, D. Baer, J. Novotny, N.L. Flaherty, A. Chandrasekaran, P. Carrico, J.A. Melendez and K. Gottschall-Pass.** SUNY Empire State; Univ. of Prince Edward Island; USDA, Beltsville; SUNY Polytech Inst. and SUNY Albany.
- C388 **II 923.5** Effect of Grape Consumption on Biomarkers of Endothelial and Cardiovascular Health **Q. Hu, J.M. Randolph, K.A. Giebler, A.M. Stevens and F.M. Steinberg.** Univ. of California, Davis.
- C389 **I 923.6** Macadamia Nuts and Cardiovascular Disease Risk Factors: A Review of Clinical Trials **M.L. Stewart.** Univ. of Hawaii at Manoa.
- C390 **II 923.7** Anthocyanin-Rich Black Elderberry Extract Improves Markers of HDL Function and Reduces Aortic Cholesterol in Hyperlipidemic Mice **N. Farrell, G. Norris, S.G. Lee, O.K. Chun and C.N. Blesso.** Univ. of Connecticut.
- C391 **I 923.8** Effects of Watermelon Powder on Lipid Metabolism through Regulation of Gene Expression in Atherogenic Diet-Fed Rats **K. Kaufman, S. Hooshmand, M. Kern, A. Figueroa and M.Y. Hong.** San Diego State Univ. and Florida State Univ.
- C392 **II 923.9** The Change in Human Microvascular Function and its Relationship to Plasma Epoxide Content after Short-Term Walnut Intake **R.R. Holt, S.J. Yim, G.C. Shearer, C.L. Keen, D. Djurica, J.W. Newman and R.M. Hackman.** Univ. of California, Davis and Penn State.
- C393 **I 923.10** Quinoa (*Chenopodium quinoa*) Peptides Protect Human Umbilical Vein Endothelial Cells against Risk Markers for Cardiovascular Disease **S. Ravisankar, D. Campos Gutierrez, R. Chirinos and G. Noratto.** Washington State Univ. and Natl. Agrarian Univ., Peru.
- C394 **II 923.11** Cranberries Modulate Postprandial Metabolism in Obese Participants with Type 2 Diabetes **S. Morris, N. Betts, T. Lyons and A. Basu.** Oklahoma State Univ.; Queen's Univ. of Belfast and Univ. of Oklahoma Hlth. Sci. Ctr.
- C395 **I 923.12** Effect of Oral Administration of DHA on the Remodeling of Calcium Handling Proteins in Congestive Heart Failure in Male Rats **T.T. Yamanushi, H. Kabuto, K. Akiyama, T. Tsumahima and Y. Misawa.** Kagawa Prefect. Univ. of Hlth. Sci., Japan and Bizen Chem., Okayama.
- C396 **II 923.13** Association between Intake of Fish and Shellfish and Milk and Dairy Products with Cardiovascular Disease Risk Factors in Middle-Aged Female with Type 2 Diabetes **H. Kim, S. Park, H. Yang, Y.J. Choi, K.B. Huh and N. Chang.** Ewha Womans Univ., South Korea and 21C Diabetes and Vasc. Res. Inst., Seoul.
- C397 **I 923.14** A Systematic Review and Meta-analysis of the Effects of Soy Products on Blood Cholesterol Levels **K. Benkhedda, C. Boudrault, S.S.E. Sinclair, R.R.J. Marles, C. Xiao and L. Underhill.** Hlth. Canada, Ottawa.
- C398 **II 923.15** Meta-Regression Analysis of the Effect of Trans Fatty Acids on LDL-Cholesterol **M.K. Vincent, B.C. Allen, D. Liska, M.L. Dourson and L.T. Haber.** TERA, Cincinnati; BCA Assocs., Chapel Hill and Biofortis, Addison, IL.
- C399 **I 923.16** Wild Blueberry Consumption (*V. angustifolium*) Attenuates Local Inflammation in the Perivascular Adipose Tissue of the Obese Zucker Rat **D. Klimis-Zacas, S. Vendrame and A.S. Kristo.** Univ. of Maine and Yeni Yuzyl Univ., Turkey.
- C400 **II 923.17** Blueberry Bioactives Improve Endothelial Function in Adults with Metabolic Syndrome **A.J. Stull, K.C. Cash, C.M. Champagne, A.K. Gupta, R. Boston, R.A. Beyl, W.D. Johnson and W.T. Cefalu.** Pennington Biomed. Res. Ctr., Baton Rouge; Hosp. Med. Gp., Baton Rouge and Univ. of Pennsylvania.
- C401 **I 923.18** Network-Based Characterization of Inflammation Biomarkers, Phytochemicals and Disease **F.K. Kamanu, E. Zirkler, M. Obin, J.M. Ordovas, L.D. Parnell and C.E. Smith.** USDA at Tufts Univ.
- C402 **II 923.19** Extruded Amaranth (*Amaranthus hypochondriacus*) Hydrolysates Showed Potential Anti-atherosclerotic Effect on THP-1 Human Cells **A.K. Milán-Noris, A. Montoya-Rodríguez, J. Milán-Carrillo, V. Dia, E. Cuevas-Rodríguez, C. Reyes-Moreno and E. González de Mejía.** Autonomous Univ. of Sinaloa, Mexico and Univ. of Illinois at Urbana-Champaign.
- C403 **I 923.20** **Withdrawn.**
- C404 **II 923.21** Effect of Rosemary (*Rosmarinus officinalis* L.) Supplementation on Cardiac Remodeling after Myocardial Infarction in Rats **B.P. Murino Rafacho, P.P. dos Santos, A.F. Gonçalves, A.A.H. Fernandes, P.S.A. Gaiolla, L.A.M. Zornoff, M.F. Minicucci and S.A.R. de Paiva.** Fac. of Med. of Botucatu, São Paulo State Univ. and Inst. of Biosci., São Paulo State Univ.

924. DIETARY BIOACTIVE COMPONENTS: DIETARY BIOACTIVE COMPONENTS OF MEDICINAL, FUNCTIONAL AND WHOLE FOODS (INCLUDING PROBIOTICS AND FERMENTED FOODS)

Poster

(Sponsored by: Dietary Bioactive Components RIS)

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–1:45 PM (I); 1:45 PM–2:45 PM (II)

- C405 **I 924.1** Phenol Loss in Heating of Extra Virgin Olive Oil Is Dependent on Temperature, Time, and Cooking Conditions **M. Flynn and S. Wang**. The Miriam Hosp. and Brown Univ. and Univ. of California, Davis
- C406 **II 924.2** Transport of MicroRNA-Containing, Milk-Borne Extracellular Vesicles by Human Colon Carcinoma Caco-2 Cells **T. Wolf, S. Baier and J. Zempeni**. Univ. of Nebraska-Lincoln.
- C407 **I 924.3** DNA Damage Inhibitory Activities, Anti-acetylcholinesterase, Anti-procine α -Amylase and Antioxidant Properties of Dolichos Lablab Bean **S.W. Theuri, H.M. Habib and F.E. Mohamed**. Univ. of Southern Indiana and United Arab Emirates Univ.
- C408 **II 924.4** NMR-Based Metabolomic Profiles of Mice Fed a High Fat Diet and Supplemented with Resistant Starch and/or *Lactobacillus* **A. Martinic, D. Mishchuk, J. Berouei, D. Kieffer, R. Martin, M.L. Marco and C. Slupsky**. Univ. of California, Davis and USDA, Davis.
- C409 **I 924.5** Antioxidant Properties and Safety Evaluation of Curcumin (CurcuWIN™) **V. Juturu, K. Sahin, R. Pala, M. Tuzcu, N. Sahin, O. Ozdemir and J. Deshpande**. OmniActive Hlth. Technols. Inc., NJ and Firat Univ., Turkey.
- C410 **II 924.6** Anti-adipogenic and Anti-inflammatory Effects of High Hydrostatic Pressure Extract of Red Ginseng in Diet-Induced Obese Rats **H. Park, S. Jung, M-S. Lee, Y. Shin, S. Kim and Y. Kim**. Ewha Womans Univ., South Korea.
- C411 **I 924.7** Dietary D-Psicose in Substitution for Sucrose Influences Adipose Tissue Metabolism in a Mouse Model of Obesity **M-K. Sung, S.J. Kim, S-E. Kim, W.S. Lim, K-P. Lee, C-J. Park, H-J. Kim and M-S. Moon**. Sookmyung Women's Univ.; Korea Univ. and Samyang Genex Corp., Daejeon, South Korea.
- C412 **II 924.8** Effects of Flaxseed-Supplementation on DNA Methyltransferase and Obesity-Associated Gene Expression in Adipose Tissue from Obese Mice **A. Woodard, Y. Rhee, K. Reindl and C. Hall**. North Dakota State Univ.
- C413 **I 924.9** Raisins (*Vitis vinifera* L.) as a Source of Prebiotic Functional Food **G. Mandalari, K. Ianson, L. Chan and A. Carughi**. Univ. of Messina; Sun-Maid Growers of California, Kingsburg; SecondGenome, South San Francisco and Inst. of Food Res., Norwich, U.K.
- C414 **II 924.10** Evaluation of the Phenolic Compounds and Fatty Acid Profiles of English Walnut (*J. regia*) Extract **Y-S. Kim, J-H. Lee, S-W. Choi and Y. Kim**. Ewha Womans Univ.; Sungkyunkwan Univ. and CHA Univ., South Korea.
- C415 **I 924.11** Capsaicin and Capsiate: Comparison of Effects at a Traditional Meal **J.M. Swint, K.M. Beining, J.A. Bryant, R.M. Tucker and M-J. Ludy**. Bowling Green State Univ.
- C416 **II 924.12** A Traditional Mexican Diet Decreased Oxidative Stress, Improves Carbohydrate and Lipid Metabolism and Modifies the Microbiota in a Diet-Induced Obesity **A. Avila-Nava, L.G. Noriega, A.R. Tovar and N. Torres**. Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City.
- C417 **I 924.13** Antioxidant Properties of Native Mexican Foods: Chocolate, Vanilla and Nopal **B.M. Hernandez Monroy, A.R. Tovar and N. Torres**. Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City.
- C418 **II 924.14** Phenotypic Diversity of Anthocyanins in 25 Sorghum Accessions **X. Su, D. Rhodes, W. Wang, M. Yu, B. Katz and J.M. Tomich**. Kansas State Univ. and Univ. of South Carolina.
- C419 **I 924.15** Phytochemical Characterization and Anti-inflammatory Activity of the Mexican Fruit *Styrax ramirezii* Greenm **M.A. Timmers, J.L. Guerrero-Medina and M.A. Lila**. North Carolina State Univ. and Univ. Michoacana de San Nicolás de Hidalgo, Mexico.
- C420 **II 924.16** Ginsenoside Rg1 Inhibits Lipid Accumulation and ROS Production in 3T3-L1 Cells during Early Adipogenesis **E.J. Koh, H.J. Jeon, M.J. Seo, Y.J. Lee, S.J. Ryu, J.H. Hwang, J.A. Choi and B.Y. Lee**. CHA Univ., South Korea.
- C421 **I 924.17** Peptides from Common Bean (*Phaseolus vulgaris* L.) non-Digestible Fraction Inhibit Angiotensin-I Converting Enzyme by Interacting with Amino Acids in Its Catalytic Cavity **D.A. Luna Vital, E. Gonzalez de Mejia, S. Mendoza and G. Loarca-Pina**. Univ. of Queretaro, Mexico and Univ. of Illinois, Urbana.
- C422 **II 924.18** Effect of Fresh Preparation and Industrial Processing on Stability of Potato Phytochemicals **A. Furrer, D. Cladis, A. Kurilich, G. Hawkins, R. Manoharan and M. Ferruzzi**. Purdue Univ and McCain Foods Ltd.
- C423 **I 924.19** *Pulicaria jaubertii* Extract Prevents Triglyceride Deposition in 3T3-L1 Adipocytes **M. Picklo, J. Rousova, A. Kubatova and G. Al-Naqeb**. USDA, Grand Forks ; Univ. of North Dakota and Sana'a Univ.
- C424 **II 924.20** Effect of Sun-Dried Raisins (*Vitis vinifera* L.) on the In Vitro Composition of Gut Microbiota **G. Mandalari, L. Chan and A. Carughi**. Univ. of Messina; SecondGenome, South San Francisco and Sun-Maid Growers of California, Kingsburg.
- C425 **I 924.21** Detection of Estrogenic and Anti-estrogenic Activities of Dietary Plant Extracts by In Vitro Reporter Assays **P. Basu, D. Dixon, S. Varghese, G. Varghese, G. Varghese and C. Maier**. Texas Woman's Univ.
- C426 **II 924.22** Whole Eggs Enhance Antioxidant Activity When Combined with Energy Dense, Cooked Breakfast Foods **D.L. McKay, C-Y. Chen, H. Rasmussen and J.B. Blumberg**. USDA at Tufts Univ.
- C427 **I 924.23** Antioxidant and Neuroprotective Effects of Korean Fermented Food *Doenjang* **S.J. Kang, J.Y. Seo, M.S. Kim, G.R. Jo, H-K. Ji, Z. Erdenebileg, J.H. Jang, J-H. Shin, K.M. Jo, J.H. Kim and J-S. Kim**. Kyungpook Natl. Univ.; Namhae Garlic Res. Inst.; Gyeongnam Natl. Univ. of Sci. and Technol. and Gyeongsang Natl. Univ., South Korea.
- C428 **II 924.24** Interaction between Protease Resistant Potato Protein and Intestinal Membrane **J. Lim, X. Chen, S. Kim and J. Choi**. Kyungpook Natl. Univ., South Korea.

- C429 I **924.25** In Vitro Evaluation of Ayurveda Herbs *Centella asiatica*, *Bacopa monnieri*, *Rhizoma polygonata*) for Potential Carbohydrate Hydrolyzing Enzyme Inhibition **K. Fortier, K. Racicot and E. Apostolidis**. Framingham State Univ. and U.S. Army Natick Labs.
- C430 II **924.26** In Vitro Evaluation of Wild Fruits and Leaves for Potential Carbohydrate Hydrolyzing Enzyme Inhibition **D. Lee, K. Racicot and E. Apostolidis**. Framingham State Univ. and U.S. Army Natick Labs.
- C431 I **924.27** Effect of Green and Black Tea Extracts on Intestinal Microbiota and Body Composition in Mice Fed a High Fat/High Sucrose/Western Diet **S.M. Henning, J. Yang, M. Hsu, D. Heber and Z. Li**. UCLA.
- C432 II **924.28** Xylooligosaccharide Induced Changes in Gut Microbiota in Healthy and Prediabetic Adults **Z. Li, J. Yang, P. Carlson, S.M. Henning, M. Hsu, C-H. Tseng, G. Thames, S. Finegold and D. Heber**. David Geffen Sch. of Med., UCLA.
- C433 I **924.29** Resistant Starch and *Lactobacillus* Feeding Improve Metabolic Functions in Diet-Induced Obese Mice **J. Barouei, D. Mishchuk, D. Kieffer, A. Martinic, R. Martin, C. Slupsky and M. Marco**. Univ. of California and USDA-ARS.
- C434 II **924.30** Formation of Urolithins in Normal Volunteers following Pomegranate Extract Consumption for 28 Days Is Associated with Differences in the Gut Microflora Population **S. Henning, J. Yang, P. Carlson, S. Finegold, D. Heber and Z. Li**. David Geffen Sch. of Med., UCLA.
- C435 I **924.31** Carnosic Acid Suppresses Liver Lipogenesis and Adipocytes Differentiation in Ovariectomized C57BL/6J Mice Fed High-Fat Diet **M-K. Sung, Y-H. Lee and W. Lim**. Sookmyung Women's Univ. and Korea Univ., South Korea.
- C436 II **924.32** Protective Effect of HT057 Treatment on Dextran Sulfate Sodium-Induced Colitis in Mice **D. Lee, J. Song, H.S. Kim, H.J. Lee, Y-S. Kim, S.H. Lee, J. Park and H. Kim**. Col. of Korean Med., Kyung Hee Univ. and NeuMed Inc., Seoul.
- C437 I **924.33** Tolerance and Efficacy of a Probiotic Supplement Delivered in Capsule Form **G.M. Labellarte, S.T. Cooper and M.A. Maher**. Univ. of Wisconsin-La Crosse.
- C438 II **924.34** Comparison of Different Tea Types on Osteoblast Activity **L.A. Nash and W.E. Ward**. Brock Univ., Canada.
- C439 I **924.35** Effect of Yoghurt and its Probiotics on Fecal Probiotic Content: A Randomized Controlled Trial **K.L. Ivey, R. Yang, U. Ryan, S-Y. Lin, J. Hodgson and R. Prince**. Sch. of Med. and Pharmacol., Univ. of Western Australia and Murdoch Univ., Australia.
- C440 II **924.36** Characterization of Serum and Urinary Zearalenone and its Metabolites (Z) and its Association with Dietary Intake **T. Mauro, B. Buckley, S. Schneider, C. Pop, M. Liu, B. Chang and S. Shapses**. Rutgers-New Brunswick and Rutgers Robert Wood Johnson Med. Sch.

Pathology

925. EXTRACELLULAR MATRIX IN PATHOBIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D362 **925.1** Role of Heat Shock Proteins in Modulating ECM Deposition **J.M. Leavitt, R. Whalen, K.L. Veraldi, R.J. Binder and C. Yates**. Palomar Col.
- D363 **925.2** Integrin Crosstalk Regulation of Human Neutrophils Adhered to Fibronectin and β -Glucan **C.M. Johnson, A. Byrd, X. O'Brien, V. Parisi and J. Reichner**. Brown Univ. and Rhode Island Hosp.
- D364 **925.3** Reliability of Yeast Unclumping Assay, a Model for Testing Potentially Clinically Useful Reagents **G. Zem, B. Cooperman, F. Bahri, A. Mahjoubi, N. Warner, L. Malekian, R. Mirebrahimian, M. Pistalu, L. Khrayan, M. Patel, K. Pastrano, E. Choi, T. Baronian, O. Gilani, A. Cardenas, A. Hambarsoomian, D. Gomez, F. Gallgos, J. Holmes, V. Vahdati, L. Jorshari, P. Grigorian, K. Ohanessian, E. Baum, G. Majarian, K. Aldzhyan, H. Manasyan, N. Allatabakhsh and S.B. Oppenheimer**. California State Univ. Northridge.
- D365 **925.4** Hierarchy of Anti-clumping Salts **G. Zem, O. Tosunyan, A. Hambarsoomian, K. Lim, K. Khatiblou, S. Niamat, E. Choi, C. Monroy, M. Chavez, N. Karaan, M. Basmajian, S. Kim, A. Kurginyan, S. Sorooshiani, L. Manzo, F. Bahri, A. Holverson, G. Chacon, N. Allatabakhsh, C. Irikyan, C. Tortorice, S. Balyan, N. Amer, S. Shtivelman, V. Vahdati, T. Kaur, S. Danialian, A. Allard, L. Jorshari, N. Kazmi, N. Sarkissian, K. Mkhitarian, C. Chavez, M. Havaei, A. Adzhemian, M. Takakura, Y. Huang, A. Haritounian, A. Arakelian, J. Bohorquez, M. Asatryan, Y. Herrera, L. Mayorga, A. Garcia and S.B. Oppenheimer**. California State Univ. Northridge.
- D366 **925.5** Granzyme B Mediates Both Direct and Indirect Cleavage of Extracellular Matrix in Skin after Chronic Low-Dose Ultraviolet Light Irradiation **L.G. Parkinson, A. Toro, H. Zhao and D.J. Granville**. Univ. of British Columbia and St Paul's Hosp., Vancouver.
- D367 **925.6** Obesity-Associated Inflammation Contributes to Adipose Stromal Cells Pro-fibrotic Phenotype **N. Springer, M. van den Berg, B.R. Seo and C. Fischbach**. Cornell Univ.
- D368 **925.7** Adipose Tissue Extracellular Matrix Remodelling in Cancer Cachexia **M.J. Alves, E.M. Matos Neto, L. Maximiliano, P.S.M. Alcantara, J.P. Otoch, M.L. Batista and M.C.L. Seelaender**. Univ. of São Paulo and Interdisc. Ctr. of Biochem., UMC, São Paulo.

926. CANCER PATHOBIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D369 **926.1** Functional Studies of CtBP in Breast Cancer Using the Lentiviral pINDUCER System **D.I. Yi, S.S. Park, G. Liang, T. Yan, J.S. Byun and K. Gardner.** NCI, NIH.
- D370 **926.2** Recurrence-Free Survival among Patients with ER+/PR+/HER2- Breast Cancers Is Predicted by Expression of the Estrogen Response Signature **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman.** Univ. of North Carolina Sch. of Med. and UNC Lineberger Comprehen. Cancer Ctr., Chapel Hill.
- D371 **926.3** Trends in Breast Lesions in Lagos, Nigeria: Changing or Static? **O. Obadofin and A. Daramola.** Lagos Univ. Teaching Hosp.
- D372 **926.4** Exploring Molecular and Morphological Relationships between Obesity and CtBP in Breast Cancer **S.S. Park, D.I. Yi, G. Liang, T. Yan, S. Ambs, J.S. Byun and K. Gardner.** NCI, NIH.
- D373 **926.5** CTBP-BRCA1 Modulates Epithelial Cell Fate in Breast Cancer **J.S. Byun and K. Gardner.** NCI, NIH.
- D374 **926.6** Therapeutic Benefit of Chemotherapy and Hormone Therapy among Estrogen Response Signature-Positive ER+/PR+/HER2- Breast Cancers **R. Sandhu, J.S. Parker, C.K. Anders and W.B. Coleman.** Univ. of North Carolina at Chapel Hill Sch. of Med.
- D375 **926.7** **Withdrawn.**
- D376 **926.8** Maresin 1: A Novel Macrophage Derived Endogenous Proresolving Inhibitor of Primary Tumor Growth and Metastasis **K.A. Lehner, M.L. Sulciner, S. Ramon, D.K. Mudge, S. Huang, C.N. Serhan and D. Panigrahy.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.; Brigham and Women's Hosp., Harvard Med. Sch. and Inst. for Sys. Biol., WA.
- D377 **926.9** Whole Genome Sequence of Multiple Myeloma-Prone C57BL/KaLwRij Mouse Strain Suggests the Origin of Disease Involves Multiple Cell Types **W.C. Wilson, S.R. Amend, L. Chu, L. Lu, P. Liu, D.J. Serie, X. Su, Y. Xu, D. Wang, A.O. Gramolini, M.A. Hurchla, C.M. Vachon, G.A. Colditz, R. Vij, K.N. Weilbaecher and M.H. Tomasson.** Washington Univ. Sch. of Med.; Med. Col. of Wisconsin; Mayo Col. of Med. and Univ. of Toronto.
- D378 **926.10** Novel Drug DCQ Induces Colon Cancer Cell Apoptosis through HIF-1 α Pathway **A-J.T. Sougiannis, A. Saxena, K. Kaur, S. Depaepe and R. Fayad.** Univ. of South Carolina.
- D379 **926.11** Cortactin Is Differentially Expressed in B-Cell Precursor Cells: Implications for Childhood Acute Lymphoblastic Leukemia **M. Velazquez Avila, E. Dorantes Acosta, B. Lopez Martinez, M. Schnoor and R. Pelayo.** CINVESTAV-IPN; Federico Gomez Children's Hosp. of Mexico, Mexico City and Natl. Med. Ctr., Mexican Inst. for Soc. Security.
- D380 **926.12** Possible Roles of CXCL17 in Angiogenesis during Tumor Progression **A. Matsui, S. Morikawa and T. Ezaki.** Tokyo Women's Med. Univ.

- D381 **926.13** Modulation of COX-1 and COX-2 Protein Levels by Selective and Non-selective NSAIDs **R.A. Schneider, T.L. Whited, B.R. Adams, I.T. Miller, C.R. Stang, L.Y. Kim, R.W. Dudley and D.H. Kinder.** Col. of Pharm., Univ. of Findlay and Col. of Pharm., Ohio Northern Univ.
- D382 **926.14** Suppression of Cell Debris-Stimulated Tumor Growth by Resolvin Mediated Clearance **M.L. Sulciner, D.K. Mudge, S. Ramon, J. Dalli, M.W. Kieran, S. Huang, C.N. Serhan and D. Panigrahy.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.; Brigham and Women's Hosp., Harvard Med. Sch.; Harvard Med. Sch. and Inst. for Sys. Biol., seattle.
- D383 **926.15** Novel Chalcone Derivatives Show Anti-cancer Effects in Several Human Cancer Cell Lines **T.L. Whited, B.R. Adams, C.R.T. Stang, T.J. Pierson, R.S. Khupse, R.W. Dudley and R.A. Schneider.** Col. of Pharm., Univ. of Findlay, OH.
- D384 **926.16** Performance of a Molecular Classifier for Indeterminate Thyroid Nodules at a Large Community Hospital **V. Avadhani, S. Musleh, A. Gupta, B. Wang and J. Marti.** Mount Sinai Beth Israel and Mount Sinai Roosevelt, NY.
- D385 **926.17** Drug Dose Responses of 3D Cancer Spheroids in Microfluidics **T.E. Christ, D. Flint, M. Boyd and M. Zagnoni.** Univ. of Strathclyde, U.K.
- D386 **926.18** Higher Frequency of PMS2 Loss in Colorectal Tumors in Colombian Population **R. Shamekh, M. Cives, J. Mejia and D. Coppola.** Univ. of South Florida; Moffitt Cancer Ctr., Tampa and Inst. Patol. Mejia Jimenez,, Colombia.
- D387 **926.19** PECAM-1 and Metastatic Tumor Cell Proliferation **V. Abraham, A. Paramabath, R. Debs and H.M. DeLisser.** Univ. of Pennsylvania and California Pacific Med. Ctr. Res. Inst., San Francisco.
- D388 **926.20** Deletion of Sorting Nexin 27 Reverses Epithelial-Mesenchymal-Transition in Highly Aggressive Breast Cancer Cells **K. Li, S. Wu, M.P. Playford and J. Sun.** Rush Univ.; Langley H.S., McLean, VA and NHLBI, NIH.

927. INJURY, INFLAMMATION, REGENERATION IN DISEASE

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 11:45 AM—1:45 PM

- D389 **927.1** Sustained Delivery of EGCG and TMQ on Fracture Healing Using Male Rats as a Model **H.A. Benghuzzi, M.A. Tucci and J.A. Cameron.** Univ. of Mississippi Med. Ctr.
- D390 **927.2** Urinary Biomarkers of Oxidative Stress and Insulin Resistance in Childhood Obesity **N. Ramachandra, L. Rodriguez and S. Devaraj.** Baylor Col. of Med. and Univ. of Houston.
- D391 **927.3** Δ Np63 Regulates HTRA4 Expression during Extravillous Trophoblast Differentiation **Y. Li, M. Parast, M. Moretto Zita and F. Soncin.** UCSD.
- D392 **927.4** Human and Canine Codon Optimization of Measles and Canine Distemper Viral Nucleic Acid Sequences Increases Sequence Identity and Protein Expression Compared to Wild Type and Human Codon Sub-optimized Constructs **E.W. Uhl, M.L. Osborn, F.J. Michel and R.J. Hogan.** Univ. of Georgia.

- D393 **927.5** Diabetic Ketoacidosis Alters Plasma Levels of Matrix Metalloproteinases and PMN-Specific Elastase in Children **M. Woo, G. Cepinkas, C. Clarson and D.D. Fraser.** Lawson Hlth. Res. Inst. and Western Univ., London, Canada.
- D394 **927.6** Medical and Social Aspects of Termination of Pregnancy in Semey City in Kazakhstan **G. Yesbolatova, S. Kozhanova, G. Sagimova, A. Mekebaeva, Z. Temirtassova and A. Musina.** Semey State Med. Univ. and Med. Univ. Astana, Kazakhstan.
- D395 **927.7** Comparative Studies on the Molecular and Functional Profile of Sheep Mucosal Derived Enoxaparin **S. Abro, O. Iqbal, D. Kahn, D. Syed, D. Hoppensteadt, Y. Yao, Y.S. Jin and J. Fareed.** Loyola Univ. Med. Ctr. and Ronnsi Pharma Co., China.
- D396 **927.8** Long-Term Probiotic Use Increases Bone Density in Female Mice **F. Collins, D. Quach, R. Irwin, L. Schaefer, R. Britton, N. Parameswaran and L. McCabe.** Michigan State Univ. and Baylor Col. of Med.
- D397 **927.9** Resistin Promotes Angiogenesis in Endothelial Progenitor Cells through Inhibition of MicroRNA-206 **C-M. Su, W-C. Chang and C-H. Tang.** China Med. Univ. and Chang Jung Christian Univ., Taiwan.
- D398 **927.10** A Role for FIZZ1 in a Model of Scleroderma **T. Liu, V. Martins, Z. Wu, F. Gonzalez De los Santos and S.H. Phan.** Univ. of Michigan Sch. of Med. and Univ. of São Paulo Fac. of Med.
- D399 **927.11** Renal Effect of Triolein in a Rat Model of Fat Embolism Syndrome **I. Hsiung, C. Qin, A. Poisner, B. Herndon, T. Quinn and A. Molteni.** Univ. of Missouri-Kansas City and Univ. of Kansas.
- D400 **927.12** Deletion of Grem1 Causes Asymmetric Renal Development in Mice **D.P. Brazil, A. Krishnakumar, I.H. Ali, O. O'Leary, R.H. Church, E. Kok and R. Goldschmeding.** Queen's Univ., Belfast and Univ. Med. Ctr., Utrecht.
- D401 **927.13** Polycystin-1 and G α 12 Regulate Epithelial-Mesenchymal Transition in Renal Epithelial Cells **J.X. Xu, R. Racioppi, Z. Kong, Y. Wu, S. Li, T-S. Lu and T. Kong.** Brigham and Women's Hosp., Harvard Med. Sch. and McLean Hosp., Belmont, MA.
- D402 **927.14** β 1-Integrin, KCa3.1 and TRPC4 Channels Play Complementary Roles in Alveolar Epithelial Repair **J. Chebli, A. Girault, A. Prive, N.T. Trinh, E. Maille, R. Grygorczyk and E. Brochiero.** Univ. of Montreal Hosp. Res. Ctr.
- D403 **927.15** KvLQT1 Function in Lung Physiology **A. Girault, J. Chebli, A. Prive, E. Maille, F. Peloquin, A. Robichaud and E. Brochiero.** Montreal Univ. Hosp. Res. Ctr. and SCIREQ Inc., Montreal.
- D404 **927.16** Protective Role of Rho Guanosine Diphosphate (GDP)-Dissociation Inhibitor Ly-GDI in Acute Pulmonary Alveolitis **H. Gao, C. Yan, R-E. Abdunour, M. Wu and X. Wang.** Brigham and Women's Hosp.; Univ. of North Dakota and Tianjin Nankai Hosp., China.
- D405 **927.17** Comparison of Acid Fast Bacilli Smear Microscopy Examination and Xpert MTB/RIF for the Diagnosis of Pulmonary Tuberculosis in Diabetes Mellitus Patients **S.S.K. Jaya, D. Atas Asri, E. Burhan, R. Tjiong and A.H. Shankar.** Med. Fac. Univ. of Indonesia; PT Inovasi Sehat Indonesia; Persahabatan Hosp., Jakarta and Harvard Sch. of Publ. Hlth.

Pharmacology

928. PHARMACOLOGY EDUCATION I

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D1 **928.1** Assessment of the Relationship between Learning Preferences, Innovative Teaching Tools, and Academic Performance in a Medical Pharmacology Course in Colombia **J.O. Mantilla Rivas, C.E. Daza-Zuniga, A.L. Rodriguez-Pulido and R.A. Pena Silva.** Med. Sch., Univ. de los Andes, Colombia.
- D2 **928.2** Developing and Evaluating Communication Skills among Students in an Undergraduate Stem Research Program **C. Bender and J. Cubeta.** Univ. of Arizona.
- D3 **928.3** LEAP: Launch into Education About Pharmacology: A Pharmacology-Based Enrichment Program for College Students at Duke **R.D. Schwartz-Bloom, E.A. Godin, A.C. Perez, S.V. Wormington, M.M. Barger, K.E. Snyder and L. Linnenbrink-Garcia.** Duke Univ. Med. Ctr.; Old Dominion Univ. and Michigan State Univ.
- D4 **928.4** Evaluating the Effectiveness of Pretest and Posttest Model of Active Learning in a Medical School **A. Mehnaatamai Mohanram, Q. Zhong, T.D. Singh and A. Jagadeesh.** St. Matthew's Univ. Sch. of Med., Caymen Islands and Mayo Clin.
- D5 **928.5** Scenario-Based Learning for Cardiovascular Pharmacology: Explicit Development of Strategies to Solve Complex Clinical and Scientific Scenarios **P.J. White and S. Naidu.** Monash Univ., Australia.
- D6 **928.6** Linking Pharmacology to Clinical Therapeutics: An Interdisciplinary Laboratory Experience in Optimizing Antiplatelet Therapy Using Pharmacogenetic Data **D. Calinski and D. Kisor.** Manchester Univ. Col. of Pharm., IN.
- D7 **928.7** Mobile Handheld Devices Applications to Teach Rational Prescribing and Safe Medication Practices **S.K. Rajasekaran, J. Smith and K. Engwall.** Eastern Virginia Med. Sch.; Oakland Univ., MI and Oakland Univ. William Beaumont Sch. of Med.
- D8 **928.8** Second Year Medical Students' Perceptions of Self-Directed versus Cued Learning of Pharmacotherapeutics in a High Fidelity Medical Simulation **L. Gorman, C. Hernandez and A. Castiglioni.** Univ. of Central Florida Col. of Med.
- D9 **928.9** Just Say Know to Drugs!: A Pilot Study for High School Student Science Enrichment **J.L. Akers, K. Thompson and R.L. Carrier.** West Virginia Sch. of Osteo. Med.
- D10 **928.10** What Do Academic Investigators Want and Get from Preclinical Collaboration with the Pharmaceutical Industry? **M. Amiri and M.C. Michel.** Johannes Gutenberg Univ. and Boehringer Ingelheim, Germany.

929. PAIN MECHANISMS: OPIOIDS AND OTHER

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D11 **929.1** Effects of Extrasynaptic GABA-A Signaling in the PAG on Morphine Antinociception **K.J. Tonsfeldt, K.L. Suchland and S.L. Ingram.** Oregon Hlth. & Sci. Univ.
- D12 **929.2** An In Vitro and In Vivo Study of BNPAP: A Novel Peripherally Selective μ -opioid Receptor Antagonist **D. Williams, Y. Yuan, D. Stevens, Y. Zhang, W.L. Dewey and H.I. Akbarali.** Virginia Commonwealth Univ.
- D13 **929.3** Exploring a Competitive Method of Bias Analysis on the Kappa Opioid Receptor **E.L. Stahl, L. Zhou, F.J. Ehler and L.M. Bohn.** The Scripps Res. Inst., Jupiter, FL and Sch. of Med., Univ. of California Irvine.
- D14 **929.4** Ferulic Acid Alleviates Neuropathic Pain: Involvement of Descending Monoaminergic System and Opioid Receptors **Y. Xu, Y. Yu, W. Wang, L. Cao, H. Zhang and J.M. O'Donnell.** Univ. at Buffalo; Wenzhou People's Hosp.; Nanjing Med. Univ. Affil. Huai'an No. 1 Hosp., China and West Virginia Univ.
- D15 **929.5** Supraspinal Actions of N/OFQ, Morphine and Substance P in Regulating Pain and Itch in Nonhuman Primates **H. Ding, K-i. Hayashida, T. Suto, D. Sukhtankar, M. Kimura, V. Mendenhall and M-C. Ko.** Wake Forest Sch. of Med.
- D16 **929.6** Endomorphins and DAMGO Utilize Different Mechanisms to Produce Analgesia **G.F. Marrone, S.G. Grinnell, G. Rossi, J. Pintar, S. Majumdar, Y. Pan and G.W. Pasternak.** Mem. Sloan Kettering Cancer Ctr.; Weill Cornell Med. Col.; UMDNJ-Robert Wood Johnson Med. Sch. and CW Post Col., NY.
- D17 **929.7** The Effects of RGS4 on Delta Opioid Receptor-Mediated Behaviors in Mice **I.J. Dripps and E.M. Jutkiewicz.** Univ. of Michigan.
- D18 **929.8** Comparison of Opioid Antagonist Modulation of Buprenorphine-Induced Neurochemical Changes **D. Eyerman, W-I. Li, J. Cunningham, R. Dean and D. Deaver.** Alkermes Inc., Waltham, MA.
- D19 **929.9** Phosphatidylethanolamine-Binding Protein Regulates Mu Opioid Receptor Induced β arrestin2 Recruitment and Downstream Signaling **K.A. Edwards, J. LaVigne, K. Pangilinan and J.M. Streicher.** Univ. of New England.
- D20 **929.10** Carborane-Derived Local Anesthetics Show Isomer-Dependent Analgesia **G.R. Kracke, M.R. VanGordon, K. Kabytaev, Y.V. Sevryugina, P.J. Kueffer, S.S. Jalisatgi and M.F. Hawthorne.** Univ. of Missouri-Columbia.
- D21 **929.11** Effects of Isoflurane on Dopamine Synaptic Vesicle Exocytosis **C.L. Bonvicino, Z. Zhou and H.C. Hemmings, Jr.** Weill Cornell Med. Col.

930. DRUG ABUSE: PSYCHOMOTOR STIMULANTS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D22 **930.1** Effect of an Anti-cocaine Monoclonal Antibody on Body Weights in Self-administering Rats **E.B. Sparks, H.N. Wetzel and A.B. Norman.** Univ. of Cincinnati.
- D23 **930.2** The Effects of a Humanized Anti-cocaine Monoclonal Antibody on Cocaine Metabolism and Urinary Excretion in Mice **H.N. Wetzel, M.R. Tabet and A.B. Norman.** Univ. of Cincinnati.
- D24 **930.3** Measuring the Potencies of RTI-55 and Bupropion Using Self-Administration in Rats as a Bioassay **H.N. Wetzel, V.L. Tsibulsky and A.B. Norman.** Univ. of Cincinnati.
- D25 **930.4** Buspirone Does Not Alter the Reinforcing, Subjective or Physiological Effects of Intranasal Cocaine **W.W. Stoops, B.L. Bolin, J.A. Lile and C.R. Rush.** Univ. of Kentucky.
- D26 **930.5** Differential Effects of the Dopamine D₃ Receptor Antagonist PG01037 on Cocaine and Methamphetamine Self-Administration in Rhesus Monkeys **W.S. John, A.H. Newman and M.A. Nader.** Wake Forest Sch. of Med. and NIA, NIH, Baltimore.
- D27 **930.6** Pharmacology of Self-Administration of a Non-selective Sigma_{1/2} Receptor Agonist, 1,3-di-o-tolylguanidine, and Its Induction of Sigma₁-Mediated Reinforcement in Rats **T. Hiranita and J.L. Katz.** NIDA, NIH, Baltimore.
- D28 **930.7** 2-Substituted Aryltropane Cocaine Analogs Produce Atypical DAT Inhibitor Effects without Inducing Inward-Facing DAT Conformations **W.C. Hong, T.A. Kopajtic, L. Xu, S. Lomenzo, M.L. Trudell and J.L. Katz.** NIDA, NIH, Baltimore and Univ. of New Orleans.
- D29 **930.8** Interactions of Modafinil or Methylphenidate with the Reinforcing and Neurochemical Effects of Cocaine **G. Tanda, M. Mereu, T. Hiranita, L.E. Chun, J.P. Lopez, M.A. Coggiano, J.C. Quarterman, A.H. Newman and J.L. Katz.** NIDA, NIH, Baltimore.
- D30 **930.9** Effects of 3,4-Methylenedioxypyrovalerone and 3,4-Methylenedioxymethamphetamine on Place Conditioning in Mice **B.M. Gannon, J. Tobacyk and W.E. Fantegrossi.** Univ. of Arkansas for Med. Sci.
- D31 **930.10** More than a Replacement Therapy: Amphetamine Treatment Reverses the Behavioral and Neurochemical Consequences of Cocaine Self-Administration **C.A. Siciliano, E.S. Calipari and S.R. Jones.** Wake Forest Sch. of Med.
- D32 **930.11** The Protein Kinase C Inhibitor Tamoxifen Inhibits Neurochemical and Reinforcing Behavioral Effects of Amphetamine **S.R. Mikelman, B. Gupta, E.M. Jutkiewicz and M.E. Gnegy.** Univ. of Michigan.
- D33 **930.12** Effects of Ethanol on Cocaine Self-Administration in Monkeys under a Fixed-Interval Schedule or Food-Drug Choice Procedure **P.W. Czoty, M. Collier and M.A. Nader.** Wake Forest Sch. of Med.

- D34 **930.13** Low Dose Mephedrone Depicts a Combined Dopaminergic and Serotonergic Discriminative Stimulus Effect **I. Saber, S.J. Ward, S. Rawls and E.A. Walker.** Temple Univ.
- D35 **930.14** Effects of Adolescent Nicotine Exposure on Adult Cocaine Reward, Aversion and Self-Administration **R.L. Pomfrey, T.A. Bostwick, B.B. Wetzell and A.L. Riley.** American Univ.
- D36 **930.15** Characterization of the Behavioral Effects of Lorcaserin in Rats **K.M. Serafine and C.P. France.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- D37 **930.16** Lorcaserin (Belviq®) Reduces the Discriminative Stimulus and Reinforcing Effects of Cocaine in Rhesus Monkeys **G.T. Collins, L.R. Gerak and C.P. France.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio and South Texas Veterans Hlth. Care Syst.
- D38 **930.17** Influence of Hormones on Social Rank and Vulnerability to Cocaine Reinforcement in Female Cynomolgus Monkeys **S.A. Kromrey, P.W. Czoty and M.A. Nader.** Wake Forest Univ.
- D39 **930.18** The Discriminative-Stimulus Effects of Mephedrone in Comparison with Other Drugs of Abuse **A.F. DeLorge and P.J. Winsauer.** LSU Hlth. Sci. Ctr., New Orleans.

931. NEUROPSYCHIATRIC DISORDERS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D40 **931.1** Modified Dextromethorphan Displays Antidepressant-Like Effects in the Forced Swim Test **A.L. Scandinaro, L. Nguyen and R.R. Matsumoto.** Schs. of Pharm. and Med., West Virginia Univ. and Col. of Pharm., Touro Univ. California.
- D41 **931.2** Behavioral and Biochemical Analyses of the Fast Acting Antidepressant-Like Potential of Dextromethorphan **L. Nguyen, A. Logsdon, B. Lucke-Wold and R. Matsumoto.** Schs. of Pharm. and Med., West Virginia Univ. and Col. of Pharm., Touro Univ. California.
- D42 **931.3** Sigma-1 Receptor Agonist and Fluvoxamine Rescue Depressive Behaviors in CaMKIV Null Mice **K. Fukunaga, H. Sakagami and S. Moriguchi.** Tohoku Univ. Grad. Sch. of Pharm. Scis. and Kitasato Univ. Sch. of Med., Japan.
- D43 **931.4** CNS Effects of a Novel Phosphodiesterase 4B Selective Inhibitor A-33 **C. Zhang, Y. Xu and J.M. O'Donnell.** Univ. at Buffalo, SUNY.
- D44 **931.5** Akt Signaling in Fear Memory Processing and Depression-Like Behaviors **C.D. Willock and T.F. Franke.** NYU Sch. of Med.
- D45 **931.6** RGS Regulation of Gα_{i2} in the Mouse Hippocampus Modulates 5-HT_{1A} Receptor Mediated Antidepressant-Like Activity **N. Senese, E. Jutkiewicz and J. Traynor.** Univ. of Michigan.
- D46 **931.7** Maternal Protein Deficiency Causes Region-Specific and Sex-Dependent Changes in 5-HT_{1A} Receptor Function in Adult Offspring **W. Ye, B.J. Thompson and J.G. Hensler.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Oakland Univ. Sch. of Med., MI.

- D47 **931.8** Age-Dependent Effects of Nicotine or Fluoxetine on 5-HT_{1A} Receptor Activity **M. Yuan, D. Larry-Sar, M. Phan, P. Hanna and F. Leslie.** Univ. of California, Irvine.
- D48 **931.9** The Use of Thalidomide in Treating PTSD and Co-morbid Pain in an Animal Model of PTSD **P. Dib and K.M. Standifer.** Univ. of Oklahoma Col. of Pharm. and Univ. of Oklahoma Col. of Med.
- D49 **931.10** Effects of Intranasal Neuropeptide Y and HS014 in Preventing Anxiety and Depressive-Like Behavior Elicited by Single Prolonged Stress Animal Model of PTSD: Comparative Study **E.L. Sabban, L.I. Serova, L.G. Alaluf, M. Laukova and C. Peddu.** New York Med. Col.
- D50 **931.11** Increasing Angiotensin Converting Enzyme 2 Activity in the Brain Is Anxiolytic and Dampens Activation of Hypothalamic-Pituitary-Adrenal Axis in Male Mice **L. Wang, A.D. de Kloet, D. Pati, H. Hiller, J.A. Smith, D.J. Pioquinto, S.P. Oh, M.J. Katovich, M.K. Raizada, C.J. Frazier and E.G. Krause.** Univ. of Florida.
- D51 **931.12** Co-ultramicrosized PEALut: A New Therapeutic Treatment in Autism Spectrum Disorder **R. Crupi, D. Impellizzeri, G. Bruschetta, M. Cordaro, E. Esposito and S. Cuzzocrea.** Univ. of Messina and Sch. of Med., Univ. of Manchester.
- D52 **931.13** Behavioral, Cognitive and Biochemical Consequences of Witnessing Maternal Abuse: Insights from an Animal Model **H. Liu, G. Patki, A. Salvi, M. Kelly and S. Salim.** Univ. of Houston.
- D53 **931.14** Hallucinogens Activate a Specific Population of Neurons in the Cortex **D.A. Martin, C. Porretta and C.D. Nichols.** LSU Hlth. Sci. Ctr., New Orleans.

932. NEUROTRANSMITTER TRANSPORTERS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM—2:30 PM

- D54 **932.1** Association Rate Constants as Determinants of Ligand Selectivity: Lessons from the Dopamine and the Serotonin Transporter **M. Freissmuth, P.S. Hasenhuettl, S. Sucic, H.H. Sitte and W. Sandtner.** Med. Univ. of Vienna.
- D55 **932.2** The Impact of Phosphatidylinositol-4,5-Bisphosphate on Serotonin Transport Function **T. Hofmaier, O. Kudlacek, I. Salzer, T. Stockner, S. Böhm and H. Sitte.** Med. Univ. Vienna.
- D56 **932.3** Mechanisms Contributing to Lack of Antidepressant Efficacy in Juveniles and Adolescents **N.C. Mitchell, R. Fraser, W.A. Owens, R. Horton, M. Vitela, G. Gould, W. Koek and L. Daws.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio
- D57 **932.4** Differential Activity of Decynium-22 Analogs: Novel Targets for Probing Low-Affinity/High-Capacity Biogenic Amine Transporters **R. Fraser, W.A. Owens, N.A. Wyatt, A.M. Krause-Heuer, I. Greguric, P.D. Callaghan, B.H. Fraser and L.C. Daws.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio and Australian Nuclear Sci. and Technol. Org.

D58 **932.5** Serotonin Transporter-Independent Actions of the Antidepressant Vortioxetine as Revealed Using the SERT M172 Mouse **A.G. Nackenoff, L.D. Simmler, N.L. Baganz, K.C. Paffenroth, G.D. Stanwood, A.L. Pehrson, C. Sánchez and R.D. Blakely.** Vanderbilt Univ. and Lundbeck Res. USA, Paramus, NJ.

D59 **932.6** A Novel Approach to Cholinergic Signaling Modulation: Development and Characterization of ML352, a Novel, Noncompetitive Inhibitor of the Presynaptic Choline Transporter **E.A. Ennis, J. Wright, J.C. Tarr, C.W. Locuson, C.H. Hopkins, J.S. Daniels, C.W. Lindsley and R.D. Blakely.** Vanderbilt Univ.

D60 **932.7** Role of NKCC2A in Nervous System Activity **K. Annu, J.B. Lucot, T.L. Garrett, M. DiFulvio and H. Castrop.** Wright State Univ. and Univ. of Regensburg.

933. NEUROTRANSMITTER RECEPTORS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D61 **933.1** Characterization of Real Time Adenosine Effluxes in the Brain of Anesthetized Rats Using Fast-Scan Cyclic Voltammetry **E.B. Adamah-Biassi, J.L. Weiner, K.D. Bonin and E.A. Budygin.** Wake Forest Sch. of Med. and Wake Forest Univ.

D62 **933.2** Pharmacological and Functional Characterization of Adenosine A1 and A2A Receptors in Caudate Nucleus of Neonatal Lambs **B.O. Ibe, S. McBride, M. Mier, G. Bernal, C. Guerra, A. Rajae and B.J. Koos.** LA BioMed, Torrance and David Geffen Sch of Med at UCLA.

D63 **933.3** Gating Effects of a Novel Allosteric Modulator at GluN1/GluN2A NMDA Receptors **D.A. Chopra, M.W. Irvine, D.E. Jane, D.T. Monaghan and S.M. Dravid.** Creighton Univ.; Univ. of Bristol, U.K. and Univ. of Nebraska Med. Ctr.

D64 **933.4** Immunohistofluorescence Localization of Histamine and Histamine Receptors in Ganglia and Tissues of the Bivalve Mollusc, *Crassostrea virginica* **A. McLeod, D. Semple, M.A. Carroll and E.J. Catapane.** Medgar Evers Col., Brooklyn.

D65 **933.5** Cholinergic Photopharmacology – Controlling Nicotinic and Muscarinic Acetylcholine Receptors with Photoswitchable Molecules **A. Damijonaitis, J. Broichhagen, L. Laprell, J. Nagpal, T. Bruegmann, M. Sumser, P. Sasse, A. Gottschalk and D. Trauner.** Ludwig Maximilians Univ., Munich; Johann Wolfgang Goethe Univ., Frankfurt am Main and Univ. of Bonn.

D66 **933.6** Uroguanylin Increases Frequency and Amplitude of Guinea Pig Bladder Spontaneous Contractility **M.C. Fonteles, E.S. Pereira, C.F. Santos and N.R.F. Nascimento.** Ceara State Univ., Brazil.

934. PROTEIN KINASES: PHARMACOLOGY AND FUNCTION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D67 **934.1** ADP Glo™: A One Platform Ideal for Assay Development, Screening and Profiling of All Phosphotransferases **S. Goueli, K. Hsiao, G. Vidugiris, J. Hennek and H. Zegzouti.** Promega Corp., WI and Univ. of Wisconsin Sch. of Med.

D68 **934.2** G Protein-Coupled Receptor Kinase 4 Gamma-Mediated Activation of NF-κB **R-S. Kanassataga, T. Liu, A. Alsamarah, Y. Luo and B.T. Andresen.** Western Univ. of Hlth. Sci.

D69 **934.3** CXCR4 Gradient Sensing Generates Unique Signaling Kinetic Signatures of Akt and p53 Pathways, and Drives ERK to Invadopodia in Metastatic Breast Cancer Cells **B. Winant, J. Freed, J. Stewart, M. Sobel, M. Campbell, A. Jancina, K.A. Myers and C.C. Moore.** Col. of Pharm., Univ. of the Sciences and Col. of Arts and Sci., Univ. of the Sciences.

D70 **934.4** Interaction of the Protein Kinase C-Related Kinases with the TPα and TPβ Isoforms of the T Prostanoid Receptor: Role in Thromboxane-Induced Neoplastic Responses **E.P. Mulvaney, A.G. O'Sullivan, P.B. Hyland and B.T. Kinsella.** University Col. Dublin.

D71 **934.5** Connecting Cell Death and Survival Pathways via the ASK1/IKKβ Interaction **L. Rusnak, M. Puckett, Y. Du and H. Fu.** Emory Univ.

D72 **934.6** Cadmium Induces Cell Cycle Progression in Triple-Negative Breast Cancer Cells through EGFR **Z. Wei, X. Song and Z.A. Shaikh.** Univ. of Rhode Island.

D73 **934.7** Evaluation of Individual ErbB Receptor Contributions to Cellular Responses Initiated by GGF2 **P.D. Sarmiere, J. Stricker, J. Cao, E. Cain, M. Srinivas, A.M. Vecchione, T.O. Caggiano and D.C. Button.** Acorda Therapeut. Inc., Ardsley, NY.

D74 **934.8** Nuclear Receptor PXR, a Novel Glucose Sensor that Regulates Hepatic Gluconeogenesis **S. Gotoh, R. Moore and M. Negishi.** NIEHS, NIH, Research Triangle Park.

D75 **934.9** Phenobarbital Inactivates Insulin Receptor to Elicit CAR-Dependent Decrease or -Independent Increase of Hepatic Gluconeogenesis **T. Yasujima, R. Moore and M. Negishi.** NIEHS, NIH, Research Triangle Park.

935. GPCR INTERACTIONS AND TRAFFICKING

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D76 **935.1** A Kinetic Model of GPCRs: Analysis of G Protein Activity, Occupancy, Coupling and Receptor-State Affinity Constants **R.S.L. Stein and F.J. Ehlert**. Univ. of California, Irvine.
- D77 **935.2** Transmembrane Domains IV and V Form an Interface in Human Angiotensin II Type 1 Receptor Homomers **B. Young, M. Chedrawe, J.K. Rainey and D.J. Dupre**. Dalhousie Univ., Canada.
- D78 **935.3** A Pre-Assembled GPCR-Signalosome Reveals Unappreciated Ligand Sensitivity and Mediates Unique Whole Cell Responses **M.L. Halls**. Monash, Australia.
- D79 **935.4** mGluR1- β -Arrestin 2 Signaling Mediates Induction of Excitatory Synaptic Plasticity **A.G. Eng, T.P. Hedrick and G.T. Swanson**. Northwestern Univ. Feinberg Sch. of Med.
- D80 **935.5** Structural Basis for Allosteric Enhancement of Agonist Affinity by G Proteins **J. Mahoney, B. DeVree, G. Velez-Ruiz, S. Rasmussen, A. Kuszak, E. Pardon, J. Steyaert, B. Kobilka and R. Sunahara**. Univ. of Michigan; Univ. of Copenhagen; NIDDK, NIH; Vrije Univ. Brussels and Stanford Univ.
- D81 **935.6** Mechanism and Regulation of GPCR Endocytosis In Vivo Using Rhodopsin as a Model **W. Sun, D. Ferng and B-H. Shieh**. Vanderbilt Univ.
- D82 **935.7** The Specificity of G $\beta\gamma$ Subunits Regulating Exocytosis through the Adrenergic α_{2a} Receptor **Y.Y. Yim, K. Betke, H. McDonald, R. Gilsbach, Y. Chen, Q. Wang, L. Hein, K. Schey and H. Hamm**. Vanderbilt Univ.; Univ. of Freiburg, Germany and Univ. of Alabama at Birmingham Sch. of Med.
- D83 **935.8** Endosomal Generation of cAMP in GPCR Signaling **J-P. Vilardaga**. Univ. of Pittsburgh Sch. of Med.
- D84 **935.9** The GGA Family Proteins Modulate the Cell Surface Transport of α_{2B} -Adrenergic Receptor through Specific Interactions **M. Zhang, J.E. Davis and G. Wu**. Med. Col. of Georgia, Georgia Regents Univ.
- D85 **935.10** The Functional Role of Arrestin Domain-Containing Protein 3 in β_2 -Adrenergic Receptor Endocytic Trafficking **X. Tian, M.A. Puthenveedu and J.L. Benovic**. Thomas Jefferson Univ. and Carnegie Mellon Univ.
- D86 **935.11** Superoxide Dismutase 1 Regulation of CXCR4-Mediated Signaling in Prostate Cancer Cells Is Dependent on Cellular Oxidative State **D.J. Dupre, J. Wertman, C. Purcell, B. Young, Y-Q. Kuang and N. Charette**. Dalhousie Univ., Canada.

936. NATURAL PRODUCTS II

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D87 **936.1** The Effects of Siwu Mixture on Chemotherapy-induced Rat's Ovary **Y-I. Zhang, W. Xie and X-o. Xue**. Dongzhimen Hosp., Beijing Univ. of Chinese Med.
- D88 **936.2** Cytotoxic Activity and Cell Cycle Effects on Human Breast Cancer Cell Line (MCF7) of the Hydroalcoholic Extract of *Justicia spicigera* **I. Bravo, E. Hernández, R. Ramos, C. Fernández, R. Ramos, A. Sánchez, R. Perez-Pasten, M. Galar, M. Godínez and M. Domínguez**. Univ. Veracruzana and Superior Sch. of Med., IPN, Mexico City.
- D89 **936.3** The Marine Pharmacology and Pharmaceuticals Pipeline in 2014 **A.M.S. Mayer, D.D.V. Nguyen and K.B. Glaser**. Midwestern Univ., IL and AbbVie Inc., North Chicago.
- D90 **936.4** Preferential Binding of the Marine β -Carboline Manzamine A to the NTDK Domain of RSK1 **A.M. Mayer, M.L. Hall, J. Lach, J. Clifford, K. Chandrasena, C. Canton and M. Kontoyianni**. Midwestern Univ., CCOM, Downer's Grove and Southern Illinois Univ.
- D91 **936.5** Carvacrol Reduces Cancer Pain by GABAergic System **A.G. Guimaraes, L. Scotti, M.T. Scotti, F.J.B. Mendonça Júnior, N.S.R. Melo, R.S. Alves, W. De Lucca Júnior and L.J. Quintans Júnior**. Fed. Univ. of Sergipe; Fed. Univ. of Paraíba and State Univ. of Paraíba, Brazil.
- D92 **936.6** p-Cymene Complexed in β -Cyclodextrin to Cancer Pain Control **A.S. Barreto, A.G. Guimarães, M.A. Oliveira, M.R. Serafini, A.A. Araujo, R.S. Barreto, J.S. Quintans and L.J. Quintans-Junior**. Fed. Univ. of Sergipe, Brazil.
- D93 **936.7** Efficacy of a Novel Fenugreek Seed Extract (Furocyst) in Polycystic Ovary Syndrome in Female Subjects **D. Bagchi, A. Swaroop, P. Kumar and M. Bagchi**. Univ. of Houston Col. of Pharm.; Cepham Res. Ctr., Piscataway and Chem. Resources, Panchkula, India.
- D94 **936.8** Efficacy of Novel Pygeum Extract (CR002) on Testosterone-Induced Benign Prostatic Hyperplasia in Male Wistar Rats **A. Swaroop, P. Kumar, D. Bagchi and M. Bagchi**. Cepham Res. Ctr., Piscataway; Chem Resources, Panchkula, India and Univ. of Houston Col. of Pharm.
- D95 **936.9** Cytotoxicity and Cell Cycle Effect on Prostate Cancer Cell Lines of *Justicia spicigera* Hydroalcoholic Extract **R. Ramos, M.E. Hernández, I. Bravo, R. Ramos, C. Fernández, A. Sánchez, M. Domínguez, R. Pérez-Pasten, M. Galar and M. Godínez**. Univ. Veracruzana and Superior Sch. of Med., IPN, Mexico City.

- D96 **936.10** Ferulic Acid Methyl ester from *Tamarix aucheriana*, Shows Anticancer Activity against Human Colorectal Cancer Cells: Underlying Molecular Mechanisms **M. Abaza, M. Afzal, R. Al-Attayah and R. Guleri**. Kuwait Univ.
- D97 **936.11** Death Effects of Reveromycin A in Normal and Diseased Synoviocytes **D. Jones, H. Svrčina, E. Steinke, K. Davitt, A. Greer and C. Williams**. Indiana Wesleyan Univ.

937. HEPATOTOXICITY/DRUG-INDUCED LIVER INJURY – MECHANISMS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D98 **937.1** Deregulation of Bile Acid Homeostasis and Lipid Metabolism in Parenteral Nutrition Mouse Model **L. Zhan, I. Yang, B. Kong, J. Shen, B.T. Buckley and G.L. Guo**. Sch. of Pharm., Rutgers Univ.; Univ. of Kansas Med. Ctr. and Rutgers Univ., Piscataway.
- D99 **937.2** Pharmacological Activation of Fxr Attenuates Pregnancy-Induced Repression of Hepatic and Ileal Bile Acid Transporters in Mice **J.E. Moscovitz, B. Kong, G.L. Guo and L.M. Aleksunes**. Rutgers Univ. Ernest Mario Sch. of Pharm.
- D100 **937.3** Idiosyncratic Drug-Induced Liver Injury Potential of Zileuton Is Detected in Diversity Outbred Mice **A.H. Harrill, L.E. Lyn-Cook, Jr., D.M. Gatti, S. Luo and G.A. Churchill**. Univ. of Arkansas for Med. Sci. and The Jackson Lab.
- D101 **937.4** Role of Bone Marrow Derived Macrophages in Acetaminophen-Induced Injury **C. Sun, M. Francis, M. Mandal, C.R. Gardner, J.D. Laskin and D.L. Laskin**. Rutgers Univ.
- D102 **937.5** Characterization of Mice with Liver-Specific Knockout of Histone Methyltransferase G9a **H. Lu, X. Lei and Q. Zhang**. SUNY Upstate Med. Univ.
- D103 **937.6** Mechanistic Role of PDE4/cAMP in the Development of HIV-1 Induced FasL Mediated Hepatotoxicity **H. Donde, S. Ghare, D. Barker, S. Joshi-Barve, S. Barve and C. McClain**. Univ. of Louisville.
- D104 **937.7** Drugs Associated with Idiosyncratic Hepatotoxicity Synergize with Cytokines To Kill Hepatocytes In Vitro **A. Maiuri, A. Breier, J. Turkus, T. Lansdell, G. Kaur, R. Parkins, P. Ganey and R. Roth**. Michigan State Univ.
- D105 **937.8** Acetaminophen (APAP) Hepatocyte Toxicity Is Associated with Increased Translocation of Glyceraldehyde-3-Phosphate Dehydrogenase (GAPDH) to the Nucleus **N. Ciriaci, B. Vigo, J.P. Rigalli, A.D. Mottino, M.L. Ruiz and C.I. Ghanem**. CONICET-Natl. Univ. of Rosario; Univ. of Buenos Aires and CONICET-Univ. of Buenos Aires.
- D106 **937.9** A Role for CHAC1 in Acetaminophen Hepatotoxicity **R.R. Crawford, J.S. Rowe, E.T. Prescott and I.N. Mungrue**. LSU Hlth. Sci. Ctr., New Orleans.
- D107 **937.10** Comparison of Real-Time Impedance Profiles of HepaRG Cells and Primary Human Hepatocytes to Identify Biliary Toxicants **R. Ciurlionis, M.J. Liguori and E.A. Blomme**. AbbVie, North Chicago.

938. NEPHROTOXICITY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D108 **938.1** An Exploration of the Mechanisms Underlying Proximal Tubular Vacuolization in Mice with Low Expression of the NADPH-Cytochrome P450 Reductase **L. Li, S. Liu, K.G. Dickman, S. Sells, X. Ding, C. Mei, Q-Y. Zhang and J. Gu**. SUNY Poly, Albany; Wadsworth Ctr., NYS Dept. of Hlth.; Changzheng Hosp., Shanghai and Stony Brook Univ.
- D109 **938.2** Renal Effects of Glucose Transporter 4 in *N*-nitro-L-Arginine/High Salt-Induced Hypertensive Rats **i. Igbe, E. Omogbai and A. Oyekan**. Univ. of Benin, Nigeria and Texas Southern Univ.
- D110 **938.3** Development of a New Model for the Induction of Chronic Kidney Disease via Intraperitoneal Adenine Administration, and the Effect of Treatment with Gum Acacia thereon **M. Al Za'abi, B.H. Ali, J. Yasin, N. Schupp and A. Nemmar**. Sultan Qaboos Univ., Oman; Col. of Med. and Hlth. Sci., United Arab Emirates Univ. and Univ. of Düsseldorf.
- D111 **938.4** Radiation Nephropathy Is Mitigated by Epoxyeicosatrienoic Acid Analog **B.V.N. Vo, M.A.H. Khan, J. Neckar, A. Sharma, B. Fish, E.P. Cohen and J.D. Imig**. Carroll Univ.; Med. Col. of Wisconsin and Inst. of Physiol., Acad. of Sci. of Czech Republic.
- D112 **938.5** Additive Renoprotective Effects of Pioglitazone and Fenofibrate against Cisplatin-Induced Renal Failure: PPARs/TNF- α Modulation **M.M. El-Mas, M.W. Helmy and M.M. Helmy**. Fac. of Pharm., Alexandria Univ. and Fac. of Pharm., Damanhour Univ., Egypt.
- D113 **938.6** Urinary KIM-1 Is a Novel Biomarker for Cisplatin-Induced Subclinical Nephrotoxicity in Oncology Patients **B.A. George, X. Wen, L. Ellison, M. Joy and L. Aleksunes**. Rutgers Univ., Piscataway and Univ. of Colorado, Aurora.
- D114 **938.7** Oxidative Stress Induced following Exposure to 3,5-Dichloroaniline In Vitro: Role in Nephrotoxicity **C.R. Racine, D.K. Anestis, J.G. Ball, M.A. Valentovic and G.O. Rankin**. Marshall Univ.
- D115 **938.8** Cardiotoxic Steroids Inhibit NHE3 in Renal Proximal Tubules by a Src Kinase Dependent Pathway **N.R.F. Nascimento, A.N. Godinho, L.U.A.S. Cortez, C.F. Santos, M.C. Fonteles and L.M.A. Lessa**. Superior Inst. of Biomed. Sci., Ceara State Univ., Brazil.
- D116 **938.9** Enhanced Epithelial-to-Mesenchymal Transition Associated with Lysosome Dysfunction in Podocytes: Role of p62/Sequestosome 1 as a Signaling Hub **G. Li, C-X. Li, M. Xia, J.M. Abais, K.M. Boini, J.K. Ritter and P-L. Li**. Virginia Commonwealth Univ.

939. DRUG TRANSPORTERS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D117 **939.1** Delavirdine Is Substrate of Bcrp and P-gp **A.B. Kefelegn and D. Bednarczyk**. Novartis Insts. for BioMed. Res. Inc.
- D118 **939.2** The Selection and Assessment of a Low-Efflux MDCK Cell Line for Use in a High-Throughput Permeability Screening Assay **C. Boissele and D. Bednarczyk**. Novartis Inst. for Biomed. Res.
- D119 **939.3** Multidrug and Toxin Extrusion Transporters Play a Key Role in Natriuresis as a Dopamine Transporter **M. Kajiwara, T. Ban, Y. Hanada, K. Matsubara and S. Masuda**. Kyushu Univ. Hosp. and Kyoto Univ. Hosp.
- D120 **939.4** Effect of Leukotriene Modifiers on Transport Activity of Multidrug Resistance Proteins **M.A. Csandl, G. Conseil and S.P.C. Cole**. Queen's Univ., Canada.
- D121 **939.5** Organic Anion Transporting Polypeptide 1B3 Can Form Homo- and Heterodimers **Y. Zhang and B. Hagenbuch**. Univ. of Kansas Med. Ctr.
- D122 **939.6** Protein-Protein Interactions between Organic Anion Transporting Polypeptide 1B3 and Organic Cation Transporter 1 **J. Shoop, M. Ruggiero, Y. Zhang and B. Hagenbuch**. Univ. of Kansas Med. Ctr.
- D123 **939.7** Genistein Reduces Glyburide Efflux by the Human Placental BCRP Transporter: Transcriptional Regulation and Direct Inhibition **K.M. Bircsak, Y. Lin and L.M. Aleksunes**. Rutgers Univ., Piscataway.
- D124 **939.8** Oligomerization of Equilibrative Nucleoside Transporter 1 **X. Cravetchi, G.L. Vilas and J.R. Hammond**. Univ. of Alberta.
- D125 **939.9** Regulation of the Brain Organic Cation Transporter Plasma Membrane Monoamine Transporter by Alternative Splicing **D.J. Wagner, H. Duan and J. Wang**. Univ. of Washington.
- D126 **939.10** Substrate-Dependent Inhibition of Human Renal Organic Cation Transporter 2 by Cimetidine **J. Yin, H. Duan, N. Isoherranen and J. Wang**. Univ. of Washington.
- D127 **939.11** Pregnancy-Related Hormones Modulate Protein Expression of Hepatic DMEs and Transporters in HepaRG Cells **M. Farooq, M. Vrana, B. Parsad and J.D. Unadkat**. Sch. of Pharm., Univ. of Washington.

940. INTERINDIVIDUAL VARIABILITY IN DRUG METABOLISM

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D128 **940.1** Rapid Production of Novel Pre-microRNA Agent hsa-mir-27b in *Escherichia coli* Using Recombinant RNA Technology for Functional Studies in Mammalian Cells **M. Li, W. Wang, W. Wu, M. Huang and A. Yu**. Univ. of California, Davis and Sun Yat-Sen Univ., China.

- D129 **940.2** Re-visiting Busulfan Disposition: Significance and Clearance Mechanisms **A.L. Myers, Y-P. Zhang, P. Mallick, I. Abdallah, H.E. Hassan, M.A. Kramer, B.S. Andersson and R. Ghose**. Univ. of Texas MD Anderson Cancer Ctr.; Univ. of Houston and Univ. of Maryland Baltimore.
- D130 **940.3** CYP2A6 Genetic Variation and Variable Nicotine Metabolism among Two Distinct American Indian Tribal Groups with Different Levels of Smoking and Risk for Tobacco-Related Cancer **J-A. Tanner, R. Tyndale and J. Henderson**. Univ. of Toronto; Ctr. for Addiction and Ment. Hlth., Toronto and Black Hills Ctr. for American Indian Hlth., SD.
- D131 **940.4** Pharmacogenetic Analysis of Nucleotide Kinases that Metabolize the Antiviral Drug Tenofovir **J.M. Lade, C.W. Hendrix and N.N. Bumpus**. Johns Hopkins Univ.
- D132 **940.5** Impact of Neonatal Drug Exposure on Interindividual Variations of P450-Mediated Drug Metabolism **Y.C. Tien, K. Lu, C. Pope, X. Ma and X-b. Zhong**. Sch. of Pharm., Univ. of Connecticut and Sch. of Pharm., Univ. of Pittsburgh.
- D133 **940.6** Prediction of the Magnitude of Induction of CYP3A Activity during Early Human Pregnancy **Z. Zhang, M. Farooq, S. Grepper and J.D. Unadkat**. Univ. of Washington and Life Technol., CA.

941. HEMOSTASIS, THROMBOSIS AND INFLAMMATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D134 **941.1** 12-LOX Modulates FcγRIIIa-mediated Platelet Response **J. Yeung, B. Tourdout, P. Fernandez-Perez, D. Maloney, T. Holman, S. McKenzie and M. Holinstat**. Thomas Jefferson Univ.; NCATS, NIH and Univ. of California Santa Cruz.
- D135 **941.2** Optimized Apyrase Improves 1 Week Myocardial Function and Blood Flow and Decreases Hemorrhage When Given before Clopidogrel in Dogs with Coronary Reperfusion **D. Abendschein, P. Baum, A. Nguyen, S. Jeong, R. Chen and J. Zheng**. Washington Univ. Sch. of Med. and APT Therapeut., St. Louis.
- D136 **941.3** Pharmacogenomics Studies of PAR4 Regulation in Human Platelets **B. Tourdout, J. Yu and M. Holinstat**. Thomas Jefferson Univ.
- D137 **941.4** A New Player in Platelet Function **H.P. Vemana, Z.A. Karim, C. Conlon and F.T. Khasawneh**. Western Univ. of Hlth. Sci.
- D138 **941.5** Plant-Derived Protein for Potential Anti-clot Application **K.Y. Wang and A. Dickey**. Northeastern State Univ., OK.
- D139 **941.6** The Effect of Pentadecapeptide BPC 157 on System Circulation and Thrombogenesis after Ligation of Vena Cava Inferior **J. Vukojevic, M. Siroglavic, K. Kasnik, T. Kralj, D. Stancic, D. Drmic, S. Seiwerth and P. Sikiric**. Sch. of Med., Univ. of Zagreb, Croatia.
- D140 **941.7** Discovery of a Novel Enhydrazinone Ester (CEE-1) that Inhibits the Degranulation of Both Mast Cells and Eosinophils **C.I. Ezeamuzie and I.O. Edefioghho**. Fac. of Med., Kuwait Univ. and Sch. of Pharm., Univ. of Saint Joseph, CT.

- D141 **941.8** Use of Vitamin A Supplementation to Enhance Neutrophil Function **E. Anderson, R. Corriden, S. Dohrmann and V. Nizet.** UCSD Med. Sch.
- D142 **941.9** Therapeutic Anti-TNF α Antibodies: Structure-Activity Investigations **C.L. Pierri, M. Cetrone, G. Punzi and D. Tricarico.** Univ. of Bari and Bari Univ. Hosp.
- D143 **941.10** Therapeutic activity of N-(2-hydroxy phenyl) acetamide: a novel anti-arthritis agent on pro-inflammatory cytokines production and suppression of Toll-like receptors (TLR-2 and TLR-4) in adjuvant-induced arthritic rats **S.U. Simjee, K. Perveen, F. Hanif, H. Jawed and S. Jamall.** Univ. of Karachi, Pakistan.
- D144 **941.11** Ex Vivo Expansion and Characterization of Human Umbilical Cord Blood CD34⁺ Stem Cells **Y. Zhang, B. Shen, W. Jiang, Z. Ren, W. Dai and Y. Jiang.** Chinese Acad. of Med. Sci. & Peking Union Med. Col.; Biopharmagen Corp., Suzhou and NYU Langone Med. Ctr.
- D145 **941.12** Differential Regulation of Adaptive and Innate Immunity Activated Human Mast Cell by Osteopontin **C.W. Ng and H.Y.A. Lau.** Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong.

942. HEART FAILURE

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D146 **942.1** Dobutamine Stress Testing as an Early Diagnostic for Radiation-Induced Heart Disease **B.J. Lieblong, S. Bhatti, R.L. Mulkey, T.W. Fletcher, N.J. Rusch and M. Boerma.** Univ. of Arkansas for Med. Sci.
- D147 **942.2** Persistent Phenotypic Shift in Cardiac Fibroblasts following Transient ACE Inhibition **L. Madhavpeddi, K.M. D'Souza, L.A. Biwer and T.M. Hale.** Univ. of Arizona Col. of Med.-Phoenix.
- D148 **942.3** Impaired Function in Rats following Delayed Reversal of Volume Overload Heart Failure Is Rescued by Levosimendan **K. Wilson, A. Guggilam, M. Galantowicz, T.A. West, M.J. Cismowski and P.A. Lucchesi.** Nationwide Children's and The Ohio State Univ.
- D149 **942.4** Activation of ERBB3 Receptor Prevents TNF α Production from Human Non-classical Monocytes **S. Ryzhov, A. Matafonov, C.L. Galindo, Q. Zhang, T-L. Tran, D. Lenihan, C. Geisberg Lenneman and D.B. Sawyer.** Vanderbilt Univ.; Univ. of Louisville and Maine Med. Ctr., Portland.
- D150 **942.5** HuR Is Activated in Cardiac Hypertrophy and Regulates β_1 -AR mRNA **S. Kraynik, S. Anthony and M. Tranter.** Univ. of Cincinnati.
- D151 **942.6** Adiponectin Modulates NF- κ B-Mediated Cardioprotective Pathways after Acute High-Fat Feeding **L. Haar, K. Luther, J. Rubinstein, X. Ren and W.K. Jones.** Loyola Univ. of Chicago, Maywood and Univ. of Cincinnati.
- D152 **942.7** Eicosapentaenoic Acid Prevents Interstitial Cardiac Fibrosis in a Mouse Model of Hypertensive Heart Disease **J.A. Eclov, G.C. Shearer and T.D. O'Connell.** Univ. of South Dakota; Penn State and Univ. of Minnesota, Minneapolis.

- D153 **942.8** IL-33/ST2 Signaling Is Anti-cardiac Hypertrophic and Spatially Restricted in Cardiomyocytes after Pressure Overload **W. Chen and R.T. Lee.** Kaohsiung Chang Gung Mem. Hosp., Taiwan; Brigham and Women's Hosp. and Harvard Univ.
- D154 **942.9** Targeting Mitochondrial Oxidants in a Pediatric Model of Sepsis-Induced Cardiomyopathy **C.R. Sims, P. Singh, S.P. Singh and P.R. Mayeux.** Univ. of Arkansas for Med. Sci. and Central Arkansas Veterans Healthcare Syst.
- D155 **942.10** Genetic Depletion of T Cell S1P Receptor 1 Exhibits Improved Cardiac Function and Less Fibrosis in Streptozotocin-Induced Type 1 Diabetic Mice **C.S. Abdullah, X. Wang and Z. Jin.** South Dakota State Univ.
- D156 **942.11** β_2 -Adrenergic Receptor Expression on Hematopoietic Cells Is Critical for Survival following Myocardial Infarction **L. Grisanti, A.A. Repas, E. Gao, A.M. Gumpert, R.L. Carter, W.J. Koch and D.G. Tilley.** Temple Univ.
- D157 **942.12** UM206, a Peptide Fragment of Wnt5a, Attenuates Adverse Remodeling after Myocardial Infarction in Swine **K.C.M. Hermans, A. Uitterdijk, D.P.M. de Wijs-Meijler, E.P. Daskalopoulos, A. Verzijl, S. Sneep, L.A. Blonden, I.K. Reiss, D.J. Duncker, W.M. Blankesteijn and D. Merkus.** Maastricht Univ. and Erasmus Univ. Med. Ctr.
- D158 **942.13** Paroxetine-Mediated GRK2 Inhibition Reverses Cardiac Dysfunction and Remodeling Post-myocardial Infarction **S.M. Schumacher, E. Gao, W. Zhu, X. Chen, J.K. Chuprun, A.M. Feldman, J.J.G. Tesmer and W.J. Koch.** Temple Univ. Sch. of Med. and Univ. of Michigan.

943. VASCULAR PHARMACOLOGY – ION CHANNELS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

- D159 **943.1** Phosphodiesterase Inhibition Increases Kv7.5 (KCNQ5) Potassium Currents in Vascular Smooth Muscle Cells by Activation of Protein Kinase A **C. Robakowski, L.I. Brueggemann, B.K. Mani and K.L. Byron.** Loyola Univ. Chicago, Maywood.
- D160 **943.2** Novel Negative Gating Modulators of KCa2/3 as Pharmacological Tools for Novel Treatments **A. Oliván-Viguera, M.S. Valero, R. Badorrey, H. Wulff and R. Köhler.** IACS; Univ. San Jorge; CSIC – Univ. of Zaragoza; Sch. of Med., Univ. of California, Davis and ARAID, Spain.
- D161 **943.3** The Role of Piezo1 in Regulating Cytosolic Calcium Level in Aortic Smooth Muscle Cells in Rats **J. Zhang, J. Tjong, N.L.-s. Tang and X. Yao.** The Chinese Univ. of Hong Kong.
- D162 **943.4** Properties of the High-Conductance Ca²⁺-Activated K⁺ (BK) Channel in Pulmonary Arterial Smooth Muscle Cells **N.D. Detweiler, L. Song, S.J. McClenehan, S.V. Kharade, R.C. Kurten, S.W. Rhee and N.J. Rusch.** Univ. of Arkansas for Med. Sci.
- D163 **943.5** Regulation of Middle Meningeal Artery Diameter by ATP-Sensitive Potassium Channels **A. Syed, M. Koide, J.E. Brayden and G.C. Wellman.** Univ. of Vermont.
- D164 **943.6** TRPV1-Mediated Ca²⁺ Influx and Middle Meningeal Artery Constriction **I. Manuelyan, A.U. Syed, M. Koide, B. Shui, S. Sonkusare, M.I. Kotlikoff, M.T. Nelson and G.C. Wellman.** Univ. of Vermont and Col. of Vet. Med., Cornell Univ.

D165 **943.7** Omega-3 Polyunsaturated Fatty Acid Epoxide Metabolites Are Potent Vasodilators via Potassium Channel Activation **K.R. Zehr, E.F. Wiest, M.T. Walsh, W-H. Schunck and M.K. Walker.** Univ. of New Mexico and Max Delbrück Ctr. for Molec. Med., Berlin.

D166 **943.8** High Salt Diet Modulates Vascular Response in $A_{2A}AR^{+/+}$ and $A_{2A}AR^{-/-}$ Mice: Role of Soluble Epoxide Hydrolase, PPAR γ , and K_{ATP} Channels **I. Pradhan, C. Ledent, S.J. Mustafa, C. Morisseau and M.A. Nayeem.** West Virginia Univ.

944. DIABETES AND METABOLIC SYNDROME

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D167 **944.1** Clinical Biopotency of Insulin Analogues: Comparative Assessment in Different Species **A. Stricker-Krongrad, C. Hanks, J. Liu and G. Bouchard.** Sinclair Res. Ctr., MO.

D168 **944.2** The Inverse Proportionality of Weight and Blood Glucose in Diabetic Wistar Rat **T.M. Otobo, R. Tarimoboto and I.C. Eshiet.** Niger Delta Univ.; Univ. of Benin, Nigeria and Windsor Univ. Sch. of Med., Saint Kitts and Nevis.

D169 **944.3** High Fructose Consumption Exacerbates Metabolic Alterations Compared to Glucose in Female Rats **G. Sangüesa, S. Shaligram, F. Akther, R. Rahimian, M. Alegret and J.C. Laguna.** Sch. of Pharm., Univ. of Barcelona and Thomas J. Long Sch. of Pharm. and Hlth. Sci., Univ. of the Pacific.

D170 **944.4** Protective Effects of *Euterpe oleracea* Mart. (an Amazon Plant) on Experimental Metabolic Syndrome in C57BL/6 Mice **C.A. da Costa, A.P. da Rocha, G.F. de Bem, I.B. Santos, J.B. Daleprane, R.S. de Moura and A.deC. Resende.** State Univ. of Rio de Janeiro.

D171 **944.5** Fenfuro™ Attenuates Diet-Induced Insulin Resistance and Hepatic Fat Accumulation **S. Nair, Y. Hua, D. Bagchi and A. Swaroop.** Col. of Hlth. Sci., Univ. of Wyoming; Univ. of Houston Col. of Pharm. and Cepham Inc., Piscataway.

D172 **944.6** Activation of Aryl Hydrocarbon Receptor Dissociates Fatty Liver from Insulin Resistance by Inducing Fibroblast Growth Factor 21 **P. Lu, J. Yan, W. Garbacz and W. Xie.** Univ. of Pittsburgh.

D173 **944.7** Effect of Aqueous Stem Extract of *Momordica charantia* on Proglucagon and Insulin Expression in STZ-Induced Diabetic Rats **E.K. Kilari, P.G. Kotaiah and R. Alluri.** Andhra Univ. Col. of Pharmaceut. Sci., India.

D174 **944.8** Effect of Aqueous Pericarp Extract of *Punica granatum* (APPG) on the Role of Inhibition of Advanced Glycation End Products in STZ-Induced Diabetic Retinopathy **S. Putta, R. Koratana, K.N. Killari and E.K. Kilari.** Andhra Univ. Col. of Pharmaceut. Sci., India.

D175 **944.9** Targeting Kir4.2 in the Treatment of Type 2 Diabetes **S.V. Kharade, M.J. Guan and J.S. Denton.** Vanderbilt Univ.

D176 **944.10** Ca^{2+} -Dependent and Ceramide-Mediated Membrane Repair with Annexin V Recruitment and Aggregation in Mouse Endothelial Cells **Y. Chen, M. Xia, K.M. Boini and P-L. Li.** Virginia Commonwealth Univ.

D177 **944.11** Glucose Metabolism Is Impaired in Cultured Myotubes from Severely Obese Humans **K. Zou, J.M. Hinkley, S.C. Billings, S. Park, D. Zheng, T.E. Jones, P.J. Hornsby, J. Lenhard, W.J. Pories, G.L. Dohm and J.A. Houmard.** East Carolina Univ. and Janssen R&D, Spring House, PA.

945. CANCER THERAPEUTICS II: NEW TARGETS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:30 PM–2:30 PM

D178 **945.1** Targeting Lactate Efflux Inhibition for the Development of Potent Antiproliferative Agents **S.S. Messeha, R.B. Badisa, E.A. Mazzio, N.O. Zarmouh, S.G. Gendy and K.F. Soliman.** Florida A& M Univ.

D179 **945.2** Targeted Delivery of TNF-Alpha and IFN-Gamma by Tumor Targeting Peptide Inhibited Orthotopic Colorectal Cancer Growth **J. Shen, L. Lu, L.F. Li, W.K.K. Wu, Z.J. Li and C.H. Cho.** The Chinese Univ. of Hong Kong.

D180 **945.3** Exchange Protein Directly Activated by cAMP (EPAC1) Promotes Pancreatic Cancer Metastasis **F.C. Mei, M. Almahariq, C. Chao, M.R. Hellmich and X. Cheng.** Univ. of Texas Hlth. Sci. Ctr., Houston and Univ. of Texas Med. Branch.

D181 **945.4** Guttiferone K Exhibits Selective Cancer Cytotoxicity through ER Stress Aggravation **K.K. Miu, K.K.W. To, H. Xu and G. Lin.** Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong ; Sch. of Pharm., The Chinese Univ. of Hong Kong and Sch. of Pharm., Shanghai Univ. of Traditional Chinese Med.

D182 **945.5** Tumor Suppression Activity of Bioactive Components from *Phomopsis* sp. Endophyte Isolated from *Ligustrum liukuensis* Koidz **J-Y. Cheng and C-K. Lu.** Natl. Res. Inst. of Chinese Med., Taipei.

D183 **945.6** Evaluation of Newly Developed Histone Deacetylase Inhibitors for the Treatment of Solid Tumors **K.G. Steinemann, B. Nitzsche, B. Hoffmann, W. Kuzyniak, A. Pries and M. Hoepfner.** Charité, Univ. Med. Berlin.

D184 **945.7** Targeting IP3-Dependent Calcium Signaling Enhances Sorafenib Lethality for Hepatoma via ER Stress Related Apoptosis **X-X. Yin, H-L. Ye, G. Zhang, X-Z. Chen, L. Chen, L-J. He, J-W. Zhang and F-C. Zhang.** People's Hosp. of Guangxi Zhuang Auton. Reg. and First Affil. Hosp. of Guangxi Med. Univ., China.

D185 **945.8** Electrophilic Nitroalkenes Cause Degradation of NF κ B RelA Protein in Triple Negative Breast Cancer Cells **C-S. Woodcock, S.R. Woodcock, N.E. Davidson, Y. Huang and B.A. Freeman.** Univ. of Pittsburgh and Univ. of Pittsburgh Cancer Inst.

D186 **945.9** Pyrrolidine Dithiocarbamate, a Potent NF-Kappa- β Inhibitor, Induces Cell Cycle Dysregulation and Suppression of Autophagy in Triple-Negative Breast Cancer Cells **J. Tomblin, I. Mehmi and T. Salisbury.** Marshall Univ. Joan C. Edwards Sch. of Med.

D187 **945.10** Small-Molecule Inhibition of the Androgen Receptor-RUNX2 Interaction in Prostate Cancer **W. Vuong, B.Y. Tew, G. Little, B. Frenkel and J.O. Jones.** City of Hope, Duarte and Univ. of So. California.

- D188 **945.11** Purification, Characterization and Anti-osteocarcinoma Study of a Novel Hemagglutinin from the Northeast China Black Beans **X. Dan, J.H. Wong, E.F. Fang and T.B. Ng**. Sch. of Biomed. Sci., The Chinese Univ. of Hong Kong and NIA, NIH, Baltimore.
- D189 **945.12** Anti-tumor Effect of a Novel Soluble Recombinant Human Endostatin: Administered as a Single Agent or in Combination with Chemotherapy Agents in Mouse Tumor Models **Z. Ren, W. Jiang, W. Dai and Y. Jiang**. Biopharmagen Corporation and Chinese Academy of Med. Sci. & Peking Union Med. Col.
- D190 **945.13** Prostate Cancer Target Cytochrome P450 17A1 (CYP17A1): Evaluation and Comparison of Clinically-Relevant Inhibitors **E.M. Petrunak and E.E. Scott**. Univ. of Kansas.
- D191 **945.14** Identification of Type I Interferon as a Novel Therapeutic Approach for Targeting Alveolar Rhabdomyosarcoma **K. Nieves, I. Henrich, R. Young, L. Quick, K. Bledsoe and M. Chou**. Univ. of Pennsylvania.
- D192 **945.15** Preclinical Efficacy of an Antibody-Drug Conjugate Targeting TIM-1 in Ovarian, Renal and Lung Tumor Models **L.E. Gergel, E.M. Forsberg, C.D. Pilsmaker, J.M. Boyer, S.M. Round, K.M. Borrelli, A.R. Sandland, N. Vargas, H.C. Marsh, Jr., T. Keler and L.J. Thomas**. Celldex Therapeut. Inc., Needham, MA and Celldex Therapeutics, Inc., Hampton, NJ.
- D193 **945.16** Preclinical Development of Recombinant Human Tissue Inhibitor of Metalloprotease-2 as a Novel Biologic Therapy for Cancer **A. Chowdhury, B. Wei, S. Noonan and W.G. Stetler-Stevenson**. NCI, NIH and Univ. of Genoa.
- D194 **945.17** Antiproliferative Effect of Kolaviron, a Biflavonoid Complex from the Seed of *Garcinia kola* on Vascular Smooth Muscle Cells and A549 Cancer Cell Line **A.A. Oyagbemi, T.O. Omobowale, A.A. Adedapo, A.O. Oyekan and M.A. Yakubu**. Univ. of Ibadan, Nigeria and Southern Texas Univ.
- D195 **945.18** Inhibition of Geranylgeranyl Diphosphate Synthase Induces Apoptosis of Lymphocytic Leukemia Cells **S.X. Su, C-H.C. Hsiao, C.M. Jensen and A.J. Wiemer**. Univ. of Connecticut.
- D196 **945.19** Novel Strategy of Using Flaxseed Lignans as Adjuvant Therapy against Prostate Cancer **Y. Di, E. Krol and J. Alcorn**. Univ. of Saskatchewan.
- D197 **945.20** Geranylgeranyl Diphosphate Synthase Inhibitors Slow Tumor Growth in a Murine Model of Human Prostate Cancer Metastasis **J.E. Reilly and R.J. Hohl**. Univ. of Iowa and Penn State, Hershey.

Physiology

946. CARDIAC MUSCLE PHYSIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B1 **946.1** Polycystin 2 Expression Alters Calcium-Contraction Coupling **I.Y. Kuo, A.T. Kwaczala, L. Nguyen, S.G. Campbell and B.E. Ehrlich**. Yale Univ.
- B2 **946.2** Contractile Properties of Adult Ventricular Myocyte in Long-Term Culture **S. Liu**. Univ. of Arkansas for Med. Sci.
- B3 **946.3** Mitochondrial Buffering of cAMP in Adult Cardiac Myocytes **S.R. Agarwal, C. Clancy and R.D. Harvey**. Univ. of Nevada, Reno and Univ. of California, Davis.
- B4 **946.4** Cardiac Tissue Sensitization to the Sympathetic Nervous System in Renal Ischemia/Reperfusion Induced Cardiac Hypertrophy **K. Panico, J.M. Alvim and M.S. Carneiro-Ramos**. Fed. Univ. of ABC, Brazil.
- B5 **946.5** Stress Responses Initiated in Cardiomyocytes during Hypothermia-Induced Rewarming Shock **N.S. Schaible, Y.S. Han, L.R. Zaidan, G.M. Arteaga, T. Tveita and G.C. Sieck**. Mayo Clin.; Univ. of Tromso, Norway and Alfaisal Univ., Saudi Arabia.
- B6 **946.6** dFOXO Overexpression Ameliorates Age-Related Degeneration of Heart Performance in *Drosophila* **B.J. Mullinax, A.C. Blice-Baum and A. Cammarato**. Presbyterian Col., SC and Johns Hopkins Sch. of Med.
- B7 **946.7** The Role of MiR-21 in Right Ventricular Remodeling Secondary to Pulmonary Arterial Pressure Overload **M. Chen, W. Chang, J. Mohebbi, A. Felder, R. Laurence, Y. Yang, Y. Qiu, M. Noonan, F. Chen and R. Liao**. Brigham and Women's Hosp., Harvard Med. Sch.
- B8 **946.8** The Adverse Effects of Bisphenol A on Cardiac Mechanical Function **A. Chandra, D. Brooks, R. Idrees, R. Jaimes, M. Kay and N.G. Posnack**. George Washington Univ.
- B9 **946.9** Silencing of Striatin Alters the Association of Caveolin-3 with the L-Type Calcium Channel in Cardiomyocytes **M. Nader, B. Khalil, D. Bakheet, N. Dzimiri and P. Kvietys**. Alfaisal Univ. and King Faisal Spec. Hosp. and Res. Ctr., Saudi Arabia.
- B10 **946.10** Cardiac ECM Structure-Mimetic Electrospun Scaffolds Reinstates Healthy Cardiomyocyte Phenotype **R. Rath, J.B. Lee, T-L. Tran, S.F. Lenihan, C.L. Galindo, Y.R. Su, T. Absi, D.B. Sawyer and H-J. Sung**. Maine Med. Ctr. and Vanderbilt Univ.
- B11 **946.11** Role of HSP72 in the Cardiac Remodeling Induced by High Fat Diet **L.N. Moreira, E.C. Guedes, T. Leal, R. Mestri, E.H. Miyabara and G.P. Diniz**. Univ. of São Paulo and Loyola Univ. Chicago Stritch Sch. of Med.
- B12 **946.12** Calcium Signaling in the Bronchopulmonary Dysplasia Rat Heart **K. Haraldsdottir, E. Farrell, A. Sobotik and M. Eldridge**. Univ. of Wisconsin-Madison.

**947. SKELETAL
MUSCLE PHYSIOLOGY/PHARMACOLOGY**

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B13 **947.1** Increased Heat Shock Protein Expression Decreases Inflammation in Skeletal Muscle during and after Frostbite Injury **R. Mestrlil, C. Schweigert, J. Batey, T. Liskutin and R. Li.** Loyola Univ. Chicago, Maywood.
- B14 **947.2** The Effect of Doxorubicin Administration on Intramuscular BCAA Concentrations in the Rat **S. Fabris and D.A. MacLean.** Laurentian Univ., Ontario and Northern Ontario Sch. of Med.
- B15 **947.3** Prolonged Diaphragm Weakness in Acute Lung Injury – UL1TR000117, HL112085, HL113494 **L.A.P. Callahan, X-H. Song, L. Wang and G.S. Supinski.** Univ. of Kentucky.
- B16 **947.4** Interferon- γ Is a Potent Activator of Caspase 12 in C2C12 Cells HL112085, HL113494 **L.A. Callahan, L. Wang, X-H. Song and G.S. Supinski.** Univ. of Kentucky.
- B17 **947.5** Characterization of a *Kbtbd13*-Deficient Mouse Model that Recapitulates Nemaline Myopathy with Mutations in the *KBTBD13* Gene **J.M. de Winter, B. Joureau, G.J.M. Stienen, H. Granzier and C.A. Ottenheijm.** VU Univ. Med. Ctr.; VU Univ. Amsterdam and Univ. of Arizona.
- B18 **947.6** Dynamic Proteomic Responses to Skeletal Muscle Damage and Repair in Mice **F. Kramer, S. Stimpson, T. Shearer, A. Billin, A. Russell, M. Hellerstein, S. Turner, W. Evans and M. Shankaran.** GlaxoSmithKline Inc., Research Triangle Park, NC and Kinemed Inc., Emeryville, CA.
- B19 **947.7** Proteome Dynamics Rapidly Detect Protein Synthetic and Fibrogenic Changes following Eccentric Contraction-Induced Muscle Damage in *mdx* Mice **S. Stimpson, F. Kramer, T. Shearer, A. Billin, A. Russell, M. Hellerstein, S. Turner, W. Evans and M. Shankaran.** GlaxoSmithKline, Research Triangle Park and KineMed Inc., Emeryville, CA.
- B20 **947.8** Diaphragm of Hyperkalemic Periodic Paralysis Mouse Has No Contractility Abnormality Compared to the Robust Abnormalities in EDL and Soleus **T. Ammar and J.M. Renaud.** Univ. of Ottawa.
- B21 **947.9** Preventive Effects of Middle Frequency Electrical Stimulation on Cachexia-Induced Muscle Atrophy **M. Tanaka, K. Tanaka, J. Takegaki and H. Fujino.** Grad. Sch. of Hlth. Sci., Kobe Univ. and Osaka Yukioka Col. of Hlth. Sci.
- B22 **947.10** Immunohistological and Morphological Analysis from a Skeletal Muscle Microbiopsy **J. Townsend, M.S. Fragala, L.P. Oliveira, A.R. Jajtner, A.M. Gonzalez, A.J. Wells, J.R. Stout, D.H. Fukuda and J.R. Hoffman.** Univ. of Central Florida.
- B23 **947.11** Reduction of NMJ Occupancy in Dystrophic Muscle **S.J.P. Pratt, S.B. Shah and R.M. Lovering.** Univ. of Maryland Sch. of Med. and UCSD.
- B24 **947.12** Effect of Hypoxia Exposure on the Recovery of Skeletal Muscle Phenotype during Regeneration **T. Chaillou, N. Koulmann, A. Meunier, R. Chapot, B. Serrurier, X. Bigard and M. Beaudry.** Armed Forces Biomed. Res. Inst., La Tronche; Sch. of Val-de-Grâce, Paris and Sorbonne-Paris-Cite, Univ. Paris 13, Bobigny.
- B25 **947.13** Wnt3a and Wnt1 Enhance Myogenesis of C2C12 Myoblasts – Potential Mechanisms of Osteocyte to Muscle Cell Signaling **J. Huang, C. Mo, L. Bonewald and M. Brotto.** Sch. of Nursing & Hlth. Studies Univ. of Missouri-Kansas City; Sch. of Med., Univ. of Missouri-Kansas City and Sch. of Dent., Univ. of Missouri-Kansas City
- B26 **947.14** CRT2 Contributes to PGC-1 α Expression in Skeletal Muscle Cells **J.A. Rahnert, B. Zheng, M.B. Hudson, M.E. Woodworth-Hobbs and S.R. Price.** Emory Univ. and VA Med. Ctr.
- B27 **947.15** Progression of Cancer Cachexia Alters Muscle Lactate Metabolism in ApcMin/+ Mice **L.A. Brown, J.L. Brown, M.E. Rosa, D.E. Lee, R.A. Perry, Jr., J.P. Hardee, J.A. Carson, N.P. Greene and T.A. Washington.** Univ. of Arkansas and Univ. of South Carolina.
- B28 **947.16** Prostaglandin E₂ Signaling via EP4 Receptor Is Important for Cell Cycle Progression and the Regulation of Reactive Oxygen Species Production in Primary Myoblast **C. Mo, L. Wetmore, R. Zhao, L. Bonewald and M. Brotto.** Univ. of Missouri-Kansas City and William Jewell Col., MO.
- B29 **947.17** Effect of N-2-Mercaptopropionyl Glycine in Postfatigue Tension in Avian Skeletal Muscle **E. Sánchez-Duarte, A.M. Guzmán-Ambriz, X. Trujillo, M. Huerta, A. Saavedra-Molina, C. Cortés-Rojo and R. Montoya-Pérez.** Univ. de Colima and Univ. Michoacana de San Nicolás de Hidalgo, Mexico.
- B30 **947.18** No Thermal Effect of GSM Electromagnetic Waves Exposure on Slow-Type Skeletal Muscles in Female Rats **W. Ramadan, W. Darwich, Z. El-Dirani, H. Khachfe, M. Moustafa ElSayed, E. Estève and W.H. Joumaa.** Lebanese Univ. Fac. of Sci.; Joseph Fourier Univ. Fac. of Med. and Pharm., Grenoble; Lebanese Intl. Univ. and Beirut Arab Univ. Fac. of Sci.
- B31 **947.19** Acute Whole-Leg Pneumatic Compression Alters Nerve Growth Factor mRNA and Akt-mTOR Signaling in Human Skeletal Muscle **W.C. Kephart, C.B. Mobley, C.D. Fox, V.A. Santucci, T.J. Wilson, M.D. Goodlett, J.M. Sefton, D.D. Pascoe, A.N. Kavazis, M.D. Roberts and J.S. Martin.** Sch. of Kinesiol., Auburn Univ. and Sch. of Hlth. Sci., Quinnipiac Univ., CT.
- B32 **947.20** ARC Knockout Does Not Alter Apoptotic Enzyme Activities in Skeletal Muscle in Response to Angiotensin II Exposure **T.L. Campbell, A.S. Mitchell, T. Mandur and J. Quadrilatero.** Univ. of Waterloo, Canada.
- B33 **947.21** Effects of Total Knee Arthroplasty on Skeletal Muscle Morphology and Gene Expression 2 Hours after Surgery **J. Mangum, A. Hocker, B. Jewett, B. Lantz and H. Dreyer.** Univ. of Oregon and Slocum Ctr. for Orthoped., Eugene.
- B34 **947.22** Mitochondria-Targeted Catalase Does Not Enhance Myogenesis following Cardiotoxin Muscle Injury and Radiation Exposure **J.A. Cotter, M.J. Baker, L. Akers, M.M. Acharya, C.L. Limoli and V.J. Caiozzo.** California State Univ. Long Beach; Univ. of California, Irvine and Irvine Valley Col.
- B35 **947.23** Evidence for a Sliding Channel Hypothesis for Muscle Excitation-Contraction Coupling **S. Pitake and R. Ochs.** St. John's Univ.

- B36 **947.24** Polymerase Gamma Mutator Mice Rely on Increased Glycolytic Flux for Energy Production **A. Saleem, A. Safdar, Y. Kitaoka, M. Akhtar, O.S. Marquez and M.A. Tarnopolsky.** McMaster Univ., Canada.
- B37 **947.25** Shortening Speed Dependence of Concentric Force Potentiation in the Absence of Myosin Phosphorylation **J. Bunda, B. Gittings and R. Vandenboom.** Brock Univ., Canada.
- B38 **947.26** Targeted Deletion of all Caldesmon Splice Variants in Mice Results in Abdominal Wall Closure Defects **M.M. Schroeter, M. Frohn, S. Pütz, M. Koch, V. Peche, D. Metzler, A.A. Noegel, W.F. Neiss and G. Pfitzer.** Univ. of Cologne.
- B39 **947.27** Defective EC Coupling Is Partially Responsible for Impaired Contractility in Hindlimb Muscle of Stac3 Knockout Mice **X. Cong, J. Doering, R.W. Grange and H. Jiang.** Virginia Tech.
- B40 **947.28** The Force Dependency of Potentiation in Mouse Skeletal Muscle with and without Myosin Light Chain Kinase **W. Gittings, H. Aggarwal, J. Stull and R. Vandenboom.** Brock Univ., Canada and Univ. of Texas Southwestern Med. Ctr.

948. VASCULAR SMOOTH MUSCLE II

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B41 **948.1** Apoptosis Signal-Regulating Kinase 1 and c-Jun N-terminal Kinase Affect Tumor Necrosis Factor Alpha Signaling by Independent Mechanisms in Vascular Smooth Muscle Cells **H. Choi, A. Dikalova and F.S. Lamb.** Vanderbilt Univ. Med. Ctr.
- B42 **948.2** ANO1 and TRPC6 Channels Are Functionally Coupled in Cerebral Artery Smooth Muscle Cells **Q. Wang, D. Narayanan, Z.P. Neeb and J.H. Jagggar.** Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- B43 **948.3** A Novel Mechanism of ERK1/2 Regulation in Smooth Muscle Involving Acetylation of the ERK1/2 Scaffold IQGAP1 **S. Vetterkind, Q.Q. Lin and K.G. Morgan.** Boston Univ.
- B44 **948.4** Impaired Vasodilation Due to Thromboxane A₂ and Reactive Oxygen Species Production in Renal Hypertensive Rat Aorta **T.D.C. de Paula, B.R. Silva, M.D. Grando and L.M. Bendhack.** Fac. of Pharmaceut. Sci. of Ribeirão Preto, Univ. of São Paulo.
- B45 **948.5** Atorvastatin-Attenuates Mechanical Stretch-Induced Vascular Smooth Muscle Remodeling **C. Ghantous, N. Soudani, Z. Farhat and A. Zeidan.** American Univ. of Beirut.
- B46 **948.6** Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action **E.J. Lopez-Dyck, E.A. Sanchez-Pastor and M.F. Andrade-Urzua.** Univ. of Colima and Technol. Inst. of Colima, Mexico.
- B47 **948.7** Chronic Hypoxia Attenuates cGMP-Dependent Protein Kinase (PKG)-Mediated Vasorelaxation by Depressing BK Potassium Channel Activity in Cerebral Arteries **R.B. Thorpe and W.J. Pearce.** Loma Linda Univ.
- B48 **948.8** Selective Interaction of CaMKII δ_2 and Fyn Mediates Vascular Smooth Muscle Cell Motility **R.G. Ginnan, X. Zou and H.A. Singer.** Albany Med. Col.

- B49 **948.9** Reduced Relaxation Responses to Heme-dependent and -independent Soluble Guanylyl Cyclase Activation in Mesenteric Arteries of a Rat Model of Type 2 Diabetes **S. Goulopoulou, J.L. Hannan, T. Matsumoto, A. Ergul and R.C. Webb.** Univ. of North Texas Hlth. Sci. Ctr.; Johns Hopkins Med. Instns.; Hoshi Univ., Tokyo and Georgia Regents Univ.

949. CEREBRAL CIRCULATION III

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B50 **949.1** Partial Carotid Ligation Impairs Middle Cerebral Artery Endothelial Function in Old Mice **K.D. Reihl, A.E. Walker, A.J. Donato and L.A. Lesniewski.** Univ. of Utah and VA Med. Ctr.
- B51 **949.2** The Role of ATP and P2X7 in Upregulation of Vasocontractile ET-B Receptors in Basilar Arteries **K.A. Haanes and L. Edvinsson.** Copenhagen Univ. Hosp.
- B52 **949.3** Cerebral Blood Flow Velocity Responses to an Acute Cognitive Challenge in Healthy Adults **J.N. Barnes, R.E. Harvey, K.R. Malterer, M.C. Johnson and M.J. Joyner.** Mayo Clin. and Univ. of Wisconsin-Madison.
- B53 **949.4** Protective Effect of Transfusion of Carbon Monoxide-Bound PEGylated Hemoglobin (PEG-CO₂Hb) after Transient Focal Cerebral Ischemia **R.C. Koehler and X. Lui.** Johns Hopkins Univ.
- B54 **949.5** Effect of Desferrioxamine Infusion on Cerebral Autoregulation in Elderly Individuals: A Randomized Placebo Controlled Trial **S. Purkayastha, F.A. Sorond and C.O. Tan.** Southern Methodist Univ.; Brigham and Women's Hosp.; Spaulding Rehabil. Hosp., Boston and Harvard Med. Sch.
- B55 **949.6** Hypoxic Remodeling of Fetal Cerebral Arteries Involves the NPY/Y1 Pathway **O.O. Adeoye, J. Silpanisong, D. Kim, J. Williams and W.J. Pearce.** Loma Linda Univ.
- B56 **949.7** Conducted Vasodilation in Brain Parenchymal Arterioles Is Impaired during Chronic Hypertension **S-L. Chan and M.J. Cipolla.** Univ. of Vermont.
- B57 **949.8** Neurovascular Coupling across the Menstrual Cycle **M.H. Davenport, C.M. MacKay, R.J. Skow and C.D. Steinback.** Univ. of Alberta.
- B58 **949.9** Chronic Hypoxia Modulates Endothelial Influences on Smooth Muscle Phenotype in Fetal Cerebral Arteries **M.C. Hubbell, D. Kim, R.B. Thorpe, J. Silpanisong and W.J. Pearce.** Loma Linda Univ.
- B59 **949.10** Reduced Common Carotid Artery Blood Flow in Spontaneously Hypertensive Rats Is Unaffected by Aging and/or Chronic In Vivo Resveratrol Treatment **S.G. Denniss, C.S. Smith, R. Mariani, L. Wood and J.W.E. Rush.** Univ. of Waterloo, Canada.
- B60 **949.11** Effects of Aging on Sympathetically-Mediated Cerebrovascular Tone and Autoregulation **E.L. Thompson, A.M. Coney and J.M. Marshall.** Sch. of Clin. and Exptl. Med., Univ. of Birmingham, U.K.

950. BLOOD PRESSURE REGULATION I

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B61 **950.1** Nandrolone Decanoate Changes the Natriuretic Peptide System in Female Rats **G.A. Brasil, E.M. Lima, A.M. Nascimento, I.F. Caliman, A.M. dos Reis, T.U. Andrade and N.S. Bissoli.** Fed. Univ. of Espírito Santo; Univ. Vila Velha, Brazil and Fed. Univ. of Minas Gerais.
- B62 **950.2** Hypertension in NBCe2 Deficient Mice Caused by Enhanced ENaC Activity **D. Wen, Y. Yuan, P. Warner, B. Wang, R. Cornelius, H. Li, J. Wang, T. Boettger and S. Sansom.** Univ. of Nebraska Med. Ctr. and Max Planck Inst. for Heart and Lung Res., Bad Nauheim.
- B63 **950.3** Effect of Salt Diet on Beat-to-Beat Blood Pressure Dynamics in Hypertensive and Non-hypertensive Rats **S.A. Fares, J.R. Habib, M. Engoren, K. Badr and R.H. Habib.** American Univ. of Beirut and Univ. of Michigan.
- B64 **950.4** The Influence of Thermal Factors on Postexercise Haemodynamics in Trained and Untrained Men **R.D. Meade, J. Barrera-Ramirez, G. Paull, N. Fujii, D.T. Lamarche and G.P. Kenny.** Sch. of Human Kinet., Univ. of Ottawa.
- B65 **950.5** Alpha 2-Adrenergic Receptor Modulation of Calcium Current Is Impaired in Mesenteric Artery Projecting Sympathetic Neurons in DOCA-Salt Hypertensive Rats **R.K. Mui, R.N. Fernandes and J.J. Galligan.** Michigan State Univ.
- B66 **950.6** Feedforward Mechanisms Adjust Cerebral Blood Flow during Anticipated Postural Changes **G.H. Bourdages and B.J. Yates.** Univ. of Pittsburgh.
- B67 **950.7** Effects of Arginine Vasopressin Deficiency on Basal Mean Arterial Blood Pressure in the Rat **G.M. Villanueva, A. Organista-Esparza, V. Viñuela-Berni, E.P. Huerta-Carreón, R. Chavira-Ramirez, M. Tinajero-Ruelas, K. Kovacs and A. Quintanar-Stephano.** Autonomous Univ. of Aguascalientes, Mexico; Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City and St. Michael's Hosp., Univ. of Toronto.
- B68 **950.8** Effects of Acute Dietary Nitrate Supplementation on Aortic Blood Pressure and Wave Reflection in Young and Older Adults **D.P. Treichler, K. Ueda, C.T. Ganger, A.C. Schneider, W.E. Hughes and D.P. Casey.** Univ. of Iowa.
- B69 **950.9** The Role of Endothelial Cell Mineralocorticoid Receptors in Blood Pressure Regulation and Vascular Function **K. Barrett Mueller, S. Bender, M. Shahid, M. Aronovitz, T. Kershaw, M. Hill and I.Z. Jaffe.** Tufts Med. Ctr. and Univ. of Missouri Sch. of Med., Columbia.
- B70 **950.10** Cellular and Respiratory Responses to Inhalation of Traffic-Derived Particles in a Rat Model of High Fructose Diet-Induced Cardio-metabolic Syndrome **E.A. Diaz, P. Vasileios, B. Coull, J. Harkema and J.J. Godleksi.** Harvard Sch. of Publ. Hlth. and Michigan State Univ. Col. of Vet. Med.

951. CARDIAC ELECTROPHYSIOLOGY I

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B71 **951.1** Improved Signal Quality and Sensitivity Using Intravascular Placement of Solid Tip ECG Leads in Rats **H.A. Simenson, M.S. Fine, H.M. Bogie, K.L. Holliday-White, K.E. Lillegard, R.L. Lindquist, J.M. Doyle, R.D. Sarazan and B.W. Main.** DSI, St. Paul.
- B72 **951.2** β_3 -Adrenergic Receptor Activation and Endoplasmic Reticulum Stress via Modulation of Intracellular Free Zn^{2+} Hyperglycemic Cardiomyocytes **B. Turan, E. Tuncay, A. Toy and F.A. Cicek.** Fac. of Med., Ankara Univ.
- B73 **951.3** Dynamic Imaging of Compartmentalised Intracellular Free Zn^{2+} Concentrations in Rat Ventricular Cardiomyocytes **E. Tuncay, P. Chabosseau, A.R. Lyon, B. Turan and G.A. Rutter.** Imperial Col. London and Fac. of Med., Ankara Univ., Turkey.
- B74 **951.4** P Wave Indices on Electrocardiogram and their Association with Obesity and Metabolic Syndrome **G.D. Vaidean, M. Manczuk and S.S. Vansal.** Fairleigh Dickinson Univ.; Icahn Sch. of Med. at Mount Sinai and Maria Sklodowska-Curie Mem. Cancer Ctr. and Inst., Warsaw.
- B75 **951.5** Effect of Thoracic Epidural Anesthesia on Heart Rate Variability in a Porcine Model **A. Mahajan, V. Pakanati, K. Yamakawa and W. Zhou.** UCLA.
- B76 **951.6** Depressed Sarcoplasmic Reticulum Activity Underlies Ca^{2+} Dyshomeostasis in a Rat Model of Metabolic Syndrome **E.N. Okatan, E. Tuncay and B. Turan.** Ankara Univ. Fac. of Med.

952. CARDIAC FUNCTION AND DYNAMICS II

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B77 **952.1** The Effects of Relative Exercise Intensity versus Individual Metabolism on LV Twist and Untwisting Rate **E.J. Stöhr, J. Samuel, A. Yarlett and C. Armstrong.** Cardiff Metro. Univ., Wales.
- B78 **952.2** Cerebrolysin effects on cardiovascular hemodynamic parameters in Sprague Dawley rats with chronic hyperglycemia induced by streptozotocin **E. Zurita, L. De Jesús, J. Suarez and M. Gomez.** Autonomous Univ. of Puebla, Mexico and UCSD.
- B79 **952.3** Wireless Power Source for Implantable Telemetry Devices **A. Davtyan and K. Pitsillides.** Transonic EndoGear Inc., Davis.
- B80 **952.4** Improvement in Cardiac Function 1-Week Post Gastric Bypass Surgery **E. DeVallance, K. Lee, K. Grogg, K. LeMaster, R. Hull, L. Tabone, K. Rosati, R. Quinlin, C. Moore, A. Brader, J.C. Frisbee and P. Chantler.** West Virginia Univ. Sch. of Med.
- B81 **952.5** Rapid Change in Afterload after Gastric Bypass Surgery **E. DeVallance, K. Lee, K. Grogg, K. LeMaster, A. Brader, L. Tabone, K. Rosati, R. Quinlin, J.C. Frisbee and P.D. Chantler.** West Virginia Univ. Sch. of Med.

- B82 **952.6** When Mbytes Are Not Enough: Long-Term, Multiple Channel, Physiological Telemetry Implantable Datalogger **V. Rotar, K. Pitsillides and M. Axelsson**. Transonic EndoGear Inc., Davis and Univ. of Gothenburg.
- B83 **952.7** Does Left Atrial Size Predict Clinical Outcomes in Heart Transplant Recipients? **Y. Shizukuda, S. Ahmad, T. Naz, S. Dunlap and P. Gujja**. Univ. of Cincinnati and Cincinnati VA Med. Ctr.
- B84 **952.8** Palmitic Acid Regulation of Cardiac Inotropy and Calcium Handling in Healthy and Angiotensin II-Induced Hypertensive Rat **C.L. Jin and Y.H. Zhang**. National Univ. Col. of Med., Seoul.
- B85 **952.9** Distinct Roles of Neuronal Nitric Oxide Synthase in Metabolic Substrates Induced Abnormal Ca²⁺ Handling and Cardiac Arrhythmias in Normal and Hypertensive Rats **Z-H. Zhao and Y.H. Zhang**. Seoul Natl. Univ. Col. of Med.
- B86 **952.10** Best Anesthetics for Assessing Left Ventricular Systolic Function by Echocardiography in Mice **R. Pachon, B. Scharf, L. Yan, D. Vatner and S. Vatner**. Rutgers-New Jersey Med. Sch.
- B87 **952.11** Enhanced External Counterpulsation Reduces Indices of Left Ventricular Wasted Energy and Myocardial Oxygen Demand in Patients with Left Ventricular Dysfunction and Refractory Angina **D.T. Beck, J.S. Martin, D.P. Casey, P.D. Sardina and R.W. Braith**. Univ. of Rhode Island; Quinnipiac Univ., CT; Univ. of Iowa and Univ. of Florida.
- B88 **952.12** AT1 Receptors Modulate Ca²⁺ Transient in Adult Cardiomyocytes Treated with T3 **A.P.T. Taniguti, E. Nocchi, P.M. Almeida, S. Guatimosim and M.L.M. Barreto-Chaves**. Univ. of São Paulo.

953. WIGGERS AWARD POSTERS: CORONARY PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B89 **953.1** Rho-Kinase Mediates Biventricular Coronary Arterial Remodeling during Pulmonary Arterial Hypertension in Fischer 344 Rats **E.S. Crockett, T. Stevens and I.F. McMurtry**. Univ. of South Alabama.
- B90 **953.2** Circulating MicroRNAs Characterize Insufficient Coronary Collateral Artery Development in Patients with Chronic Total Occlusion **N. Hakimzadeh, A.Y. Nossent, A.M. van der Laan, S.H. Schirmer, N. van Royen, P.H.A. Quax, I.E. Hofer and J.J. Piek**. Acad. Med. Ctr., Univ. of Amsterdam; Leiden Univ. Med. Ctr.; Univ. Clin. des Saarlandes, Germany; VU Univ. Med. Ctr., Netherlands and Univ. Med. Ctr. Utrecht.
- B91 **953.3** Release of Microparticles from Native Coronary Arteries and Saphenous Vein Grafts in Patients with Elective Stent Implantation under Protection with an Aspiration Device **P. Kleinbongard, T. Baars, P. Horn, P. Kahlert, C. Heiss, R. Westenfeld, M. Kelm, R. Erbel and G. Heusch**. Univ. of Essen Med. Sch. and Univ. of Duesseldorf.
- B92 **953.4** Aspirate from Stented Aortocoronary Saphenous Vein Grafts Reduces Coronary Flow and Left Ventricular Pressure in an Isolated Perfused Rat Hearts **P. Kleinbongard, H. Lieder, P. Kahlert and G. Heusch**. Univ. of Essen Med. Sch.
- B93 **953.5** Endocardial Prevalence of Coronary Collaterals Becomes Transmurally More Uniform in a Human Heart with Left Ventricular Hypertrophy **M.G. van Lier, E.R. Oost, A.C. van der Wal, J.A. Spaan, M. Siebes and J.P. van den Wijngaard**. Acad. Med. Ctr., Univ. of Amsterdam.
- B94 **953.6** Role of Kv 1.5 Channels in Regulation of Myocardial Oxygen Balance **V. Ohanyan, L. Yin, M. Enrick, M. Nagane, H. Hou, T. Hakobyan, C.L. Kolz, P. Kuppusamy and W.M. Chilian**. Northeast Ohio Med. Univ. and Geisel Sch. of Med. at Dartmouth.
- B95 **953.7** Exercise Training Reverses Age-Induced Coronary Microvascular Dysfunction **J. Muller-Delp, B.J. Behnke, M.D. Delp, B. Chen, P. Ghosh, J. Stabley, K. Hotta, M. Cowan, T. Lucero and H. Morgan**. Florida State Univ.; Kansas State Univ. and Univ. of Florida.
- B96 **953.8** Estrogen Induces Coronary Arterial Dilation via Downregulation of Voltage-Gated, Ca²⁺ Channels **E. Niyonsaba, M.I. Moussa, N.J. Rusch and B.J.F. Hill**. Univ. of Central Arkansas and Univ. of Arkansas for Med. Sci.
- B97 **953.9** Variability in IV Adenosine-Induced Coronary Microvascular Resistance and Systemic Pressure Compromises FFR Determination Despite Stable Stenosis Hemodynamics **L. Casadonte, K.M. Marques, J.A.E. Spaan and M. Siebes**. Acad. Med. Ctr., Univ. of Amsterdam and VU Univ. Med. Ctr., Amsterdam.

954. MYOCARDIAL ISCHEMIA/METABOLISM II

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B98 **954.1** The 4th Window: A Novel, Clinically Relevant Model of Delayed Ischemic Preconditioning in Conscious, Chronically Instrumented Pigs **C. Bravo, R. Kudej, X. Zhao, R. Pachon, T. McNulty, L. Yan, D. Vatner and S. Vatner**. Rutgers New Jersey Med Sch., Newark and Bridgeport Hosp. Yale New Haven Hlth. Syst.
- B99 **954.2** Intermittent Hypoxia Conditioning and Delta Opioid Receptor Expression in Canine Atrium **J.A. Estrada, R.T. Mallet, H.F. Downey and J.L. Caffrey**. Univ. of North Texas Hlth. Sci. Ctr.
- B100 **954.3** Ischemic Postconditioning during Cardiopulmonary Resuscitation Improves Cardiac Mitochondrial Respiration **T.R. Matsuura, M.L. Riess, J.A. Bartos, M.D. Olson, J.N. Rees, S.H. McKnite, Q. Cheng, M. Bienengraeber, T.P. Aufderheide, R.W. Neumar, K.G. Lurie and D. Yannopoulos**. Univ. of Minnesota, Minneapolis; VA Tennessee Valley Healthcare Syst. & Vanderbilt Univ.; Med. Col. of Wisconsin and Univ. of Michigan.
- B101 **954.4** Heart Rate Reduction and Longevity in Mice **P. Kleinbongard, S. Gent, P. Dammann, M. Neuhäuser and G. Heusch**. Univ. of Essen Med. Sch. and Koblenz Univ. of Applied Sci., Remagen, Germany.
- B102 **954.5** Role of O-GlcNAcylation in Regulating Mitophagy in Cardiomyocytes **J. Wright, P. Kramer, V. Darley-Usmar and J. Chatham**. Univ. of Alabama at Birmingham.
- B103 **954.6** Mitochondria Are a Target of Cardioprotection by Ivabradine **P. Kleinbongard, N. Gedik and G. Heusch**. West German Heart and Vasc. Ctr., Univ. of Essen Med. Sch.

- B104 **954.7** The Cardioprotective Effects of the Mitochondrial Fission Inhibitor, P110, on Myocardial Ischemia/Reperfusion Injury **J. Vu, Q. Chen, R. Remarcke, I. Benjamin, D. Stutzman, H. Patel, W. Chau, S. Patel, C. Peters, E. Smith, C. Pang, R. Barsotti and L.H. Young.** Philadelphia Col. of Osteo. Med.
- B105 **954.8** Role of Toll-Like Receptor 4 Activation in Mitochondrial Respiration in Mouse Liver and Heart **B.P. Pickering and D.R. Sharda.** Olivet Nazarene Univ., IL.
- B106 **954.9** Effects of Liraglutide on Cardiac Function and Myocardial Infarct Size in the Setting of Obesity **A.G. Goodwill, K.J. Mather, J.N. Noblet, D.J. Sassoon, A.M. Conteh and J.D. Tune.** Indiana Univ. Sch. of Med.

955. FREE RADICAL SIGNALING AND OXIDANT STRESS/INJURY I

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B107 **955.1** Prdx6PLA₂-Derived Lysophosphatidic Acid Signaling Is required for Nox2 Activation in Pulmonary Microvascular Endothelial Cells and Alveolar Macrophages **J.P. Vazquez-Medina, C. Dodia, S. Chatterjee and A.B. Fisher.** Perelman Sch. of Med., Univ. of Pennsylvania.
- B108 **955.2** The Activation of Matrix Metalloproteinase-2 by Mitochondrially-Generated Reactive Oxygen/Nitrogen Species **B.G. Hughes and R. Schulz.** Univ. of Alberta.
- B109 **955.3** Both Peroxidase and Phospholipase A2 Activities of Peroxiredoxin 6 Protect against Oxidative Stress by Reduction of Peroxidized Cell Membranes **H. Li, S.I. Feinstein, S. Zhou, C. Dodia and A.B. Fisher.** Sch. of Med., Univ. of Pennsylvania.
- B110 **955.4** N-Acetyl Cysteine Attenuates Hypoxia-Induced Sympathoexcitation in Human Subjects **N. Jouett, G. Moralez, P.B. Raven, D.E. Watenpaugh and M.L. Smith.** Texas Col. of Osteo. Med.; Univ. of North Texas Hlth. Sci. Ctr. and Sleep Consultants of Texas, Inc.
- B111 **955.5** Doxorubicin-Induced Activation of Intracellular Matrix Metalloproteinase-2 by Oxidative Stress **B.Y.H. Chan, B.G. Hughes and R. Schulz.** Univ. of Alberta.
- B112 **955.6** Metoprolol Prevents Cardiac Oxidative Stress Associated with Myocardial Ischemia/Reperfusion Injury **W. Bao, A. Zacco, T. Chendrimada, J.R. Toomey, R.N. Willette and C.G. Schnackenberg.** GlaxoSmithKline Pharmaceut., King of Prussia.
- B113 **955.7** LRRC8A (ICl_{swell}) Anion Channels Modulate TNF α -Dependent Activation of NF- κ B **N.A. Ettinger, H. Choi, H-N. Nguyen and F.S. Lamb.** Vanderbilt Univ. Med. Ctr.

- B114 **955.8** Hyperacetylation of SOD2 Mediates Transporting Its Cytosolic Precursor into Mitochondrial Matrix in the Murine Heart of SOD2-tg **Y-R. Chen, L. Zhang, C-L. Chen and P.T. Kang.** Northeast Ohio Med. Univ. and The Ohio State Univ.
- B115 **955.9** Induction of miR-21 Expression by Freshly Fractured Silica Involves ROS-Mediated ERK Pathway **M. Ding, L. Hou, L. Bowman, T. Meighan, T. Settle and J. Liu.** NIOSH, Morgantown and West Virginia Univ.

956. ENDOTHELIAL CELL BIOLOGY III

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B116 **956.1** Changes in Endothelial Cell Membrane Morphology and Elasticity with Exposure to Polyunsaturated Free-Fatty Acids **B. Mabry, E. Lau and B. Hunt.** Wheaton Col., IL.
- B117 **956.2** Mitochondria Modulates Calcium Pulsars in Native Endothelial Cells **F. Toussaint, D. Béziau, C. Charbel, A. Blanchette, G. Mayer and J. Ledoux.** Montreal Heart Inst. and Univ. of Montreal.
- B118 **956.3** Select Rab GTPases Mediate Pulmonary Endothelial Barrier **H. Chichger, J. Braza, G. Boni, H. Duong and E.O. Harrington.** Alpert Med. Sch. of Brown Univ. and Providence VA Med. Ctr.
- B119 **956.4** Shear-Induced Extracellular Regulated Kinase Signaling to eNOS Is Increased When Autophagy Is Compromised in Endothelial Cells **T. Ruan, L. Bharath, R. Mueller, R. Goodrich, T. Graham and J.D. Symons.** Univ. of Utah.
- B120 **956.5** Dyslipidemia Induces Endothelial Cell Stiffening and Alterations in Angiogenic Potential **Y. Bogachkov, M-J. Oh, J. Baruah, E. LeMaster, C. Adamos, K. Wary and I. Levitan.** Univ. of Illinois at Chicago.
- B121 **956.6** Endothelial Kir Channels Amplify the Actions of Endothelium-Dependent Vasodilators in Systemic Resistance Arteries **S.K. Sonkusare, T. Dalsgaard, A.D. Bonev and M.T. Nelson.** Univ. of Vermont.
- B122 **956.7** oxLDL Induce Endothelial Cell Stiffening through Rho/ROCK Signaling Pathway **C. Zhang, M-J. Oh and I. Levitan.** Univ. of Illinois at Chicago.
- B123 **956.8** Sex Differences in the Open Probability of TRPV4 Channels in Mouse Mesenteric Artery Endothelium **S.K. Sonkusare, N. Villalba, A. Raza, A.D. Bonev, K. Freeman, G.C. Wellman and M.T. Nelson.** Univ. of Vermont.
- B124 **956.9** Association between NADPH Oxidase Activity and NO Bioavailability in Human Blood Arteries of Hyperhomocysteinemic Patients **L. Kalinowski, A. Ploska, A. Siekierzycka, L.W. Dobrucki, J. Wojciechowski, M. Wozniak, J. Rogowski and I.T. Dobrucki.** Univ. of Illinois at Urbana-Champaign and Med. Univ. of Gdansk, Poland.

957. HYPERTENSION II

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B125 **957.1** Effect of Renal Denervation on Blood Pressure and MicroRNA 181a in Hypertensive Schlager Mice **G.A. Head, C. Gueguen, F.Z. Marques, K.L. Jackson, N. Eikelis, E.R. Stevenson, G.R. Lambert, F.J. Charchar and P.J. Davern.** Baker IDI, Melbourne and Fac. of Sci. and Technol., Federation Univ., Australia.
- B126 **957.2** Effect of Acute Lower Leg Heating on Aortic Pulse Wave Reflection in Postmenopausal Women **K. Kosaki, J. Sugawara, N. Akazawa, T. Matsubara, A. Zempo-Miyaki and S. Maeda.** Univ. of Tsukuba; Natl. Inst. of Adv. Indust. Sci. and Technol., Ibaraki and Ryutsu Keizai Univ., Japan.
- B127 **957.3** Impact of Moderate Zinc Deficiency during Fetal Life and Postnatal Growth on Cardiac Nitric Oxide System, Inflammatory and Oxidative Markers in Adult Male Rats **L.V. Juriol, N. Gobetto, F. Mendes Garrido, G. Pineda, M. Dasso, J. Toblli, A. Carranza, R. Elesgaray, A.L. Tomat and C. Arranz.** Sch. of Pharm. and Biochem., Univ. of Buenos Aires; CONICET, Buenos Aires and Sch. of Pharm. and Biochem., Univ. of Buenos Aires.
- B128 **957.4** Role of Caveolin-1 In Signaling Pathways Involved in Angiotensin II-Induced Activation of Cerebral Vascular Hypertrophy and Remodeling **S. Umesalma, T.D. Gerhold and G.L. Baumbach.** Univ. of Iowa.
- B129 **957.5** Aminolevulinic Acid Treatment of Pulmonary Arteries Attenuates Endothelin-1 and Angiotensin II Elicited Increases in Mitochondrial, but not Extra-Mitochondrial Superoxide **D. Patel, R. Alhawaj, M.R. Kelly, G. Froogh, D. Sun and M.S. Wolin.** New York Med. Col.
- B130 **957.6** Deficiency of the T-Type Calcium Channel Ca_v3.1 Attenuates Plasma Aldosterone and Cardiac Hypertrophy Despite Similar Ang II-Induced Hypertension **A.D. Thuesen, B.L. Jensen and P.B.L. Hansen.** Univ. of Southern Denmark.
- B131 **957.7** Cholinergic Stimulation with Nicotine Induces CD68⁺ Macrophage Infiltration into Kidney and Increases Arterial Pressure in Spontaneously Hypertensive Rats **S. Harwani, M. Chapleau, F. Sutterwala, Z. Ballas, R. Patil, D. Meyerholz and F. Abboud.** Univ. of Iowa and Va Med. Ctr.
- B132 **957.8** Blunted Nocturnal Blood Pressure Dipping and Exaggerated Morning Blood Pressure Surge in Response to a Novel Repetitive Sleep Restriction Challenge **H. Yang, M. Haack, M.S. Lamanna and J.M. Mullington.** Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.
- B133 **957.9** Assisted Reproductive Technologies-Induced Premature Vascular Aging Persists and Evolves into Arterial Hypertension in Adolescents **E. Rexhaj, R. von Arx, D. Cerny, R. Soria, E. Bouillet, C. Sartori, U. Scherrer and S.F. Rimoldi.** University Hosp., Bern.
- B134 **957.10** Evaluation of Cardiac ACE in Rats with Experimental Model of Metabolic Syndrome Induced by Fructose Intake **M.S. Souza, I.C. Araujo, A.L. Americo, C.R. Muller, P. Fiorino and V. Farah.** Mackenzie Univ., Brazil and Univ. of São Paulo.

958. DIABETES AND INSULIN RESISTANCE II

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B135 **958.1** Ventricular Repolarization Pattern and Ischemic Arrhythmia Susceptibility at Different Follow-Ups of Diabetes Mellitus **I.E. Azarov, A.O. Ovechkin, M.A. Vaykshnorayte, K.A. Sedova, O.G. Bernikova, N.V. Arteyeva and D.N. Shmakov.** Inst. of Physiol., Ural Branch of RAS; Syktyvkar State Univ.; Komi Branch, Kirov State Med. Acad. and Czech Technical Univ.
- B136 **958.2** Metformin Blunts Reductions in Serum Retinol Binding Protein 4 following Exercise Training **J. Brandauer, S.K. Malin, D.M. Berardinelli, R. Viskochil, S.R. Chipkin and B. Braun.** Gettysburg Col.; Univ. of Virginia; Univ. of Massachusetts Amherst and Colorado State Univ.
- B137 **958.3** Knockdown of Exocyst Sec10 in Mouse Skeletal Muscle Cells and Analysis of Insulin-Stimulated GLUT4 Exocytosis **A.J. Lee, E. Ines, V. Lui and B. Fogelgren.** Univ. of Hawaii.
- B138 **958.4** The Role of AMPK-SIRT1 Pathway in High Glucose-Induced Insulin Resistance in Rat Cultured Podocytes **D. Rogacka, A. Piwkowska, I. Audzeyenka, S. Angielski and M. Jankowski.** Mossakowski Med. Res. Ctr., Polish Acad. of Sci. and Med. Univ. of Gdańsk.
- B139 **958.5** TBC1D1, a Rab-GTPase Activating Protein, Is Critical for Maintaining β -cell Mass and Glucose Homeostasis **S. Paglialunga, G. Simnett, H. Robson, J. Houad, S.S. Jain, E.A.F. Herbst, L.A. Snook, A.M. Arkell, R. Pillai, D.J. Dyck, J.A. Simpson, A. Bonen, J.W. Joseph and G.P. Holloway.** Univ. of Guelph and Sch. of Pharm., Univ. of Waterloo, Canada.
- B140 **958.6** Effects of Palmitate on Mitochondrial Number and *PGC1 α* Splicing in Primary Human Myocytes **P.P. Devarshi, E.M. Taylor, A.D. Jones and T.M. Henagan.** Purdue Univ.
- B141 **958.7** Epigenetic Regulation of *Pgc1 α* Splice Variants in Response to Dietary Quercetin Supplementation **A.D. Jones, E.M. Taylor and T.M. Henagan.** Purdue Univ.
- B142 **958.8** Relation between Aldose Reductase Enzyme and the Signal Pathway of Protein Kinase C in the IN Vitro Diabetic Retinopathy Model **N. Das Evcimen, M. Sarikaya and N. Yazihan.** Ankara Univ. Pharm. Fac. and Ankara Univ. Med. Sch., Turkey.
- B143 **958.9** Downregulation of the Vascular Insulin Signaling Pathway May Contribute to Hyperglycemia following High Fat Intake **K. Ricklefs, A. Simperova, P. Reaven and K.L. Sweazea.** Arizona State Univ. and VA Med. Ctr., Phoenix.

959. DIABETIC RENAL DISEASE

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B144 **959.1** Mathematical Model of Renal Hemodynamic and Structural Consequences of Increased Proximal Sodium Reabsorption in Early Diabetic Kidney Disease **K.M. Hallow**. Univ. of Georgia.
- B145 **959.2** Acute IP Phlorizin Normalizes Cortical PO₂ but Causes Medullary Hypoxia in the Diabetic Rat Kidney **J. O'Neill, D. Patinha, A. Fasching, L. Pihl, S. Franzen and F. Palm**. Linköping Univ. and Uppsala Univ.
- B146 **959.3** SGLT2 Inhibition Is Predicted to Increase NaCl Delivery to the Medullary Thick Ascending Limb but Not to Significantly Elevate Its Oxygen Consumption **A. Edwards, V. Vallon and A. Layton**. CNRS, Cordeliers Res. Ctr., Paris; UCSD and Duke Univ.
- B147 **959.4** Change in MicroRNA Profile Predicts Diabetes Associated Renal Pathology Non-invasively **A. Mohan, R.S. Singh, D. Garg, A. Upadhyay, S. Ghildiyal and S. Tiwari**. Sanjay Gandhi Postgrad. Inst. of Med. Sci., Lucknow.
- B148 **959.5** Renal Structure-Function Relationship in the Obese ZSF1 Rat Model of Diabetic Nephropathy **J. Kuo, C.W. Lee, H.S. Qian and R. Fryer**. Boehringer Ingelheim Pharmaceut. Inc., CT.
- B149 **959.6** Prolonged High Glucose Treatment Increased Orai1 Protein Expression through Inhibition of Lysosomal Pathway in Human Mesangial Cells **S. Chaudhari, Y. Wang and R. Ma**. Univ. of North Texas Hlth. Sci. Ctr.
- B150 **959.7** Modulation of Renin Angiotensin System Components by High Glucose Levels in Culture of Collecting Duct Cells **A.P.de O. Leite, D.S. Aragão, F.A.A. Ronchi, M.D. Nogueira, L-A.F. Mendes, R.P. Moreira, Z.P. Jara, P. Fiorino, D.E. Casarini and V. Farah**. Fed. Univ. of São Paulo and Mackenzie Presbyterian Univ., São Paulo.
- B151 **959.8** Effects of Endothelin-A Receptor and Angiotensin Converting Enzyme Inhibition on the Development of Progressive Proteinuria in Diabetic Dahl SS Rats with Pre-existing Renal Disease **D.R. Spires, L. Taylor, K. McPherson and J.M. Williams**. Tougaloo Col. and Univ. of Mississippi Med. Ctr.
- B152 **959.9** Interaction of Hypertension and Diabetes in Progressive Nephropathy: Role of ER Stress **Z. Wang, J.M. do Carmo, J.M. Williams, A.A. da Silva and J.E. Hall**. Univ. of Mississippi Med. Ctr.
- B153 **959.10** Garlic (*Allium sativum*) Modulates the Expression of the Receptor for Advanced Glycation End Product Isoforms in Renal Tissues of Streptozotocin-Induced Diabetic Rats **K.K. Al-Qattan, M.H. Mansour, M. Thomson and M. Ali**. Kuwait Univ.
- B154 **959.11** Hydrogen Sulfide Inhibits Ca²⁺-Induced Mitochondrial Permeability Transition Pore Opening in Type-1 Diabetes **S. Kundu, S. Pushpakumar and U. Sen**. Univ. of Louisville.
- B155 **959.12** Glucose Activation of the Mitochondrial Apoptotic Pathway in Proximal Tubular Cells and Protective Effect of Ouabain Signaling **L.M. Nilsson, I. Burlaka, H. Brismar, A. Aperia and L. Scott**. Royal Inst. of Technol. and Karolinska Inst.

960. KIDNEY IN HYPERTENSION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B156 **960.1** Acute Blockade of PDGF Receptors Decreases Arterial Blood Pressure and Renal Vascular Resistance in Cyp1a1-Ren2 Transgenic Rats with Angiotensin II-Dependent Malignant Hypertension **N.M. Haney and K.D. Mitchell**. Tulane Univ. Sch. of Med.
- B157 **960.2** Flow-Stimulated NO Production Is Altered in Thick Ascending Limbs of Dahl Salt-Sensitive Rats Fed Either Normal or High Salt Diets **A. Gonzalez-Vicente, N.J. Hong and J.L. Garvin**. Case Western Reserve Univ.
- B158 **960.3** Telemetric Recording of Renal and Carotid Blood Flow Velocity and Arterial Blood Pressure Simultaneously in Rats **M.P. Koeners, K.E. Lewis and J.F. Paton**. Sch. of Physiol. & Pharmacol., Univ. of Bristol.
- B159 **960.4** Effects of Combined Endothelin A Receptor and Renin-Angiotensin System Blockade on the Regression of Chronic Kidney Disease in 5/6 Nephrectomized Ren-2 Transgenic Rats **L. Sedlakova, L. Kopkan and L. Cervenka**. Inst. for Clin. and Exptl. Med., Prague.
- B160 **960.5** Internalized Angiotensinogen Is Secreted to the Apical Side in Renal Proximal Tubular Cells **A.Y. Yeh and R. Satou**. Tulane Univ. Sch. of Med.
- B161 **960.6** A Fructose Enriched Diet (20%) Induces Salt-Sensitive Hypertension and Prevents Salt-Induced Decrease in Plasma Renin **W.H. Beierwaltes, A. Ismail, D. Szandzik, J.L. Garvin and P.A. Ortiz**. Henry Ford Hosp. and Case Western Reserve Univ.
- B162 **960.7** Sodium Balance and Resistance to Ang II-Induced Hypertension, Despite NCC and NKCC2 Activation, in Mice with Global Deletion of Na,K-ATPase Regulatory Subunit FXD2 **E. Arystarkhova, Y.B. Liu, D.L. Ralph, G.A. Figtree, A.A. McDonough and K.J. Sweadner**. Massachusetts Gen. Hosp.; Keck Sch. of Med., Univ. of So. California and Univ. of Sydney.
- B163 **960.8** Hypertensive and Renal Injury Responses to Nitric Oxide Deficiency Are Unaffected by Tyrosine Kinase Inhibition in Mice **D.S.A. Majid, P.J. Kadowitz and A. Castillo**. Tulane Univ. Sch. of Med.
- B164 **960.9** Stretch Increases Intracellular Calcium More in Dahl-Salt-Sensitive than Salt-Resistant Rat Thick Ascending Limbs **P. Cabral, A. Gonzalez-Vicente and J. Garvin**. Case Western Reserve Univ.
- B165 **960.10** Resveratrol Treatment Reverses Mild Angiotensin II-Induced Hypertension, but Not by Increased Natriuresis **K.L. Gordish and W.H. Beierwaltes**. Wayne State Univ. and Henry Ford Hosp.
- B166 **960.11** Renoprotective Effects of N-Acetyl-Seryl-Aspartyl-Lysyl-Proline in Dahl Salt-Sensitive Rats **M.E. Worou, M. D'Ambrosio, T-D. Liao, P. Nakagawa, E. Peterson, B. Janic, N-E. Rhaleb and O.A. Carretero**. Henry Ford Hosp.
- B167 **960.12** Intravital Imaging of the Kidney in Salt-Sensitive Hypertension **O. Palygin, B.T. Endres, R.M. Sandoval, Jr., G.J. Rhodes, S.B. Campos-Bilderback, M.M. Kamocka, B.A. Molitoris, A. Staruschenko and A.M. Geurts**. Med. Col. of Wisconsin and Indiana Univ. Sch. of Med.

- B168 **960.13** The Development of Angiotensin II-Induced Hypertension during Various Salt Intakes in Cre/Lox Conditional Knockout Mice for Bradykinin Receptors in the Collecting Duct **L. Kopkan, Z. Huskova, S. Jichova, L. Cervenka, Z. Saifudeen and S.S. El-Dahr.** Inst. for Clin. and Exptl. Med., Prague and Tulane Univ. Sch. of Med.
- B169 **960.14** Expression of Toll-Like Receptor 4 Is Augmented in the Kidney with Chronic Partial Ureteral Obstruction and Further Stimulated by Lipopolysaccharide **H. Ma, Y. Yang, S. Kheradnam and S-Y. Chou.** Brookdale Univ. Hosp. and Med. Ctr., Brooklyn, NY.
- B170 **960.15** Mesenchymal Stem Cells Improve Both Stenotic and Contralateral Kidneys in the Renovascular Hypertension **E.B. Oliveira-Sales, E. Maquigussa, V.A. Varela, C.G. Shimoura, G. Gomes, C.T. Bergasmachi, R.R. Campos and M.A. Boim.** Fed. Univ. of São Paulo.
- B171 **960.16** Spontaneous Hypertension and Cardiorenal Pathologies in the African Green Monkey **M.K. Rhoads, S.B. Goleva, A. Beierschmitt and J.L. Osborn.** Univ. of Kentucky and Behavioural Sci. Fndn., St. Kitts and Nevis.
- B172 **960.17** Stem Cells Improved Renovascular Hypertension Independently of the Change of Renal Water and Sodium Transporters **V.A. Varela, E.B. Oliveira-Sales, E. Maquigussa, F.T. Borges and M.A. Boim.** Fed. Univ. of São Paulo.
- B173 **960.18** Prevention of High Fat-Induced Podocyte Injury and Glomerular Sclerosis in Mice Lacking Nod-Like Receptor Protein 3: Role of Inflammasome Extinction **K.M. Boini, M. Xia, S.M. Conley, G. Li, T.W. Gehr and P-L. Li.** Virginia Commonwealth Univ.
- B174 **960.19** Angiotensin AT2 Receptor Agonist Prevents Salt-Sensitive Hypertension in Obese Zucker Rats **Q. Ali, S.N. Patel and T. Hussain.** Col. of Pharm., Univ. of Houston.
- B175 **960.20** High Blood Pressure Induced by Vitamin D Deficiency Is Associated with Upregulation of NKCC2 and Intrarenal RAS Activation **W.M. Luchi, R.O. Crajoinas, A.C. Seguro and A.C. Girardi.** Med. Sch., Univ. of São Paulo.
- B176 **960.21** Inhibition of MicroRNA-429 Expression Mediates Angiotensin II-Induced Kidney Damages in Rats **Z. Wang, Q. Zhu, W. Wang, P-L. Li, J. Hu and N. Li.** Virginia Commonwealth Univ. Sch. of Med.
- B177 **960.22** Expression/Phosphorylation of the Renal NaCl Cotransporter (NCC) in Transplant Patients with Hypertension **L. Rojas-Vega, A.R. Jimenez, R. Gomez-Ocadiz, J. Alberú, L.M. Morales-Buenrostro and G. Gamba.** Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., UNAM and Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City.
- B178 **960.23** P2X7R Antagonism Improves Renal Medullary Blood Flow and Oxygenation in Angiotensin II-Dependent Hypertension **M.A. Bailey, R.I. Menzies and J.J. Mullins.** Univ. of Edinburgh.
- B179 **960.24** Bicarbonate Therapy Alleviates Hypertension-Induced Renal Injury in Dahl Salt-Sensitive Rats Independent of Systemic Blood Pressure **D.L. Irsik, H. Ocasio, J. Sun, J-K. Chen and P.M. O'Connor.** Georgia Regents Univ.
- B180 **960.25** Calcineurin Homologous Protein 1 Interferes with Calcineurin-Dependent Regulation of the Renal Na-K-2Cl-Cotransporter **C. Boldt, A. Paliege, V. Jankowski, S. Wakabayashi, T. Hisamitsu, S. Bachmann and K. Mutig.** Charité – Med. Univ. Berlin; Univ. Clin. Aachen and Natl. Cerebral and Cardiovasc. Ctr. Res. Inst., Japan.
- B181 **960.26** Regulation of Blood Pressure by the Calcineurin Homologous Protein-1 **F. Di Sole, C. Escano and V. Babich.** Des Moines Univ. and Univ. of Maryland Sch. of Med.
- B182 **960.27** Renal Specific Upregulation of Mitochondrial Genes in a Translational Primate Model of Spontaneous Hypertension **S.B. Goleva, M.K. Rhoads and J.L. Osborn.** Univ. of Kentucky.

961. NUTRITION IN KIDNEY BIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B183 **961.1** Metabolic Consequences of Experimental Uninephrectomy **D. Arsenijevic, J-F. Cajot, I. Scerri and J-P. Montani.** Univ. of Fribourg, Switzerland.
- B184 **961.2** Protective Function of Guava (*Psidium guajava*) Juice Combined with Trehalose in Kidney and Pancreas in Type 2 Diabetic Rats **Y-T. Kuo and C-T. Chien.** Natl. Taiwan Normal Univ.
- B185 **961.3** The Succinate Receptor Contributes to Obesity-Induced Diabetes Type-II and Chronic Kidney Disease **C. Carmone, J.H. Robben, J. van Diepen, A.C. Ariza, O. Devuyt, R. Stienstra and P.M. Deen.** Radboud Univ. Nijmegen Med. Ctr. and Univ. of Zurich.
- B186 **961.4** Effects of Fructose Feeding on Mice with Dual Knockout of the Insulin and Insulin-Like-Growth Factor, Type 1 Receptors from Proximal-Tubule **K. Doh, L. Li and C.M. Ecelbarger.** Georgetown Univ.
- B187 **961.5** Chronic Fish Oil Supplementation Partially Reverted Renal Alterations Observed in Mice Fed with a High Fat Diet **R. Fernandez, D. Pequito and I. Coelho.** Fed. Univ. of Paraná; Fed. Univ. of Mato Grosso do Sul and Fed. Univ. of Lavras, Brazil.
- B188 **961.6** Perinatal Taurine Supplementation Followed by a High Sugar Diet after Weaning Alters Renal Function in Adult Rats via Renin-Angiotensin System **S. Roysommuti, W. Lerdweeraphon and J.M. Wyss.** Fac. of Med., Khon Kaen Univ., Thailand and Univ. of Alabama at Birmingham.

962. SEX IN RENAL FUNCTION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B189 **962.1** 6 β -Hydroxytestosterone, a Cytochrome P4501B1-Derived Metabolite of Testosterone Plays an Important Role in Renal Dysfunction Associated with Angiotensin II-Induced Hypertension in Male Mice **A.K. Pingili, M. Kara, B.L. Jennings, A.M. Estes and K.U. Malik.** Univ. of Tennessee Hlth. Sci. Ctr.
- B190 **962.2** Differential Effects of Sex Steroids on mRNA Expression of Renal Sodium Transporters in Mice **L. Fan, K. Curtis, S. Toal, L. Kudo and A. Rouch.** Oklahoma State Univ. Ctr. for Hlth. Sci.

- B191 **962.3** Sex Differences in Renal Inner Medullary ET-1 Gene Expression Levels with Increasing Medullary Osmolality **E. Gohar, J.S. Speed and D.M. Pollock**. Univ. of Alabama at Birmingham.
- B192 **962.4** V-ATPase B1 Subunit Knockout Mice Have a Gender-Dependent Defect in Urine Concentrating Ability **A.V. Nair, T.G. Paunescu, R. Bouley and D. Brown**. Massachusetts Gen. Hosp. and Harvard Med. Sch.

963. OXIDATIVE STRESS AND HYPOXIA IN THE KIDNEY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B193 **963.1** Nitric Oxide and Superoxide Significantly Affect Medullary Oxygenation and Urinary Output **B.C. Fry, A. Edwards and A.T. Layton**. Duke Univ. and CNRS, Ctr. Rech. des Cordeliers, Paris.
- B194 **963.2** Intrarenal Blockade of Angiotensin II AT₁ Receptor Abolishes Renal Cortical Hypoxia in Salt-Restricted Animals **D. Patinha, L. Pihl and F. Palm**. Linköping Univ. and Uppsala Univ., Sweden.
- B195 **963.3** Telemetry-Based Recording of Renal Cortex Oxygenation during Endogenous RAS Activation: Preliminary Observations **T.W. Emans, M.P. Koeners, J.A. Joles, C.T.P. Krediet, J. Debets and B.J. Janssen**. Acad. Med. Ctr., Univ. of Amsterdam; Univ. Med. Ctr. Utrecht; Univ. of Bristol and Maastricht Univ., Netherlands.
- B196 **963.4** Effects of Norepinephrine on Blood Pressure and Intra-renal Perfusion and Oxygenation in Ovine Hypotensive Sepsis **C.N. May, J. Kosaka, R.G. Evans, R. Bellomo and Y.R. Lankadeva**. Florey Inst. of Neurosci. and Ment. Hlth.; Monash Univ. and Austin Hlth., Victoria, Australia.
- B197 **963.5** Pericytes Protect against Renal Ischemia-Reperfusion Injury in Male and Female Spontaneously Hypertensive Rats **G.R. Crislip, P.M. O'Connor and J.C. Sullivan**. Georgia Regents Univ.
- B198 **963.6** Urinary PO₂ as a Biomarker for Medullary Hypoxia **I. Sgouralis, R.G. Evans, B.S. Gardiner and A.T. Layton**. Univ. of Tennessee, Knoxville; Monash Univ.; Univ. of Western Australia and Duke Univ.
- B199 **963.7** Reactive Oxygen Species and NFκB Increase Peritoneal Filtration and Generate Ascites in Nephrotic Syndrome **A. Doucet, G. Brideau, B. Vogt and K. Udwan**. Cordeliers Res. Ctr., Paris and Univ. Hosp. of Bern.
- B200 **963.8** Increased Oxygen Consumption and Basal Metabolism of the Proximal Tubule in Early Diabetes **P. Singh, J. Thomas, H. Pham, S. Khang and S. Thomson**. UCSD and VA San Diego Healthcare Syst.
- B201 **963.9** Acute IP Furosemide Increases Medullary PO₂ in the Diabetic Rat Kidney **J. O' Neill, A. Fasching, D. Patinha, L. Pihl, S. Franzen and F. Palm**. Linköping Univ. and Uppsala Univ., Sweden.
- B202 **963.10** Role of NOX4 in Superoxide Production Stimulated by H⁺ Efflux in mTAL of SS Rat **N.N. Zheleznova, P.M. O'Connor and A.W. Cowley**. Med. Col. of Wisconsin and Georgia Regents Univ.

964. CARDIOVASCULAR AND RENAL MECHANISMS IN DIABETES AND METABOLIC SYNDROME

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B203 **964.1** Angiotensin II Dependent Regulation of TRPC6 Calcium Channels in the Podocytes of the STZ-Induced Type 1 Diabetic Dahl SS Rats **D. Ilatovskaya, O. Palygin, A. Lowing, V. Levchenko and A. Staruschenko**. Med. Col. of Wisconsin.
- B204 **964.2** Utilizing a Type 1 Diabetic Nephropathy Model Developed on the Basis of Streptozotocin-Treated Dahl SS Rats for the Studies of Calcium Handling in the Podocytes **A. Lowing, D.V. Ilatovskaya, O. Palygin, T. Pavlov, V. Levchenko and A. Staruschenko**. Med. Col. of Wisconsin.
- B205 **964.3** Sympathetic Hyperactivity and AT1 Receptor Overexpression Are Associated with High-Fat Diet-Induced Hypertension in Young Rats **A.L.V. Americo, C.R. Muller, F.S. Evangelista, V.M.A. Farah and P. Fiorino**. Mackenzie Univ., São Paulo; Univ. of São Paulo and Fed. Univ. of São Paulo.
- B206 **964.4** The Effects of Atorvastatin on the Progression of Metabolic Syndrome Associated Kidney Renal Disease **L.S. Taylor, B. Fizer, K. McPherson and J.M. Williams**. Univ. of Mississippi Med. Ctr.
- B207 **964.5** MD2 May Be a New Target for the Treatment of Obesity-Induced Cardiac Injury **Y. Qian, P. Zhong, Y. Wang and G. Liang**. Sch. of Pharmaceut. Sci., Wenzhou Med. Univ.
- B208 **964.6** Exercise Training Prevents Hypertension, Dyslipidemia and Renal Lipid Deposition in Young Rats Fed a High-Fat Diet **C.R. Muller, A.L.V. Americo, G.B. Neto, F.S. Evangelista, V.M. Farah and P. Fiorino**. Mackenzie Univ., São Paulo; Univ. of São Paulo and Fed. Univ. of São Paulo.
- B209 **964.7** Different Susceptibility to Vascular Damage Induced by Chronic Hyperglycemia in Aortic and Pulmonary Arteries from Sprague Dawley and Wistar Kyoto Rats **L. De Jesus, E. Zurita, M.d.J. Gomez and J. Suarez**. Univ. Autonoma de Puebla, Mexico and UCSD.
- B210 **964.8** Early Development of Glomerular Injury in Dahl Salt-Sensitive Rats with Metabolic Syndrome Independent of Diabetes and Hypertension **K. McPherson, D.C. Cornelius, D'A. Thomas, L. Taylor, D. Spires, A. Johnson, B. LaMarca, M.R. Garrett and J.M. Williams**. Univ. of Mississippi Med. Ctr.
- B211 **964.9** Sex Differences in the Progression of Diabetes-Associated Cardiac Pathology **K. Lum-Naihe, A. Raja, J. Bajwa, A. Mahmood, C. Luck, C. Emter and L. Pulakat**. Univ. of Missouri-Columbia.

965. DEVELOPMENTAL PROGRAMMING AND CARDIORENAL FUNCTION IN ADULTS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B212 **965.1** Brain Oxidative Stress in Neural Mechanism of Programmed Hypertension to Maternal High Fructose Diet **K.L.H. Wu, Y-L. Tain and J.Y.H. Chan.** Kaohsiung Chang Gung Mem. Hosp., Taiwan.
- B213 **965.2** Low Birth Weight Associated Renal and Vascular Impairment **B. Ratliff, J. Zullo, C. Barnett, M. Shen, M. Rabadi, L. Nesi, R. Lamba and W. Aldumuahdhi.** New York Med. Col.
- B214 **965.3** Stress Mis-programming of Mesenteric Arterial Smooth Muscle Is Suppressed by α -Adrenergic Receptor Blockade **J.J. Reho and S.A. Fisher.** Univ. of Maryland Baltimore.
- B215 **965.4** The Effect of Fetal Hypoxia on Programing Cardiovascular Function **L. Prestipino, J.W. Polson, E. Brolin and H.E. Ritchie.** Sch. of Med. Sci. & Bosch Inst., Univ. of Sydney.
- B216 **965.5** Early Life Stress Induces Dysregulation of Pro- and Anti-inflammatory Gene Expression in Renal Cortex of Adult Rats in Response to Chronic Angiotensin II **I.E. Obi, A.S. Loria, D.H. Ho, C. De Miguel and J.S. Pollock.** Univ. of Alabama at Birmingham and Univ. of Kentucky.

966. THE HEART OF THE MATTER: MENOPAUSE, SEX STEROIDS, AND CARDIOVASCULAR DISEASE

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B217 **966.1** In C57Bl/6N Female Mice 17 β -Estradiol Leads to Cardiac Mass and Function Loss via a β -Catenin Mechanism **G. Kararigas, L.C. Zelarayan, K. Toischer, G. Hasenfuss, H. Jarry and V. Regitz-Zagrosek.** Charité Univ. Hosp., Berlin and Georg-August-Univ. Goettingen.
- B218 **966.2** Postmenopausal Hypertension Is Blunted following Chronic Flutamide Treatment in Intrauterine Growth Restricted Female Rat **J.H. Dasinger, S. Intapad, B.R. Rudsenske, A.J. Carter and B.T. Alexander.** Univ. of Mississippi Med. Ctr.
- B219 **966.3** Coronary Ischemia Reperfusion Increases Degranulation of Cardiac Mast Cells Similarly in Male and Female Rats 8 Weeks after Ischemia **K. Scrogin, S. Tolia and A. Samarel.** Loyola Univ. Chicago, Stritch Sch. of Med.
- B220 **966.4** G Protein-Coupled Estrogen Receptor Activation Attenuates Rat Aortic Smooth Muscle Cell Proliferation **S.N. Kashyap and S.H. Lindsey.** Tulane Univ.
- B221 **966.5** Anti-hypertrophic Effect of Estradiol in Cardiomyocytes Is Mediated by GPER1 **G.N. Gonçalves, E. Nocchi, S.R. Scalzo, S.C. Guatimosim and A.M. Reis.** Fed. Univ. of de Minas Gerais, Brazil.

- B222 **966.6** Effect of Prior Use Menopausal Hormone Therapy on Blood Pressure Responses in Women **M.C. Johnson, S.M. Kruse, R.E. Harvey, M.J. Joyner, V.M. Miller and J.N. Barnes.** Mayo Clin.

- B223 **966.7** Exercise Training Initiated Late after Myocardial Infarction Is Related with Better Cardiac Function, Oxidative and Antioxidative Protein Expression **S.A. Almeida, E.R.G. Claudio, V.F. Mengal, S.G. Oliveira, E. Merlo, P.L. Podratz, S.A. Gouvea, J.B. Graceli and G.R. Abreu.** Fed. Univ. of Espírito Santo, Brazil.

- B224 **966.8** Impact of Chronic Salt Load on Mean Arterial Pressure in Female Growth Restricted Rats at One Year of Age **A.D. Brown, S. Intapad and B.T. Alexander.** Univ. of Mississippi Med. Ctr.

967. TRANSLATIONAL RESEARCH IN WATER AND ELECTROLYTE HOMEOSTASIS PHYSIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B225 **967.1** Renal Oxidation of ESS Diabetic Rats Is Minimized by EPA **N.I. Osiecki, T.G. Diaz, A. Ruiz Pecchio, A.R. Eynard, G. Repposi and N.H. Garcia.** INICSA-UNC CONICET, Cordoba, Argentina.
- B226 **967.2** Circadian Clock Gene Expression in Human Buccal Cells: Potential Use as a Biomarker for Circadian Rhythm Disorders **J.S. Speed, W. Hamrick, M. Burch, M. Siddiqui, K.A. Hyndman, D.M. Pollock, D.A. Calhoun, M.E. Young and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B227 **967.3** Salt Overload during Postnatal Period Promotes Neurogenic-Mediated Increase of Arterial Blood Pressure in Adult Rats **M.C.S. Moreira, A.A. Mourão, A.D.C. Nunes, C.H. Castro and G.R. Pedrino.** Fed. Univ. of Goiás, Brazil.
- B228 **967.4** Afternoon Spot Urine Osmolality as a Biomarker of Hydration in Free-Living Healthy Adults **G. Lemetais, J.H. Bottin, M. Poupin, L. Jimenez and E.T. Perrier.** Danone Res., Palaiseau.
- B229 **967.5** A Kidney-Targeted Protein Biopolymer Drug Delivery System **G.L. Bidwell, C. Reese, Q. Shao and A.R. Chade.** Univ. of Mississippi Med. Ctr.
- B230 **967.6** Physiological Changes in Plasma [K⁺] Affect NCC Function via Cl⁻ Inhibition of WNK4 **A.S. Terker, C-L. Yang and D.H. Ellison.** Oregon Hlth. & Sci. Univ.
- B231 **967.7** Long-Term Telemetric Blood Pressure Measurement in a Translational Model of Non-human Primate Spontaneous Hypertension **J.L. Osborn, M.K. Rhoads, J.A. Collett, A. Beierschmitt, J. Dascanio and H.J. Knot.** Univ. of Kentucky; Behavioural Sci. Fndn.. Saint Kitts and Nevis; Ross Univ. and TSE Sys. Inc., MO.
- B232 **967.8** Alterations in Placental Eicosanoid Production Contribute to Impaired Vascular Remodeling in Preeclampsia **S. Murphy, N. Lee and S-K. Spencer.** Univ. of Mississippi Med. Ctr.

968. WATER, ELECTROLYTE AND BLOOD PRESSURE HOMEOSTASIS: NEURAL AND HORMONAL REGULATORS AND STRESSORS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B233 **968.1** Glucocorticoids and the Diurnal Rhythm of the Thiazide-Sensitive NaCl Cotransporter **J.R. Ivy, E. Aldujaili, P.W. Flatman and M.A. Bailey.** Univ. of Edinburgh.
- B234 **968.2** Induced Pan-Nephron Mineralocorticoid Receptor Knockout Causes Na⁺ Wasting and K⁺ Retention **A. Terker, R. Lazelle, C-L. Yang and D. Ellison.** Oregon Hlth. & Sci. Univ.
- B235 **968.3** The Disruption of KCNJ10 Stimulates the Expression of Na-Activated K Channel in the Basolateral Membrane of the Thick Ascending Limb **C. Zhang, L. Wang, X-t. Su, D-h. Lin and W-h. Wang.** New York Med. Col.
- B236 **968.4** Renal Functional Responses to Angiotensin 1-7 in the Spontaneously Hypertensive Rat **E.F. Barry and E.J. Johns.** University Col. Cork.
- B237 **968.5** Differential Effects of Endoplasmic Reticulum Stress on Dipsogenic and Blood Pressure Responses to DOCA-Salt **C.D. Sigmund, F. Jo, H. Jo, A.M. Hilzendege, M.D. Cassell, T. Rutkowski, R.L. Davisson and J.L. Grobe.** Univ. of Iowa and Cornell Univ.
- B238 **968.6** Intracellular Renin in the Brain Contributes to Cardiovascular and Metabolic Control **K. Shinohara, B.J. Weidemann, M.D. Folchert, X. Liu, D.A. Morgan, K. Rahmouni, J.L. Grobe and C.D. Sigmund.** Univ. of Iowa.
- B239 **968.7** The Succinate Receptor 1 Is a Physiological Regulator of the Renin-Angiotensin Aldosterone System **C. Carmone, J.H. Robben, A.C. Ariza, M. Bekkenkamp, S. Kurstjens, O. Devuyt and P.M. Deen.** Radboud Univ. Nijmegen Med. Ctr. and Univ. of Zurich.
- B240 **968.8** The Renal Aldosterone-Endothelin Feedback System Controls Total Na Balance and Blood Pressure **A.K. Welch, I.J. Lynch, M.L. Gumz, B.D. Cain and C.S. Wingo.** North Florida/South Georgia Veterans Hlth. Syst. and Univ. of Florida.
- B241 **968.9** Dynamic Response to Long-Term Sodium Loading and Restriction **F. Karaaslan and R. Hester.** Istanbul Hlth. Directorate.
- B242 **968.10** Effect of Water and/or Food Deprivation on Renal Function **T.D. Pessoa and G. Malnic.** Univ. of São Paulo.
- B243 **968.11** Impaired Baroreflex Response Correlates with Reduced Conduit Vessel Contractility in Female Maternally Separated Rats and Reveals α_{1D} Adrenergic Receptor Dysfunction **M.O. Murphy, L.J. Evans, T.M. Mahanes and A.S. Loria.** Univ. of Kentucky.
- B244 **968.12** Evidence for ETB Receptor Mediated Pressor Effects Mediated by Alpha-Adrenergic Receptors **M. Powell, J.S. Speed and D.M. Pollock.** Univ. of Alabama at Birmingham and Univ. of Evansville.
- B245 **968.13** Histone Deacetylase-1 Is Critical for Flow-Mediated Nitric Oxide Production by the Inner Medullary Collecting Duct **K.A. Hyndman and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B246 **968.14** Dynamin-2 Is a Negative Regulator of NOS1 β in the Collecting Duct **A.M. Arguello, K.A. Hyndman, S.K.H. Morsing and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B247 **968.15** Vasopressin Increases Adrenal Blood Flow in a Pig Model of Hemorrhagic Shock **C. Uyehara, P.J. Wetstein, W.M. Ichimura, L-A.M. Murata, A.K. Sato, C.A. Hernandez and L.N. Kajiura.** Tripler Army Med. Ctr., Honolulu.
- B248 **968.16** Increased Renal Potassium Secretion Associated with Increased Vasopressin Prevents Hyperkalemia in a Rat Model of Hemorrhagic Shock **D. Lee, C.A. Hernandez, L-A.M. Murata, A.K. Sato and C.F.T. Uyehara.** Univ. of California, Merced and Tripler Army Med. Ctr., Honolulu.
- B249 **968.17** The Effects of Sepsis on Osmosensory Neurons Mediating Thirst **J. Stare, S. Siami, E. Trudel, M. Prager-Khoutorsky, T. Sharshar and C.W. Bourque.** McGill Univ.; McGill Univ. Hlth. Ctr.; Ctr. Hosp. d'Étampes, France and Hosp. Raymond Poincaré, France.
- B250 **968.18** Identification of CNS Sites Involved in the Cardiovascular and Renal Responses Elicited by Nociceptin/Orphanin FQ in Conscious Hypertensive Rats via c-Fos Immunocytochemistry **B. Hollister, T. Nguyen, C. Franklin, Y. Rangel and H. Gottlieb.** UIW Feik Sch. of Pharm., San Antonio and Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- B251 **968.19** Angiotensin II Reduces mRNA Expression for Glutamate Transporters and Glutamine Synthetase in Cultured Hypothalamic Astrocytes **S.G. Ruginsk, F.M.V. Vechiato, L.L.K. Elias, J. Antunes-Rodrigues and J.C. Cruz.** Fed. Univ. of Alfenas; Univ. of São Paulo and Fed. Univ. of Paraíba, Brazil.
- B252 **968.20** Renal Sympathetic Nerve Activity – Controlled by Renal Afferent Sympathoexcitatory or Inhibitory Nerves? **T. Ditting, K. Rodionova, S. Heinlein, K.F. Hilgers, C. Ott, R.E. Schmieder and R.A. Veelken.** Univ. of Erlangen-Nuremberg.
- B253 **968.21** Contribution of Brain G α_q and G α_{12} Protein Pathways in Mediating Angiotensin II Dependent Hypertension **J. Gao and D.R. Kapusta.** LSU Hlth. Sci. Ctr., New Orleans.
- B254 **968.22** Humanized Sickle Cell Disease Mice Display an Increased Sensitivity to α_1 -Adrenergic Mediated Vasoconstriction **B.M. Fox, D.M. Pollock and J.S. Pollock.** Univ. of Alabama at Birmingham.
- B255 **968.23** Blockade of the ET_A Receptor in an Animal Model of HELLP Syndrome **K. Wallace, S. Spencer, P. Kyle, J. Moseley and R. Morris.** Univ. of Mississippi Med. Ctr.
- B256 **968.24** Sex Differences in the Diurnal Natriuretic Response to a Salt Load in Rats Lacking a Functional ET_B Receptor **J.G. Johnston, J.A. Mason, C. Jin, J.S. Speed and D.M. Pollock.** Univ. of Alabama at Birmingham.

969. EPITHELIAL TRANSPORT: CELL BIOLOGY OF TRANSPORTERS AND CHANNELS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B257 **969.1** Gender-Specific Multidrug-Resistance Transporter Expression in Choroid Plexus **K. Flores, J.L. Renfro and J. Manautou.** Univ. of Connecticut.
- B258 **969.2** Neural FFA3 Negatively Regulates Cholinergic Secretory Function in Rat Proximal Colon **I. Kaji, Y. Akiba, K. Narimatsu and J.D. Kaunitz.** UCLA/BBRI and West LA VA Med. Ctr.
- B259 **969.3** Short-Term Regulation of Amino Acid Transporters by Amino Acids **J. Jando, J. Jordi and F. Verrey.** Univ. of Zürich.
- B260 **969.4** Cooperation of Basolateral Epithelial Amino Acid Transporters TAT1 and LAT2 Investigated in a Double Knockout Mouse Model **E. Boiadjeva, C. Vilches, S. Bodoy, L. Oparija, J. Jando, V. Nunes, F. Verrey and M. Palacin.** Univ. of Zurich; Inst. for Res. in Biomed., Barcelona and Bellvitge Biomed. Res. Inst., Barcelona.
- B261 **969.5** Transcriptional Regulation of the SLC52A3 Gene: Molecular Characterization of the Minimal Promoter in Human Intestinal Cells **A. Ghosal, S. Sabui and H.M. Said.** UCI-VA Med. Ctr., Long Beach.
- B262 **969.6** ADF/COF Have Different Effects on Intestinal Brush Border Structure and NHE3 Activity **L. Gao, R. Sarker and M. Donowitz.** Johns Hopkins Univ. Sch. of Med.
- B263 **969.7** Effects of NOD2 in Intestinal Epithelial Cells: Cross-Talk between NHE and Na⁺-K⁺-ATPase Activity **J. Cabral, D. Grácio, P. Soares-da-Silva and F. Magro.** Fac. of Med., Univ. of Porto.
- B264 **969.8** IRBIT Mediates Trafficking and Activation of Na⁺,K⁺-ATPase by Angiotensin II **P. He, Z. Xie and C. Yun.** Emory Univ. and Marshall Univ.
- B265 **969.9** Comparison of Protein Expression in Kidney Tubular Apical and Basolateral Membranes in Young and Old Rats **S.J. Khundmiri, R. Murray, A.J. LeBlanc, U. Sen, E.D. Lederer, E.J. Weinman, P.A. Jose, M.T. Barati and M.L. Merchant.** Robley Rex VA Med. Ctr.; Univ. of Louisville and Univ. of Maryland Sch. of Med.
- B266 **969.10** Intestinal Phosphate Regulation in Chronic Kidney Disease **V. Hogg-Cornejo, E. Sutherland, E. Dobrinskikh and M. Levi.** Univ. of Colorado Denver Anschutz Med. Campus.
- B267 **969.11** Generation of Mice Expressing RFP-tagged Sodium Phosphate Cotransporter NaPi-IIa **J. Ruminska, M. Patti, A. Vollero, S. Bourgeois, I.C. Forster, E. Hummler, V. Ponce de Leon, J. Biber, N. Hernando and C.A. Wagner.** Univ. of Zurich and Univ. of Lausanne.
- B268 **969.12** Identification of Phosphate Regulated Transcripts in Ileum and Renal Proximal Tubules **T. Knöpfel, N. Kampik, N. Hernando, I. Rubio Aliaga, J. Biber and C.A. Wagner.** Univ. of Zurich.
- B269 **969.13** Renal Localization and Characterization of Monocarboxylate Transporter Family Member Slc16a14 **T. Knöpfel, A. Atanassoff, N. Kampik, N. Hernando, C.A. Wagner and J. Biber.** Univ. of Zurich.
- B270 **969.14** CFTR and SLC5A8 Associate in Thyroid Epithelial Cells **P. Fong, Y. Li, S. Ganta and G. Chen.** Kansas State Univ. Col. of Vet. Med.
- B271 **969.15** Tight Junction Elaboration Aids Hypersaline Secretion in Euryhaline Teleost Fish **W.S. Marshall, G.M.M. Zapparilla, G.N. Robertson and R.R.F. Cozzi.** St Francis Xavier Univ., Canada.
- B272 **969.16** S-Glutathionylation of Epithelial Sodium Channels in Neonatal Mouse Lung Regulates Alveolar Fluid Clearance In Vivo **P.T. Trac and M.N. Helms.** Emory Univ. Sch. of Med.
- B273 **969.17** Characterization of Atp6ap2 ((Pro)-Renin Receptor) in Receptor Mediated Endocytosis by the Renal Proximal Tubule **M.F.L. Figueiredo, G. Sihh, D. Müller, G. Nguyen, M. Bader and C.A. Wagner.** Univ. of Zurich; Max Delbrück Ctr. for Molec. Med., Berlin and Col. de France, Paris.
- B274 **969.18** Epithelial Sodium Channel Tagged with Bungarotoxin Binding Site to Study Channel Plasma Membrane Expression and Trafficking **R. Gonzalez-Montelongo, D. Alvarez de la Rosa and T. Giraldez.** Univ. of La Laguna, Spain.
- B275 **969.19** RanBPM Likely Mediates Sodium Chloride Cotransporter Regulation through a WNK4-ERK 1/2 Signaling Pathway **M.A. Sun, C.M. Caroti, X. Feng, B. Zhou and H. Cai.** Emory Univ. Sch. of Med.
- B276 **969.20** CRISPR/Cas Mediated Genome Editing Reveals New Insights into the WNK-SPAK/OSR1 Network **A. Roy, J.H. Goodman, G. Pittman, G. Begum, B.F. Donnelly, D. Sun and A.R. Subramanya.** Univ. of Pittsburgh and VA Pittsburgh Healthcare Syst.
- B277 **969.21** Interaction between NCC and ENaC α , γ Subunits Are Differentially Regulated – Role of SGK1 **B.M. Wynne, O. Al-Khalili, D.C. Eaton and R.S. Hoover.** Emory Univ. and Atlanta VA Med. Ctr., Decatur.
- B278 **969.22** Regulation of the Interaction of NCC and ENaC β by SGK1 **M.Y. Liu, O. Al-Khalili, D.C. Eaton, B.M. Wynne and R.S. Hoover.** Emory Univ. and Atlanta VA Med. Ctr., Decatur.
- B279 **969.23** AMPK Regulates the Vacuolar H⁺-ATPase via 14-3-3 Proteins **M.M. Al-bataineh, H. Li, A.L. Marciszyn, V. Bhalla, K.R. Hallows and N.M. Pastor-Soler.** Univ. of Pittsburgh and Stanford Univ.
- B280 **969.24** AMPK Stimulates Urea Permeability and Urine Osmolality **Y. Wang, J.D. Klein and J.M. Sands.** Emory Univ.
- B281 **969.25** Mitochondria Form an Apical Calcium Signaling Domain in Renal Cortical Collecting Duct Cells **L.I. Galarza-Paez, D.C. Eaton, H.Y.C. Lam, O. Al Khalili, B.J. Duke, H.F. Bao, H. Ma and T.L. Thai.** Emory Univ.
- B282 **969.26** Calpain-2 Proteolysis of MARCKS Is a Negative Feedback Regulator of ENaC **D.S. Montgomery, Z.M. Ghazi, T.L. Thai, D.C. Eaton and A.A. Allii.** Emory Univ. Sch. of Med.
- B283 **969.27** The Effect of WNK4 on the Na⁺:Cl⁻ Cotransporter Is Modulated by Intracellular Chloride **S. Bazua-Valenti, M. Chavez-Canales, L. Rojas-Vega, X. Gonzalez-Rodriguez, N. Vazquez, A. Rodriguez-Gama, E.R. Argai, C. Plata, J. Garcia-Valdes, D.H. Ellison, J. Hadchouel and G. Gamba.** Salvador Zubirán Natl. Inst. of Hlth. Sci. and Nutr., Mexico City; INSERM, UMR970 and Oregon Hlth. & Sci. Univ.

970. EPITHELIAL TRANSPORT: PATHOPHYSIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B284 **970.1** Role of Insulin and Insulin-Like-Growth Factor Receptors in Renal Proximal Tubule Phosphorus Handling **K. Doh, L. Li and C.M. Ecelbarger**. Georgetown Univ.
- B285 **970.2** Klotho/fgf23-Independent and ER α Mediated Downregulation of NaPi-IIa and NaPi-IIc by Estrogen in the Mouse Kidney Proximal Tubule **R. Webster, S. Sheriff, R. Faroqui, F. Siddiqui, J.R. Hawse and H. Amlal**. Univ. of Cincinnati and Mayo Clin.
- B286 **970.3** Intravital Imaging Reveals Angiotensin II-Induced Endocytosis and Shedding of Plasma Albumin by Podocytes **I.M. Schiefl, V. Kattler, A. Hammer and H. Castrop**. Univ. of Regensburg, Germany.
- B287 **970.4** Renal Caffeine Effects are Independent of NHE3 Abundance, Trafficking or Phosphorylation **T. Rieg, M. Soleimani, J.A. Dominguez Rieg, M. Busslinger and R.A. Fenton**. UCSD; VA San Diego Healthcare Syst.; Univ. of Cincinnati; Bastyr Univ. California; Res. Inst. of Molec. Pathol., Vienna and Aarhus Univ., Denmark.
- B288 **970.5** Effect of Remote Ischemic Perconditioning on Renal Water and Salt Handling in Rats Subjected to Renal Ischemia/Reperfusion **M.L.V. Kristensen, C.K. Lassen, H. Birn and R. Nørregaard**. Aarhus Univ., Denmark.
- B289 **970.6** Functional Significance of Glycosylation of Cl⁻/Oxalate Exchanger Slc26a6 **R.B. Thomson, C.L. Thomson and P.S. Aronson**. Yale Sch. of Med.
- B290 **970.7** OCTN1-Mediated Ergothioneine Uptake Protects Lung Epithelial Cells from Tobacco Smoke-Induced Damage **C. Ehrhardt, S. Nickel, M.A.M.Y. Selo, C.G. Clerkin, J.J. Salomon, B. Talbot and J.J. Walsh**. Sch. of Pharm. and Pharmaceut. Sci., Trinity Col. Dublin.
- B291 **970.8** Silver Nanoparticles Increase Epithelial Sodium Channel Currents in Isolated Sheep Pleura **Z.V. Arsenopoulou, P.A. Molyvdas, K.I. Gourgoulanis, S.G. Zarogiannis and C. Hatzoglou**. Fac. of Med., Univ. of Thessaly, Greece.
- B292 **970.9** Regulation of Intestinal SGLT1 by Catestatin in Hyperleptinemic Type 2 Diabetic Mice **J.A. Dominguez Rieg, V.R. Chirasani, H. Köpsell, S. Senapati, S.K. Mahata and T. Rieg**. Bastyr Univ. CA; VA San Diego Healthcare Syst.; Indian Inst of Technol. Madras; Univ. of Würzburg and UCSD.
- B293 **970.10** Gastric Iodide Secretion: Possible Role in Antimicrobial Oxidant Hypoiodous Acid Production **Y. Akiba, I. Kaji, H. Said, K. Narimatsu and J.D. Kaunitz**. West LA VA Med. Ctr.; UCLA and Brentwood Biomed. Res. Inst.
- B294 **970.11** Short- and Long-Term Dysfunction Induced TLR5 upon Intestinal Na⁺/H⁺ Exchange **J. Cabral, D. Grácio, P. Soares-da-Silva and F. Magro**. Fac. of Med. of Univ. of Porto and Inst. for Molec. and Cell Biol., Univ. of Porto.
- B295 **970.12** Role of Bile Acids for Regulation of Aquaporins in Rodent Large Intestine **J. Yde, H.B. Moeller, N. Lajczak, A. O'Dwyer, S. Keely and R.A. Fenton**. Aarhus Univ. and Royal Col. of Surgeons in Ireland.

- B296 **970.13** Molecular Dynamics Modeling of Sodium and Water Transport through a Claudin Pore **A.S.L. Yu, R. Laghaei, R. Rosenthal and R. Coalson**. Univ. of Kansas Med. Ctr.; Univ. of Pittsburgh and Charité – Univ. Med. Berlin.
- B297 **970.14** Claudin-2 Mediates Sodium and Water Transport through a Common Pore **R. Rosenthal, D. Günzel, J.D. Schulzke, M. Fromm and A.S. Yu**. Charité, Med. Univ. Berlin and Univ. of Kansas Med. Ctr.
- B298 **970.15** Gout-Causing Q141K Mutation in ABCG2 Leads to Defective Nucleotide-Binding Domain Function **O.M. Woodward and Z. Moosvi**. Univ. of Maryland Sch. of Med.
- B299 **970.16** TNF- α Requires cAMP/Calcium Response Elements to Inhibit slc38a2 Transcription for SNAT2 Mediated Met Uptake in Enterocytes **J. Talukder and D. McIntosh**. LeMoyné-Owen Col., TN.
- B300 **970.17** Abnormal Calcium Metabolism in the Living Human Inner Ear Disorders **H. Tanioka and K. Kaga**. Tanioka Clin., Tokyo and Natl. Tokyo Med. Ctr.
- B301 **970.18** The Role of Radial Diagnostics and the Endoscopic Surgery of Diseases of Maxillary Sinus **R. Tulebayev, A. Baimenov, T. Azhenov, B. Zhusupov, G. Mukhamadieva, N. Papulova and A. Mustafin**. Astana Med. Univ., Kazakhstan.

971. RENIN-ANGIOTENSIN SYSTEM, ION TRANSPORT, AND VASCULAR DISEASE: GENES AND FUNCTION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B302 **971.1** Comparative structural biology of human and opossum AT₁Rs reveals different ARB binding sites **A. Chandler, T. Kurita, A. Alsamarah, R-S. Kanassatega, Y. Luo and B.T. Andresen**. Western Univ. of Hlth. Sci. and Azusa Pacific Univ., CA.
- B303 **971.2** The Effects of Losartan on Expressions of Klotho and Wnt in the 5/6 Nephrectomy Model of Progressive Chronic Kidney Disease **E. Maquigussa, G.H. Pokorny, M.S. Perez, J. Paterno, E.B. Oliveira-Sales, N. Schor and M.A. Boim**. Fed. Univ. of São Paulo.
- B304 **971.3** Exercise Training Reduces AngII and Increases Ang-(1-7) Concentration in Cardiac Muscle of CHF Rats **I.L. Gomes-Santos, T. Fernandes, G.K. Couto, J.C. Ferreira-Filho, V.M.C. Salemi, F.B. Fernandes, D.E. Casarini, P.C. Brum, L.V. Rossoni, E.M. Oliveira and C.E. Negro**. Heart Inst., Univ. of São Paulo; Sch. of Phys. Educ. and Sport, Univ. of São Paulo; Inst. of Biomed. Sci., Univ. of São Paulo and Kidney and Hyperten. Hosp., Fed Univ. of São Paulo/EPM.
- B305 **971.4** Circulating RAS in Mice with Prorenin Receptor Gene Deletion Specifically in Adipose Tissue **Z. Shamansurova, P. Tan, B.M-A. Ahmed, C. Michel, S. Kajla, O. Seda and J.L. Lavoie**. Univ. of Montreal Hosp. Res. Ctr.; Univ. of Montreal and Montreal Diabetes Res. Ctr.
- B306 **971.5** The Activation of the(Pro)renin Receptor Stimulates Fibrotic Factors Expression Independent of β -Catenin Signaling Pathway in Collecting Duct Cells **C.A. Cuevas, A.A. Gonzalez, N.C. Inestrosa, C.P. Vio and M.C. Prieto**. Catholic Univ. of Chile; Catholic Univ. of Valparaiso, Chile and Tulane Univ.

- B307 **971.6** Microarray Profiling of G Protein-Coupled Receptor Signaling Responses to Overexpression of an Intracellular Angiotensin II Fusion Protein in Mouse Proximal Tubule Cells **X.C. Li and J.L. Zhuo**. Univ. of Mississippi Med. Ctr.
- B308 **971.7** Activation of Brain Angiotensin Type-2 Receptors Reverses DOCA-Salt Hypertension in Mice **A.D. de Kloet, L. Wang, C. Sumners and E.G. Krause**. Univ of Florida.
- B309 **971.8** Identification of the Vertebrate RIM2 Ortholog by Genetic Complementation for Heme **J. M. Cabañero, A. Nguyen, N. Huston, S. Knight, A. Dancis and B. Paw**. Harvard Med. Sch. and Univ. of Pennsylvania Sch. of Med.
- B310 **971.9** CRISPR-Cas9 Genome Editing of Human Cullin-3 In Vivo Enhances the Expression of Bona Fide Cullin-3 Substrates **L.N. Agbor, F.W. Quelle and C.D. Sigmund**. Univ. of Iowa.
- B311 **971.10** Interleukin-6 Produces Oxidative Stress and Endothelial Dysfunction in the Absence of a Single Endothelial Nitric Oxide Synthase Gene **S.P. Didion**. Univ. of Mississippi Med. Ctr.
- B312 **971.11** Genes Involved in the Development of Cardiovascular Disease: A Genomic Study of Human Arteries **T. Lu, L.-L. Ho, Q. Liu, G. Molostvov, L.-S. Dong, T. Hiemstra, D. Zehnder and L.-L. Hsiao**. Brigham and Women's Hosp., Harvard Med. Sch.; MIT; Univ. of Warwick, U.K.; Harvard Med. Sch. and Univ. of Cambridge.
- B313 **971.12** SIRT3 Deficiency Impairs Hypoxic Signaling, Reprograms Basal Glycolytic Metabolism and Exacerbates Myocardial Ischemic Injury **X. He, H. Zeng and J.-X. Chen**. Univ. of Mississippi Med. Ctr.
- B314 **971.13** Heat Shock Protein 72 Inhibits Vascular Calcification through a PPAR-Dependent Pathway **Y.-H.V. Soong, J. Xu, J.-C. Zhuang, T. Kong and T. Lu**. Brigham and Women's Hosp., Harvard Med. Sch. and Univ. of Massachusetts Lowell.

972. CELLULAR RESPONSES TO INFLAMMATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B315 **972.1** Lipoxin A4 Inhibits Histamine-Stimulated Increase in $[Ca^{2+}]$ and Mucin Secretion in Cultured Rat and Human Goblet Cells **R.R. Hodges, D. Li, J.A. Bair, M.A. Shatos, N. Chiang, C.N. Serhan and D.A. Dartt**. Schepens Eye Res. Inst., Massachusetts Eye and Ear; Harvard Med. Sch. and Brigham and Women's Hosp.
- B316 **972.2** Differential Placental Expression of the Receptor for Advanced Glycation End-Products in Normal and Complicated Pregnancies **K. Alexander, J. Lewis, C. Mejia, B. Howell, P. Reynolds and J. Arroyo**. Brigham Young Univ.
- B317 **972.3** Short- and Long-Term Regulation of Intestinal Na^+/H^+ Exchange by TLR4 in Intestinal Epithelial Cells **J.M. Cabral, D. Grácio, P. Soares-da-Silva and F. Magro**. Fac. of Med., Univ. of Porto and Univ. of Porto, Portugal.
- B318 **972.4** Effects of Mast Cell Chymase on Cardiac Fibroblast Function **W. Carver, A. Carver, C. Fix and E. Goldsmith**. Univ. of South Carolina.
- B319 **972.5** The Percent Composition of Carbon, Oxygen and Nitrogen on a Nitrocellulose Filter after Exposure to Vaping or Smoking **D.L. Palazzolo, A.P. Crow and R.A. Johnson**. Lincoln Mem. Univ. – Debusk Col. of Osteo. Med.
- B320 **972.6** Systemic ATP Levels Suppress the Function of $CD4^+$ T Cells in Sepsis by Impairing Autocrine Purinergic Signaling **C. Ledderose, X. Li, Y. Bao, Y. Sumi, N.I. Shapiro and W.G. Junger**. Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.; Juntendo Univ., Japan and Ludwig Boltzmann Inst. for Traumatol., Vienna.
- B321 **972.7** Early Pulmonary and Systemic Inflammation Leads to Tissue-Specific Recruitment of Lectin Complement Pathway Initiators **R.T.R. Plovsing, R.M.G. Berg, L. Munthe-Fog, L. Konge, M. Iversen, K. Møller and P. Garred**. Rigshospitalet; Køge Hosp., Denmark and Univ. of Copenhagen.
- B322 **972.8** Deletion of TLR4 Attenuates Adipose Tissue Inflammation in Cancer Cachexia **F.d.S. Henriques, J.C. Vieira, M.A. Lopes, P.V. Knobl, K.B. dos Santos, L.G. Leal, F.d.O. Franco, M. Seelaender and M.L. Batista, Jr**. Univ. of Mogi das Cruzes, Brazil and Univ. of São Paulo.

973. PHYSIOLOGY OF SIGNAL TRANSDUCTION: PROTEINS PATHWAYS AND CELLS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B323 **973.1** The Inhibitory G-Protein, G_z , Accelerates the Progression of Insulinitis and Hyperglycemia in a Type 1 Diabetes Mouse Model **M.T. Cadena, N.A. Truchan, A.L. Brill and M.E. Kimple**. Univ. of Wisconsin-Madison.
- B324 **973.2** Bile Acid and ATP Signaling in Exocrine Pancreatic Cells **J.M. Kowal, K.A. Haanes, N.M. Christensen and I. Novak**. Univ. of Copenhagen.
- B325 **973.3** Loss of Activating Transcription Factor 4 Alters the Homeostatic Amino Acid Response in the Liver of Mice Treated with Asparaginase **R.J.T. Al-Baghdadi, E.T. Mirek, L.A. Phillipson-Weiner, W.J. Belden, R.C. Wek and T.G. Anthony**. Rutgers Univ. and Indiana Univ. Sch. of Med.
- B326 **973.4** Probing Unexplored Neutrophil GPCR Signaling Pathways to Discover Novel Anti-bacterial Targets **R. Corriden, R. Flores, V. Nizet and P.A. Insel**. UCSD and San Diego State Univ.
- B327 **973.5** Inflammasome Activation: A Form of Autocrine Purinergic Signaling in Monocytes **A. Lee, L. Staudenmaier, X. Li, J. Zhang and W. Junger**. Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. and Ludwig Boltzmann Inst., Vienna.

974. CELL SIGNALING: PROTEINS, PATHWAYS AND MECHANISMS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B328 **974.1** Towards New Insights in Epithelial Ion Channels Regulation by the ER Luminal Chaperone ERp29 **Y. Bikard, L. Suaud, Y.S. Grumbach, J. Litvak and R.C. Rubenstein.** The Children's Hosp. of Philadelphia and Univ. of Pennsylvania Perelman Sch. of Med.
- B329 **974.2** Lysophosphatidic Acid Upregulates Calreticulin Expression in PC-3 Human Prostate Cancer Cells **K-Y. Lu, K-H. Lin, C-C. Lin, Y-C. Lin, Y-J. Yang, W-m. Chen, H-Y. Hsia and H. Lee.** Natl. Taiwan Univ.
- B330 **974.3** O-GlcNAc Plays a Role in Nrf2 Regulation in the Myocardium **B.P. Dieter, E.J. Johnson, H.M. Medford, L.E. Miller, C.A. Vella and S.A. Marsh.** Univ. of Idaho and Washington State Univ.
- B331 **974.4** Differential Expression of Wnt-Pathway in Late Fetal Ovine Heart and Lung Development **N. Gupta, R. Krauss, J. Smolich, M. Cheung and S. Pepe.** Murdoch Childrens Res. Inst., Melbourne.
- B332 **974.5** Mechanism of Linaclotide-Induced Trafficking of CFTR and NHE3 in the Human Intestinal Cell-Lines Caco-2 BBe and T84 cells **M.K. Ahsan, I. Silos-Santiago and N. Ameen.** Yale Univ. Sch. of Med. and Ironwood Pharmaceut., Cambridge, MA.
- B333 **974.6** Skeletal Muscle β -F1-ATPase Translation Is Inhibited by Hyperlipidemia-Induced miR-127-5p Expression in Human Obesity **L. Tran, L.E. Campbell, D.K. Coletta, L.J. Mandarino and C.S. Katsanos.** Arizona State Univ. and Mayo Clin.
- B334 **974.7** Calreticulin Up-Regulates VEGFs Expression in Neuroblastoma Cell Lines **K-H. Lin, W-C. Weng, P-Y. Wu, Y-C. Lu, B-J. Wang, Y-F. Liao, W-M. Hsu and H. Lee.** Natl. Taiwan Univ.; Natl. Taiwan Univ. Hosp. and Inst. of Cell. and Organismic Biol., Acad. Sinica, Taipei.
- B335 **974.8** BMPR2 Mutation in Cardiomyocytes Impairs Insulin-Dependent Trafficking of CD36 **M. Talati, M. Funke, N. Penner, J.D. West and A. Hemnes.** Vanderbilt Univ.
- B336 **974.9** Taming the Promoter: Regulation of Tissue Inhibitor of Matrix Metalloprotease 4 in Heart Failure **P. Chaturvedi and S.C. Tyagi.** Univ. of Louisville.
- B337 **974.10** LMTK2, a Novel Target in Prostate Cancer Therapy **K. Shah and N. Bradbury.** Rosalind Franklin Univ. of Med. and Sci., North Chicago.
- B338 **974.11** Increasing Nasal Mucus Sonic Hedgehog Improves Human Olfaction **R.I. Henkin, S. Hosein, W. Stateman and A. Knoppel.** The Taste and Smell Clin., Washington, DC.
- B339 **974.12** Phosphorylation of Mineralocorticoid Receptor at Residue S839 Impairs Aldosterone-Dependent Gene Transactivation Coupling in a Dominant Negative Manner **R. Jimenez-Canino, M.X. Fernandes, M. Martin-Martinez, R. Gonzalez-Muñiz, T. Giraldez and D. Alvarez de la Rosa.** Univ. of La Laguna, Spain and CSIC, Madrid.
- B340 **974.13** A Link between Mitophagy and Apoptosis in Endothelial Cells: Exosomal Delivery of Mfn-2 siRNA **A. Familitseva, P. Chaturvedi, A. Kalani, N. Tyagi and S.C. Tyagi.** Univ. of Louisville.
- B341 **974.14** Transcriptional Mechanisms that Mediate Downregulation of TSP-1 by Chromium in Vascular Smooth Muscle Cells in Response to High Glucose **R. Ganguly, S. Sahu and P. Raman.** Northeast Ohio Med. Univ.
- B342 **974.15** Mediators of the Inhibitory Effect of Sphingosine-1-Phosphate on Hepatic Na⁺/K⁺ ATPase **N.M. Al-Alam and S.I. Kreydiyyeh.** Amer. Univ. of Beirut.
- B343 **974.16** Mimicking the Diabetic State in the Non-diabetic β -Cell to Elucidate Critical Pathways in β -Cell Dysfunction **H.K. Brar, J.C. Neuman, A.L. Brill, M.T. Cadena and M.E. Kimple.** Univ. of Wisconsin-Madison.
- B344 **974.17** Aurora Kinase A Is Critical for the Nkx6.1 Mediated β -Cell Proliferation Pathway **J.S. Tessem, A. Hobson and C. Draney.** Brigham Young Univ.
- B345 **974.18** Expression of Cdk5r1 and not Cdk5r Induces Primary β -Cell Proliferation **B.F. Bitner, C. Draney, A. Hobson and J.S. Tessem.** Brigham Young Univ.
- B346 **974.19** Knockdown of the 110kDa Subunit of OGT Dysregulates Cardiac Remodeling in Response to Pressure Overload **H.M. Medford, L.E. Miller, B.P. Dieter, E.J. Johnson and S.A. Marsh.** Washington State Univ. and Univ. of Idaho.
- B347 **974.20** Involvement of Multiple Cell Signaling Pathways in Cigarette Smoke induced Modulation of Ovarian Cancer Cell Proliferation **W.K. Sumanasekera, D. Ngo, L. Tran, T. Nguyen and M. Castle.** Sullivan Univ. Col. of Pharm., KY.

975. VESICLE TRAFFICKING, MEMBRANE DOMAINS, POLARITY AND PROTEIN TARGETING

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B348 **975.1** Novel Tyrosine Phosphorylation Sites Fine Tune the Activity and Substrate Binding of Src Family Kinases **K. Hinkle, M. Weir, Z. Fulton, J. Hao, J. Mann, A. McGehee, T. Corwin, U. Stelzl, P. Deming, P. Juo and B. Ballif.** Norwich Univ., VT; Univ. of Vermont; Suffolk Univ., MA; Max Planck Inst. for Molec. Genet., Berlin and Tufts Univ.
- B349 **975.2** Aliskiren Modifies Canonical Wnt/ β -Catenin Signaling Pathway Associated to (Pro)renin Receptor on Heart and Kidney in 5/6 Nephrectomy-Induced Hypertension in Rats **P. Lopez-Sanchez, M.A. Avila-Ramirez, C. Ramirez-Montero and L. Anguiano-Robledo.** Sch. of Med., Natl. Polytech Inst., Mexico City.
- B350 **975.3** Chronic Alcohol Consumption and its Effects on the Cardiac Apoptosis **C. Etoundi, G. Haddad and B. Mark.** Trinity Washington Univ. and Howard Univ.
- B351 **975.4** Osteopontin-Stimulated Apoptosis in Cardiac Myocytes Involves Reactive Oxygen Species and Mitochondrial Pathway **S. Dalal, M. Singh and K. Singh.** East Tennessee State Univ. and James H. Quillen VA Med. Ctr.
- B352 **975.5** Sec10 and the Exocyst are Necessary for Renal Epithelial Monolayer Homeostasis and Ciliogenesis In Vitro and In Vivo **N. Polgar, A.J. Lee, V.H. Lui and B. Fogelgren.** Univ. of Hawaii.
- B353 **975.6** Porosome: Involvement of Hsp90 in Its Assembly and Function **B.P. Jena, A. Rajagopal, S. Kulkarni, K.T. Lewis, X. Chen and D.J. Taatjes.** Wayne State Univ. and Univ. of Vermont.

B354 **975.7** Trafficking and Membrane Targeting of NBCn1 in MCF-7 Breast Cancer Cells **C.W. Olesen, J. Vogensen and S.F. Pedersen.** Univ. of Copenhagen.

976. EXTRACELLULAR MATRIX, CELL INTERACTIONS AND TISSUE ORGANIZATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B355 **976.1** Cytochrome P450 ω -Hydroxylase and COX-2 Inhibition Reduces Stretch-Induced Renal Fibrosis in HK-2 Cells **H. Avedissian, K. Farhat and L.D. Alexander.** Midwestern Univ., Arizona Col. of Osteo. Med.

B356 **976.2** Cyclic Stretch Induces Fibronectin Expression via c-Src- and STAT3- Dependent Pathways in Renal Epithelial Cells **L.D. Alexander.** Midwestern Univ., Arizona Col. of Osteo. Med.

977. OXIDATIVE STRESS, MITOCHONDRIAL METABOLISM AND REDOX CHANGES IN HEALTH AND DISEASE

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B357 **977.1** Macrophage-Secreted Ceramides Are Necessary for Skeletal Muscle Mitochondrial Disruption with LPS Treatments **K. Simmons, M. Hansen and B. Bikman.** Brigham Young Univ.

B358 **977.2** Naturally Occurring Anti-oxidants as Possible Chemo-preventives for Pancreatic Tumor Cell Proliferation **P. Chowdhury and E. Fenton.** Univ. of Arkansas for Med. Sci.

B359 **977.3** Mechanism of Cell Death Induced by In Vitro Hypoxia/Reoxygenation – Using Glucose Oxidase in Human Cells **M.A. Dubick, J.L. Barr and P.D. Bowman.** U.S. Army Inst. of Surg. Res., San Antonio.

B360 **977.4** In Vitro Hypoxia/Reoxygenation Modeling of Ischemia/Reperfusion Injury Using Glucose Oxidase in Human Cells **J.L. Barr, M.A. Dubick and P.D. Bowman.** U.S. Army Inst. of Surg. Res., San Antonio.

B361 **977.5** High Glucose Induces Aerobic Glycolysis and Vascular Endothelial Growth Factor-C through LPA Signals in Human Prostate Cancer PC-3 Cells **Y-J. Yang, C-C. Lin, K-Y. Lu, W-m. Chen, Y-C. Lin, C-C. Chang and H. Lee.** Natl. Taiwan Univ.

B362 **977.6** Sepsin Attenuates Increased Mitochondrial Fission in Human Cardiomyocytes Exposed to High Glucose **A.M. Williams, J. Olson, S. Canfield, X. Bai and Z.J. Bosnjak.** Med. Col. of Wisconsin.

B363 **977.7** A Translational Kinetic Analysis of Rodent and Human Hearts Shows Species-Specific Differences and Increases in Monoamine Oxidase Activity with Obesity/Diabetes **M. Nelson, L. Katunga, E.J. Anderson and A.P. Kypson.** East Carolina Univ.

B364 **977.8** Decreased Nitric Oxide Availability Contributes to the Impaired Mitochondrial Biogenesis and Oxidative Stress in Fetal Lambs with Pulmonary Hypertension (PPHN) **A.J. Afolayan.** Med. Col. of Wisconsin, Wauwatosa.

B365 **977.9** Effect of Gradient Ionizing Radiation on ROS Formation in Human Breast Cancer Cells **L. Zuo, Y. Rong, W.J. Roberts, F. Jin, F. He and D. Zhang.** The Ohio State Univ. Col. of Med.; The Ohio State Univ. Wexner Med. Ctr.; Skidmore Col., NY and Colorado State Univ.

B366 **977.10** Effects of Iron Deficiency in the Production of Oxidative Stress Biomarkers in the Central Nervous System and Spleen of BALB/c Mice **A. Martinez, I. Contreras, B. Pliego and J.A. Estrada.** Autonomous Univ. of Mexico State, Toluca.

B367 **977.11** SIRT3 Blocks Doxorubicin-Induced Cardiac Hypertrophic Response by Suppressing ROS Synthesis from Mitochondria **V.B. Pillai, S. Samant, G. Kim and M.P. Gupta.** Univ. of Chicago.

B368 **977.12** Mitochondrial Topoisomerase Dysfunction Contributes to Myocardial Mitochondrial Dysfunction and Mitochondrial DNA Degradation **J.G. Edwards, M. Mitry, D. Laurent and J.E. Mathew.** New York Med. Col.

B369 **977.13** Quantification of Mitochondrial DNA Lesions in Cultured H9c2 Cardiomyocytes Subjected to Oxidative Stress **A.R. Rodríguez-Muñoz, G.A. Barreto-Torres, J.M. Soto-Hernández, S. Ayala-Peña, S. Javadov and C.A. Torres-Ramos.** Univ. of Puerto Rico- Med. Sci. Campus.

B370 **977.14** Is p53 Activated in Response to Airborne Hazards Exposure in Deployed Military? **Y. Chen, J.C. Klein, D. Ndirangu, M. Condon and M.J. Falvo.** VA New Jersey Hlth. Care Syst., East Orange.

978. APOPTOSIS, CELL STRESS AND CELL DEATH

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B371 **978.1** The Effects of Receptor Interacting Protein 3 on Necroptosis in RGC-5 following Elevated Hydrostatic Pressure **L. Shang, K. Xiong and J. Huang.** Central South Univ.Sch. of Basic Med. Sci., Changsha, China.

B372 **978.2** Elevated Apoptosis in Ovine Intrauterine Growth Restriction Is Associated with Increased Caspase 3 and 9 and Decreased Telomerase Activity **A.P. Mika, P.R. Reynolds and J.A. Arroyo.** Brigham Young Univ.

B373 **978.3** Up-regulation of Clusterin Is Involved in MSC Overexpressing GATA-4 Mediated Cell Protection **Y. Yang, B. Yu, H. Liu, Y-G. Wang, M. Ashraf and M. Xu.** Univ. of Cincinnati Med. Ctr.; Sch. of Med., Marshall Univ. and Univ. of Illinois Col. of Med.

B374 **978.4** Temporal Heterogeneity in Apoptosis Execution **I.A. Vorobjev and N.S. Barteneva.** Moscow State Univ.; A.N. Belozersky Inst. of Physico-chemical Biol., Moscow; Harvard Med. Sch. and Boston Children's Hosp.

B375 **978.5** Repeated Induction of Autophagy or Mitophagy Protects C2C12 Cells from Subsequent Apoptotic Insults **D. Bloemberg and J. Quadrilatero.** Univ. of Waterloo, Canada.

- B376 **978.6** Striatin Is Cleaved during Apoptosis in a Caspase-3 Mediated Manner: A Step towards Novel Biomarkers for Apoptosis **M. Nader, A. Al-Gohi, J. Hoilat, B. Khalil, P. Kvietys, D. Bakheet and N. Dzimiri.** Alfaisal Univ. and King Faisal Spec. Hosp. and Res. Ctr., Saudi Arabia.
- B377 **978.7** Vanadium Complexes Inhibit the Growth of HT-29 and MCF-7 Cancer Cell Lines **V.R. Sochor, V. McCaffrey and B.J. Rabquer.** Albion Col., Mi and Univ. of Michigan.

979. OXIDATIVE STRESS: MECHANISMS AND RESPONSES

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B378 **979.1** Differential Effects of Buffer pH, CaCl₂, and Superoxide Dismutase on Ca²⁺-Induced H₂O₂ Release from Mitochondrial Complexes I and III **R.J. Lubbe, D.P. Lindsay, M. Aldakkak, A.K.S. Camara and D.F. Stowe.** Med. Col. of Wisconsin.
- B379 **979.2** PPAR_γ-Independent Side Effects of Thiazolidinediones on Mitochondrial Redox State in Rat Isolated Hearts **M.M. Salzman, Q. Cheng, D. Weihrauch, A.K.S. Camara, D.F. Stowe and M.L. Riess.** Vanderbilt Univ.; TVHS VA Med. Ctr., Nashville; Med. Col. of Wisconsin and Clement J. Zablocki VA Med. Ctr.
- B380 **979.3** Truncation of GSK-3 β in Cardiac Mitochondria Is the Master Switch of the mPTP **S.J. Hurst, L. Gomez, B. Jhun, J. O-Uchi and S-S. Sheu.** Thomas Jefferson Univ.
- B381 **979.4** Calcineurin Alpha Inhibition Induces Nox2 Up-regulation via NF κ B **C.R. Williams, R.S. Hoover and J.L. Gooch.** Emory Univ.; Atlanta VA Med. Ctr. and Philadelphia Col. of Osteo. Med.
- B382 **979.5** NADPH Oxidases Mediate Zinc Deficiency-Induced Oxidative Stress in Mouse Kidneys **M.S. Li, J.L. Gooch, R.S. Hoover and C.R. Williams.** Emory Univ. Sch. of Med.; Philadelphia Col. of Osteo. Med. and Atlanta VA Med. Ctr.
- B383 **979.6** Nuclear Localization and Biological Function of Matrix Metalloproteinase-2 **S. Baghirova, M.Y. Kondo, B.G. Hughes and R. Schulz.** Univ. of Alberta.
- B384 **979.7** Effects of Chemotherapy and Hormone Therapy on Biomarkers of Cardiac Injury and Oxidative Stress in Women with Breast Cancer **F.B.d. Silva, W.G. Romero, A.L.R.d. Carvalho and G.R.d. Abreu.** Fed Univ. of Espírito Santo, Brazil.
- B385 **979.8** Can Hyperglycemia-Induced Endothelial Dysfunction Be Reversed by Regulating the Fate of Superoxide? **H. Patel, J. Chen and M. Kavdia.** Wayne State Univ.
- B386 **979.9** The Effect of Iqmik-Derived Metals on ROS Production in Oral Epithelial Cells **G.K. Dwyer and C. Knall.** WWAMI Sch. of Med. Educ., Univ. of Alaska Anchorage and Univ. of Alaska Fairbanks.
- B387 **979.10** Prolonged Use of Chloramphenicol Induces Aplastic Anemia and Oxidative Stress in Broiler Chicken **O.I. Azeez, O.T. Iji and A.S. Akinrinde.** Univ. of Ibadan, Nigeria; Fac. of Vet. Med., Univ. of Pretoria and Fed. Col. of Animal Hlth. and Prod. Technol., Ibadan.

- B388 **979.11** Cross-Sensitivities of Amperometric Sensors Designed for Specific Gaseous Signaling Molecules **E.R. DeLeon, M.S. Arif, E.S. Huang, Y. Gao and K.R. Olson.** Indiana Univ. Sch. of Med. South Bend; Univ. of Notre Dame and Purdue Univ.

980. COMPARATIVE CARDIOVASCULAR, RESPIRATORY AND RENAL PHYSIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B389 **980.1** Comparative Effects of Intramuscular and Intravenous Administration of Diminazene Aceturate on Blood Pressure and Lead-II Electrocardiogram of Dogs **O.A. Adejumobi, J.O. Abiola, D.A. Adediran and T.O. Omobowale.** Univ. of Ibadan, Nigeria.
- B390 **980.2** Presence of Octopamine Receptors in Heart of the Bivalve *Crassostrea virginica* **F. Bess, A. Harris, C. Welsh, E.J. Catapane and M.A. Carroll.** Medgar Evers Col., Brooklyn.
- B391 **980.3** PAH Exposure Impacts Cardiac Function in *Xenopus laevis* Embryos **J. Pinette, M. Sestak, K. Johnson and S.L. Whitemore.** Keene State Col., NH.
- B392 **980.4** Expression of Hemoglobin Related Proteins in Nucleated and Enucleated Red Blood Cells **M. Götting and M. Nikinmaa.** Univ. of Turku, Finland.
- B393 **980.5** Lipid Profile Comparison between Arctic Ground Squirrels and Brown Norway Rats – Implications for Cardioprotection **M.L. Riess, Q. Cheng, M.M. Salzman, B.M. Barnes and D. Weihrauch.** Tennessee Valley Healthcare Syst., VA Med. Ctr.; Vanderbilt Univ.; Univ. of Alaska Fairbanks and Med. Col. of Wisconsin.
- B394 **980.6** Adult Nephrogenesis and Persistence of Six2 Expressing Progenitor Cells in the Reptilian Kidney **T. Camarata and A. Vasilyev.** NYIT Col. of Osteo. Med.

981. COMPARATIVE METABOLIC PHYSIOLOGY, BIOCHEMISTRY, AND ENDOCRINOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B395 **981.1** Central Ang 1-7 Modulates Lipolysis and Thermogenesis in Adipose Tissue **F.S. Evangelista and T.J. Bartness.** Univ. of São Paulo and Georgia State Univ.
- B396 **981.2** Seasonally Induced Hepatotranscriptomic Changes in the Freeze Tolerant North American Wood Frog *Rana sylvatica* **A.J. Kiss, M. Posner and T. Mock.** Miami Univ.; Ashland Univ. and Univ. of East Anglia, U.K.
- B397 **981.3** Maximal Metabolic Rates of the Barking Frog (*Craugastor augusti*) **M.S. Hedrick, J.W. Streicher, D.A. Crossley II and M.K. Fujita.** California State Univ., East Bay; Univ. of Arizona; Univ. of North Texas and Univ. of Texas at Arlington.

B398 **981.4** Stress Tolerance in the Green Crab, *Carcinus maenas* Exposed to Waste Water Treatment Plant Effluent **G. Pelletier, C. Goodchild, C. Whalen and M. Frederich**. Univ. of New England.

982. THE COST OF PHYSIOLOGICAL PLASTICITY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B399 **982.1** Thermoregulatory Scope Associated with Underwater Exercise in a Polar Seal **A.G. Hindle, M. Horning and J.-A.E. Mellish**. Massachusetts Gen. Hosp.; Alaska Sea Life Ctr., Seward; Oregon State Univ. and Univ. of Alaska Fairbanks.

B400 **982.2** Do Late-Instar *Drosophila* Larvae Experience Functional Oxygen Limitations? **J.F. Harrison, V. Callier and K.J. Greenlee**. Sch. of Life Sci., Arizona State Univ. and North Dakota State Univ.

B401 **982.3** Paradoxical Anaerobism in Desert Pupfish **F. van Breukelen and S.D. Hillyard**. Univ. of Nevada Las Vegas.

B402 **982.4** Physiological Tradeoffs Underlie the Evolution of Hypoxia Tolerance and Exercise Performance in Fish **G.R. Scott, K.D. Crans and N. Pranckevicius**. McMaster Univ., Canada.

B403 **982.5** Neuronal and Neuroendocrine Mechanisms of Social Rank and Stress Coping in Teleost Fish **S. Winberg, P.-O. Thörnqvist, J. Dahlbom, E. Roman and E. Höglund**. Uppsala Univ., Sweden; Tech Univ. of Denmark Natl. Inst. of Aquatic Resources and Univ. of Agder, Norway.

B404 **982.6** Torpor in Tenrecs, a Basal Protoendothermic Mammal **B. Cahoon, M.D. Treat and F. van Breukelen**. Sch. of Life Sci., Univ. of Nevada Las Vegas.

983. CENTRAL NERVOUS SYSTEM: OTHER

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B405 **983.1** The Form of Energy-Containing Food Alters Satiety and fMRI Brain Responses in Humans **M. Soto, N. Darcel, J. Piedcoq, D. Tomé, G. Fromentin and N. Nadkarni**. AgroParisTech/INRA and Chaire ANCA, Paris.

B406 **983.2** Early Neonatal but Not Late Neonatal Sevoflurane Inhalation Induced Spatial Memory Impairment Revealed by Behavioral Investigation of Mouse **K. Hata, M. Maekawa, T. Takasusuki, S. Yamaguchi and Y. Hori**. Dokkyo Med. Univ. Sch. of Med., Japan.

B407 **983.3** Expression of the D2 and D5 Dopaminergic Receptors Related to Non-caloric Commercial Sweetener Intake **I. Contreras, F.G. Ochoa-Arriaga, A.S. Sotuyo-González and J.A. Estrada**. Fac. of Med., UAEM, Toluca, Mexico.

B408 **983.4** Chronic Sweetener Intake and its Effects on IGF-II and IGF-IIR Expression in the Mouse Brain **E. Morales, I. Contreras and J.A. Estrada**. Autonomous Univ. of Mexico State, Toluca.

B409 **983.5** Chronic Intermittent Hypoxia Enhances Nucleus Tractus Solitarius Barosensitive Neuronal Activity in Response to Arterial Pressure Increase in F344 rats **J. Kolpakova, L. Li and Z.J. Cheng**. Col. of Med., Univ. of Central Florida.

B410 **983.6** Functional Characterization of Nucleus Tractus Solitarius Barosensitive Neurons in F344 Rats **L. Li, J. Kolpakova, H. Gu, W.-Z. Wang, X. Zhang and Z.J. Cheng**. Col. of Med., Univ. of Central Florida.

B411 **983.7** Traumatic Stress Promotes Hyperalgesia via Corticotropin-Releasing Factor Signaling in Central Amygdala **N.W. Gilpin, E.A. Roltsch, Y.-L. Lu, A.M. Whitaker, B.B. Baynes, B.A. Baiamonte and H.N. Richardson**. LSU Hlth. Sci. Ctr., New Orleans and Univ. of Massachusetts at Amherst.

B412 **983.8** In vivo MEMRI Reveals Decreased Activation of the Hippocampal and Amygdaloid Regions in a Rodent Model of RAS-Dependent Hypertension **J. Zubcevic, P.D. Perez, N. Ahmari, J. Marulanda Carvajal, M.K. Raizada and M. Febo**. Univ. of Florida and Penn State.

B413 **983.9** Neonatal Exercise and Age-Related Oxidative Stress of the Rat Cerebral Cortex **A. Lopes-de-Morais, R.F. Mendes-da-Silva, D. Ferreira, A.A. Pedroza, A. Amâncio-dos-Santos, C.J. Lagranha and M. Batista-de-Oliveira-Hornsby**. Fed. Univ. of Pernambuco, Brazil.

B414 **983.10** The Underwater Treadmill as a Physical Therapy Intervention for Children with Cerebral Palsy **M.D. Hill, K. McAuliffe, P. Watkins, A. Wheeler and E. Raynes**. Tennessee State Univ.

B415 **983.11** In Vitro Human Cell Models for Probing Functional Deficits Relevant to Neuropsychiatric Disorders **S.-i. Kano, R.A. Cardarelli, N. Higurashi, M. Yuan, D. Chang, M. Gaval-Cruz, S. Hirose, H. Okano, P. O'Donnell, M. Kai and A. Sawa**. Johns Hopkins Univ. Sch. of Med.; Univ. of Maryland Sch. of Med.; Jikei Univ. Sch. of Med.; Fukuoka Univ. Sch. of Med. and Keio Univ. Sch. of Med.

B416 **983.12** Gastrodin Promotes SGC7901 Apoptosis by Up-regulating the ProBDNF Signaling Pathway **G. Jianhui, Y. Jinwei, M. Wei, D. Bin, C. Jingru and L. Liyan**. First People's Hosp. of Yunnan Province and Kunming Med. Univ., China.

B417 **983.13** Region-Specific Expression of ProBDNF and MatureBDNF in Alcohol Preference **L. Li, W. Ma, J. Yang, Y. Yang, D. Wang, T. Luo, J. Cheng and J. Guo**. Kunming Med. Univ. and First People's Hosp. of Yunnan Province, China.

984. CNS MECHANISMS OF BLOOD PRESSURE REGULATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B418 **984.1** Endothelial Nitric Oxide Synthase Blockade within the Ventrolateral Medulla Differentially Modulates the Exercise Pressor Reflex in Stroked-Rats **A. Ally, P. Towiwat, S. Phattanarudee and T.J. Maher**. California Hlth. Sci. Univ.; Chulalongkorn Univ., Bangkok and MCPHS Univ., Boston.

B419 **984.2** Trimethylation of Histone 3 Lysine 4 on Hypothalamic (Pro)renin Receptor Mediates the Development of DOCA-Salt Hypertension **W. Li, M.N. Sullivan and Y. Feng**. Colorado State Univ.

- B420 **984.3** How Does the Brain Talk to the Arteries and Heart? **M.P. Blaustein, L. Chen, H. Song, F.H.H. Leenen and J.M. Hamlyn.** Univ. of Maryland Sch. of Med. and Univ. of Ottawa Heart Inst.
- B421 **984.4** Estrogen Responsive Neurons in the Medial Amygdala Prevent Stress-Induced Hypertension **A.O. Hinton, X. Yan, A. Henderson, C. Reynolds and Y. Xu.** Baylor Col. of Med.
- B422 **984.5** Central Sympathoinhibition Abrogates Angiotensin II-Induced Autonomic Dysregulation, Hypertension and Blood Pressure Variability in Control and Methionine Sulfoxide Reductase-A Deficient Mice **R. Sabharwal, F.M. Abboud and M.W. Chapleau.** Univ. of Iowa and VA Med. Ctr.
- B423 **984.6** Depression-Like Symptoms Are Associated with Dysbalance in Vascular Norepinephrine Uptake: This Is Worsening by Antidepressants and Increases the Risk for Hypertension **V.V. Matchkov, O. Wiborg, E. Bouzinova and C. Aalkjaer.** Aarhus Univ., Denmark.
- B424 **984.7** Role of Baroreceptors in Hypotension and Renal Sympathoinhibition Induced by Blockade of the Median Preoptic Nucleus **A.A. Mourão, E.F. Da Silva, M.C. Dos Santos Moreira and G.R. Pedrino.** Fed. Univ. of Goiás, Brazil.
- B425 **984.8** Role of A1 and A2 Noradrenergic Neurons and Median Preoptic Nucleus in Cardiovascular Recovery Induced by Hypertonic Saline Infusion in Hypovolemic Hemorrhagic Rats **N.O. Amaral, L.M. Naves, C.H. Xavier and G.R. Pedrino.** Fed. Univ. of Goiás, Brazil.
- B426 **984.9** Losartan Injected into the Nucleus of the Solitary Tract Blunts Pressor Mechanisms Activated by High-Fat Diet **G.F. Speretta, M. Bassi, J.V. Menani, E. Colombari and D.S.A. Colombari.** Sch. of Dent, São Paulo State Univ.
- B427 **984.10** Baroreflex Modulation by Physical Training: Involvement of nNOS in the Paraventricular Nucleus of Hypothalamus **H.A. Raquel, G.S. Masson, B.F. Barna, L.C. Michelini and M.C. Martins-Pinge.** State Univ. of Londrina, Brazil and Univ. of São Paulo.
- B428 **984.11** Paraventricular Nucleus in Acupuncture's Inhibition of the Von Bezold Jarsich Reflex **S.C. Tjen-A-Looi, Z-L. Guo, A-T. Nguyen and J.C. Longhurst.** Sch. of Med., Univ. of California, Irvine.
- B429 **984.12** Dynamic Regulation of microRNA Networks in the Brainstem Characterize Hypertension Development **D. DeCicco, J.S. Schwaber and R. Vadigepalli.** Thomas Jefferson Univ.
- B430 **984.13** Chronic Central Infusion of Hypertonic NaCl Increase Blood Pressure Variability and Exaggerates Sympathetic Reflexes **S.D. Stocker, S.S. Simmonds, J. Lay, M.M. Wenner and W.B. Farquhar.** Penn State Col. of Med. and Univ. of Delaware.
- B431 **984.14** AT1a Receptor Upregulation in the MnPO following CIH Leads to Sustained Hypertension **B. Shell, T.P. Nedungadi and J.T. Cunningham.** Univ. of North Texas Hlth. Sci. Ctr.
- B432 **984.15** Angiotensin Converting Enzyme 1 Knockdown in the Median Preoptic Nucleus Attenuates Downstream Neural Activation following Chronic Intermittent Hypoxia **K. Faulk and J.T. Cunningham.** Univ. of North Texas Hlth. Sci. Ctr.
- B433 **984.16** Increased ADAM17 Expression in ACE2 Knockout Mice Is Associated with Increased Excitability of Paraventricular Nucleus Pre-sympathetic Neurons **S. Mukerjee, S. Sriramula, A. Zsombok and E. Lazartigues.** LSU Hlth. Sci. Ctr., New Orleans.
- B434 **984.17** Functional Identification of Cortical and Subcortical Areas Associated with the Increase in Muscle Sympathetic Nerve Activity in Obstructive Sleep Apnoea **V.G. Macefield, R.H. Fatouleh, L.C. Lundblad, D.K. McKenzie, P.M. Macey and L.A. Henderson.** Sch. of Med., Univ. of Western Sydney; Prince of Wales Hosp., Sydney; Sch. of Nursing, UCLA and Univ. of Sydney.
- B435 **984.18** Deletion of Protein Tyrosine Phosphatase 1b in Proopiomelanocortin Neurons Reduces Sympathetic Tone and Protects Mice from Leptin-Induced High Blood Pressure **T. Bruder-Nascimento, B. Benjamin, K.K. Bence and E.J. Belin de Chantemelle.** Georgia Regents Univ.
- B436 **984.19** Sympathoexcitation by Inhibition of SK Channel Activity in the Hypothalamic PVN Is Attenuated by Local AT1 Receptor Blockade **M.J. Huber, L. Gui, A.D. Chapp, M. Gu, J. Zhu, Z. Shan and Q-H. Chen.** Michigan Tech. Univ and Affiliated Hosp. of Nantong Univ.
- B437 **984.20** Stimulation of the Prorenin Receptor in the Paraventricular Nucleus Increases Sympathetic Outflow in Anesthetized Rat **M.J. Huber, R. Basu, Q-H. Chen and Z. Shan.** Michigan Technol. Univ.

985. CENTRAL REGULATION OF AUTONOMIC CONTROL: BRAIN STEM

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B438 **985.1** Hypoxia and Hypercapnia Impairs Cardiac Vagal Control: The Role of Orexin **O. Dergacheva and D. Mendelowitz.** George Washington Univ.
- B439 **985.2** Olanzapine Reduces Neuronal Activity in the Dorsal Motor Nucleus of the Vagus **I.J. Anwar, K. Miyata and A. Zsombok.** Tulane Univ.
- B440 **985.3** Impact of DOCA-Salt Hypertension on Gene Expression in the Dorsal Pons: A Microarray Analysis **M. Hernandez, T. Travis and L. Hayward.** Univ. of Florida.
- B441 **985.4** Diminished Excitatory Neurotransmission to Brainstem Cardiac Vagal Neurons in Rats with Ascending Aortic Constriction-Induced Heart Failure **X. Wang, E. Cauley, P.B. Byrne and D. Mendelowitz.** George Washington Univ.
- B442 **985.5** Activation of Brainstem Neurons in Voluntarily Diving Rats after Bilateral Sectioning of the Anterior Ethmoidal Nerve **P.F. McCulloch and E.A. Warren.** Midwestern Univ., IL.
- B443 **985.6** The Role of Nucleus Tractus Solitarii Neurons in Cardiorespiratory Dysfunction Associated with Alzheimer's Disease **T.D. Ostrowski, D.D. Kline, E.M. Hasser and D. Ostrowski.** Univ. of Missouri-Columbia.
- B444 **985.7** Hypercapnia but Not Hypoxia Attenuates Cardio-respiratory Uncoupling Caused by Photo-Evoked Bradycardia in Mice Expressing Channelrhodopsin-2 **J.C. Bloom, A.J. Garcia III and J.M. Ramirez.** Seattle Children's Res. Inst. and Univ. of Washington.
- B445 **985.8** NPY Is Co-localized with TH in Ventrolateral Medullary Neurons Projecting to the Hypothalamus in Mice **I.C. Wenker, M.A. Inglis, P.G. Guyenet and R.L. Stornetta.** Univ. of Virginia.

986. CENTRAL REGULATION OF AUTONOMIC CONTROL: CNS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B446 **986.1** Distinct Organization of Upper Airway Nodose and Jugular Vagal Circuits in the Brain: Evidence from Conditional Anterograde Transneuronal Tracing and Physiology **A.E. McGovern, A.K. Driessen, D.G. Simmons, M.J. Farrell, N. Davis-Poynter and S.B. Mazzone.** Sch. of Biomed. Sci., Univ. of Queensland.
- B447 **986.2** NMDA Receptors in the Raphe Pallidus Contribute to the Cardiovascular Response Induced by Acute Emotional Stress in Rats **N.L. Santos Machado, T.G.P.R. Coelho, F.C.F. Muller-Ribeiro, L.M.S. Cordeiro and M.A.P. Fontes.** ICB, Fed. Univ. of Minas Gerais, Brazil.
- B448 **986.3** Central Inflammation Induced by High Fat Diet Sensitizes Angiotensin II Hypertension **B. Xue, Y. Yu, F. Guo, T.G. Beltz, R.B. Felder and A.K. Johnson.** Univ. of Iowa.
- B449 **986.4** Tempol Intracerebroventricular Injection Abolishes the Hypertension and Mortality Arising from the Central Action of Scorpion Tityustoxin **F. Silva, J. Guerra, R. de Menezes, P. Guidine and D. Chianca-Jr.** Fed. Univ. of Ouro Preto and Fed. Univ. of Minas Gerais, Brazil.
- B450 **986.5** Activation of Habenula Complex Causes Strong Cutaneous Vasoconstriction and Brown Adipose Tissue Thermogenesis: A Thermoregulatory Response Observed during Emotionally Significant Events **Y. Ootsuka and M. Mohammed.** Flinders Univ., Australia.
- B451 **986.6** Relationship between Hippocampal CA1 Neuronal and Sympathetic Nerve Activity during Fear Conditioning in Rats **M. Yoshimoto, M. Kanayama and K. Miki.** Nara Women's Univ., Japan.
- B452 **986.7** Role of the Locus Coeruleus in Susceptibility to Social Stress-Induced Cardiovascular Dysfunction **C.M. Lombard, C. Sanner, L.B. Wilson and S.K. Wood.** Univ. of South Carolina Sch. of Med.

987. CENTRAL REGULATION OF AUTONOMIC CONTROL: HYPOTHALAMUS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B453 **987.1** Brain Region-Specific Expression of Angiotensin AT_{1A} Receptors in Microglia **S. Voong, K.E. Claflin and J.L. Grobe.** Univ. of Iowa.
- B454 **987.2** Effects of Combined Oxytocin Receptor with Vasopressin Receptor (V1aR or V1bR) Blockade within Paraventricular Nucleus on Neurocardiovascular Responses **N.F. Rossi and C. Li.** Wayne State Univ. and John D. Dingell VA Med. Ctr.
- B455 **987.3** N-Methyl-D-Aspartate Receptors Contribute to the Excitatory Sympathetic and Hemodynamic Responses to Blood-Borne Pro-inflammatory Cytokines in Rat **S-G. Wei, Y. Yu and R.B. Felder.** Univ. of Iowa Carver Col. of Med. and VA Med. Ctr.

- B456 **987.4** Glial Glutamate Transporters in PVN Suppress Sympathetic Nerve Activity and Mean Arterial Pressure by Buffering GluN2B-containing NMDA Receptor Activation **M.E. Bardgett, A.S. Calderon and G.M. Toney.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- B457 **987.5** Blockade of NMDA Receptors in the Dorsomedial Hypothalamic Region Attenuates the Cardiovascular Response Evoked by Cage Switch Stress **C.A. Paula, F.R. Marins, P.S. Guimaraes, L.M.S. Cordeiro and M.A.P. Fontes.** ICB, Fed. Univ. of Minas Gerais, Brazil.
- B458 **987.6** Tumor Necrosis Factor- α Receptor 1 (TNFR1) Knockdown in Subfornical Organ Reduces Sympathetic and Hemodynamic Responses to Blood-Borne TNF- α **Y. Yu, S. Wei and R.B. Felder.** Univ. of Iowa and VA Med. Ctr.
- B459 **987.7** Angiotensin II Upregulates CAPON Expression via ERK-MAPK-CREB Pathway in the Paraventricular Nucleus of Rats with Chronic Heart Failure **N.M. Sharma, H. Zheng, X. Liu and K.P. Patel.** Univ. of Nebraska Med. Ctr.
- B460 **987.8** Cardiovascular and Autonomic Modulation by Paraventricular Nucleus of Hypothalamus during Head Down Tilt in Unanesthetized Rats **E.D. Amorim, V.R. Peras, O. de Andrade and M.C. Martins-Pinge.** State Univ. of Londrina, Brazil.
- B461 **987.9** Central G α_{i2} Proteins Facilitate PVN Parvocellular Neuronal Activation during Chronic Elevated Sodium Intake to Maintain Sodium Homeostasis **C.Y. Carmichael, A.C.T. Carmichael, P. Vartanyan and R.D. Wainford.** Boston Univ.
- B462 **987.10** Central Inhibition of Bradykinin B1 Receptor Attenuates DOCA-Salt Mediated Hypertension, Dysautonomia and Hypertrophy **S. Sriramula and E. Lazartigues.** LSU Hlth. Sci. Ctr., New Orleans.

988. INTERACTIONS BETWEEN CARDIOVASCULAR AND INGESTIVE BEHAVIORAL SIGNALS AT THE CIRCUMVENTRICULAR ORGANS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B463 **988.1** OVLT Neurons Exhibit Exquisite Osmosensitivity to Elevated NaCl Concentrations **B.J. Kinsman, K.N. Browning and S.D. Stocker.** Penn State Col. of Med.
- B464 **988.2** Overexpression of Copper/Zinc Superoxide Dismutase (SOD1) in the Organum Vasculosum of the Lamina Terminalis Attenuates Chronic Angiotensin II Hypertension in the Rat **J.P. Collister, H. Taylor-Smith, D. Drebes, D. Nahey, J. Tian and M.C. Zimmerman.** Univ. of Minnesota and Univ. of Nebraska Med. Ctr.
- B465 **988.3** Actions of Angiotensin II at the OVLT and Voluntary Alcohol Ingestion **J.P. Collister, D. Drebes and D. Nahey.** Univ. of Minnesota.
- B466 **988.4** Leptin and Amylin Influence the Excitability of Area Postrema Neurons, Possibly via cAMP-Mediated Mechanisms **P.M. Smith, P. Brzezinska, F. Hubert, D.H. Maurice and A.V. Ferguson.** Queen's Univ., Canada.

- B467 **988.5** Glucose Concentrations Influence Subfornical Organ Neuron Responsiveness to Cholecystokinin **N.M. Cancelliere, L. Dai and A.V. Ferguson.** Queen's Univ., Canada.
- B468 **988.6** BDNF Influences the Excitability of Subfornical Organ Neurons **E.A. Black, W.C. McIsaac and A.V. Ferguson.** Queen's Univ., Canada.
- B469 **988.7** Angiotensin Type 1a Receptors in the Forebrain Subfornical Organ Protect against High Fat Diet-Induced Hepatic Steatosis **J.A. Horwath, S.D. Butler, A.L. Mark, R.L. Davison and C.N. Young.** Weill Cornell Med. Col.; Cornell Univ. and Univ. of Iowa.

989. EXERCISE AND NUTRITION**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B470 **989.1** Responses of Lipolysis to a Meal after Physical Activity in Lean and Obese Children **H. Yan, K.B. Myers, G.S. Dubis, J.R. Pierce, C.J. Tanner and R.C. Hickner.** East Carolina Univ.
- B471 **989.2** Dietary Nitrate Improves Cerebral Perfusion, in Young Adults during Exercise: Relationship to Cognitive Performance **B. Rattray, L. Egle-Marshall, J. Northey, S. Hone, D.J. Smee and P. Brassard.** Fac. of Hlth., Univ. of Canberra and Fac. of Med., Univ. Laval, Canada.
- B472 **989.3** Dipeptidyl-Peptidase IV mRNA Expression with Exercise and Amino Acid Supplementation **L.E. Neidert, C.B. Mobley, M.D. Roberts and H.A. Kluess.** Auburn Univ. Sch. of Kinesiol.
- B473 **989.4** β -Alanine Ingestion Improves Behavioral Responses to a Predator Scent Stress **J.R. Hoffman, H. Cohen, J.R. Stout and I. Ostfeld.** Univ. of Central Florida; Ben-Gurion Univ. and Israel Defense Force, Tel Hashomer.
- B474 **989.5** A Cross-Sectional Study of Modifiable Cardiac Risk Factors in Young Adults of Different Personality Traits **O. Nepal, S. Bhattarai, K. Khanal and R. KC.** Kathmandu Univ. Sch. of Med. Sci.
- B475 **989.6** Mitochondrial Biogenesis in Response to Exercise or Hydrogen Peroxide Treatment Is Not Blunted by Upregulation of Endogenous Antioxidants **S.E. Ehrlicher, D.R. Bruns, F.F. Peelor III, S. Khademi, K.L. Hamilton and B.F. Miller.** Colorado State Univ.
- B476 **989.7** Postnatal Undernutrition Permanently Alters the Heart to Reduce Maximal Exercise Capacity in Female Mice **D.P. Ferguson, G.E. Taffet, G. Medrano, T.T. Pham, R.E. Fleischmann and M.L. Fiorotto.** Baylor Col. of Med.
- B477 **989.8** The Physiological Effect of Fasting the Month of Ramadan on Anthropometrics and Blood Variables **Y.R. Alayafi, M.S. Alsulaiman, K.S. Aljaloud, A.M. Jabbar, S.O. Aljaloud, A.A. Aldayel, A.C. Fry, P.P. Vardiman and P.M. Gallagher.** KSU; Prince Faisal Sport Med. Hosp. and Univ. of Kansas.
- 990. REDUCED GRAVITY AND HYPERBARIC ENVIRONMENTS**
- Poster**
- TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B
- Presentation time:* 12:45 PM–3:00 PM
- B478 **990.1** Influence of Oxygen Enriched Gases during Decompression on Bubble Formation and Endothelial Function **Z. Valic, I. Segrt, J. Bozic, D. Glavas, A. Obad, I. Glavacic and M. Valic.** Univ. of Split Sch. of Med.; Univ. Hosp. Split, Croatia and Univ. of Split, Croatia.
- B479 **990.2** *Caenorhabditis elegans* Displays Different Adaptations to Single versus Multigenerational Growth during Spaceflight **T. Etheridge, A. Higashibata, N.J. Szweczyk and A. Higashitani.** CERISE, Intl. Consortium, U.K.
- B480 **990.3** Lower Body Negative Pressure Counters Simulated Microgravity-Induced Elevations of Intracranial Pressure **B.R. Macias, E.M. Clary and A.R. Hargens.** UCSD.
- B481 **990.4** Lumbar Paraspinal Muscle Atrophy during Long Duration Spaceflight **A. Snyder, B.R. Macias, R. Healey, J.A. Holt, D.G. Chang, J.C. Lotz and A.R. Hargens.** UCSF.
- B482 **990.5** Satellite Cell Content Decreases and Muscle Physiology Is Altered during 2 Weeks of Physical Inactivity in Middle-Aged Adults **E.J. Arentson-Lantz, K. English, D. Paddon-Jones and C. Fry.** Univ. of Texas Med. Branch.
- B483 **990.6** Attenuating Hypothalamic Neuron Cell Damage by Hyperbaric Oxygen in Diabetic Rats with Heat Stroke **K-C. Niu and K-C. Lin.** Chi Mei Med. Ctr., Tainan and So. Taiwan Univ. of Sci. and Technol.
- B484 **990.7** Centrifuge Size and Operation Effects on Mouse Adaptation To +G **C.A. Fuller, T.M. Hoban-Higgins and J. Alberts.** Univ. of California, Davis and Indiana Univ.
- B485 **990.8** Cerebral Vascular Changes in Space Mice Calvaria **J.H. Siamwala, B.R. Macias, R. Healey, R. Pichika and A.R. Hargens.** UCSD
- B486 **990.9** Lower Body Negative Pressure Counters Internal Jugular Vein Engorgement during Simulated Microgravity **S. Baird, B.R. Macias and A.R. Hargens.** UCSD.
- B487 **990.10** ICP during Daily Life in Healthy Adults: What Does Microgravity Add to the Mix? **J.S. Lawley, M.A. Williams, L. Petersen, R. Zhang, T.A. Whitworth and B.D. Levine.** Univ. of Texas Southwestern Med. Ctr.; Sinai Hosp., Baltimore and Univ. of Copenhagen.

991. RESPONSES OF BONE AND CONNECTIVE TISSUE TO EXERCISE AND INACTIVITY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B488 **991.1** Striking Gender-Based Differences in Bone Mineral Density in a Resource-Limited Setting **T.A. Nell and M.J. Kruger**. Stellenbosch Univ., South Africa.
- B489 **991.2** Effect of Long-Term Voluntary Running on Bone Tissue in Mice **Y. Takamine, N. Ichinoseki-Sekine, T. Yoshihara, T. Tsuzuki, S. Machida and H. Naito**. Grad. Sch. of Hlth. and Sport Sci., Jutendo Univ. and The Open Univ. of Japan.
- B490 **991.3** Measurements of Chemical and Mechanical Properties of Rats and Mice Bones under Simulated Space-Like Environment **R. Mehta, N. Ali and P. Chowdhury**. Univ. of Central Arkansas; Univ. of Arkansas at Little Rock and Univ. of Arkansas for Med. Sci.
- B491 **991.4** Bone Density and Strength Decreased in a Mouse Model of Diabetes, db/db Mice **R. Samadfam, E. Rocheford, J.A. Cornicelli and S.Y. Smith**. Charles River, Senneville, QC and Charles River, Wilmington, MA.

992. SIGNALING WITH MUSCLE AMONG CELLS, TISSUES AND ORGANS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B492 **992.1** Identification of Cardio-metabolic Protective Myokines from Akt1-Mediated Hypertrophic Glycolytic Muscles **C-L. Wu and K. Walsh**. Boston Univ. Sch. of Med.
- B493 **992.2** Walking-Mediated Upregulation of Follistatin-Like 3 Expression Is Insufficient to Increase Muscle Contractile Force **A.D. Blazek, E. Beck, J. Li, K.E. Mcelhanon, T.E. Hewett, S. Agarwal and N.L. Weisleder**. The Ohio State Univ.
- B494 **992.3** Chemotherapeutic Properties of Factors Released from Contracting Skeletal Muscle: Early "Exercise" versus Fatigue **S.E. Riechman, A.R. Davis, T.A. Simpson, W. Porter and J.D. Fluckey**. Texas A&M Univ.
- B495 **992.4** Exercise-Induced Amelioration of Diet-Induced Obesity and Diabetes Is Not Regulated by Irisin **A. Saleem, A. Safdar, M.E. Haikalis, M. Akhtar, R. Suri and M.A. Tarnopolsky**. McMaster Univ., Canada.
- B496 **992.5** METRNL Rescues Glucose Intolerance and Ameliorates Obesity Phenotype in a Diet-Induced Model of Obesity **A. Saleem, A. Safdar, M.E. Haikalis, M. Akhtar, H. Haziri and M.A. Tarnopolsky**. McMaster Univ., Canada.

993. TEMPERATURE REGULATION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B497 **993.1** Warm Water Immersion Similarly Reduces Arterial Blood Pressure in Obese Type 2 Diabetic and Healthy Individuals **E. Rivas, D.E. Newmire, C.G. Crandall and V. Ben-Ezra**. Texas Woman's Univ. and Texas Hlth. Presbyterian Hosp. of Dallas and Univ. of Texas Southwestern Med. Ctr.
- B498 **993.2** An Influence of Angiotensin II on Heat Loss Responses in Humans during Intermittent Exercise in the Heat: A Role for Oxidative Stress **N. Fujii, R.D. Meade, G. Paull, R. McGinn, I. Foudil-bey, P. Akbari and G.P. Kenny**. Univ. of Ottawa Sch. of Human Kinetics.
- B499 **993.3** Roles of Nitric Oxide Synthase Isoforms in Sweating in Young Adults during Intermittent Exercise in the Heat **N. Fujii, R.D. Meade, I. Foudil-bey, P. Akbari, J.C. Louie and G.P. Kenny**. Univ. of Ottawa Sch. of Human Kinetics.
- B500 **993.4** Sweat-Induced Skin Wetness Perception Can Be Significantly Manipulated Independently of the Level of Physical Skin Wetness **D. Filingeri, D. Fournet, S. Hodder and G. Havenith**. Loughborough Univ., U.K. and Oxyane Res., France.
- B501 **993.5** Physiological Differences between Torpor and Forced Hypothermia in Mice **M.A. Vicent Allende and S.J. Swoap**. Williams Col., MA.
- B502 **993.6** The Influence of Metabo- and Baroreceptors on Postexercise Heat Loss **G. Paull, R. McGinn, N. Fujii, S. Dervis, B. Haqani, A.D. Flouris and G.P. Kenny**. Sch. of Human Kinet., Univ. of Ottawa and Univ. of Thessaly.
- B503 **993.7** The Effect of Hyperthermia on Cognitive and Auditory Processing **M. Shibasaki, M. Nanba, K. Morimoto and H. Nakata**. Nara Women's Univ., Japan.
- B504 **993.8** Deprivation of Plasma Estradiol Level Affects Circadian Rhythms of Body Core and Tail Skin Temperature in Female Rats **S. Marui and K. Nagashima**. Waseda Univ., Japan.
- B505 **993.9** Cardiovascular Dysregulation during Heat Stroke Recovery in Rats **C.M. Quinn, G.N. Audet, N. Charkoudian and L.R. Leon**. U.S. Army Res. Inst. of Envrn. Med., Natick, MA.
- B506 **993.10** Prior Viral Infection Increases Heat Stroke Severity in Mice **L.R. Leon and S.M. Dineen**. U.S. Army Res. Inst. of Envrn. Med., Natick, MA.
- B507 **993.11** The Extent of Heat Tolerance Depends on the Heat Shock Protein 72 Levels in Cultured Primary Hypothalamic Neurons **K-C. Lin, C-P. Chang and K-C. Niu**. Chi Mei Med. Ctr., Tainan and Southern Taiwan Univ. of Sci. and Technol.
- B508 **993.12** Heat Shock Protein-70-Mediated Mild Heat Preconditioning Attenuates Heat Injury in Cardiomyocytes by Inhibiting Cathepsin B Pathway **C-H. Lin and S-F. Hsu**. Meridigen Biotech Co. Ltd., Taipei; So. Taiwan Univ. of Sci. and Technol. and Shu-Zen Junior Col. of Med. and Mgmt., Taiwan.
- B509 **993.13** Oxidative Stress Impairs NO-Dependent Cutaneous Vasodilation but not NO-Dependent Sweating in Young Adults during High Intensity Exercise **R.D. Meade, N. Fujii, R. McGinn, G. Paull, P. Akbari and G.P. Kenny**. Sch. of Human Kinetics, Univ. of Ottawa.

- B510 **993.14** Point-of-Care cTnI Tests Accurately Predict Heat Stroke Severity: Proof of Concept for a Heat Stroke Field Test **G. Audet, C.M. Quinn and L.R. Leon.** U.S. Army Res. Inst. of Environ. Med., Natick, MA.
- B511 **993.15** Roles of Brown Adipose Tissue in Seasonal Variations of Thermogenesis in Men **M. Saito, T. Yoneshiro and M. Matsushita.** Tenshi Col., Japan and Hokkaido Univ. Sch. of Vet. Med.
- B512 **993.16** Exertional versus Passive Heat Stroke: Altered Time Course of Cytokine Expression in Plasma and Skeletal Muscle **M.A. King, D.A. Morse and T.L. Clanton.** Univ. of Florida.
- B513 **993.17** AT₁R Blockade Attenuates Reflex Cutaneous Vasoconstriction in Aged but Not Young Skin **J.A. Lang and K.E. Kolb.** Des Moines Univ.
- B514 **993.18** Spontaneously Hypertensive Rats Display Exaggerated Increase in Brain Temperature during Acute Physical Exercise in Temperate and Warm Environments **L.R. Drummond, S.P. Wanner, A.C. Kunstetter, F.F. Vaz, H.O. Campos, C.C. Coimbra, A.J. Natali and T.N. Primola-Gomes.** Fed. Univ. of Viçosa and Fed. Univ. of Minas Gerais, Brazil.
- B515 **993.19** Cold Acclimation in Humans: Effects of Changes in Brown Fat on the Recruitment and Shivering Pattern of Superficial Muscles **S.M. Raytchev, H.C. Tingelstad, D.P. Blondin and F. Haman.** Univ. of Ottawa and Univ. of Sherbrooke, Canada.
- B516 **993.20** Central Control of Neurogenic Fever following Subarachnoid Hemorrhage **D. Tupone and J.S. Cetas.** Oregon Hlth. & Sci. Univ. and Portland VA Hlth. Care Syst.
- B517 **993.21** Effects of Face Immersion in Cold Water on Blood Pressure and Cerebral Conductance **M.D. White, K.A. Henderson and M.L. Walsh.** Simon Fraser Univ., Canada.

994. VASCULAR RESPONSES TO EXERCISE AND ENVIRONMENTAL STRESS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B518 **994.1** Lisinopril Improves Cutaneous Microvascular Function in Hypertensive Men and Women **D.H. Craighead, W.L. Kenney and L.M. Alexander.** Penn State.
- B519 **994.2** Quantitative 4D Flow MRI during Hypoxia Identifies Non-uniform Cerebrovascular Dysfunction in Young Adults with Metabolic Syndrome **J.M. Kellawan, J.W. Harrell, A. Roldan-Alzate, O. Wieben and W.G. Schrage.** Univ. of Wisconsin-Madison.
- B520 **994.3** Exercise Training Activations PI3K/Akt/eNOS Signalling Improves Insulin Resistance in Post-myocardial Infarction Rats **Y. Wang, Z. Tian, Y. Li and S. Chen.** Shaanxi Normal Univ., China.
- B521 **994.4** Effect of Interleukin-10 and Laminar Shear Stress on African American Human Umbilical Vein Endothelial Cells **D.M. Babbitt, J-S. Kim, S.J. Forrester, M.D. Brown and J-Y. Park.** Temple Univ. and Univ. of Illinois at Chicago.
- B522 **994.5** Macronutrients and Proteins in Cheese Reduce Acute Dietary Sodium-Induced Endothelial Dysfunction in the Cutaneous Microcirculation **A.E. Stanhewicz, B.K. Alba, W.L. Kenney and L.M. Alexander.** Penn State.
- B523 **994.6** Potassium Channels Mediate Hydrogen Sulfide-Induced Cutaneous Vasodilation in Healthy Young Adults **J.L. Kutz, J.L. Greaney and L.M. Alexander.** Penn State.
- B524 **994.7** Post-occlusive Reactive Hyperemia: Effects on Skeletal Muscle Capillary Hemodynamics **J.L. Wright, S.K. Ferguson, C.T. Holdsworth, T.D. Colburn, A.J. Fees, T.J. Barstow, T.I. Musch and D.C. Poole.** Kansas State Univ.
- B525 **994.8** Exercise-Induced Heat Stress Disrupts the Shear-Dilatory Relationship in the Brachial Artery **S.J. Ives, W.K. Lefferts, M. Wharton, P.C. Fehling and D.L. Smith.** Skidmore Col. and Saratoga Hosp., NY.
- B526 **994.9** Effect of Beetroot Juice Supplementation on Conduit Artery and Microvascular Hemodynamics during Small Muscle Mass Handgrip Exercise **J.C. Craig, R.M. Broxterman and T.J. Barstow.** Kansas State Univ.
- B527 **994.10** The Effect of N-Acetylcysteine on Peripheral Hemodynamics and Fatigue during Exercise **J.R. Smith, R.M. Broxterman, C.J. Ade, T.J. Barstow and C.A. Harms.** Kansas State Univ. and Univ. of Oklahoma.
- B528 **994.11** Prolonged Sitting Impairs Forearm and Lower Leg Microvascular Reactivity **R. Restaino, D. Credeur, S. Holwerda, J. Padilla and P.J. Fadel.** Univ. of Missouri-Columbia.
- B529 **994.12** Hypoxic Cerebral Vasodilation in Healthy and Metabolic Syndrome Adults: Distinct Interactions between Cyclooxygenase and Reactive Oxygen Species Signaling **J.W. Harrell, G.L. Peltonen, K.M. LaPlante, B.S. Ernst and W.G. Schrage.** Univ. of Wisconsin-Madison.
- B530 **994.13** No Effect of N-Acetylcysteine on Histamine-Receptor Mediated Sustained Post-Exercise Vasodilation in Humans **S.A. Romero, M.R. Ely, D.C. Sieck, M.J. Luttrell, T.M. Buck, J.M. Kono and J.R. Halliwill.** Univ. of Oregon.
- B531 **994.14** Does Adenosine Make an O₂ Dependent Contribution to Exercise Hyperaemia? **C.J. Ray, R.T. Junejo and J.M. Marshall.** Sch. of Clin. and Exptl. Med., Univ. of Birmingham.
- B532 **994.15** Relationship between Exercise Capacity and Rapid Vasodilator Responses to Single Skeletal Muscle Contractions in Young and Older Adults **C.T. Ganger, D.P. Treichler, K. Ueda and D.P. Casey.** Univ. of Iowa.
- B533 **994.16** Is Hif-1 α Essential and Sufficient for Heat Acclimation Cross-Tolerance? **M. Horowitz and R. Alexander-Shani.** The Hebrew Univ. of Jerusalem.
- B534 **994.17** Effects of Voluntary Exercise on Progression of Aortic Aneurysm in a Mouse Model of Marfan Syndrome **C.P. Gibson, R. Alex, T.L. Broderick, J. Vallejo and M. Esfandiarei.** Midwestern Univ., AZ.
- B535 **994.18** Elevated Core and Skin Temperatures Independently Attenuate Simulated Hemorrhagic Tolerance **J. Pearson, R.A.I. Lucas, Z.J. Schlader, D. Gagnon and C.G. Crandall.** Univ. of Texas Southwestern Med. Ctr. and Texas Hlth. Presbyterian Hosp.; Univ. of Colorado at Colorado Springs; Umea Univ., Sweden and Univ. at Buffalo.
- B536 **994.19** O₂ Dependent Contributions of Prostaglandins (PGI₂, PGE₂) to Exercise Hyperaemia in Young and Older Men **R.T. Junejo, C.J. Ray and J.M. Marshall.** Sch. of Clin. and Environ. Med., Univ. of Birmingham.
- B537 **994.20** Prostaglandins Contribute in an O₂ Dependent Manner to Reflex Vasoconstriction in Exercise **R.T. Junejo, C.J. Ray and J.M. Marshall.** Sch. of Clin. and Exptl. Med., Univ. of Birmingham.

- B538 **994.21** Acute Natural Cocoa Consumption Improves Cerebral Vasodilatory Capacity in College-Aged African Americans **J.C. Patik, C. Hurr, M.L. Harrison and R.M. Brothers.** Univ. of Texas at Austin.
- B539 **994.22** Mechanisms of Pronounced and Sustained Cutaneous Vasoconstriction during Cryotherapy **K.M. Christmas, J.C. Patik, S. Khoshnevis, K.R. Diller and R.M. Brothers.** Univ. of Texas at Austin.
- B540 **994.23** Changes in Arterial Stiffness and Blood Pressure during Various Vascular Reactivity Tests **J. Lim, M. Pearman, M. Alkatan, D. Machin, W. Park and H. Tanaka.** Univ. of Texas at Austin.
- B541 **994.24** Attenuated Cerebral Vasodilatory Capacity in Response to Hypercapnia in Young Obese Individuals **J.D. Terwood, C. Hurr and R.M. Brothers.** Univ. of Texas at Austin.
- B542 **994.25** Effects of Exercise on Vasomotor Function and Vascular Distensibility in Angiotensin II-Induced Hypertension **D.H. Pham, N.M. Thalji, L.A. Smith, M.A. Hagler, B. Zhang, C.M. Roos, N.K. LeBrasseur and J.D. Miller.** Mayo Clin.
- B543 **994.26** Aerobic Training Prevents Impairment in Vascular Reactivity in Rats under High Risk of Metabolic Syndrome **R.F. Medeiros, T. Bento-Bernardes, T.G. Gaique, F.C.F. Britto, N.A.V. Motta, K.J. Oliveira and A.C.L. Nóbrega.** Fluminense Fed. Univ., Brazil.
- B544 **994.27** Microbiological Investigation of Waters of River Moravica during Summer Season 2012 **F. Rashiti, M. Ismaili, Y. Kurteshi and L. Tuna.** Univ. of Prishtina, Albania.
- B549 **995.5** Repeated Binge-Like Alcohol Intoxication Increases Mesenteric Lymphatic Permeability Disrupting Lymphatic-Perilymphatic Adipose Tissue Crosstalk **F.M. Souza-Smith and P. Molina.** LSU Hlth. Sci. Ctr., New Orleans.
- B550 **995.6** Adipose Tissue p50 α /p55 α Abundance May Drive Acute High Fat Diet-Induced Insulin Resistance **Z. Clayton, B. Hetrick and C.E. McCurdy.** Univ. of Oregon.
- B551 **995.7** Novel Effects of FGF21 and Exercise on Brown Adipose Tissue Inflammation **J.L. Rowles, J.A. Fletcher, T.M. Zidon, R.J. Scroggins, Y-M. Parks, J.W. Perfield, J.P. Thyfault, R.S. Rector, J. Padilla and V.J. Vieira-Potter.** Univ. of Missouri-Columbia; Harry S Truman Mem. VA Hosp. and Lilly Labs., Indianapolis.
- B552 **995.8** Increased Circulating Angiotensin-(1-7) in Transgenic Rats Modulates Lipogenic and Lipolytic Activities in Adipose Tissue **C.C.L. Moreira, L.M.d. Cordeiro, É.G. Mario, V.E. Chaves, R.A.S. Santos and L.M. Botion.** Fed. Univ. of Minas Gerais and Fed. Univ. of São João Del-Rei, Brazil.
- B553 **995.9** Body Mass Index, Serum Adiponectin, Leptin, Resistin Levels, Lipid Profile in Local Libyan Subjects **D.S. Sheriff and S.O. Sheriff.** Fac. of Med., Benghazi Univ., Libya and Intl. Med. Univ., Kuala Lumpur.
- B554 **995.10** Progressive "Browning" and "Whitening" of Subcutaneous White Adipose Tissue in Humans **L. Sidossis, C. Porter, M. Saraf, R. Radhakrishnan, T. Chao, M. Chondronikola and D. Herndon.** Univ. of Texas Med. Branch.
- B555 **995.11** Docosahexaenoic Acid Inhibits White Adipogenesis and Enhances Mitochondrial Biogenesis through SIRT1 and Hh Signaling **Y-J. Chen, W-H. Kuo, Y-T. Chang, C-W. Huang, H-Y. Liu, Y-H. Cheng, H.J. Mersmann and S-T. Ding.** Natl. Taiwan Univ. and Natl. Taiwan Univ. Hosp. and Col. of Med.
- B556 **995.12** TRB3 Inhibits Brown Adipocyte Differentiation and Function by Suppressing Insulin Signaling **H-W. Jeong, R.H. Choi, J. McClellan, Y-H. Tseng, L. Goodyear and H-J. Koh.** Univ. of South Carolina and Joslin Diabetes Ctr.
- B557 **995.13** Brown Adipocyte Dysfunction in UCP1 Knockout Mice Leads to Age-Dependent Development of Type 2 Diabetes **R. Thoonen, A.G. Hindle, A.M. Bezerra Miranda, V. Yao, R.E. Tainsh, E.S. Buys, K.D. Bloch and M. Scherrer-Crosbie.** Massachusetts Gen. Hosp.
- B558 **995.14** GPS2 at the Crossroad of Lipid Metabolism and Inflammation in Mouse Adipose Tissue **C.T. Cederquist, C. Lentucci, M.D. Cardamone and V. Perissi.** Boston Univ. Sch. of Med.
- B559 **995.15** Persistent Low Grade Inflammation Is Linked to Metabolic Dysfunction in HIV-Positive South African Females **M.J. Kruger, A. Coetser and T.A. Nell.** Stellenbosch Univ. Main Campus, South Africa.
- B560 **995.16** Chronic Adrenergic Stress Causes Adrenergic β -3 Receptor Upregulation in White Adipose Tissue of Burn Patients **M.K. Saraf, D. Herndon, C. Porter, M. Chondronikola, T. Chao, T. Toliver Kinsky, R. Radhakrishnan and L. Sidossis.** Univ. of Texas Med. Branch, Shriners Hosp. for Children.

995. ADIPOCYTE FUNCTION AND METABOLISM

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B545 **995.1** The Angiotensin AT₂ Receptor Modulates Adipose Epidermal Growth Factor Signaling to Control Resting Metabolic Rate **N.K. Littlejohn, B.J. Weidemann, K.R. Markan, N.A. Pearson, M.C. Naber, D.A. Morgan, M.J. Potthoff, K. Rahmouni, C.D. Sigmund and J.L. Grobe.** Univ. of Iowa.
- B546 **995.2** Effects of a High Fat Diet and Voluntary Wheel Running on Cidea and Cidec mRNA in Liver, Adipose Tissue, and Skeletal Muscle of Mice **J. Donohue, S. Couldwell, A.Z. Sosinsky, A. Frulla, A. Robinson, V. Puri and T.H. Reynolds.** Skidmore Col. and Boston Univ.
- B547 **995.3** Alterations in Metabolic Relations and Adiposity during and after Cigarette Smoke Exposition, in Young Female and Male Mice **R.P. Gaspar-Reis, C.C.S. Silva, A.S. Santos, N.P. Rangel, K.P. Albuquerque, Y. Abreu-Villaça, E.P.G. Souza and C.C.A. Nascimento-Saba.** State Univ. of Rio de Janeiro.
- B548 **995.4** Prevalence and Activation of Human Brown Adipose Tissue **A. Gifford, R.C. Walker, E.B. Welch and T.F. Towse.** Vanderbilt Univ. and Vanderbilt Univ. Sch. of Med.

996. DIET, NUTRITION, AND ADIPOSE TISSUE

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B561 **996.1** Increased Levels of Heme-Oxygenase-1 Rescues Fructose-Mediated Adipocyte Dysfunction **S. Stevens, H. Ansinelli, L. Bellner, Z. Khitan and N.G. Abraham.** Marshall Univ. and New York Med. Col.
- B562 **996.2** Effect of Vitamin B12 and Nutrients on Adipogenesis-Adipogenic Markers in 3T3 Cells **L. Bellner, A. Nichols, V.G. Pandey, L. Vanella, C. Gilliam, R. Gupte and N.G. Abraham.** New York Med. Col.; Joan C. Edwards Sch. of Med., Marshall Univ. and Univ. of Catania.
- B563 **996.3** The Intakes of Salt and Dietary Sodium among Chinese Adults **D. Yu, H. Fang and L. Zhao.** Natl. Inst. for Nutr. and Hlth., China CDC, Beijing.
- B564 **996.4** Trends of Consumption of Foods Containing Added Sugars and Associated Factors among Adults of 9 Provinces in China **L. Zhao, D. Yu and D. Li.** Natl. Inst. for Nutr. and Hlth., China CDC.
- B565 **996.5** A Comparison of Visceral Adiposity in Individuals with and without Intellectual Disabilities **D.A. Traylor, J.B. Ryan, W. Bridges, N. Najm, C.J. Popp, M. Bohan Brown and E.D. Jesch.** Clemson Univ.
- B566 **996.6** Epigenetic Silencing of Netrin Is Associated with Memory Loss by High Methionine, Low Folate and Vitamin B₆/B₁₂ Containing Diet **A. Kalani, P.K. Kamat, D. Lominadze and N. Tyagi.** Univ. of Louisville.
- B567 **996.7** Proteomic Analysis of the Late Effects of Intrauterine Undernutrition on Adipose Tissue of Rats **A.P. Souza, A.P. Pedroso, A.A. Tashima and E.B. Ribeiro.** Fed. Univ. of São Paulo.
- B568 **996.8** Q-16, a Partial PPAR γ Agonist, Decreases Adiposity and Induces the Thermogenesis-Related Genes in Obese Mice **M. Coelho, C. Lima, C. Royer, I. Pitta, A. Amato and F. Neves.** Univ. of Brasilia and Univ. of Pernambuco, Brazil.
- B569 **996.9** *MicroRNA-150* Knockout Prevents Age-Related Glucose Intolerance and Extends Lifespan **S. Wang, X. Liu and Z. Sun.** Univ. of Oklahoma Hlth. Sci. Ctr.

997. PANCREATIC HORMONE AND DIABETES

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B570 **997.1** The ACE2 Sheddase, ADAM17, Is Up-regulated in Diabetic *db/db* Mice **H. Chodavarapu, K.B. Pedersen and E. Lazartigues.** LSU Hlth. Sci. Ctr., New Orleans.
- B571 **997.2** ADAM17-Mediated Shedding of ACE2 in Pancreatic Beta-Cells **K.B. Pedersen, L.K. Robinson and E. Lazartigues.** LSU Hlth. Sci. Ctr., New Orleans.
- B572 **997.3** c-Fos Increases Functional β -Cell Mass **J. Ray, B.F. Bitner, K.B. Kener, B.J. Walker and J.S. Tessem.** Brigham Young Univ.

- B573 **997.4** Effects of Chronic Stress on Pancreatic Beta Cell Density in Obese and Lean Zucker Rats **A. Clegg, S. Brooks, J. Frisbee, C. Leon, M. Olfert, S. Alway and R.W. Bryner.** West Virginia Univ.
- B574 **997.5** Identification of a Candidate Adropin Receptor **L.M. Stein, W.K. Samson and G.L.C. Yosten.** Saint Louis Univ.
- B575 **997.6** C-Peptide Modulates VEGF Release: Implications for Diabetic Retinopathy **G.L.C. Yosten and G.R. Kolar.** Saint Louis Univ.
- B576 **997.7** GLP1R Regulation of Gap Junction Coupling in the Islet of Langerhans **R. Walter, N.L. Farnsworth and R.K.P. Benninger.** Univ. of Colorado Denver and Univ. of Colorado Denver, Anschutz Med. Campus.
- B577 **997.8** Loss of Pancreatic Mitogen-Inducible Gene 6 Protects Mice against Streptozotocin-Induced Diabetes **K.M.L. Fong, Y-C. Chen and P.T. Fueger.** Indiana Univ. Sch. of Med.
- B578 **997.9** Resveratrol Alleviates Lipid-Induced Insulin Resistance in Lean, but Not Severely Obese, Myotubes **K. Turner, S. Park, T. Beasley, D. Zheng and J. Houmard.** East Carolina Univ.

998. BARRIER FUNCTION AND REPAIR

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B579 **998.1** Bile Acid, Lithocholic Acid, Reverses Chenodeoxycholate- and Cytokine-Induced Loss in Epithelial Barrier Function in Human Colon Carcinoma T84 Cells **N. Khan, D. Hung, F. Javed, P. Shukla, S. Detloff, M. Ao, J. Domingue, M. Rao and J. Sarathy.** Benedictine Univ., IL and Univ. of Illinois at Chicago.
- B580 **998.2** Alcohol and Burn Injury Decreases STAT3 Expression in Intestinal Epithelial Cells **A.M. Hammer, X. Li, N.L. Morris, A.R. Cannon, Z.M. Earley, E.J. Kovacs and M.A. Choudhry.** Loyola Univ. Chicago Hlth. Sci. Div.
- B581 **998.3** Linagliptin, a Dipeptidylpeptidase 4 Inhibitor, Ameliorates Indomethacin-Induced Enteropathy via GLP-2 Pathway **Y. Akiba and J.D. Kaunitz.** West LA VA Med. Ctr.; CURE/UCLA and Brentwood Biomed Res. Inst.
- B582 **998.4** The Role of Suppressor of Cytokine Signalling 3 in the Regulation of Intestinal Epithelial Cell Turnover in a Helminth Model **E. Shaw, E. Smith, K. Else and R. Rigby.** Fac. of Hlth. and Med., Lancaster Univ., U.K. and Fac. of Life Sci., Manchester Univ.
- B583 **998.5** Calcium Glycerophosphate Preserves Transepithelial Integrity **P. Datta and M.T. Weis.** Texas Tech Univ. Hlth. Sci. Ctr.
- B584 **998.6** Epithelial Regeneration after Gastric Ulceration Causes Prolonged Weakened Defenses and Altered Cell Types **E. Aihara, A.L. Matthis and M.H. Montrose.** Univ. of Cincinnati.
- B585 **998.7** Calcium Sensing Receptor Deletion in the Mouse Esophagus Alters the Expression of Cell-Cell Junctional Proteins **S. Abdunour-Nakhoul, C-L. Tu, J. Que, M.T. Islam, K.L. Brown and N.L. Nakhoul.** Southeast Louisiana Veterans Hlth. Care Syst.; Tulane Med. Ctr.; VA Med. Ctr., UCSF and Univ. of Rochester Med. Ctr.

- B586 **998.8** PTPN2 Gene Deficiency Leads to Increased Epithelial Permeability and Promotes STAT-1-Dependent Claudin-2 Expression **M. Krishnan, A. Sayoc and D.F. McCole**. Univ. of California, Riverside.
- B587 **998.9** MiR-150 Expression Significantly Reduced in the Gut after Alcohol and Burn Injury **N.L. Morris, X. Li, A.M. Hammer, A.R. Cannon, Z.M. Earley and M.A. Choudhry**. Loyola Univ. Chicago, Maywood.

999. GASTROINTESTINAL AND LIVER CANCER: CURRENT INSIGHTS INTO MEDIATORS AND MODULATORS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B588 **999.1** Urinary Level of D-2-Hydroxyglutarate during Inflammation Predicts Severity of Colitis-Associated Tumorigenesis in Mice **A.L. Theiss, J. Han, J. Holm, X. Wang, S. Forni, Y. Cheng, R.M. Genta, S.J. Meltzer and L. Sweetman**. Baylor Univ. Med. Ctr. and Univ. of Texas Southwestern VA, Dallas.
- B589 **999.2** Identifying New Tumor Suppressor in Liver Cancer Using Unbiased High-Throughput Approaches **X. Zhang, Y. Zhang and L. Wang**. Univ. of Connecticut and Univ. of Kansas Med. Ctr.
- B590 **999.3** Stromal Loss of mRNA-Binding Protein IMP1 Promotes a Pro-tumorigenic Colon Tumor Microenvironment In Vivo **P. Chatterji, K. Hamilton, E. Lundsmith, S. Andreas and A. Rustgi**. Univ. of Pennsylvania.
- B591 **999.4** Intestinal Vitamin D Receptor Protects Mice from dysbiosis via Modulating JAK/STAT Pathway in Tumorigenesis **S. Wu, Y-g. Zhang, R. Lu, Y. Xia, D. Zhou and J. Sun**. Rush Univ. and Univ. of Rochester.
- B592 **999.5** Chronic Ethanol Feeding Promotes Azoxymethane and Dextran Sodium Sulfate-Induced Colonic Tumorigenesis by Enhancing Mucosal Inflammation **P.K. Shukla, K.K. Chaudhry, H.R. Mir, R. Gangwar, N. Yadav, B. Manda and R.K. Rao**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.
- B593 **999.6** Attenuation of Claudin-18 in Mouse Stomach Promotes the Development of Intramucosal Carcinoma **Y. Zheng, J. Wu, S. Muthupalani, Y.E. Wang, L-H. Ang, J.G. Fox and S.J. Hagen**. Beth Israel Deaconess Med. Ctr.; MIT and Dana-Farber Cancer Inst.
- B594 **999.7** Chronic Exposure to Microbial Stimuli Affects the Development of the Intestinal Epithelium in Human Colonic Enteroids **E.M. Rodrigues, L. Slobbe, M. Schultz and G. Butt**. Univ. of Otago, New Zealand.

1000. GASTROINTESTINAL CANCER AND METASTASIS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B595 **1000.1** A Gradual Rise in Cancer Stem Cells in the Crypt-Villous Axis of the Colon during Aging **A.P.N. Majumdar, P. Nangia-Makker and Y. Yu**. VA Med. Ctr. and Wayne State Univ.
- B596 **1000.2** Enteric Glial Cells Activate Colon Cancer Stem Cells to Promote Tumorigenesis **S. Valès, M. Biraud, S. Marionneau-Lambot, T. Oullier, M. Neunlist and L. Van Landeghem**. INSERM 913, Inst. of Digest. Dis.; Nantes Univ. and CGO, Nantes.
- B597 **1000.3** Hepatocyte-Specific GOLM1 Knockout Mice and Human Hepatocellular Carcinoma Cell Lines Provide Insights into Potential Roles for the GOLM1 HCC Serum Biomarker **G. Arora, C.J. Fimmel, L. Wright and B.P. Bode**. No. Illinois Univ. and Loyola Univ. and Edward Hines VA Med. Ctr., Maywood.
- B598 **1000.4** Glutamine Transporter Expression Profiling Reveal Major Role for ASCT2 and LAT1 in Primary and Metastatic Human Hepatocellular Carcinoma Cells **C.C. Kron and B.P. Bode**. Northern Illinois Univ.
- B599 **1000.5** Stable ASCT2 and LAT1 Suppression in Human Hepatocellular Carcinoma Cells Fails to Measurably Affect Proliferation, Anchorage-Independent Growth and mTORC1 Signaling **P.J. Bothwell, E.D. Wittke, A. Papa, J. Mitzelfelt, Z. Howard, C.C. Kron and B.P. Bode**. Northern Illinois Univ.

1001. GASTROINTESTINAL DEVELOPMENT

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B600 **1001.1** The Effect of Valproic Acid on Notch Signaling in *Danio rerio* Intestinal Cell Differentiation **K. Llorente and J.K. Uno**. Elon Univ., NC.

1002. GASTROINTESTINAL MOTILITY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B601 **1002.1** Quercetin Relaxes Cholecystokinin- and KCl- Induced Tension in Guinea Pig Gallbladder Strips **L. Kline and E. Karpinski**. Univ. of Alberta.
- B602 **1002.2** Neuropeptide S Reduces Gut Motility in Rats and Humans **W.S.W. Saudi, M.A. Halim, D-L. Webb, P.M. Hellström and M. Sjöblom**. Uppsala Univ.
- B603 **1002.3** Gintonin-Mediated Depolarization of Pacemaker Activity in Cultured Interstitial Cells of Cajal **B.J. Kim, J.H. Nam, M. Joo, T.S. Ha, S. Choi, J.Y. Jun, I. So and S-Y. Nah**. Pusan Natl. Univ. Sch. of Korean Med.; Dongguk Univ. Col. of Med.; Daegu Univ. ; Chosun Univ. Col. of Med.; Seoul Natl. Univ. Col. of Med. and Konkuk Univ. Col. of Vet. Med., South Korea.
- B604 **1002.4** Proximity Ligation Assay of Interactions between β -1 Integrin and Ca^{2+} Sensitization Proteins during the Contractile Response of Gastric Fundus Smooth Muscles to Cholinergic Stimuli **Y. Xie and B.A. Perrino**. Univ. of Nevada Sch. of Med.
- B605 **1002.5** Brainstem Dopamine Controls Gastric Tone and Motility **L. Toti and R.A. Travagli**. Penn State Col. of Med.
- B606 **1002.6** Neurochemical Phenotype of Afferent Neurons of the Nucleus Tractus Solitarius in Response to Esophageal Distension in the Rat **J. Ambler, T. Babic and R.A. Travagli**. Penn State Col. of Med.
- B607 **1002.7** High-Fat Diet Causes Loss of Nitric Oxide Motor Neurons and Impairs Inhibitory Neuromuscular Communication in the Mouse Distal Colon **Y. Bhattarai, D. Fried, B. Gulbransen and J.J. Galligan**. Michigan State Univ.
- B608 **1002.8** Erythromycin and Rho-Kinase Activity: Another Pathway Responsible for its Gastrointestinal Motility-Enhancing Effect **J. Belik, C. Welsh, Y. Shifrin and J. Pan**. The Hosp. for Sick Children, Toronto.
- B609 **1002.9** Antral and Duodenal Myoelectric Activity Changes around the Day, Effect of Obestatin and Ghrelin in Conscious Suckling Piglets **J. Woliński, M. Słupecka and P. Ochniewicz**. Kielanowski Inst. of Animal Physiol. and Nutr., Polish Acad. of Sci.
- B610 **1002.10** Abundant 5-HT Release from EC Cells Disrupts Colonic Motility **B. Lavoie, D. Tchitchkan and G.M. Mawe**. Univ. of Vermont.
- B611 **1002.11** Enteral Obestatin influences on Intestinal Contractility in Neonatal Wistar Rats – *in vitro* Studies **J. Woliński and M. Słupecka**. Kielanowski Inst. of Animal Physiol. and Nutr., Polish Acad. of Sci.
- B612 **1002.12** Enteral Obestatin and Ghrelin Influences on Intestinal Contractility in Piglets – In Vitro Studies **J. Woliński, M. Słupecka and P. Ochniewicz**. Kielanowski Inst. of Animal Physiol. and Nutr., Polish Acad. of Sci.

- B613 **1002.13** Altered Gastrointestinal Motility in a Mouse Model of Multiple Sclerosis **E.T. Spear, B. Lavoie, A.M. Applebee, C. Teuscher and G.M. Mawe**. Univ. of Vermont.
- B614 **1002.14** Caveolin-1-Dependent Regulation of Myocardin Expression and Contractile Phenotype in Colonic Circular Smooth Muscle **S. Bhattacharya, D. Kendig, J.R. Grider and K.S. Murthy**. Virginia Commonwealth Univ.
- B615 **1002.15** Changing Tongue Depressor Position between Rat Incisors of Both Jaws Varies Gastric Motility **M. Lorber**. Georgetown Univ.
- B616 **1002.16** A Novel Approach to Identify Genes Related to FGID **S.E. Gombash, C. Cowley, J.A. Fitzgerald, C.C. Iyer, V.L. McGovern, D. Fried, K.C. Williams, A.H.M. Burghes, F.L. Christofi, B.D. Gulbransen and K.D. Foust**. Ohio State Univ.; Michigan State Univ. and Nationwide Children's Hosp.
- B617 **1002.17** Enteric Nervous System Transduction following IV Delivery of Multiple AAV Serotypes **S.E. Gombash Lampe, C.J. Cowley, J.A. Fitzgerald, C. Mueller, F.L. Christofi and K.D. Foust**. The Ohio State Univ. and UMass Med. Sch.
- B618 **1002.18** Ammonia Modulates Enteric Neuromuscular Transmission in the Mouse, Pig, and Human Intestine. **D.E. Fried and B.D. Gulbransen**. Michigan State Univ.
- B619 **1002.19** R-Type Calcium Channels Contribute to Colonic Inhibitory Neuromuscular Transmission **E. Rodriguez-Tapia and J. Galligan**. Michigan State Univ.
- B620 **1002.20** R-Type Ca^{2+} Channels Contribute to Neural Control of Murine Colonic Motility **L.R. Skylis, J.J. Galligan and E.S. Rodriguez-Tapia**. Michigan State Univ.

1003. GI AND LIVER EPITHELIAL JUNCTIONS

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B621 **1003.1** Intestinal Tight Junction *CLDN2* Gene Is a Direct Target of the Vitamin D Receptor **Y-g. Zhang, S. Wu, R. Lu, D. Zhou, J. Zhou, E. Petrof, E. Claud and J. Sun**. Rush Univ.; Univ. of Rochester; Kansas City Univ. of Med. and Biosci.; Queen's Univ., Canada and Univ. of Chicago.
- B622 **1003.2** Identification of an Occludin Regulatory Motif that Confers Dynamics to Epithelial Tight Junctions and Adherens Junctions **B. Manda, R. Gangwar, H.R. Mir and R.K. Rao**. Univ. of Tennessee Hlth. Sci. Ctr., Memphis.

1004. LIVER PHYSIOLOGY AND PATHOPHYSIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

- B623 **1004.1** The Therapeutic Potential of Toll-Like Receptor 4 Antagonists in Preventing Liver Injury Induced by Biliary Obstruction and Subsequent Endotoxemia **Y. Yokoyama, S. Oya, T. Kokuryo and M. Nagino.** Nagoya Univ. Grad. Sch. of Med.
- B624 **1004.2** Effects of PCB126 on the Development of Non-alcoholic Fatty Liver Disease **M-P. Boucher and N.A. Chapados.** Montfort Hosp. Res. Inst.; Univ. of Ottawa and La Cite, Ottawa.
- B625 **1004.3** eNOS Deficiency Increases Susceptibility to Western Diet-Induced Hepatic Mitochondrial Dysfunction **R.D. Sheldon, M.A. Linden, G.M. Meers, E.M. Morris, M.H. Laughlin and R.S. Rector.** Harry S Truman Mem. VA Hosp. and Univ. of Missouri-Columbia.
- B626 **1004.4** Regeneration Associated Pathophysiology following Major Hepatectomy with Subsequent Choledoco-Jejunostomy: A Comparison with Simple Hepatectomy **T. Takagi, Y. Yokoyama, T. Kokuryo, J. Yamaguchi and M. Nagino.** Nagoya Univ. Grad. Sch. of Med., Japan.
- B627 **1004.5** Kupffer Cell p38 MAPK Drives Hepatic Damage and Pulmonary Inflammation after Intoxication and Burn Injury **M.M. Chen, E.B. O'halloran and E.J. Kovacs.** Loyola Univ. Chicago, Maywood.
- B628 **1004.6** Liver Specific Knockout of Biliverdin Reductase-A (BVRA) Enhances High Fat Diet-Induced Hepatic Steatosis and Type II Diabetes in Mice **A. Alamodi, P. Hosick, H. Drummond, T. Hinds and D. Stec.** Univ. of Mississippi Med. Ctr. and Univ. of Toledo Col. of Med.
- B629 **1004.7** Protective Effects of L-Cysteine against LPS-Induced Liver Injuries **T. Kitagawa, Y. Yokoyama, T. Kokuryo and M. Nagino.** Nagoya Univ. Grad. Sch. of Med.
- B630 **1004.8** Subcellular Zinc Deficiency Links with ER and Mitochondria Cell Death Signaling in Alcoholic Liver Disease **Q. Sun, W. Zhong, W. Zhang, X. Sun and Z. Zhou.** Univ. of North Carolina at Greensboro, Kannapolis.
- B631 **1004.9** Inhibition of Hydrogen Peroxide Prevents the Development of VEGF-Induced Angiogenesis in Portal Hypertensive Rats **M. Duan, J. Qin, Y. He, M. Luo and A. Huang.** Renji Hosp., Shanghai.
- B632 **1004.10** Western Diet Induces Nonalcoholic Fatty Liver Disease and Impairs Liver Mitochondrial Metabolism in Adult Mice **P.S. Pacheco, V.M.S. dos Santos, F.A. Neves, A.F. Bernardo, A.K.G. Vieira, G.L. Miranda, T.O. Malafaia, R.M. Guedes, A.S. Moura, R. Sichieri and E.P.G. de Souza.** Univ. of State of Rio de Janeiro.
- B633 **1004.11** Role of Endothelin 3 in Estradiol 17 β -Glucuronide (E217G)-Induced Cholestasis in the Rat **M.R. Rodriguez, M. Martinefski, V. Tripodi, M. Vatta and L.G. Bianciotti.** Univ. of Buenos Aires-CONICET and Univ. of Buenos Aires.

B634 **1004.12** A Convenient Human Hepatocyte Model for Molecular Mechanisms in Caffeine Preconditioning and Protection from Acetaminophen (APAP)-Induced Hepatotoxicity **P. Gupta, Y. Sharma, S. Bandi, P. Vishwanathan and S. Gupta.** Children's Hosp. at Montefiore and Albert Einstein Col. of Med.

B635 **1004.13** Hepatic Expression of Redox Factor-1 and Thioredoxin-1: Effects of Aging and Environmental Heat Stress **S. Bloomer, L. Sholomskas, K. Roche and K. Kregel.** Penn State Abington and Univ. of Iowa.

1005. METABOLIC DISEASE: GI AND LIVER FUNCTION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B636 **1005.1** UDCA Modulates Monocyte/Epithelial Cell Interactions **A. O'Dwyer, J. Ward, C. Greene and S. Keely.** Royal Col. of Surgeons in Ireland.

1006. MICROBES AND NUTRITION

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B637 **1006.1** Walnut Consumption Changes the Relative Abundance of Bacteroidetes and Firmicutes in the Gut **L.O. Byerley, M. Ponder, B. Lorenzo, S. Banks, C. Taylor, M. Luo, E. Blanchard IV and D.A. Welsh.** LSU Hlth. Sci. Ctr., New Orleans and VPI and State Univ.

1007. MICROBIOME OF THE GI TRACT

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM—3:00 PM

B638 **1007.1** Functional Analysis of Seasonally-Changing Gut Microbiotas in Hibernating Ground Squirrels **H.V. Carey, D.E. Butz and F.M. Assadi-Porter.** Univ. of Wisconsin-Madison.

B639 **1007.2** Genetic Variation in *SLC30A2* and Associated Alterations in Enteric Microbiota in Preterm Infants **M. Hamidi, A.B. Podany, S. Alam, M.C. Santos, C.J. Gallagher, M. Vijay-Kumar, J. Wright, R. Lamendella and S.L. Kelleher.** Penn State Hershey Med. Ctr. and Juniata Col., PA.

B640 **1007.3** Lacking Vitamin D Receptor Leads to Intestinal Dysbiosis **D. Jin, S. Wu, Y-g. Zhang, R. Lu and J. Sun.** Rush Univ.

B641 **1007.4** Modulation and Adherence of Intestinal Mucus by Commensal Bacteria and the Pathogen *C. difficile* **M.A. Engevik, B.P. Ganesh, C.N. Morra, B. Luk and J. Versalovic.** Baylor Col. of Med.

1008. NUCLEAR RECEPTORS IN THE LIVER AND GI TRACT**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B642 **1008.1** Endogenous Glucocorticoids Regulate Hepatic Inflammation and Apoptosis in a Sexually Dimorphic Manner **M.A. Quinn and J.A. Cidlowski**. NIEHS, NIH, Research Triangle Park.

1009. NUTRIENT METABOLISM IN THE GUT**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B643 **1009.1** Marked Hyperfructosemia without Fructose-Induced Hyperglycemia and Diabetes in Fructokinase-Deficient Mice **C. Patel, K. Sugimoto, A. Shah, S. Parikh, V. Douard, H. Inui, T. Yamanouchi and R. Ferraris**. Rutgers NJ Med. Sch.; Nagaoka Perfumery Co.; Osaka Prefect. Univ. and Teikyo Univ.

1010. PREBIOTICS, PROBIOTICS AND GUT FUNCTION**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B644 **1010.1** Administration of Probiotics Normalizes Deficits in the Microbiota-Gut-Brain Axis Induced by DSS-Colitis **K. Huynh, J. Emge, C. Reardon, K.E. Barrett and M.G. Gareau**. UCSD and Univ. of California, Davis.

B645 **1010.2** Glycomacropptide Shows Prebiotic and Immune Modulating Properties in Phenylketonuria and Wild Type Mice **E.A. Sawin, B. Aktas, T.J. DeWolfe, B.M. Stroup, S.G. Murali, J.L. Steele and D.M. Ney**. Univ. of Wisconsin-Madison.

B646 **1010.3** *Lactobacillus rhamnosus* Cultured Milk Isolate May Reduce Adipogenesis **J. Kotala and E.M. Onyango**. East Tennessee State Univ.

B647 **1010.4** Effects of Probiotic VSL#3 on Cytokine and Tight Junction Protein Expression in Intestinal Epithelial Cells **L. Stewart, B. Crumley and K.L.W. Walton**. Missouri Western State Univ.

1011. METAL ION TRANSPORT**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B648 **1011.1** The Zinc Transporter ZnT2 Is Necessary for Stabilization of Granule Contents in Intestinal Paneth Cell Granules **A.B. Podany, A.K. Geletzke, S. Lee, D.I. Soybel and S.L. Kelleher**. Penn State Hershey Med. Ctr. and Penn State.

B649 **1011.2** Mechanisms of Ferritin Iron Mobilization in Macrophages and Hepatocytes **D. Tu, W. Greenberg, K. Tran, C. Soriano and M.C. Linder**. California State Univ. Fullerton.

B650 **1011.3** Mechanism of Copper Absorption Investigated in Caco2 and HuTu80 Enterocyte Models **A. Ricarte, A. Valadez, A. Arabpour, T.Z. Kidane and M.C. Linder**. California State Univ. Fullerton.

B651 **1011.4** Mechanism of Ceruloplasmin-Copper Uptake by, and Overexpression in, Mammalian Cells **R. Vargas, L. Islas, M. Gaite, D. Berger, D. Ramos, D. Mar, T.Z. Kidane, M.P. Cuajungco and M.C. Linder**. California State Univ. Fullerton.

B652 **1011.5** Intestinal Divalent Metal-Ion Transporter-1 Is Required for Iron Homeostasis in the Neonatal Mouse **S. Prakash, A. Shawki, E.J. Niespodzany and B. Mackenzie**. Univ. of Cincinnati Col. of Med.

1012. CONTROL OF BREATHING: INTEGRATED RESPONSES**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

B653 **1012.1** Effects of Serotonergic Activation on Respiratory Motor Recovery following Chronic Cervical Spinal Cord Injury **S-H. Hsu and K. Lee**. Natl. Sun Yat-sen Univ., Taiwan.

B654 **1012.2** Inactivity-Induced Phrenic Motor Facilitation following Intermittent, but not Sustained, Neural Apnea Requires Retinoic Acid and Protein Synthesis **N.A. Baertsch and T.L. Baker-Herman**. Univ. of Wisconsin-Madison.

B655 **1012.3** Confronting the Effects of 0.9% Saline Administration on Breathing **T.G. Glaussen, C.M. Cunningham and L.R. DeRuisseau**. Le Moyne Col., NY.

B656 **1012.4** D₁ Dopamine Receptor Modulation of Breathing in Young Hypothyroid Female Hamsters **E.H. Schlenker and M.R. Wilson**. Sanford Sch. of Med., Univ. of South Dakota.

- B657 **1012.5** Cortical Activation Patterns in Response to Respiratory Transient Occlusions **P-Y.S. Chan, Y-J. Ju and Y-J. Wu.** Chang Gung Univ., Taiwan.
- B658 **1012.6** Pattern of Autoreuscitation in Spontaneously Breathing Anesthetized Adult Rats **Z. Nowak, A. Krause, R. Srbu and H.J. Bell.** Central Michigan Univ. Col. of Med.
- B659 **1012.7** An In Vivo Anesthetic Model of Autoreuscitation Failure in Adult Rats **A. Krause, Z. Nowak, R. Srbu and H.J. Bell.** Central Michigan Univ.
- B660 **1012.8** Effects of Tracheal Distension on Upper Airway Reflex Responsiveness in Cat **T.Y. Shen, M.N. Musselwhite, M.J. Rose, D.C. Bolser and T. Pitts.** Univ. of Florida.
- B661 **1012.9** NMDA Receptors and Nitric Oxide Synthase Regulate Encoding of Cough in the nTS **D.G.S. Farmer, N. Mori and B.J. Canning.** The Florey Inst. of Neurosci. and Ment. Hlth., Melbourne and Johns Hopkins Sch. of Med.
- B662 **1012.10** Cough-Induced Hyperventilation Does Not Elicit Prolonged Apnea during the Cough-to-Eupnea Transition Period **M.N. Musselwhite, T. Pitts, T.Y. Shen, M.J. Rose, I. Poliacek, K.F. Morris, P.W. Davenport and D.C. Bolser.** Univ. of Florida and Univ. of South Florida.
- B663 **1012.11** Dorsal Medulla Inspiratory Neurons Contribute to Increased Inspiratory Drive during Swallow **T. Pitts, T.Y. Shen, S. Varechova, B. Demoulin, Z. Guannan, H-W. Tsai, M.N. Musselwhite, M.J. Rose, I. Poliacek, K.F. Morris, P.W. Davenport and D.C. Bolser.** Univ. of Florida; Hosp. Ctr. Univ. de Nancy and Univ. of South Florida.
- B664 **1012.12** Ventral Respiratory Column Expiratory Neuron Activity Is Altered during Fictive Swallow in the Cat **G. Zhou, H-W. Tsai, K-K. Horton, K.F. Morris, C. Gestreau, S.C. Nuding, L.S. Segers, B.G. Lindsey, D.C. Bolser and P.W. Davenport.** Univ. of Florida and Univ. of South Florida.
- B665 **1012.13** Swallowing-Related Activities of Respiratory and Non-respiratory Neurons in the Nucleus Tractus Solitarius in Cats **H-W. Tsai, Z. Guannan, K-K. Horton, K.F. Morris, C. Gestreau, S.C. Nuding, L.S. Segers, B.G. Lindsey, D.C. Bolser and P.W. Davenport.** Univ. of Florida; Univ. of South Florida and Aix-Marseille Univ.
- B666 **1012.14** Specific Role of Membrane Progesterone Receptors α and β on Ventilation during Sleep in Female Mice **R. Boukari, O. Rossignol, F. Marcouiller, A. Bairam and V. Joseph.** Univ. Laval, CHU de Québec.
- B667 **1012.15** Contribution of Membrane Progesterone Receptors α and β to Ventilatory Chemoreflex in Female Mice **R. Boukari, O. Rossignol, F. Marcouiller, A. Bairam and V. Joseph.** Univ. Laval, CHU de Québec.
- B668 **1012.16** Breathing Frequency (fR) Is No Longer under Chemoreflex Control during REM Sleep **P.G. Burke, R. Kanbar, T. Basting, K.E. Viar, R.L. Stornetta and P.G. Guyenet.** Univ. of Virginia.
- B669 **1012.17** Hypoxia, but Not Hypercapnia Evokes the Arousal Response during Sleep in Mice **S.C. Ramirez, D.D. Rubens, A. Pillai, T. Allen and J.M. Ramirez.** Seattle Children's Res. Inst. and Univ. of Washington.
- B670 **1012.18** Oscillatory Pattern of Breathing in Healthy Humans at Exercise: Effects of Hypoxia, Hyperoxia and Hypercapnia **E. Hermand, A. Pichon, F. Lhuissier and J-P. Richalet.** Univ. Paris 13, Bobigny.
- B671 **1012.19** Differential Effects of Systemic versus Intratracheal Lipopolysaccharide Administration on Ventilatory Behavior in Spontaneously Breathing Adult C57BL/6 Male Mice **M.S. Ahmad, M. Hyder, K.T. Rice, J.E. Conyers and I.C. Solomon.** Stony Brook Univ.
- B672 **1012.20** Time Course of Altered Ventilatory Activity Evoked by Intratracheal Lipopolysaccharide (LPS) Administration in Spontaneously Breathing Adult C57BL/6 Male Mice **K.T. Rice, M.S. Ahmad, M. Hyder, J.E. Conyers and I.C. Solomon.** Stony Brook Univ.
- B673 **1012.21** Time Course of Altered Ventilatory Activity Evoked by Systemic Lipopolysaccharide Administration in Spontaneously Breathing Adult C57BL/6 Male Mice **M. Hyder, J.E. Conyers, M.S. Ahmad, K.T. Rice and I.C. Solomon.** Stony Brook Univ.
- B674 **1012.22** Intratracheal Lipopolysaccharide Administration Attenuates Acute Hypoxic Ventilatory Response in Spontaneously Breathing Adult C57BL/6 Male Mice **J.E. Conyers, K.T. Rice, M.S. Ahmad, M. Hyder and I.C. Solomon.** Stony Brook Univ.

1013. CONTROL OF BREATHING: RESPIRATORY MOTOR NEURONS AND MUSCLES

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B675 **1013.1** An In Situ Model of Chronic Cervical Spinal Cord Injury **D.M. Baekey, P. Amirzadehasl, G.T. Armstrong, D.D. Fuller and P.J. Reier.** Univ. of Florida.
- B676 **1013.2** Intraspinal Electrical Stimulation Reliably Triggers Respiratory Activity in the In Situ Rodent Model **K.A. Samuel, P. Amirzadehasl, K.A. Schwanebeck, H. Denson, L. Guarneri, R.A. Molina, E.J. Gonzalez-Rothi, D.D. Fuller and D.M. Baekey.** Univ. of Florida.
- B677 **1013.3** Heart Failure with Preserved Ejection Fraction Induces Molecular, Mitochondrial, Histological, and Functional Alterations in Rat Diaphragm Muscle **T.S. Bowen, N.P.L. Rolim, T. Fischer, F.H. Bækkerud, A. Medeiros, S. Werner, E. Bronstad, O. Rognmo, N. Mangner, A. Linke, G. Schuler, G.J.J. Silva, U. Wisloff and V. Adams.** Leipzig Univ. Heart Ctr.; Norwegian Univ. of Sci. and Technol. and Fed. Univ. of São Paulo.
- B678 **1013.4** Mesenchymal Stem Cell Survival after Intraspinal Transplantation **M.S. Barbero, H.M. Gransee, W-Z. Zhan, G.C. Sieck and C.B. Mantilla.** Univ. of Illinois at Urbana Champaign and Mayo Clin.

- B679 **1013.5** Unilateral Denervation of the Diaphragm Muscle Increases Central Drive Only during Ventilatory Behaviors **L.C. Gill, C.B. Mantilla and G.C. Sieck**. Mayo Clin.
- B680 **1013.6** GAL-160 Preferentially Increases Respiratory Motor Drive to the Tongue over the Diaphragm during Unobstructed Breathing and Standardized Obstructive Apneas in Rats **S.M. Baby, S. Mardirosian, C.M. Schemm, S. Peng, F.J. Golder and E.D. MacIntyre**. Galleon Pharmaceut. Inc., , Horsham, PA.
- B681 **1013.7** Regional Genioglossus EMG Highlights Persistent Daytime Activation in OSA **J.R. Vranish and E.F. Bailey**. Univ. of Arizona.
- B682 **1013.8** Coordination of the Respiratory Muscles in Hypercapnic and Hypoxic Environments **S. Jenkin and W.K. Milsom**. Univ. of British Columbia.

1014. LUNG BIOLOGY: AIRWAY EPITHELIAL CELL BIOLOGY

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B683 **1014.1** Role of Mucin 5ac in Murine Airways **H-Y. Cho, L. Miller-DeGraff, S. Park, H-C. Lao, R. Langenbach and S.R. Kleeberger**. NIEHS, NIH, Research Triangle Park.
- B684 **1014.2** Aeroallergens Derived from *Alternaria alternata* Stimulate COX2-Dependent Expression of Antioxidant Defense Enzymes in Human Bronchial Epithelial Cells **N. Patil, P.J. Maniak, H. Kita and S.M. O'Grady**. Univ. of Minnesota and Mayo Clin.
- B685 **1014.3** Tight Junction Protein Expression and Junction Development during Differentiation of Normal Human Bronchial Epithelial Cells **N.A. Zaidman, A. Panoskaltsis-Mortari and S.M. O'Grady**. Univ. of Minnesota, St. Paul and Univ. of Minnesota, Minneapolis.
- B686 **1014.4** Hyperglycaemia Elevates Epithelial Lactate Secretion and Alters pH of Airway Surface Liquid **J.P. Garnett, E.H. Baker and D.L. Baines**. St George's Univ. of London.
- B687 **1014.5** Na⁺ Transport by Small Airway Surface Epithelia **N. Greshchenko, X. Luan and J. Janowski**. Univ. of Saskatchewan.

1015. LUNG BIOLOGY: ERAD, AUTOPHAGY, AND MITOPHAGY: CELLULAR QUALITY CONTROL IN THE LUNG

Poster

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B688 **1015.1** The Unfolded Protein Response Regulates Apoptosis of Alveolar Epithelial Cells by Modulating Autocrine Angiotensin (ANG)II and ANG1-7 **H. Nguyen, M. Dang, S. Ono, K. Morimoto and B.D. Uhal**. Michigan State Univ. and Nagasaki Univ.
- B689 **1015.2** Alveolar Type II Cells from Mice Expressing a Lung Disease-Associated *ABCA3 E292V* Mutation Exhibit Alterations in Organellar Homeostasis and Autophagy **S. Mulugeta, Y. Tomer, M. Zhao, L.K. Gonzales, S.J. Russo and M.F. Beers**. Univ. of Pennsylvania.
- B690 **1015.3** Mitochondria Homeostasis Plays a Key Role in the Age-Related Susceptibility to Lung Epithelial Injury and Fibrosis **M. Bueno, Y-C. Lai, Y. Romero, J. Brands, C. St. Croix, M. Rojas, S. Shiva, C.T. Chu and A.L. Mora**. Univ. of Pittsburgh and UNAM, Mexico City.
- B691 **1015.4** Effects of Endoplasmic Reticulum Stress on Epithelial Injury and Fibrosis in Alveolar Epithelial Type II Cell (AT2)-Specific Grp78 Knockout Mice **B. Zhou, P. Flodby, H. Wang, Y. Liu, P. Minoo, E. Crandall, A. Lee and Z. Borok**. Univ. of So. California.
- B692 **1015.5** Protein Quality Control in Alveolar Type 2 Cells: The Proteasome Is Essential for Control of Aggregation-Prone SP-C Mutations **A. Hawkins, L.W. Gonzales, S.H. Guttentag, S. Mulugeta and M.F. Beers**. Univ. of Pennsylvania and Vanderbilt Univ.
- B693 **1015.6** Akt-Mediated Mitochondrial Oxidative Stress Induces Mitophagy and Development of Pulmonary Fibrosis **J.L. Casey, A.J. Ryan, S. Murthy and A.B. Carter**. Univ. of Iowa and Iowa City VA Ctr.
- B694 **1015.7** The Lung Macroautophagy Substrate Proteome: A Systems Biology Analysis **J. Haspel, S. Chettimada, B. Lane and A. Choi**. Washington Univ. Sch. of Med.; Dana-Farber Cancer Ctr. and Harvard Univ.

1016. LUNG PHYSIOLOGY: ALVEOLAR FUNCTION AND BIOMECHANICS**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B695 **1016.1** Alveolar Overdistension Does Not Occur Even at Very High Airway Pressure **S.V. Jain, M. Kollisch-Singule, L.A. Gatto, G. Nieman and N. Habashi.** SUNY Upstate Med. Univ. and R Adams Cowley Shock Trauma Ctr., Baltimore.
- B696 **1016.2** Lung Lining Interaction Determines the Fate of Multi-walled Carbon Nanotubes in Vivo **D.J. Botelho, M. Shaffer, A. Porter, K.F. Chung, T.D. Tetley, J. Zhang and A.J. Gow.** Rutgers Univ., Piscataway; Imperial Col. London and Duke Univ.
- B697 **1016.3** The Hydrophobic Surfactant Proteins Strongly Induce Lipid Curvature **S.B. Hall, M. Chavarha, R.W. Loney and S.B. Rananavare.** Oregon Hlth. & Sci. Univ. and Portland State Univ.
- B698 **1016.4** Structural and Functional Modeling of Chronic Lung Inflammation: Loss of Function Mechanisms **T.N. Golden, C.B. Massa, M. Rusu, H. Wang, A. Madabhushi and A.J. Gow.** Rutgers Univ., Piscataway and Case Western Reserve Univ.

1017. LUNG PHYSIOLOGY: DEVELOPMENT AND PLASTICITY**Poster**

TUES. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALLS A & B

Presentation time: 12:45 PM–3:00 PM

- B699 **1017.1** Bronchopulmonary Dysplasia-Associated Pulmonary Hypertension and Mutations in the *DDAH1* Gene **J.K. Trittman, J.M. Gastier-Foster, V.J. Vieland, M.A. Klebanoff, L.G. Chicoine and L.D. Nelin.** Nationwide Children's Hosp. and The Ohio State Univ.
- B700 **1017.2** TAZ Activation Drives Fibroproliferation in Spheroid Culture **A.J. Jorgenson, K.M. Choi, D.G. Sicard and D.J. Tschumperlin.** Mayo Clin.
- B701 **1017.3** Mice Deficient in the Src Family Tyrosine Kinase *yes* Are Protected from Hyperoxia-Induced Lung Injury **L.D. Nelin, Y. Jin, Y. Liu, L.G. Chicoine and B. Chen.** Nationwide Children's Hosp. and The Ohio State Univ.
- B702 **1017.4** Maternal Tobacco Smoke Exposure Alters Elastin Splicing at Exon 7 and 34 in the Lung of Rat Pups **A. Sainz, C. Zou, J. Zhao, Y. Wang, K. Albertine and L. Joss-Moore.** Univ. of Utah.
- B703 **1017.5** Feasibility of Stent Fracture and Expansion in the Palliation of Branch Pulmonary Artery Stenosis **M. Bates, K. Hembrook, J. Smith, P. Anagnostopoulos and L. Lamers.** Univ. of Iowa and Univ. of Wisconsin-Madison.
- B704 **1017.6** Long-Term Differences in Lung Morphology in a Rat Model of Bronchopulmonary Dysplasia **T. Shuster, K. Haraldsdottir, A. Kleinertz and M. Eldridge.** Univ. of Wisconsin-Madison.

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Experimental Therapeutics (ASPET)

WEDNESDAY, APRIL 1

Pathology

1018. REGENERATIVE MEDICINE AND STEM CELLS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 11:45 AM—1:45 PM

W300 **1018.1** Identification of Novel Interferon Stimulated Genes in Differentiated Hepatocytes Differentiated **D. Contreras, J. Ignatius Irudayam, R. Songyang, Q. Nguyen, S. French, V. Funari and V. Arumugaswami.** Cedars-Sinai and UCLA.

W301 **1018.2** Effects of Negative Pressure Wound Therapy and Elastomeric Materials on Bone Healing **R. Wang and W.D. Wagner.** Virginia Tech – Wake Forest Univ.

W302 **1018.3** Mesenchymal Stem Cell Exosomes – Potential Regenerative Medicine Application for Tendinopathy **J.W. Ludlow and B. Buehrer.** Zen Bio Inc., Research Triangle Park.

W303 **1018.4** Nuclear Reprogramming with Hindbrain Patterning Genes by Nanochannel Electroporation **C. Czeisler, D. Gallego-Perez, C. Ortiz, P. Gygli, C. Askwith, L.J. Lee and J.J. Otero.** The Ohio State Univ. Col. of Med. and Col. of Engin.

W304 **1018.5** Ethanol Affects the Progression of Planarian Head Regeneration in a Time-Dependent Manner **L. Hanna, J. McGee, D. Srinivasan and M. Staehle.** Rowan Univ., NJ and Rochester Inst. of Technol.

Pharmacology

1019. DRUG ABUSE: NICOTINE, OPIOIDS, CANNABINOIDS, ETC.

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:30 PM

W305 **1019.1** GPR171, a Newly Deorphanized Hypothalamic G Protein-Coupled Receptor Is Involved in the Regulation of Reward-Related Behaviors **E.N. Bobeck, I. Gomes, W. Fujita and L.A. Devi.** Icahn Sch. of Med. at Mount Sinai.

W306 **1019.2** Characterization of Noribogaine at nAChRs and Effect on Nicotine Self-Administration in Rats **E.L. Maillet, C. Qing, N. Milon, T. Hanania, M.D. Heghinian, N. Garamszegi and D.C. Mash.** DemeRx Inc., Miami and Psychogenics Inc., Tarrytown, NY.

W307 **1019.3** The Discriminative Stimulus Effects of Nicotine, Epibatidine, and Varenicline in Mice: Involvement of $\beta 2$ Containing Nicotinic Acetylcholine Receptor Subtypes **F.B. Moura and L.R. McMahon.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

W308 **1019.4** Drug Discrimination in (+)-Epibatidine-Trained Monkeys: Agonists and Antagonists Effects of Nicotinic Drugs **R.I. Desai, M.R. Doyle and J. Bergman.** Harvard Med. Sch., McLean Hosp., Belmont.

W309 **1019.5** Characterization of a Nicotine Discriminative Stimulus in Rhesus Monkeys **M.J. Moerke and L.R. McMahon.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.

W310 **1019.6** Investigation of Sex Differences in Neurotensin following Nicotine Self-Administration **S.T. Pittenger, M.D. Smith, A.J. Hoonakker, G.R. Hanson, A.E. Fleckenstein and R.A. Bevins.** Univ. of Nebraska-Lincoln and Univ. of Utah.

W311 **1019.7** Inhibition of Phosphodiesterase-4 by Roflumilast Decreases Ethanol Consumption **H-T. Zhang, X. Liu, P-d. Hao, M-f. Yang, D-w. Li, Z-y. Zhang and B-l. Sun.** Taishan Med. Univ., China and West Virginia Univ. Sch. of Med.

W312 **1019.8** Female Rats Are More Sensitive to Enhanced Reinstatement of Alcohol Seeking following Exposure to Both Alcohol-Related Cues and Yohimbine **M.L. Bertholomey and M.M. Torregrossa.** Univ. of Pittsburgh.

W313 **1019.9** Effect of Dopamine D1 Receptor Activation on Extinction of Morphine CPP **K. Kobrin, D. Arena, S. Heinrichs and G. Kaplan.** VA Boston Healthcare Syst. and Boston Univ.

W314 **1019.10** Effects of Traumatic Brain Injury on Oxycodone Self-Administration in Rats **N.B. Varshneya, C.L. Floyd, N.L. Day, T. Niedzielko, K.L. Shelton and K.L. Nicholson.** Virginia Commonwealth Univ. and Univ. of Alabama at Birmingham.

W315 **1019.11** Discriminative Stimulus Effects of Naltrexone in Rats with Limited Access to Sucrose **D. Jewett, K. Twaroski, M. Barlow, H. Badzinski, B. Pagel and A. Levine.** Univ. of Wisconsin-Eau Claire and Univ. of Minnesota.

W316 **1019.12** Effect of GABA_A Partial Inverse Agonists on Drug-Facilitated ICSS Reward **M.E. Tracy and K.L. Shelton.** Virginia Commonwealth Univ.

W317 **1019.13** Pregnenolone Sulfate as a Modulator of Synaptic Plasticity **K. Sugunan, R. Singh, R.M. Badolato, S.S. Shetty, M. Zambrano, K.E. Duval, J.M. Adams, J.I. Luebke, V. Kumaresan and D.H. Farb.** Boston Univ. Sch. of Med.

W318 **1019.14** Adolescent Delta-9-Tetrahydrocannabinol Pre-exposure Fails to Attenuate Adulthood Place and Taste Avoidance **A.G.P. Wakeford, S.M. Flax, R.L. Pomfrey and A.L. Riley.** American Univ.

W319 **1019.15** The Effects of Norbinaltorphimine Preexposure on THC-Induced Place and Taste Avoidance in Sprague-Dawley Rats **S.M. Flax, A.G.P. Wakeford, K.C. Rice and A.L. Riley.** American Univ. and NIDA, NIH.

W320 **1019.16** Evaluation of FAAH- and MGL-Inhibition in Cannabinoid Drug Discrimination **M.Z. Leonard, B.D. Kangas, A. Makriyannis, S.P. Nikas, V.G. Shukla, S.O. Alapafuja and J. Bergman.** McLean Hosp., Harvard Med. Sch. and Northeastern Univ.

1020. ALCOHOL AND LIPID BIOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM—2:30 PM

W321 **1020.1** Cocaine-Induced Lipidomic Alterations in Human Blood for the Study of Addictive Behaviors **S. Pati, S. Sahin, J.J. Wagner, M. Furnari, K.A. Phillips, D.H. Epstein, K.L. Preston and B.S. Cummings.** Univ. of Georgia; Univ. of Cumhuriyet, Turkey and NIDA, NIH, Baltimore.

W322 **1020.2** Effect of Cocaine and p21 on the Blood Lipidome **N.E. Scholpa, S. Sahin, J.J. Wagner and B.S. Cummings.** Univ. of Georgia and Univ. of Cumhuriyet, Turkey.

W323 **1020.3** Mechanism of Impaired Lipid Homeostasis in MCP1-Deficient Mice **J. Sedinkin and Y. Chang.** A.T. Still Univ.- Kirksville Col. of Osteo. Med.

W324 **1020.4** FGF21 Mediates Alcohol-Induced Adipose Tissue Lipolysis by Activation of Systemic Release of Catecholamine in Mice **C. Zhao, L. Liu, M. Mohammadi, C. McClain and W. Feng.** Univ. of Louisville and NYU Lagone.

W325 **1020.5** An Altered Pattern of Neurotransmitter Receptor Expression Emerges during Adolescent Alcohol Consumption **D.E. Rhoads, P. Bolewska, M. Hodges, B. Martin, M. Mauterer and K. Orlando.** Monmouth Univ., NJ.

W326 **1020.6** Chronic-Binge Alcohol-Induced Hepatic Injury and Inflammation Were Ameliorated in Mice Deficient for Transient Receptor Potential Vanilloid 1 Gene **I. Kirpich, K.C. Falkner, J. Beier, G. Arteel and C. McClain.** Univ. of Louisville.

W327 **1020.7** Sex- and Drinking History Dysregulate ω -3 and ω -6 Pathways during the Onset of Liver injury in Very Heavy Drinking Alcohol Dependents **M. Song, V. Vatsalya, M. Schwandt, S. Barve, M. Cave, D. George and C. McClain.** Univ. of Louisville and NIAAA, NIH.

W328 **1020.8** Lipid-Derived Aldehyde, Acrolein, Is a Critical Mediator of Alcohol-Induced Gut-Liver Injury in Alcoholic Liver Disease **W-Y. Chen, J. Zhang, S. Barve, C. McClain and S. Joshi-Barve.** Univ. of Louisville and Robley Rex VA Med. Ctr.

W329 **1020.9** Acute Alcohol Treatment and Cardiac Dysfunction in Obese Diabetic Mice: Role of PDE5 and MicroRNA-21 **A. Samidurai, F.N. Salloum, L. Xi, A. Das and R.C. Kukreja.** Virginia Commonwealth Univ.

W330 **1020.10** Micelle Sequestrant Polymers as Novel Therapeutics to Treat Obesity **B.P. Sullivan, J. Qian and C. Berkland.** Univ. of Kansas.

1021. ION CHANNEL PHARMACOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM—2:30 PM

W331 **1021.1** Characterization of Neurons Derived from a Human Induced Pluripotent Stem Cell Line Using Patch-Clamp Electrophysiology **K.L. Metz, W.S. Cao, L. Coyne and R.F. Halliwell.** Univ. of Pacific Sch. of Pharm. and California Northstate Col. of Pharm.

W332 **1021.2** Activation of Voltage-Gated Sodium Channels with Brevetoxin-2 (PbTx-2) Increases Dendritic Spine Density in Murine Organotypic Hippocampal Slice Culture **D.A. Gomez and T. Murray.** Creighton Univ.

W333 **1021.3** Regulation of the Sodium-Activated Potassium Channel Slack by MAGI-1 **K. Pryce, D. Agwa, D. Tomasello and A. Bhattacharjee.** SUNY at Buffalo.

W334 **1021.4** Effect of Small/Intermediate Conductance Ca^{2+} Activated K^{+} Channel Opener on Myogenic Differentiation in C2C12 Myoblasts **K. Sakamoto, S. Tanaka and J. Kimura.** Fukushima Med. Univ. Sch. of Med.

W335 **1021.5** The Role of Voltage-Operated Calcium Channels in Astrocyte Reactivity **J. Smith and P. Paez.** Hunter James Kelly Res. Inst., Buffalo.

W336 **1021.6** Single-Cell Calcium Imaging of RFP Labeled Interneurons in the Neocortex of Tbr1-Deficient Neonatal mice **C.R. Easton, W.J. Moody, F. Kalume and R.F. Hevner.** Seattle Children's Res. Inst. and Univ. of Washington.

W337 **1021.7** Discovery and Characterization of Novel BK_{Ca} Channel Modulators Using a New Cell-Based Assay Platform **S. Lee, B-C. Lee and C-S. Park.** Gwangju Inst. of Sci. and Technol., South Korea and Weill Cornell Med. Col.

W338 **1021.8** Molecular Basis of pH Sensitivity of Orai1/Stim1 Channels **Z. Yue, H. Tsujikawa, J. Xie, W. Yang and L. Yue.** Univ. of Connecticut Sch. of Med. and Juntendo Univ., Japan.

W339 **1021.9** Targeting the Transient Receptor Potential-Melastatin-Like 7 Kinase Domain with the First Inhibitor, Inhibited Breast Cancer Cell Migration, Invasion and Tumor Metastasis **T.S. Kaoud, X. Xie, J. Park, C.D.J. Tavares, S. Mitra, M. Cano, C-C. Tseng, M.F. Radwan, C. Bartholomeusz and K.N. Dalby.** Col. of Pharm., Univ. of Texas at Austin; Fac. of Pharm., Minia Univ., Egypt; MD Anderson Cancer Ctr. and Fac. of Pharm., King Abdulaziz Univ., Saudi Arabia.

W340 **1021.10** Celecoxib and Cardiac Abnormalities: A Biostatistical Analysis of Adverse Side Effects **K. Rusnak, G. Roloff and S. Singh.** Sch. of Med. and Biomed. Sci., Univ. at Buffalo.

1022. NOVEL DRUG TARGETS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:30 PM

- W341 **1022.1** Synthetic Membrane Anchored Ligands: An Innovative Approach to Drug Discovery **B.N. Harwood, J.R. Doyle, J.-P. Fortin, V.S. Raman, S.T. Krishnaji, K. Kumar and A.S. Kopin.** Tufts Med. Ctr. and Tufts Univ.
- W342 **1022.2** New Selective Peptidyl Di(Chlorophenyl)-Phosphonate Esters to Visualize and Block Neutrophil Proteinase 3 in Human Diseases **C. Guarino, M. Legowska, D.E. Jenne, A. Lesner, F. Gauthier and B. Korkmaz.** INSERM U1100, Tours; Univ. of Gdansk, Poland and Inst. of Lung Biology and Dis. (iLBD)
- W343 **1022.3** Novel Peptides that Block the Interaction between Wnt and Frizzled **K.C.M. Hermans, A.I. Fernández-Llamazares, N. Dailly, W.M. Blankesteijn and P. Timmerman.** Maastricht Univ. and Pepscan Therapeut., Lwlystad, Netherlands.
- W344 **1022.4** Biochemical and Pharmacological Characterizations of ESI-09-Based EPAC Inhibitors **Y. Zhu, H. Chen, F. Mei, J. Zhou and X.C. Cheng.** Univ. of Texas Hlth. Sci. Ctr., Houston and Univ. of Texas Med. Branch.
- W345 **1022.5** GPSM3 as a Therapeutic Target for Rheumatoid Arthritis **B.J. Gall, V. Setola, C. Watkins and D.P. Siderovski.** West Virginia Univ.
- W346 **1022.6** Identification of Polysulfonated Inhibitors that Target Dual Specificity Phosphatase 5 and Provide New Insights into the Binding Requirements for Dual-Phosphate Substrate Pockets **R. Bongard, T. Neumann, E. Span, K. Kalous, A. Gastonguay, R. Kuttly, J. Nayak, M. Lepley, C. Bohl, R. Lange, M. Sarker, M. Talipov, R. Rathore, R. Ramchandran and D. Sem.** Sch. of Pharm., Concordia Univ. Wisconsin; Med. Col. of Wisconsin and Marquette Univ.
- W347 **1022.7** Methylation of Thiols and Thioethers by Human Indolethylamine-N Methyl Transferase **U.B. Chu, T. Mavlyutov, A. Schulman, E.M. Baker, R.E. Raj, M.E. Epstein, L. Guo and A.E. Ruoho.** Univ. of Wisconsin-Madison.
- W348 **1022.8** Shielding of a Non-glycosylation-Dependent Strong Interaction between MMP-9 and Calreticulin by N-Glycosylation Allows Efficient Secretion of MMP-9 **T. Duellman, J. Burnett and J. Yang.** Univ. of Wisconsin-Madison Sch. of Med. and Publ. Hlth.

1023. GENERAL TOXICOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:30 PM

- W349 **1023.1** Teratogenic Effects of Some Commonly Used Medicinal Plants on the Cardiovascular System **G.O. Afolayan, O.O. Afolayan, O. Awodele, E.O. Agbaje, S. Kumar, R.H. Klingler, K.R. Svoboda and M.J. Carvan III.** Univ. of Lagos; Ekiti State Univ., Nigeria; Med. Col. of Wisconsin and Univ. of Wisconsin-Milwaukee.
- W350 **1023.2** Effects of Aqueous Extracts of the Leaves of *Millettia aboensis* on the Liver of Wistar Albino Rats **B.M. Onyegeme-Okerenta.** Univ. of PortHarcourt, Nigeria.
- W351 **1023.3** Toxicological Study of β -HPC and Innovative Potential Drug for Metabolic Syndrome **B. Mendoza-Rivera, J. Reyes-Esparza, R. De la Cruz-Codero and L. Rodriguez-Fragoso.** Autonomous Univ. of State of Morelos, Cuernavaca and Nucitec SA de CV, Queretaro, Mexico.
- W352 **1023.4** Systems Biology Tools and Data for a Better Understanding of Mechanisms of Toxicity **S. Boue.** Philip Morris Intl., Neuchâtel, Switzerland.
- W353 **1023.5** Serotonin 5-HT_{2C} Receptor of the Rat Detrusor Muscle: Evaluation of the Atypical Antipsychotics Olanzapine and Ziprasidone on the Isolated Rat Detrusor Muscle **M.A. Morris, M. Gossell-Williams and C. Nwokocha.** Univ. of the West Indies at Mona, Jamaica.
- W354 **1023.6** Cadmium Levels in Maternal and Cord Blood and Anthropometric Parameters of Newborns in Nnewi, South-Eastern Nigeria **E. Obi, P.U. Agbasi, O.E. Orisakwe and J. Nriagu.** Nnamdi Azikiwe Univ.; Fed. Univ. Technol., Owerri; Univ. of Portharcourt and Univ. of Michigan.
- W355 **1023.7** Inhibitory Effects of Leishmanial Sphingolipid on Endotoxin-Induced Macrophage Activation and Sepsis-Associated Inflammatory Injury **S. Das and K. Das Saha.** CSIR-Indian Inst. of Chem., Kolkata.
- W356 **1023.8** A New Co-micronized Composite Including Palmitoylethanolamide and Polydatin Shows a Superior Efficacy Compared to the Simple Association on In Vivo and In Vitro Models of Inflammation. **R. Siracusa, G. Bruschetta, D. Impellizzeri, E. Esposito and S. Cuzzocrea.** Univ. of Messina and Saint Louis Univ.
- W357 **1023.9** Urodynamic Measurement of Urethral Closure Function in Women with Stress Urinary Incontinence: A Single Dose Study of Duloxetine **M. Yono, M. Otani, K. Ito, Y. Inoue, K. Furukawa, M. Hori, S. Tsuji, T. Tanaka, Y. Sakata, S. Irie and J. Latifpour.** Nishi-Kumamoto Hosp., Med. Co. LTA; Sumida Hosp., Med. Co. LTA, Tokyo and Yale Univ. Sch. of Med.
- W358 **1023.10** Comparison of LOCI Digoxin Assay and iDigoxin Assay for Rapid Detection of Convallatoxin, the Active Glycoside of the Lily of the Valley Plant **J.M. Everett, Y.A. Kojima and A. Dasgupta.** Univ. of Texas, Hlth. Sci. Ctr., Houston.

- W359 **1023.11** Medication Use by U.S. Crewmembers on the International Space Station **V. Wotring**. Univs. Space Res. Assn. and NASA Johnson Space Ctr.
- W360 **1023.12** How Physically Active are Statin Users? The Polish Norwegian Study **S.S. Vansal, G.D. Vaidean and M. Manczuk**. Fairleigh Dickinson Univ. Sch. of Pharm.; Icahn Sch. of Med. at Mount Sinai and Maria-Sklodowska-Curie Mem. Cancer Ctr. and Inst., Warsaw.

1024. OCULAR TOXICITY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:30 PM

- W361 **1024.1** Perforating Corneal Injury in Rat and Pentadecapeptide BPC 157 **S. Masnec, A. Kokot, M. Zlatar, M. Kalauz, B. Radic, R. Klicek, D. Drmic, R. Lazic, S. Seiwerth and P. Sikiric**. Zagreb Univ. Hosp. Ctr. and Sch. of Med., Univ. of Zagreb, Croatia.
- W362 **1024.2** Involvement of Prostaglandins in the Pharmacological Actions of L-Cysteine in Ocular Tissues **O. Nguyen, J. Robinson, L. Mitchell, C. Opere, S.E. Ohia and Y.F. Njie-Mbye**. Texas Southern Univ. and Creighton Univ.
- W363 **1024.3** Mechanism of Action in NaHS-Induced Increase in Aqueous Humor Outflow **J. Robinson, E. Okoro, L. Mitchell, O. Nguyen, C. Opere, S.E. Ohia and Y.F. Njie-Mbye**. Texas Southern Univ. and Creighton Univ.
- W364 **1024.4** Effect of L-Cysteine on Glutamate-Induced Excitotoxicity in Bovine Neural Retina **L. Mitchell, O. Fasiku, J. Robinson, C. Opere, S.E. Ohia and Y.F. Njie-Mbye**. Texas Southern Univ. and Creighton Univ.
- W365 **1024.5** Assessment of Active Metabolites of Levobunolol and Betaxolol in Rat, Rabbit and Human Ocular and Liver S9 Fractions **J.L. Bushee, U.A. Argikar and C.E. Dunne**. Novartis and Colorado State Univ.
- W366 **1024.6** Atropine-Mydriasis NO-System Dependent, L-NAME-Miosis, L-Arginine-Miosis, and Counteraction by Stable Gastric Pentadecapeptide BPC 157, in Living Rats **A. Kokot, M. Zlatar, M. Stupnisek, D. Drmic, R. Radic, S. Seiwerth and P. Sikiric**. Fac. of Med., J.J. Strossmayer Univ. of Osijek and Sch. of Med., Univ. of Zagreb, Croatia.

1025. CARDIAC PHARMACOLOGY – SIGNALING

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:30 PM

- W367 **1025.1** Calibration of an in silico Human Ventricular Action Potential Model to Detect Proarrhythmic Liabilities **J. Green, J.D. Sutherland and G. Gintant**. AbbVie, North Chicago.
- W368 **1025.2** Identification of Protein Complexes in mAkap Signalosome by Mass Spectrometry **S. Suryavanshi, S. Singh, S. Bark and B. McConnell**. Univ. of Houston.
- W369 **1025.3** Absence of Gravin Scaffolding to the β_2 -AR Protects against Heart Failure and Its Protective Effects Are Additive to Carvedilol Treatment Alone **S. Singh, S. Suryavanshi, A. Diaz Diaz and B. McConnell**. Univ. of Houston.

- W370 **1025.4** Cardiac Myocyte-Specific Overexpression of Caveolin-3 Enhances Physiological Response to β -Adrenergic Receptors **A.R. Busija, J.M. Schilling, D.M. Roth, P.A. Insel and H.H. Patel**. UCSD.
- W371 **1025.5** The Role of Cross-Links between Endoplasmic Reticulum Stress, Oxidative Stress and Mitochondrial Dysfunction in Cardiomyocytes and H9c2 Cells under Hyperglycemia **G. Hafez, E. Tuncay, A. Toyoda and B. Turan**. Ankara Univ. Fac. of Med.
- W372 **1025.6** Buthionine Sulfoximine, an Inhibitor of Glutathione Biosynthesis, Induces Expression of Soluble Epoxide Hydrolase and Cellular Hypertrophy Markers in a Rat Cardiomyoblast Cell Line: Roles of the NF- κ B and MAPK Signaling Pathways **G. Abdelhamid and A. El-Kadi**. Univ. of Alberta.
- W373 **1025.7** Metabolism of Serotonin in Mouse and Human Heart **J. Neumann, F. Jung, U. Gergs, B. Hofmann, A. Simm and R-E. Silber**. Med. Sch., Halle, Germany.
- W374 **1025.8** Biventricular Differences in β -Adrenergic Receptor Signaling following Burn Injury **A.N. Guillory, A. El Ayadi, R.C. Mifflin, D.N. Herndon and C.C. Finnerty**. Univ. of Texas Med. Branch.
- W375 **1025.9** Insulin Attenuates Cardiac Myocyte Contractility via NADPH Oxidase: Implications for Diabetic Cardiomyopathy **J.L. Sartoretto, B.S. Steinhorn, N. Romero, H. Kalwa and T. Michel**. Brigham and Women's Hosp., Harvard Med. Sch.
- W376 **1025.10** Role of Calcium Sensitivity of Troponin C in the Development of Dilated Cardiomyopathy **S.B. Tikunova, S. Singh, Q. Fan, A. Hernandez, J. Portillo and B.K. McConnell**. Univ. of Houston.
- W377 **1025.11** Divergent Effects for Celecoxib and Diclofenac on Hemodynamic and Left Ventricular Actions of Cyclosporine in Female Rats **K.S. Ibrahim, A.F. El-Yazbi, H.M. El-Gowell and M.M. El-Mas**. Fac. of Pharm., Alexandria Univ., Egypt.
- W378 **1025.12** Novel Roles for Catestatin in Cardiac Metabolism and Physiology **J.M. Schilling, T. Pasqua, E. Avolio, A.E. Zemljic-Harpf, J.P. Headrick, A. Kassin, G. Bandyopadhyay, D.M. Roth, H.H. Patel and S.K. Mahata**. UCSD; VA San Diego Healthcare Syst. and Griffith Univ., Australia.
- W379 **1025.13** Neuronal Na⁺ Channels as a Novel Cardiac Antiarrhythmic Target **P. Radwanski, L. Brunello, B. Knollmann and S. Gyorke**. The Ohio State Univ. and Vanderbilt Univ. Sch. of Med.
- W380 **1025.14** Molecular Mechanisms of Electroacupuncture-Induced Cardioprotection **A.E. Roessler, X. Ren, K. Luther and W.K. Jones**. Loyola Univ. Chicago, Maywood and Harbin Med. Univ., China.
- W381 **1025.15** Helium Postconditioning Regulates Caveolin-1/-3 Translocation and Gene Expression **M. Flick, G.T.M.L. Oei, M. Albrecht, M.W. Hollmann, B. Preckel, H.H. Patel and N.C. Weber**. Acad. Med. Ctr., Amsterdam; Dept. of Neurosurg., Campus Kiel and UCSD.
- W382 **1025.16** EHD2 Stabilizes the Surface Expression of Cardiac K_{ATP} Channels and Protects against Ischemic Injury **M. Foster, K. Jana, L. Bergman, E. Pennegård, M. Ördberg, T. Neubert and W. Coetzee**. NYU Sch. of Med.

W383 **1025.17** Targeting MicroRNA to Upregulate Cardioprotective Heat Shock Proteins **K. Luther, L. Haar, F. Mallick and W.K. Jones.** Loyola Univ. Chicago, Maywood and Univ. of Cincinnati.

W384 **1025.18** Deletion of Soluble Epoxide Hydrolase Modulates Coronary Reactive Hyperemia in Isolated Mouse Heart **A. Hanif, D.C. Zeldin and M.A. Nayeem.** West Virginia Univ.

1026. CARDIOVASCULAR ISCHEMIA AND REPERFUSION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM—2:30 PM

W385 **1026.1** Preservation of Coronary Vasodilator Responses to the Nitroxyl Donor Angeli's Salt after Ischemia/Reperfusion of the Rat Isolated Heart **K.Y. Chin, L. Michel, C. Qin, R.H. Ritchie and O.L. Woodman.** Sch. of Med. Sci., RMIT Univ., Australia and Baker IDI Heart & Diabetes Inst., Melbourne.

W386 **1026.2** Effects of Dynamin-Related Protein-1 Inhibition with MDIVI-1 on Myocardial Injury, Mitochondrial Respiration and Stress-Signaling in the Murine Heart **L. Wendt, L.E. See Hoe, K. Sachaphibulkij, E.F. Du Toit, J.N. Peart and J.P. Headrick.** Griffith Univ., Australia.

W387 **1026.3** Effects of Palmitoylethanolamide and Silymarin Combination Therapy in an Animal Model of Kidney Ischemia and Reperfusion **G. Bruschetta, D. Impellizzeri, R. Siracusa, R. Di Paola, I. Paterniti, M. Prosdociami, E. Esposito and S. Cuzzocrea.** Univ. of Messina; Prismic Pharmaceut., and Saint Louis Univ.

W388 **1026.4** Unacylated Ghrelin Protects Hearts of Mice Subjected to Myocardial Ischemia/Reperfusion **D.N. Huynh, V.L. Bessi, L. Ménard, C. Noll, A.C. Carpentier, H. Ong and S. Marleau.** Univ. of Montreal and Univ. of Sherbrooke, Canada.

W389 **1026.5** Cardioprotection by Poloxamer 188 Is Mediated by Nitric Oxide Synthase **M.M. Salzman, Q. Cheng, T. Matsuura, D. Yannopoulos and M.L. Riess.** Vanderbilt Univ. Med. Ctr.; TVHS VA Med. Ctr., Nashville and Univ. of Minnesota, Minneapolis.

W390 **1026.6** The Cardioprotective Effect of Dexamethasone through Activation of RISK Pathway **Y. Ma, J. Wang, G. Techiryan, W. Sun, Y. Wang and J. Li.** Univ. at Buffalo, SUNY.

W391 **1026.7** TUG Mediates GLUT4 Translocation by AMP-Activated Protein Kinase in the Heart **Y. Ma, J. Wang, Y. Wang, J. Bogan and J. Li.** Univ. at Buffalo and Yale Univ.

W392 **1026.8** Regulator of G Protein Signaling Protein 6 Protects the Heart from Ischemic Injury **B.R. Rorabaugh, N.W. Mabe, S.L. Seeley, A. Bui, J. Yang, R.R. Neubig and R.A. Fisher.** Ohio Northern Univ. Col. of Pharm.; Univ. of Iowa Col. of Med. and Michigan State Univ.

W393 **1026.9** The Yin and Yan of Adenosine A₁ and A_{2A} Receptors in Global Cerebral Ischemia Reperfusion Injury **R.M. Atef, A.M. Agha and N.N. Nassar.** Fac. of Pharm., Cairo Univ.

1027. ORGAN PHARMACOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM—2:30 PM

W394 **1027.1** Systems Pharmacology Guided Platform Development for the Integrated Microphysiological Systems **J. Yu, M. Cirit, R. Carrier, K. Chen, N. Cilfone, J. Coppeta, L. Griffith, D. Hughes, E. Large, D. Lauffenburger, A. Lever, M. Mescher, R. Prantil-Baun, U. Sarkar, C. Stokes, S. Tannenbaum and J. Wishnok.** MIT; Charles Stark Draper Lab., Cambridge, MA; CN BIO Innovations, U.K. and Northeastern Univ.

W395 **1027.2** Slow Gastric Tube Infusion as an Approach for Assessment of Controlled Release in Rodents **K. Small, G. Lieber, T. Bateman, J. Ormes, X. Shen and J. Madwed.** Merck Res. Labs, Kenilworth, NJ.

W396 **1027.3** The Role of Cilia in the Regulation of Olfactory Horizontal Basal Cells **A.M. Joiner, W.W. Green, J.C. McIntyre and J.R. Martens.** Univ. of Michigan and Univ. of Florida.

W397 **1027.4** Effect of Small Chemicals like N-Methyl Pyrrolidone on the Orchestration of Bone Remodeling by Osteocytes **B.M. Siegenthaler, C. Ghayor and F.E. Weber.** Univ. Hosp. Zurich.

W398 **1027.5** PARP Inhibition Blocks Asthma Manifestation in a Chronic House Dust Mite Asthma Model and Differentially Modulates Human CD4⁺T Cell Function **M.A. Ghonim, A.S. Naura, K. Pyakurel, M. Lammi, P. Rodriguez, S.V. Ibba, A. Al-Khami, A. El-Bahrawy, H. Rady, A. Zea, M.S. Mansy, A. Ochoa and H.A. Boulares.** LSU Hlth. Sci. Ctr., New Orleans and Fac. of Pharm., Al-Azhar Univ., Egypt.

W399 **1027.6** IWP-427, an sGC Stimulator, Has Cardioprotective Effects in the Monocrotaline Model of Pulmonary Hypertension **S. Jacobson, K. Tang, K. Long, P. Germano, J. Tobin, J. Sheppeck, T. Nakai and J. Masferrer.** Ironwood Pharmaceut., Cambridge, MA.

W400 **1027.7** Chronic Allergic Pulmonary Inflammation Is Aggravated in Angiotensin-(1-7) Mas Receptor Knockout Mice **G.S. Magalhaes, M.G. Rodrigues-Machado, D. Motta-Santos, L.S. Barcelos, R.A. Santos and M.J. Campagnole-Santos.** Fed. Univ. of Minas Gerais, Brazil.

Physiology

1028. HISTORY OF PHYSIOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W1 **1028.1** Unholy Fire: Discovering Michael Servetus' Contribution to Pulmonary Physiology through Modern Historical Fiction **S.P. Didion**. Univ. of Mississippi Med. Ctr.

1029. BIOMEDICAL ENGINEERING

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W2 **1029.1** A Simulated Cell Reprogramming from a Pharmacological Perspective **M. Nadal-Quiros, L.C. Moore and M. Marcano**. Univ. of Puerto Rico and Stony Brook Univ. Med. Ctr.
- W3 **1029.2** Synaptopodin Couples Epithelial Apical Contractions to Adherens Junction Maturation **V. Tang**. Univ. of Illinois at Urbana-Champaign.
- W4 **1029.3** Tensile Loading Induces Translational Signaling in Peripheral Nerve **S.B. Shah, J.M. Love and R.M. Lovering**. UCSD; Univ. of Maryland College Park and Univ. of Maryland Baltimore.
- W5 **1029.4** Substrate Stiffness and Microtopography in PIP₂ Regulation of the Actin Cytoskeleton in Primary Cardiac Fibroblasts **M. Mkrtschjan, J. Li and B. Russell**. Univ. of Illinois at Chicago.
- W6 **1029.5** Visualization of Physiological Oscillations with Eulerian Video Magnification **J.L. Smith, C. Haselby, K.P. Heinking and K.K. Henderson**. Midwestern Univ., IL.
- W7 **1029.6** Phosphorylation of Myosin Light Chain Is Mitochondrial ATP Dependent and Rho-Kinase Independent during Fluctuation-Driven Mechanotransduction **E. Bartolak-Suki and B. Suki**. Boston Univ.
- W8 **1029.7** Shear Stress Induces G Protein-Coupled Receptor-Independent Heterotrimeric G Protein Activation in Endothelial Cells **N.G. dela Paz, B. Melchior and J.A. Frangos**. La Jolla Bioengin. Inst.
- W9 **1029.8** Platelets Attenuate Endothelial Cell's Dynamic Shear Stress-Induced Activation **D. Meza, D.A. Rubenstein and W. Yin**. Stony Brook Univ.
- W10 **1029.9** Mechanosignal Transduction via NOX2 with Lung Ischemia Reperfusion: Lessons for Lung Transplant **J-Q. Tao, E. Sorokina, S.I. Feinstein, E. Cantu III, J.D. Christie, A.B. Fisher and S. Chatterjee**. Univ. of Pennsylvania.
- W11 **1029.10** ZF143 Enhances Zebrafish Heart Regeneration and Improves Mouse Heart Function after an LAD Injury **V. Yin, A. Smith, H. Roberts and H. Carlisle**. MDI Biol. Lab., Bar Harbor, ME and Tufts Univ.

- W12 **1029.11** Clonal Growth Capacity and Phenotype of Ex Vivo Expanded Oral Mucosal Tissue **R. Islam, T.P. Utheim, J.R. Eidet, M. Lippestad, E. Messelt, M. Griffith and D.A. Dartt**. Univ. of Oslo; Oslo Univ. Hosp.; Massachusetts Eye and Ear, Harvard Med. Sch. and Linköping Univ., Sweden.
- W13 **1029.12** The Macrophages as the Stimulators of B-Cells Proliferation in the Pancreas **I. Danilova, T. Bulavintseva, I. Gette, S. Medvedeva and M. Abidov**. Inst. of Immunol. and Physiol., Ural Br., Russian Acad. of Sci.; Ural State Univ. and Inst. of Immunopathol., Moscow.
- W14 **1029.13** Revisiting the Promethean Dream: The Role of Activation-Induced Cytidine Deaminase in the Induction to Pluripotency **R. Chakraborty and J. Chaudhuri**. Syosset H.S., NY and Mem. Sloan-Kettering Cancer Ctr.
- W15 **1029.14** Circulating Cells Contribute to Cardiac Regeneration in the Axolotl **H. Lauridsen and M. Pedersen**. Aarhus Univ., Denmark.
- W16 **1029.15** Spine Fusion Using a Soft Elastomeric Nanofibrous Composite of Collagen, Poly (1,8-Octanediol-Cocitrate) and Chondroitin 6-Sulfate **W.D. Wagner, M. Morykwas, L. Argenta, D. Campbell and R. Wang**. Wake Forest Sch. of Med.
- W17 **1029.16** The Calcium-Activated Chloride Channel, Anoctamin-1, Is a Critical Regulator of Proliferation in Amphibian Tail Regeneration and This Effect Is Mediated via p44/42 MAPK Phosphorylation **B.M. Franklin, S.R. Voss and J.L. Osborn**. Univ. of Kentucky.
- W18 **1029.17** GATA4-Controlled HDAC1/HDAC2-Regulated Cardiogenesis of Mesenchymal Stem Cells **M. Wang, L. Wang, Q. Yu and M. Turrentine**. Indiana Univ. Sch. of Med.
- W19 **1029.18** Extended Biomimetic Culture and Functional Assessment of Recellularized Human Lungs **S.E. Gilpin, J.M. Charest, L.F. Tapias, X. Ren, T. Wu and H.C. Ott**. Massachusetts Gen. Hosp.
- W20 **1029.19** Polyvinylpyrrolidone Can Be Used to Cost-Effectively Increase the Viscosity of Culture Media **S.G. Denniss and J.W.E. Rush**. Univ. of Waterloo, Canada.

1030. LUNG BIOLOGY: AIRWAY RESPONSIVENESS AND SMOOTH MUSCLE CELL BIOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W21 **1030.1** Inhalation of Hydrogen Sulfide (H₂S) Augments the Pulmonary Reflexes **C-C. Hsu, C-Y. Yu and Y-S. Lin**. Col. of Med., Taipei Med. Univ.
- W22 **1030.2** Vitamin D Attenuates TNF α -Induced Chemokine Production in Developing Human Airway Smooth Muscle Cells **R.D. Britt, Jr., A. Faksh, E.R. Vogel, M.A. Thompson, H. Pandya, Y. Amrani, C.M. Pabelick and Y.S. Prakash**. Mayo Clin. and Univ. of Leicester.
- W23 **1030.3** Smooth Muscle Calcium Signaling and Contraction in the Small Airways of the House Dust Mite Asthma Mouse Model **J.F. Perez-Zoghbi and I. Castro-Piedras**. Texas Tech Univ. Hlth. Sci. Ctr.

- W24 **1030.4** The Severity of Lethal H5N1 Viral Infection-Induced Changes in Pulmonary Inflammation and Functions Is Age-Dependent **N. Zang, J. Zhuang, C. Ye, Z. Pollock, J. Tipper and F. Xu.** Lovelace Resp. Res. Inst., Albuquerque.
- W25 **1030.5** Pulmonary C-Fibers Are Essential for Airway Inflammation and Hyperreactivity Induced by Respiratory Syncytial Virus Infection **N. Zang, J. Zhuang, F. Xu and E. Liu.** Children's Hosp. of Chongqing Med. Univ., China and Lovelace Resp. Res. Inst., Albuquerque.
- W26 **1030.6** Hypercontractile Airway Smooth Muscle Is a Potential Driver of Respiratory Pathophysiology in Congenital Muscular Dystrophy 1A **J. Pate, A. Kumar, M. Girgenrath and K. Morgan.** Boston Univ.
- W27 **1030.7** Role of PGE₂/EP₂ Receptor Signaling on the Effects of Neonatal Hyperoxia on Airway Smooth Muscle **R.B. Sopi, M. Mladenov, I.A. Dreshaj, B. Neziri, M. Mehmeti, K. Bislimi and M. Jakupaj.** Univ. of Prishtina Fac. of Med., Kosovo; Univ. of Prishtina Fac. of Math. and Nat. Sci., Kosovo; Sts. Cyril and Methodius Univ. Fac. of Math and Nat. Sci., Macedonia and Case Western Reserve Univ.
- W28 **1030.8** Role of PGE₂/EP₄ Receptor Signaling on the Effects of Hyperoxia on Airway Smooth Muscle **M. Jakupaj, R.B. Sopi, I.A. Dreshaj, M. Mladenov, G. Temaj, A. Cenaj, B. Neziri, Q. Beqiri and A. Krasniqi.** Univ. of Prishtina Fac. of Med., Kosovo; Case Western Reserve Univ. and Sts. Cyril and Methodius Univ. Fac. of Math and Nat. Sci., Macedonia.

1031. LUNG PHYSIOLOGY: REGULATION OF PULMONARY VASCULAR TONE

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W29 **1031.1** Decreased Arterial PO₂, not O₂ Content, Increases Blood Flow through Intrapulmonary Arteriovenous Anastomoses at Rest **J.W. Duke, B.J. Ryan, J.T. Davis, K.M. Beasley, F. Petrassi, J. Miller, J.A. Hawn and A.T. Lovering.** Ohio Univ.; Univ. of Colorado Boulder; Univ. of Oregon and Oregon Heart and Vasc. Inst., Springfield.
- W30 **1031.2** Involvement of Gap Junctions between Smooth Muscle Cells in the Sustained Hypoxic Pulmonary Vasoconstriction Development **I.V. Kizub, A. Lakhkar and S.A. Gupte.** Inst. of Pharmacol. and Toxicol., Kiev and New York Med. Col.
- W31 **1031.3** Role of PTEN in Hypoxic Pulmonary Vasoconstriction **A. Krauszman and W.M. Kuebler.** St. Michael's Hosp. and Univ. of Toronto.
- W32 **1031.4** Loss of PPAR_γ Activates ERK 1/2-NF-κB-Nox4-H₂O₂ Signaling Axis to Promote Human Pulmonary Artery Smooth Muscle Cell Proliferation **K.M. Bijli, J.M. Kleinhenz, T.C. Murphy, B-Y. Kang, S.E. Adesina, R.L. Sutliff and C.M. Hart.** Atlanta VA and Emory Univ. Med. Ctrs.
- W33 **1031.5** Loss of PPAR_γ Promotes Mitochondrial Dysfunction through Downregulation of PGC1 α **B-Y. Kang, S.M. Yeligar, K.M. Bijli, S.E. Adesina, J.M. Kleinhenz, T.C. Murphy, R.L. Sutliff and C.M. Hart.** Atlanta VA and Emory Univ. Med. Ctrs., Decatur.
- W34 **1031.6** CD38-Dependent Ca²⁺ Signaling Mechanisms in Pulmonary Arterial Smooth Muscle Is Altered in Hypoxic Pulmonary Hypertension **S. Lee, O. Paudel and J.S.K. Sham.** Johns Hopkins Univ. Sch. of Med.

- W35 **1031.7** The Golgi Apparatus Regulates cGMP-Dependent Protein Kinase I Proteolytic Cleavage in Vascular Smooth Muscle Cells **S. Kato, J. Chen, H. Zhang, K.H. Cornog and J.D. Roberts.** Massachusetts Gen. Hosp. and Applied Video Res., Medford, MA.
- W36 **1031.8** HIF Upregulates AQP1 Expression in Pulmonary Arterial Smooth Muscle Cells in a Calcium-Dependent Manner **X. Yun, S. Maman, H. Jiang and L.A. Shimoda.** Johns Hopkins Med. Insts.
- W37 **1031.9** Acute Hypoxia Differentially Modifies Ca²⁺ Waves in Pulmonary Arterial Smooth Muscle Cells of Intact Arteries from Fetal and Adult Sheep **S. Sandy, M. Romero, A. Dobyns, R. Paez, M. Francis, M.S. Taylor, L.D. Longo, C.G. Wilson and S.M. Wilson.** Loma Linda Univ. Sch. of Med. and Univ. of Southern Alabama.
- W38 **1031.10** Effects of L-Type Ca²⁺ Channel Facilitation on Ca²⁺ Spark Activity in Fetal Ovine Pulmonary Arterial Myocytes **A. Brunelle, M. Romero, J. Puglisi, D.M. Bers, L.T. Izu, L.D. Longo and S. Wilson.** Loma Linda Univ. Sch. of Med. and Univ. of California, Davis.
- W39 **1031.11** Influence of Maturation on Ca²⁺ Waveform Modulation by c-AMP and c-GMP in Pulmonary Arterial Smooth Muscle of Sheep **R. Paez, M. Romero, A. Dobyns, M. Francis, M.S. Taylor, L.D. Longo, C.G. Wilson and S.M. Wilson.** Loma Linda Univ. Sch. of Med. and USA Col. of Med., AL.
- W40 **1031.12** Hypoxia Decreases Trx2 Protein and Activity in Pulmonary Vascular Cells **B.E. Wade, S.E. Adesina, M. Hart and R.L. Sutliff.** Atlanta VA Med. Ctr./ Emory Univ.
- W41 **864.8** Computer Tomography Criterias of Nasal Cavity Constitution for Dacryocystorhinostomy **R. Tulebayev, A. Baimenov, T. Azhenov, B. Zhusupov, G. Mukhamadieva, N. Papulova and A. Mustafin.** Astana Med. Univ., Kazakhstan.

1032. CONTROL OF BREATHING: CONNECTIVITY, NEUROMODULATION AND NEUROTRANSMISSION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W42 **1032.1** Pulmonary Slowly Adapting Sensory Units Being More Active in Large Than in Small Airways May Result from More Sensory Receptors in the Units **J. Liu, N. Song, J. Guardiola and J. Yu.** Univ. of Louisville and Robely Rex VA Med. Ctr.
- W43 **1032.2** Prenatal Nicotinic Exposure Promotes Pulmonary IL-1 β and 5-HT and Gene/Protein Expression of IL1R1, NK1R, ADRA1, and TRPV1 in N/J Ganglia Neurons via Acting on α 7nAChRs in Rat Pups **L. Zhao, J. Zhuang, N. Zang, Y. Lin and F. Xu.** Lovelace Resp. Res. Inst., Albuquerque.
- W44 **1032.3** Sex-Specific Consequences of Neonatal Stress on Laryngeal Chemoreflex Stimulation in Rat Pups: Contribution of Excitatory Currents onto Key Brainstem Regions **C. Baldy, S. Chamberland and R. Kinkead.** Fac. of Med., Laval Univ.

- W45 **1032.4** Desensitization of Mu Opioid Receptors on Kölliker-Fuse Neurons **E.S. Levitt, A.P. Abdala, J.F.R. Paton and J.T. Williams**. Oregon Hlth. & Sci. Univ. and Univ. of Bristol.
- W46 **1032.5** The Pontine Respiratory Group Partially Mediates Clinical Opioid-Induced Respiratory Depression in Adult Rabbits **J.R. Miller, E.A. Stuth, F.A. Hopp, E.J. Zuperku and A.G. Stucke**. Med. Col. of Wisconsin.
- W47 **1032.6** Automatic Classification of Canine Pontine Neuronal Discharge Patterns Using K-Means Clustering **E.J. Zuperku, I. Prkic, A.G. Stucke, J.R. Miller, F.A. Hopp and E.A. Stuth**. Zablocki VA Med. Ctr.; Med. Col. of Wisconsin and Children's Hosp. of Wisconsin, Milwaukee.
- W48 **1032.7** Neurons in the Pontine Medial Parabrachial Region Play a Key Role in the Control of Breathing Frequency **E.J. Zuperku, I. Prkic, A.G. Stucke, J.R. Miller, F.A. Hopp and E.A. Stuth**. Zablocki VA Med. Ctr.; Med. Col. of Wisconsin and Children's Hosp. of Wisconsin.
- W49 **1032.8** Serotonin Receptor Expression on Astrocytes Near Spinal Phrenic Motor Circuitry **E.J. Gonzalez-Rothi, G.T. Armstrong, A.J. Cerreta, G.S. Mitchell, P.J. Reier and D.D. Fuller**. Univ. of Florida.
- W50 **1032.9** A Significant Portion of Dbx1 Neurons in the Intermediate Reticular Formation Are XII Inspiratory Premotoneurons **A.L. Revill, A. Kottick, V.T. Akins, N.C. Vann, P.A. Gray, C.A. Del Negro and G.D. Funk**. Univ. of Alberta; Col. of William&Mary and Washington Univ. in St. Louis.
- W51 **1032.10** Serotonergic Modulation of *Locus coeruleus* Neurons in the Newborn Rat **V. Biancardi, T.S. Alvares, L.H. Gargaglioni and G.D. Funk**. Univ. of Alberta and São Paulo State Univ.
- W52 **1032.11** Serotonergic Antagonism in the Retrotrapezoid Nucleus Prevents the Expiratory Long-Term Facilitation Induced by Acute Intermittent Hypoxia **E.V. Lemes, E. Colombari and D.B. Zoccal**. Sch. of Dent. of Araraquara, São Paulo State Univ.
- W53 **1032.12** Concurrent Blockade of Muscarinic, Neurokinin-1, and Serotonergic Receptors in the Ventral Respiratory Column of Intact Goats Does Not Affect Breathing **C. Muere, S. Neumueller, S. Olesiak, J. Miller, M. Hodges, L. Pan and H.V. Forster**. Med. Col. of Wisconsin; Zablocki VA Med. Ctr. and Marquette Univ.
- W54 **1032.13** Hypercapnia Potentiates the Action of μ -Opioid Receptor Agonists on Synaptic Transmission in the preBötzing Complex **A.J. Garcia, T.M. Anderson and J.M. Ramirez**. Seattle Children's Res. Inst. and Univ. of Washington.
- W55 **1032.14** Developmental Nicotine Exposure Results in Exaggerated Response to AMPA Receptor Activation in Hypoglossal Motoneurons in Neonatal Rats **M. Cholanian, R.B. Levine and R.F. Fregosi**. Univ. of Arizona Col. of Med. and Univ. of Arizona.
- W56 **1032.15** Developmental Nicotine Exposure Alters the Respiratory Frequency Response to Muscarine **L.B. Wollman, J. Haggerty, J.Q. Pilarski, R.B. Levine and R.F. Fregosi**. Univ. of Arizona Hlth. Sci. Ctr.

1033. CONTROL OF BREATHING: EVOLUTION OF AIR BREATHING

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W57 **1033.1** On the Cellular Evolution of the Lung **J.S. Torday**. Harbor-UCLA Med. Ctr.
- W58 **1033.2** Atypical Respiratory Physiology of a Recent Air-Breathing Fish: *Pangasius* **M. Bayley, M.L. Phuong, C. Damsgaard, D.T.H. Huong and T. Wang**. Aarhus Univ., Denmark and Can Tho Univ., Viet Nam.
- W59 **1033.3** Impact of Mineralocorticoid, Glucocorticoid and Thyroid Hormones on Respiratory Control Development in *Lithobates catesbeianus* **J-P. Rousseau, A. Dédé Djigo and R. Kinkead**. Univ. Laval, Canada.
- W60 **1033.4** Turn (on) Your Head and "Cough": Evolution of Lung Breathing from a Lungless Primitive Vertebrate **M.B. Harris, M. Hoffman and B.E. Taylor**. Univ. of Alaska Fairbanks.
- W61 **1033.5** The Evolution of Air-Breathing Is the Adaptive Response to High Environmental Temperatures **F. Giomi, M. Fusi and H-O. Pörtner**. Alfred Wegener Inst. for Polar and Marine Res., Bremerhaven, Germany and King Abdullah Univ. of Sci. and Technol., Saudi Arabia.
- W62 **1033.6** Orexinergic Modulation of Hypercapnic and Hypoxic Ventilatory Response in Toads **E.M. Fonseca, M.B. Dias, K.C. Bicego and L.H. Gargaglioni**. São Paulo State Univ.
- W63 **1033.7** Oscillating Wildly: Turning the Evolution of Respiratory Rhythm Generation on Its Head **M. Baghdadwala, W. Trask and R.J. Wilson**. Univ. of Calgary, Canada.

1034. CONTROL OF BREATHING: RHYTHM GENERATION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W64 **1034.1** Control of a Mechanical Ventilator Using the pre-Bötzing Complex **C. Howard, A. Garcia, J. Bloom, J. Ford, M. Gonzalez, E. McCuen, P. Richardson and J.M. Ramirez**. Seattle Children's Res. Inst. and Univ. of Washington.
- W65 **1034.2** Ontogeny of Rhythmic Breathing-Related Motor Activity in the Zebra Finch Brainstem **M.A. Vincen-Brown, F.G. Quick and J.Q. Pilarski**. Idaho State Univ.
- W66 **1034.3** Novel Insights into Anatomical and Functional Roles of Nucleus Retroambiguus in Respiratory Function **S.E. Jones, D. Stanić and M. Dutschmann**. Florey Inst. of Neurosci. and Ment. Hlth., Melbourne.
- W67 **1034.4** Coupled Oscillators Underlying Inspiration and Post-inspiration **T.M. Anderson, A.J. Garcia III and J.M. Ramirez**. Seattle Children's Res. Inst. and Univ. of Washington.

1035. CIRCADIAN CLOCK IN METABOLIC REGULATION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W68 **1035.1** Transcriptional Control of Oscillatory Homocysteine Homeostasis by Nuclear Receptor SHP **Z. Yang, S. Lee and L. Wang.** Univ. of Connecticut.
- W69 **1035.2** Tissue-Specific Abundance of NAMPT, CLOCK, and BMAL1 Proteins in Murine Tissues **A.C. Lupolt and J. Brandauer.** Gettysburg Col.
- W70 **1035.3** Cardiomyocyte-Specific Bmal1 Deletion Triggers Extracellular Matrix Response Associated with Markers of Impaired Inflammation Resolution and Diastolic Dysfunction **K.A. Ingle, V. Kain, M. Goel, S.D. Prabhu, M.E. Young and G.V. Halade.** Univ. of Alabama at Birmingham.
- W71 **1035.4** Contribution of PPAR α and Ketone Body to Sleep Homeostasis in Mice **S. Chikahisa, N. Shimizu, T. Shiuchi and H. Sei.** Univ. of Tokushima Grad. Sch.

1036. MITOCHONDRIAL FUNCTION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W72 **1036.1** Mitochondrial-Derived Vesicle Formation in Cardiac Mitochondrial Quality Control **V.J. Cadete, S. Deschênes, A. Cuillerier, M. Picard, H. McBride and Y. Burelle.** Univ. of Montreal; Children's Hosp. of Philadelphia and Univ. of Pennsylvania and McGill Univ.
- W73 **1036.2** Histopathology and Mitochondrial Function in Liver-Specific LRPPRC Knockout Mice **A. Cuillerier, V.J. Cadete, S. Deschênes, Y. Burelle and LSFC Consortium.** Univ. of Montreal.
- W74 **1036.3** The Effect of Doxorubicin on Mitochondrial Fusion and Fission Markers in the Kidney **A.J. Dirks-Naylor, S.A. Kouzi, M.A. Humphrey, D.T. Phan, S.D. Whitt, J.L. Gibson and J.A. Luu.** Wingate Univ., NC.
- W75 **1036.4** Preventive Effects of Electrical Stimulation on Cachexia-Induced Muscle Mitochondrial Dysfunction **K. Tanaka, M. Tanaka, J. Takegaki and H. Fujino.** Kobe Univ. Grad. Sch. of Hlth. Sci. and Osaka Yukioka Col. of Hlth. Sci.
- W76 **1036.5** The Effect of Succinate on Skeletal Muscle Respiration in Diet-Induced Obesity and Insulin Resistance **C. Slocum, D. Escudero, C. Sheridan, S. Legesse, S. Lagalwar, T.H. Reynolds and S.J. Ives.** Skidmore Col., NY.
- W77 **1036.6** Greater Yield of Subsarcolemmal Mitochondria from Skeletal Muscle of Obese Subjects with No Change in Intrinsic Mitochondrial Function **K.A. Kras, W.T. Willis, L. Tran, E. De Filippis, L.R. Roust and C.S. Katsanos.** Arizona State Univ. and Mayo Clin.
- W78 **1036.7** Maternal Obesity Alters Offspring Muscle Mitochondrial Function in Nonhuman Primates **B.R. Conner, B. Hetrik, A.J. Chicco and C.E. McCurdy.** Univ. of Oregon and Colorado State Univ.

- W79 **1036.8** Mitochondria Dynamics in Auditory Cells **A.L. Nuttall, S. Foster, Y. Zhang and T. Wilson.** Oregon Hlth. & Sci. Univ. and Univ. of Michigan.
- W80 **1036.9** Acetylation of Mitochondrial Proteins in the Heart and Skeletal Muscle of Aged Rats **L. Javadova, S. Jang, J.M. Soto Hernandez, S. Javadov and N. Escobales.** Univ. of Puerto Rico Sch. of Med.
- W81 **1036.10** Metabolic Therapies Improve Mitochondrial Morphology and Function **C. Ari, A.M. Poff, H.E. Held, C.S. Landon, C.R. Goldhagen, N. Mavromates, S.L. Kesl, N.P. Ward, T.N. Fiorelli, A.J. Van Putten, J.W. Sherwood, P. Arnold and D.P. D'Agostino.** Univ. of South Florida and Savind Inc.
- W82 **1036.11** Identification of Mitochondrial Proteins Involved in Acute Estrogen-Induced Cardioprotection via GPER1 **Y. Lan, B. Olde, F. Leeb-Lundberg and J.C. Bopassa.** Univ. of Texas Hlth. Sci. Ctr. at San Antonio.
- W83 **1036.12** Mitochondrial Fragmentation and Mitophagy Contribute to Doxorubicin-Induced Cardiomyocyte Death **M.P. Catanzaro, S. Kobayashi, M. Gerdes and Q. Liang.** New York Inst. of Technol. Col. of Osteo. Med.
- W84 **1036.13** Effects of Resveratrol on Mitochondrial Autophagy in Doxorubicin-Treated Cardiac Myoblast Cells **L. Burina, S. Kobayashi, M. Gerdes and Q. Liang.** NYIT Col. of Osteo. Med.
- W85 **1036.14** The Mitochondrial Permeability Transition Pore Regulator Cyclophilin D Exhibits Tissue-Specific Control of Metabolic Homeostasis **R.C. Laker, E. Taddeo, M. Zhang, K.L. Hoehn and Z. Yan.** Univ. of Virginia.
- W86 **1036.15** Krüppel-Like Factor 6 Protects the Podocyte from Mitochondrial Injury under Cell Stress **S. Mallipattu and S. Horne.** Stony Brook Univ.
- W87 **1036.16** Aging Alters Mitochondrial Respiratory Capacity and Function in Human Skeletal Muscle **C. Porter, N.M. Hurren, M. Cotter, P.T. Reidy, E.L. Dillon, W.J. Durham, M. Sheffield-Moore, L.S. Sidossis, B.R. Rasmussen and E. Børsheim.** Univ. of Texas Med. Branch and Univ. of Arkansas for Med. Sci.

1037. STRESS, TRAUMA, AND CARDIOVASCULAR ENDOCRINOLOGY

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W88 **1037.1** Stress Hormones are Critical in Maintaining Cardiac Gene Expression and Function in Mice **D. Cruz-Topete, P. Myers, J. Foley, M. Willis and J. Cidlowski.** NIEHS, NIH and Univ. of North Carolina at Chapel Hill.
- W89 **1037.2** Cardiac Peroxisome Proliferator-Activated Receptor- β Activity Is Up-regulated in the Absence of Muscle RING Finger-3, and Exaggerates High-Fat Diet-Induced Cardiomyopathy **M.T. Quintana, J. He, J. Sullivan, Y. Han, W.E. Stansfield and M.S. Willis.** Univ. of North Carolina at Chapel Hill and Univ. of Toronto.
- W90 **1037.3** MicroRNA-21 Ablation Exacerbates Aldosterone-Mediated Cardiac Injury, Remodeling and Dysfunction **M. Syed, J.P. Ball, K.W. Mathis, M.E. Hall, M.J. Ryan, M.E. Rothenberg and D.G. Romero.** Univ. of Mississippi Med. Ctr. and Univ. of Cincinnati Col. of Med.

- W91 **1037.4** Sleep Restriction Delays Suction Blister Skin Barrier Restoration **T.J. Smith, M.A. Wilson, A.J. Young and S.J. Montain.** U.S. Army Res. Inst. of Environ. Med., Natick, MA.
- W92 **1037.5** Effect of Noni Pulp (*Morinda citrifolia* L.) and Vitamin C in Rats Subjected to Stress by Restriction of Movement **L.A. Lopes, W.R.N. Azevedo, H.L.P. Teixeira, P.D. Santos, H.M. Santos and W.N. Ogawa.** Ctr. Univ. UnirG, Brazil.
- W93 **1037.6** Bufodienolides in the Rat Adrenal Gland **D.N. Darlington and D.S. Gann.** U.S. Army Inst. of Surg. Res., San Antonio and Univ. of Maryland Sch. of Med.
- W94 **1037.7** Effects of Burn and Disuse with Resistance Exercise on Free Fatty Acids and Fibroblast Growth Factor-21 in Rats **L.A. Baer, J. Song, K.I. Stanford, S.E. Wolf and C.E. Wade.** Univ. of Texas Hlth. Sci. Ctr. at Houston; Univ. of Texas Southwestern Med. Ctr. and Joslin Diabetes Ctr., Boston.

1038. MUSCLE DISEASES

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W95 **1038.1** Identification and Characterization of Disease Mechanisms in MEGF10 Myopathy **M. Saha, S. Mitsuhashi and P.B. Kang.** Univ. of Florida and Natl. Ctr. of Neurol. and Psychiat., Tokyo.
- W96 **1038.2** Elucidating the Role of Mineralocorticoid Receptors in Skeletal Muscle as a Potential Therapeutic Target for Duchenne Muscular Dystrophy **J. Chadwick, J. Hauck, J. Lowe and J. Rafael-Fortney.** The Ohio State Univ.
- W97 **1038.3** Circulating Branched Chain Amino Acids are Associated with Body Composition and Physical Function in Older Adults **M.S. Lustgarten and R.A. Fielding.** Tufts Univ., Boston.
- W98 **1038.4** Cardiosomes and Cardiac Remodeling: Role of Exercise **P. Chaturvedi, A. Kalani and S.C. Tyagi.** Univ. of Louisville.
- W99 **1038.5** The Effects of Two TGF- β Superfamily Ligand Trapping Agents on the Morphology of Dystrophic (mdx) Triangularis Sterni Muscle **C. Nielsen, C. Borowy, K. Jacinto, R. Potter, C. Kaminski, R. Kumar and C.G. Carlson.** Midwestern Univ., AZ and Acceleron Pharma, Cambridge, MA.
- W100 **1038.6** Altered Fiber Types in Regenerated Muscle of *Fktn*-KO Muscular Dystrophy Mice **A.M. Beedle, J.N. Modi, G.A. Melick, M.I. Abousaud, M.J. Fortunato and S.J. Foltz.** Univ. of Georgia.
- W101 **1038.7** The LMNA Mutation R321X Associated with Dilated Cardiomyopathy Leads to Reorganization of the Endoplasmic Reticulum and Aberrant Ca²⁺ Signaling in HEK 293 Cells **A. Gerbino, M. Carmosino, F.R. Del Vecchio, S. Torretta, G. Schena, G. Procino and M. Svelto.** Univ. of Bari Aldo Moro.
- W102 **1038.8** Targeting Mechanically-Activated NOS Signaling in Dystrophic Cardiomyopathy **J.F. Garbincius and D.E. Michele.** Univ. of Michigan.
- W103 **1038.9** The Effect of an ActRIIB Ligand Trapping Agent on the Number of Satellite Cells and Myonuclei in Dystrophic (mdx) Muscle Fibers **K. Jacinto, C. Borowy, C. Nielsen, R. Potter, R. Kumar and C.G. Carlson.** Midwestern Univ., AZ and Acceleron Pharma, Cambridge, MA.

- W104 **1038.10** Myofibroblastic Differentiation of Human Skeletal Muscle-Derived Progenitors Is Inhibited by Pirfenidone **Y. Alinejad, J. Downey, G. Drouin, M. Morand, A. Daviau, M.-A. Despatis, O. Birot, F. Balg, N. Faucheux and G. Grenier.** CHUS; Univ. of Sherbrooke and York Univ., Canada.
- W105 **1038.11** IL-6 Signaling during Cancer Cachexia Progression: The Female Response **K.L. Hetzler, J.P. Hardee, M.J. Puppa, A.A. Narsale, S. Sato, J.M. Davis and J.A. Carson.** Univ. of South Carolina.
- W106 **1038.12** Therapeutic Targeting of Akt/mTOR Signaling in *Fktn*-Deficient Muscle **S.J. Foltz, A. Patel, K.B. Peissig and A.M. Beedle.** Univ. of Georgia.
- W107 **1038.13** GRMD Gene Expression in Skeletal and Cardiac Muscle: Insights into Molecular Pathways of Progression and Therapeutic Implications for DMD Cardiomyopathy **C. Galindo, C. Brinkmeyer-Langford, M. Gupte, H. Smith, J. Soslow, D. Sawyer, J. Kornegay and L. Markham.** Vanderbilt Univ. and Col. of Vet. Med. & Biomed. Sci., Texas A&M Univ.
- W108 **1038.14** Discovery of Distinct Molecular Pathways Affected in Mild and Severe Troponin T-Related Cardiomyopathies **J.E. Gilda, X. Lai, F.A. Witzmann and A.V. Gomes.** Univ. of California, Davis and Indiana Univ. Sch. of Med.

1039. NEUROMUSCULAR DISEASES

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W109 **1039.1** Malignant Hyperthermia: Organon 9426 Was Evaluated in 10 mhs Pigs and 8 Control Pigs **C.H. Williams.** The Williams Res. Lab., Sunrise Beach, MO.
- W110 **1039.2** Chemical Chaperone Therapy Reduces Myofiber Damage in Dystrophin-null *mdx* Mice **J.A. Roche and A.L. Mueller.** Wayne State Univ. and Univ. of Maryland Sch. of Med.
- W111 **1039.3** Membrane-Stabilizing Copolymers Confer Protection to Dystrophic Skeletal Muscle in Vitro and in Vivo **E.M. Houang, K. Haman, A. Filareto, R.C. Perlingeiro, F.S. Bates, D.A. Lowe and J.M. Metzger.** Univ. of Minnesota, Minneapolis.
- W112 **1039.4** Effect of Long-Term Quercetin Supplementation on Dystrophic Cardiac Pathology in *mdx/utrn*^{+/+} Mice **C.G. Ballmann, R. Beyers, T. Denney, J.T. Selsby and J.C. Quindry.** Auburn Univ. and Iowa State Univ.
- W113 **1039.5** Effect of Chronic Dietary Quercetin Enrichment on Cardiac Function in Dystrophic Mice **C.G. Ballmann, R. Beyers, T. Denney, J.T. Selsby and J.C. Quindry.** Auburn Univ. and Iowa State Univ.
- W114 **1039.6** Long-Term Dietary Quercetin Enrichment Improves Muscle Function in Dystrophic Skeletal Muscle **J.T. Selsby, C.G. Ballmann and J.C. Quindry.** Iowa State Univ. and Auburn Univ.

1040. AUTOPHAGY AND MIRNA IN DIABETIC HEART FAILURE**Poster**

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

W115 **1040.1** MiR-133a Mitigates Mitophagy in Ins2^{+/+} Diabetic Heart **S.S. Nandi and P.K. Mishra**. Univ. of Nebraska Med. Ctr.

W116 **1040.2** Upregulation of miR-21 Restores Cardioprotection under Diabetic Conditions **J. Olson, Y. Yan, X. Bai, M. Liang and Z.J. Bosnjak**. Med. Col. of Wisconsin.

W117 **1040.3** Incretin Ameliorates Diabetic Microangiopathy in Heart by Activation of Autophagy via PKA/AMPK Axis **Y.K. Bando and A. Monji**. Nagoya Univ., Japan.

W118 **1040.4** Mdivi-1 Mitigates ROS and Mitophagy, Improves Healthy Mitochondrial Pool in Hyperglycemic Cardiomyocytes **S.K. Sharawat, S.S. Nandi, V. Keshewani, H.R. Shahshahan and P.K. Mishra**. Univ. of Nebraska Med. Ctr.

1041. BLOOD PRESSURE REGULATION II**Poster**

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

W119 **1041.1** High Fidelity Biopotential Recordings in Mice Using a Novel Telemetry Implant **S-J. Guild, S.Y. Lau, D. Russell, D. McCormick, H. Cuddy, D.M. Budgett, M. Kondo and S.C. Malpas**. Univ. of Auckland and Millar Inc., Auckland.

W120 **1041.2** Angiotensin Converting Enzyme Site-Directed Mutations Designed to Study the Enzyme Interaction with Its Specific Inhibitors **D.S. Aragão, L.M. Pereira, R. Affonso, R.I. Reis and D.E. Casarini**. Fed. Univ. of São Paulo and Univ. of São Paulo.

W121 **1041.3** Modifying Portapres™ Technology for Continuous Noninvasive Blood Pressure Measurements in the Hyperbaric Chamber **R. van der Bel, B.C. Sliggers, M.J. van Houwelingen, J.J. van Lieshout, W.J. Stok, R.A. van Hulst and C.T.P. Krediet**. Academic Med. Ctr. and Finapres Med. Sys., Amsterdam.

W122 **1041.4** Role of Brain Angiotensin-(1-7) in the Gene Expression of Angiotensinergic Receptors in the Heart **L.M. Kangussu, T.R.R. Prestes, F. Alves, R.A.S. Santos and M.J. Campagnole-Santos**. Fed. Univ. of Minas Gerais, Brazil.

W123 **1041.5** Estradiol Replacement Attenuates Stress-Induced Pressor Response by Regulating Renin-Angiotensin System in Ovariectomized Rats **Y. Nagatomo, S. Tazumi, R. Itoh, M. Yoshimoto, A. Takamata and K. Morimoto**. Nara Women's Univ., Japan.

W124 **1041.6** Differential Responses in Brachial and Ankle Blood Pressure during Blood Pressure Reactivity Tests **M.E. Pearman, J.S. Lim, W. Park, M. Alkatan, D.R. Machin and H. Tanaka**. Univ. of Texas at Austin.

W125 **1041.7** Loss of CD47 Attenuates Angiotensin II-Mediated Hypertension **S.M. Mutchler, J.S. Isenberg and A.C. Straub**. Univ. of Pittsburgh.

W126 **1041.8** Sympathetic Neurovascular Regulation during Pregnancy: A Longitudinal Case Study **C.D. Steinback, C.W. Usselman and M.H. Davenport**. Fac. of Phy. Educ. and Rec., Univ. of Alberta.

W127 **1041.9** Brainstem Serotonin and Arterial Blood Pressure Regulation in Neonatal Rats Exposed to Intermittent Asphyxia **J.L. Magnusson and K.J. Cummings**. Univ. of Missouri-Columbia.

1042. CARDIAC ELECTROPHYSIOLOGY II**Poster**

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

W128 **1042.1** Electrical Disturbances in the Brain and Heart in Long QT Syndrome: A Dangerous Synergy **D.S. Auerbach, S. McNitt, R. Dirksen and A. Moss**. Univ. of Rochester.

W129 **1042.2** Lipid Peroxidation Product 4-Hydroxynonenal, Modulates hERG Channels **S.W. Choi, H-A. Lee, Y-H. Zhang and S.J. Kim**. Seoul Natl. Univ. and Korea Inst. of Toxicol., Daejeon.

W130 **1042.3** Roles of Intracellular Free Zn²⁺ on Electrical and Mechanical Activities of the Heart **S. Değirmenci, E. Tuncay and B. Turan**. Ankara Univ. Fac. of Med.

W131 **1042.4** Monitoring of Intracellular Free Zn²⁺ and Ca²⁺ Changes in Cardiomyocytes from Metabolic Syndrome Rats **A. Toy, E.N. Okatan, S. Degirmenci and B. Turan**. Inst. of Hlth., Ankara.

W132 **1042.5** Temperature Effects on the Chick Embryonic Heart Function **F. Vostarek, J. Svatunkova and D. Sedmera**. Acad. of Sci., Prague and Charles Univ. in Prague.

W133 **1042.6** Quantitative Assessment of the Coupling of Theoretical Fibroblast and Cardiomyocyte Models **F. Liu, P. Wang, F. Xu, T. Lu, E.L. Elson, T. Wakatsuki, G.M. Genin and B.E. Carlson**. Xi'an Jitong Univ., China; Washington Univ. in St. Louis; In vivo Sci. LLC, Madison and Univ. of Michigan.

1043. CARDIAC FUNCTION AND DYNAMICS III**Poster**

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

W134 **1043.1** Differential Effects from Pharmacological and Electrical Stimulation of Rabbit Cardiac Ganglia **K.E. Brack**. Univ. of Leicester, U.K.

W135 **1043.2** NF-κB Activation Is Required for Thyroid Hormone-Induced Cardiomyocyte Hypertrophy **A.P.C. Takano, A.S. Moriscot and M.L.M. Barreto-Chaves**. Inst. of Biomed Sci., Univ. of São Paulo.

W136 **1043.3** Cardiac Output Is Improved in Rats with Myocardial Infarction by Enhancement of Respiratory Sinus Arrhythmia **E.L. O'Callaghan, R.M. Lataro, L. Zhao, A. Ben-Tal, A.R. Nogaret and J.F.R. Paton**. Sch. of Physiol. and Pharmacol., Univ. of Bristol; Univ. of Bath; Univ. of São Paulo and Massey Univ., New Zealand.

- W137 **1043.4** Non-genomic ERK1/2 Activation and Integrin $\alpha\beta 3$ Contribute to Cardiac Hypertrophy Induced by Thyroid Hormone **C.A. Lino, G.P. Diniz, C.R. Moreno and M.L.M. Barreto-Chaves.** Inst. of Biomed. Sci., São Paulo.
- W138 **1043.5** Deleterious Effects of Low and Medium Doses of Clonidine on Left Ventricular Function in Diabetic Rats **M.J. Crespo, H. Casiano, M. Morales, H. Torres, M. Torres-Grajales, C. Hernandez, M. Rivera, N. Cruz and J. Quidgley.** Univ. of Puerto Rico Sch. of Med.
- W139 **1043.6** Thyroid Hormone-Induced Cardioprotection Is Lost in AT2R Null Mice **I.B. da Silva, V.M. Lima, J.C.B. Ferreira, R.A.S. Santos and M.L.M. Barreto-Chaves.** Univ. of São Paulo and Fed. Univ. of Minas Gerais, Brazil.
- W140 **1043.7** Partial Reduction in Cardiac Sialylation Contributes to Dilated Cardiomyopathy and Heart Failure **W. Deng, A.R. Ednie and E.S. Bennett.** Univ. of South Florida.
- W141 **1043.8** Even Small Changes in Body Temperature Can Affect the Cardiac Function in Anesthetized Mice **H. Tsuchimochi, T. Inagaki and M. Shirai.** Natl. Cerebral and Cardiovasc. Ctr. Res. Inst., Suita, Japan.
- W142 **1043.9** Evaluation of Left Ventricular Function in Rats Treated with Nandrolone Decanoate Submitted to Exercise of Weathered **A.M. Nascimento, E.M. Lima, G.A. Brasil, I. Caliman, N.S. Bissoli and T.U. Andrade.** Fed. Univ. of Espirito Santo, Brazil and Univ. Vila Velha, Brazil.
- W143 **1043.10** Does Serca2a Mediate the Alcohol Effects on the Heart? **M. AlRubaiee, B. Dayton, M.A. Jeffress, N. Umoh and G.E. Haddad.** Howard Univ.
- W144 **1043.11** Capillary-Tissue Exchange of Substrates and Nucleosides in Cardiac Energetics Modeling **J.B. Bassingthwaight, B.E. Jardine and G.M. Raymond.** Univ. of Washington.
- W145 **1043.12** Cardiac MuRF1 Regulates PPAR- α Agonist-Induced Spontaneous Cardiac Hypertrophy In Vivo **T.L. Parry, G. Desai, N. Stanley, J.C. Schisler and M.S. Willis.** Univ. of North Carolina at Chapel Hill.
- W146 **1043.13** Long-Term Exposure of Particulate Matter to Lean and Obese Mice Leads to Cardiac Dysfunction through Alterations in Beta-Adrenergic Signaling **M.W. Gorr, C.M. Eichenseer, D.J. Youtz, T.D. Nelin and L.E. Wold.** The Ohio State Univ.
- W147 **1043.14** In Utero PM_{2.5} Exposure Contributes to Adult Cardiac Dysfunction **V. Tanwar, M.W. Gorr, C.M. Eichenseer and L.E. Wold.** The Ohio State Univ.

1044. DIABETES AND INSULIN RESISTANCE III

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W148 **1044.1** Toll-Like Receptor 4 Knockout Mice Are Partially Protected from Diabetic Bladder Dysfunction **T. Szasz, K.P. Nunes and R.C. Webb.** Georgia Regents Univ. and Univ. of Wisconsin-Madison.
- W149 **1044.2** Rac1 as a Potential Candidate for Improved Insulin Sensitivity following Exercise **S. Sheikh and K. Yamazaki.** California State Univ. Los Angeles.
- W150 **1044.3** Akita (Type I Diabetic) Mice Develop Bladder Dysfunction **A.K. Kim, W.G. Hill and M.L. Zeidel.** Beth Israel Deaconess Med. Ctr.
- W151 **1044.4** Water Intake and Hyperinsulinemia in a National Sample of U.S. Adults: An Analysis of NHANES Data **E.C. Johnson, V.M. Cardenas and S.A. Kavouras.** Univ. of Arkansas and Univ. of Arkansas for Med. Sci.
- W152 **1044.5** Aging Is Associated with Reduced Vasodilation to Insulin in Subcutaneous Adipose Arteries in B6D2F1 Mice **G.D. Henson, S. Hazra, K.D. Reihl, A.J. Donato and L.A. Lesniewski.** Univ. of Utah and VA Med. Ctr., Salt Lake City.
- W153 **1044.6** Aerobic Exercise Training Does Not Improve Body Composition or Glycemic Control in Type 2 Diabetic Rats with Pulmonary Hypertension **J.I. Baum, N. Smith-Blair, W.W. French, T.A. Washington and N.P. Greene.** Univ. of Arkansas.
- W154 **1044.7** Effects of Caffeine and Caffeine-Containing Kolanut (*Cola nitida* seed) on Glucose Tolerance of the Rat **A. Alada and O. Afolabi.** Univ. of Ibadan, Nigeria.
- W155 **1044.8** 28 Week-Old Type-2 Diabetic Goto-Kakizaki Rats Exhibit a Reduction to Insulin-Mediated Vasorelaxation in Middle Cerebral Arteries **T. Hardigan, Y. Abdul, M. Abdelsaid, M. Coucha and A. Ergul.** Georgia Regents Univ. and Charlie Norwood VA Med. Ctr., Augusta.
- W156 **1044.9** Effects of Epicatechin on AMPK, GLUT4 and TNF- α in the Onset of Type 2 Diabetes **N. Gonzalez and K. Go Yamazaki.** California State Univ., Los Angeles.

1045. EXTRACELLULAR MATRIX AND CARDIAC REMODELING

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W157 **1045.1** Nicorandil Ameliorates Myocardial Fibrosis by Inhibition of RhoA/Rho-Kinase Signaling in Infarcted Rats **T.M. Lee and C-C. Yang.** China Med. Univ.-An Nan Hosp., Tainan.
- W158 **1045.2** Decreased Copper Concentrations but Increased Lysyl Oxidase in Rhesus Monkey Model of Myocardial Ischemic Infarction **Y. Xiao, P. Han, X. Nie and J.Y. Kang.** West China Hosp., Sichuan Univ. and Univ. of Louisville Sch. of Med.
- W159 **1045.3** Substrate Stiffness Regulates Cardiac Fibroblast Phenotype in Volume Overload-Induced Heart Failure **R. Childers, K. Gooch and P. Lucchesi.** The Ohio State Univ. and Nationwide Children's Hosp.
- W160 **1045.4** Dynamic Regulation of MicroRNAs in Cardiac Fibroblasts upon Activation **N. Valkov, M. King, J. Moeller and P. Zhang.** Rhode Island Hosp. & Alpert Med. Sch. of Brown Univ. and Brown Univ.
- W161 **1045.5** Macrophage Activation by Chronic *P. gingivalis* Endotoxin Attenuates Fibroblast Matrix Deposition Post-myocardial Infarction **K.Y. DeLeon-Pennell, E. Flynn, Y.F. Jin, W. Buchanan and M.L. Lindsey.** Univ. of Mississippi Med. Ctr.; Univ. of Texas San Antonio and G.V. (Sonny) Montgomery VA Med. Ctr.
- W162 **1045.6** Neuregulin-1 β Alters the Context-dependent Production of Immunomodulatory Factors in Human Ventricular Fibroblasts **C. Galindo, S. Sengsayadeth, O. Tikhomirov, S. Ryzhov and D. Sawyer.** Vanderbilt Univ. Med. Ctr.

- W163 **1045.7** Matrix Metalloproteinase Changes in a Cachectic Mouse Model **R. Devine, S. Bicer, P.J. Reiser and L.E. Wold.** The Ohio State Univ.
- W164 **1045.8** Regulation of Scleraxis-Mediated Cardiac Fibrotic Gene Expression by Serine Phosphorylation **R. Wang, R.A. Bagchi and M.P. Czubryt.** Univ. of Manitoba.

1046. FREE RADICAL SIGNALING AND OXIDANT STRESS/INJURY II

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W165 **1046.1** ASK1 Deficiency Attenuates Hyperoxia-Induced Inflammation and Cell Apoptosis in the Lung **J. Fukumoto, N. Hosseinian, P. Priyanshi, Y. Cho, R.R. Cox, G. Lakshimi, R. Soundararajan, R.F. Lockey and N. Kolliputi.** Univ. of South Florida.
- W166 **1046.2** Oxidized Low-Density Lipoprotein Decreases Endothelial Progenitor Cell Populations in Bone Marrow and Peripheral Circulation Independent of ROS Production **D.Z. Liu, Y. Cui, J.Z. Liu, C.A. Narasimhulu, G. He, P.J. Cowan, S. Parthasarathy and H. Zhu.** The Ohio State Univ. Wexner Med. Ctr. and Univ. of Central Florida Col. of Med.
- W167 **1046.3** Investigating the Effect of Inhibiting 'Reactive Oxygen Species' on Intracellular Signaling Pathways in Endothelial Cells **I. Ashworth, Y. Obeidat, L. Puentes, A. Torina, E. Shafique and R. Abid.** Col. of Med., Alfaisal Univ., Saudi Arabia and Brown Univ.
- W168 **1046.4** Enhanced Oxidative Stress Modulates Endocannabinoid Tone **A.T. Matthews, A. Borazjani, L.C. Mangum and M.K. Ross.** Col. of Vet. Med., Mississippi State Univ.
- W169 **1046.5** Western Diet Increases Penile in Vivo Reactive Oxygen Species: Investigation of Antioxidant Defense **J.D. La Favor, N.A. Luke, J.L. Hannan and A.L. Burnett.** Johns Hopkins Sch. of Med.
- W170 **1046.6** ROS Generation Is Involved in Titanium Dioxide Nanoparticle-Induced MAPKs/AP-1 Activation in JB6 Cells **M. Ding, L. Bowman, S. Leonard, T. Settle and J. Zaho.** NIOSH, Morgantown, WV and Ningbo Univ. Med. Sch., China.
- W171 **1046.7** Compartmentalization of CIC-3 and TNF-Induced Superoxide Production **M. Bacon, H-N. Nguyen, H. Choi, N. Ettinger and F.S. Lamb.** Vanderbilt Univ.
- W172 **1046.8** Role of Oxidative Stress and Tetrahydrobiopterin Synthesis on eNOS Catalyzed Nitric Oxide and Superoxide Production: A Computational Analysis **S. Joshi, S. Kar and M. Kavdia.** Wayne State Univ.
- W173 **1046.9** Post-weaning Western Style Diet Leads to Increased Activity of Complex IV of Non-human Primates When Exposed to Western Style Diet In Utero **S.F. Macrorie, M.C. Wilcox, B. Hetrick and C.E. McCurdy.** Univ. of Oregon.
- W174 **1046.10** The Mitochondria-Targeted Antioxidant Improves Age-Related Cardiac Damage **T. Owada, S-i. Saitoh, H. Yamauchi and Y. Takeishi.** Fukushima Med. Univ., Japan.

1047. GENETICS AND CARDIOVASCULAR FUNCTION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W175 **1047.1** SPARC Facilitates Inflammation in the Aging Heart and Suppresses Macrophage M2 Polarization **H. Toba, L.E. de Castro Brás, C.F. Baicu, M.R. Zile, M.L. Lindsey and A.D. Bradshaw.** Univ. of Mississippi Med. Ctr.; Kyoto Pharmaceut. Univ; Med. Univ. of South Carolina; Ralph H. Johnson VA Med. Ctr., Charleston and G.V. (Sonny) Montgomery VA Med. Ctr., Jackson, MS.
- W176 **1047.2** MicroRNA-451 Protects against Atherosclerotic Plaque Formation by Directly Targeting Ras-Associated Protein 5a in Vascular Smooth Muscle Cells **L-J. Chen, L. Chuang, Y-H. Huang, S. Chien and J-J. Chiu.** Natl. Hlth. Res. Insts., Miaoli, Cty., Taiwan and UCSD.
- W177 **1047.3** Inhibition of miR-92 Mimics Arterial Aging **S. Hazra, G.D. Henson, K.D. Reihl, R.C. Bramwell, A.J. Donato and L.A. Lesniewski.** Univ. of Utah and VA Med. Ctr., Salt Lake City.
- W178 **1047.4** Hypertrophy Inducing Factor in Pediatric Idiopathic Dilated Cardiomyopathy Serum **J. Sucharov-Costa, C.C. Sucharov, S.D. Miyamoto, L. Walker and B.L. Stauffer.** Univ. of Colorado Boulder; Univ. of Colorado Anschutz Med. Campus and Children's Hosp. Colorado, Aurora.
- W179 **1047.5** Metabolic and Mitochondrial Gene Expression Changes in the Aging Heart **G.P. Barton, S. McKiernan, J. Aiken and G. Diffie.** Univ. of Wisconsin-Madison and Univ. of Alberta.
- W180 **1047.6** Role of Increased Serine 1176 Phosphorylation in Maintaining Normal Endothelial Responses in Male and Female Heterozygous Endothelial Nitric Oxide Synthase-Deficient Mice **S.P. Didion.** Univ. of Mississippi Med. Ctr.
- W181 **1047.7** Assessment of Cardiac Function Using Pressure Volume Loops in *Rbm20^{-/-}* Rats **A. Sanchez Walk, D. De Loera, L. Bosch, W. Guo, J. Ren and H.G. Chew.** Western Wyoming Col. and Univ. of Wyoming.

1048. HYPERTENSION III

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W182 **1048.1** Toll-Like Receptor 9 Activation Contributes to Decreased Autophagy in Hypertension **C.G. McCarthy, C.F. Wenceslau, S. Gouloupoulou and R.C. Webb.** Georgia Regents Univ. and Univ. of North Texas Hlth. Sci. Ctr.
- W183 **1048.2** L-Arginine Reduces Matrix Metalloproteinases Activity and Normalizes Oxidative Stress in Hypertensive Patients **N.G. Rocha, V.P. Garcia, H.N.M. Rocha, I.R.C. Cardoso, G.M. Silva, T.C. Barbosa, I.A. Fernandes, N.H. Secher, L.C. Vianna and A.C.L. Nobrega.** Fluminense Fed. Univ., Brazil; Univ. of Copenhagen and Univ. of Brasilia.

- W184 **1048.3** Activation of Cardiac P2X Receptors in Hypertensive Rats Displays Exaggerated Sympathoexcitatory Reflexes **L-W. Fu and J. Longhurst**. Univ. of California, Irvine.
- W185 **1048.4** Inflammation Mediates Adipose-derived Stem Cell Dysfunction in Hypertension **Y.F. Qi, A. Rathinasabapathy, J. Zhang, M. Zingler, J. Carvajal, J.W. Peterson, A. Horowitz, D. Guzzo, M.J. Katovich, M.K. Raizada and C.J. Pepine**. Univ. of Florida.
- W186 **1048.5** Anti-aging Gene *Klotho* Deficiency Causes Arterial Calcification via Activating the Bone Morphogenetic Protein Signaling **Y. Lin and Z. Sun**. Univ. of Oklahoma Hlth. Sci. Ctr.
- W187 **1048.6** Angiotensin II-Induced Erectile Dysfunction Prevented by Bradykinin B1 Receptor Antagonism **B. McCormick, J-E. Huot-Marchand, C. Carrol, S. Carrier, D. deBlois and T.M. Hale**. Univ. of Arizona Col. of Med.-Phoenix; Univ. of Montreal; Midwestern Univ., AZ and McGill Univ.
- W188 **1048.7** Sildenafil Restores Endothelial Function In Renovascular Hypertensive Mice: The Relative Contribution of Oxidative Stress and Angiotensin 1-7 **A.T. Dias, B.M. Fahning, A.S. Cintra, J.C. Frossard, I.B. Gomes, S.S. Meyrelles and E.C. Vasquez**. Fed. Univ. of Espirito Santo; Emescam Sch. of Hlth. Sci. and Univ. Vila Velha, Brazil.
- W189 **1048.8** Sympathetic Nerve Activity and Blood Pressure Responses to Elevations in Intracranial Pressure – Cushing’s Mechanism in Conscious Normotensive and Spontaneously Hypertensive Rats **F.D. McBryde, S.C. Malpas and J.F.R. Paton**. Univ. of Auckland and Univ. of Bristol.
- W190 **1048.9** RAAS Activation Aggravates Ischemia Reperfusion Injury and Accelerates Progression to Chronic Kidney Disease **R. Greite, R. Chen, B. Baniassad, S. Rong, A. Thorenz, M. Meier, S. Tewes, K. Hüper and F. Güler**. Hannover Med. Sch., Germany.
- W191 **1048.10** Compound H Increases Anti-aging Protein *Klotho* Expression and Attenuates Arterial Stiffening and Hypertension **K. Chen, J. Chen and Z. Sun**. Univ. of Oklahoma Hlth. Sci. Ctr.
- W195 **1049.4** Substrate Utilization Effects on Shortening Properties in Aging Cardiac Myocytes **G. Barton, J. Aiken and G. Diffie**. Univ. of Wisconsin-Madison and Univ. of Alberta.
- W196 **1049.5** Exposure to Diesel Exhaust Particles Drive Expansion of Cardiac Ischemia-Reperfusion Injury via Interleukin-6 Trans-Signaling in Male Sprague-Dawley Rats **N.A. Holland, G.S. Harris, R.M. Lust and C.J. Wingard**. East Carolina Univ.
- W197 **1049.6** Effect of Different Exercise Modes on Aldosterone and Sodium Retention in Rats with Myocardial Infarction **E.A. Wason and J.Q. Zhang**. Univ. of Texas at San Antonio.
- W198 **1049.7** Alterations in Mitochondrial Morphology with Age-Associated Estrogen Deficiency and Ischemia-Reperfusion Injury **N. Aurigemma, A. Garvin and D. Korzick**. Penn State.
- W199 **1049.8** Regional Oxidative Stress Disrupts the Normal Propagation of Voltage Waves and Promotes Reentry in Monolayers of Cardiac Myocytes **S. Solhjoo and B. O’Rourke**. Johns Hopkins Univ.
- W200 **1049.9** Effects of Myocardial Infarction on Cardiac Function and on Exercise Capacity in Obese Mice **F.F. Conti, M. Sartori, F. Santos, D.S. Dias, V.M. Salemi, M.C. Irigoyen and K. De Angelis**. Univ. Nove de Julho, Brazil and Heart Inst., Univ. de São Paulo.

1050. SKELETAL MUSCLE ANGIOGENESIS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W201 **1050.1** Conditional VEGF Gene Deletion in Both Endothelial Cells and Skeletal Myofibers Leads to Exercise Intolerance Accompanied by a Decrease in Body Mass and Cardiac Enlargement **A. Sulaeman, J. Fine, P.D. Wagner and E.C. Breen**. UCSD.
- W202 **1050.2** Abnormal Regulation of Placental Growth Factor in Skeletal Muscle of Western Diet-Fed Mice **A.T. Silva and P.G. Lloyd**. Oklahoma State Univ.
- W203 **1050.3** Deficiency of Senescence Marker Protein-30 Impairs Collateral Growth by Suppressing Nitric Oxide Bioactivity under Ischemia **H. Yamauchi, T. Owada, S-i. Saitoh and Y. Takeishi**. Fukushima Med. Univ.
- W204 **1050.4** Hyperhomocysteinemia Causes Mitochondrial Dysfunction and Epigenetic Modifications Leading to Skeletal Muscle Weakness **S. Veeranki, L.J. Winchester and S.C. Tyagi**. Univ. of Louisville.
- W205 **1050.5** Prazosin Prevents the Glucocorticoid-Induced Capillary Rarefaction in Skeletal Muscle **E.R. Mandel, E.C. Dunford, T. Tiech, M.C. Riddell and T.L. Haas**. Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.
- W206 **1050.6** NK Cell-Mediated Cytotoxicity: A Potential Mechanism of Endothelial Progenitor Cell Dysfunction in the SS Rat **E. Exner, A. Abel, S. Parker, S. Malarkannan and A. Greene**. Med. Col. of Wisconsin; Blood Ctr. of Wisconsin and Johns Hopkins Univ. Sch. of Med.

1049. MYOCARDIAL ISCHEMIA/METABOLISM III

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W192 **1049.1** Mdivi-1, a Novel Mitochondrial Fission Inhibitor, Exerts Cardioprotective Effects in Myocardial Ischemia/Reperfusion Injury **D.P. Stutzman, C. Schmidgall, I. Benjamin, Q. Chen, C. Hatcher, R. Barsotti and L.H. Young**. Philadelphia Col. of Osteo. Med.
- W193 **1049.2** The Effect of Dobutamine on Susceptibility to Ischemia-Induced Ventricular Fibrillation in the Isolated Rat Heart **H. Clements-Jewery and J. Haines**. West Virginia Sch. of Osteo. Med.
- W194 **1049.3** Inhibition of cGMP Degradation Contributes to the Cardioprotective Effect of Resveratrol on Ischemia/Reperfusion Injury **J. Xi, S. Fei and Z. Xu**. Hebei United Univ. and Tianjin Med. Univ., China.

W207 **1050.7** Regulation of VEGFR2 Activation in Skeletal Muscle by VEGF Isoforms with Differential ECM- and NRP1-Binding: A Computational Study **L. Clegg and F. Mac Gabhann**. Johns Hopkins Univ.

W208 **1050.8** Angioadaptive Allies: Relationship between Human Primary Endothelial Cells and Human Skeletal Muscle Myofibroblasts **J. Ciccone, Y. Alinejad, J. Aiken, M-A. Despatis, F. Balg, E. Roudier, G. Grenier and O. Birot**. York Univ., Toronto and Univ. of Sherbrooke, Canada.

1051. SYSTEMIC AND PULMONARY VASCULAR FUNCTION AT HIGH ALTITUDE/HYPOXIA: LEARNING FROM MALADAPTATIONS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

W209 **1051.1** High Altitude Gestation and Prenatal Programming of Bradykinin Induced Pulmonary Endothelial Ca²⁺ Responses and Arterial Vasorelaxation in Fetal and Newborn Lamb **A. Brunelle, C. Blum-Johnston, C. Wee, Q. Blood, R. Wilson, M.R. Romero, M. Francis, M.S. Taylor, L.D. Longo and S.M. Wilson**. Loma Linda Univ. Sch. of Med. and Univ. of South Alabama Col. of Med.

W210 **1051.2** Hypocapnic Hypoxia Silences the Retrotrapezoid Nucleus **T.M. Basting, P.G.R. Burke, D. Stornetta, R.L. Stornetta and P.G. Guyenet**. Univ. of Virginia.

W211 **1051.3** Activation of Retrotrapezoid Nucleus Maintains Normal Breathing in Hyperoxia Despite the Loss of Carotid Body Input **T.M. Basting, P.G.R. Burke, D.S. Stornetta, R.L. Stornetta and P.G. Guyenet**. Univ. of Virginia.

W212 **1051.4** Ginsenoside Rb1 Attenuates Pulmonary Arterial Contraction to Agonist via Inhibiting Store-Operated Calcium Entry in Control and Pulmonary Hypertension Rats **M-J. Lin, R-X. Wang, R-L. He, H-X. Jiao, M. Dai, Y-P. Mu and J.S.K. Sham**. Fujian Med. Univ., China and Johns Hopkins Univ. Sch. of Med.

W213 **1051.5** Transcriptomic and Epigenomic Responses during Human Adaptation to High-Altitude Hypoxia **R.C. Roach, D. Dvorkin, C.G. Julian, J. Gronewold, N. Bourdillon, J. Bucher, J.E. Elliott, O. Evero, J.L. Fan, S. Jameson-Van Houten, B. Kayser, J.P. Kern, S.E. Kim, S.S. Laurie, A.T. Lovering, B. Ryan, N.B. Wachsmuth and A.W. Subudhi**. Univ. of Colorado Anschutz. Med. Campus; Univ. of Lausanne; Univ. of Oregon; Univ. of Colorado Boulder and Univ. of Bayreuth.

W214 **1051.6** Sustained Hypoxic Pulmonary Hypertension and Systemic Vascular Dysfunction in High-Altitude Dwellers Prone to Re-entry High Altitude Pulmonary Edema, Improvement by Anti-oxidants **D. Cerny, E. Rexhaj, E. Bouillet, R. Soria, T. Meister, M. Villena, C. Sartori, Y. Allemann, U. Scherrer and S. Rimoldi**. Univ. Hosp., Bern.

1052. VASCULAR SMOOTH MUSCLE III

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

W215 **1052.1** Nitroglycerin-Induced Tolerance in Rat Conduit Artery and Vein **M. Paulo, M. Daruge Grando, J.A. Vercesi and L.M. Bendhack**. Fac. of Pharmaceut. Sci. of Ribeirão Preto, Univ. of São Paulo.

W216 **1052.2** Sildenafil and Tadalafil Act at Pericytes to Regulate Vasa Recta Diameter **K. Dunn, S. Kelley, C. Peppiatt-Wildman and S.S.P. Wildman**. Medway Sch. of Pharm., Univs. of Kent and Greenwich.

W217 **1052.3** HDAC Expression and Activity in Vascular Smooth Muscle Cells Is Regulated by Glucose-6-Phosphate Dehydrogenase **V. Dhagia, R. Gupte and S. Gupte**. New York Med. Col.

W218 **1052.4** Pregnancy Modulates the Expression of NOX4 in Aortas of SHR **J.A. Troiano, S.R. Potje, P.C. Oliveira, M.E. Graton and C. Antoniali**. São Paulo State Univ., Aracatuba.

W219 **1052.5** Guanylate Cyclase, Potassium Channels and eNOS Are Involved in TERPY Effect in Resistance Vessels of SHR **S. Potje, J.A. Troiano, M.E. Graton, R.S. da Silva, L.M. Bendhack and C. Antoniali**. São Paulo State Univ., Aracatuba and Univ. of São Paulo, Ribeirão.

W220 **1052.6** Conditional Knockout of Smooth Muscle-Specific Na/Ca Exchanger Type-1 Causes Striking Impairment of NO/cGMP-Mediated Vasodilation **Y. Wang, L. Chen, M. Li, H. Cha, T. Iwamoto and J. Zhang**. Univ. of Maryland Sch. of Med. and Fac. of Med., Fukuoka Univ.

W221 **1052.7** Maturation Decreases Fractional Activation of Myosin Light Chain Kinase in Ovine Common Carotid Arteries **J.M. Williams, O.O. Adeoye and W.J. Pearce**. Loma Linda Univ.

W222 **1052.8** Palmitate-Induced Glycosylation of Cyclooxygenase-2 in Primary Human Vascular Smooth Muscle Cells **P. Raman and R. Gonzales**. Univ. of Arizona Col. of Med. Phoenix.

W223 **1052.9** Estrogen Receptor-Alpha Activation of AMPK in Vascular Smooth Muscle Cells and Vascular Tone **S.C. Kim and M.H. Hamblin**. Tulane Univ. Sch. of Med.

1053. SYMPATHETIC CONTROL OF THE VASCULATURE IN CLINICAL POPULATIONS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W224 **1053.1** Healthy Aging Does Not Alter Sympathetic Drive during Whole-Body Passive Heating **D. Gagnon, Z.J. Schlader and C.G. Crandall.** Texas Hlth. Presbyterian Hosp. Dallas and Univ. of Texas Southwestern Med. Ctr. and Univ. at Buffalo.
- W225 **1053.2** Reflex Control of Cutaneous Vasoconstriction during Whole-Body Cooling in Aged Humans **J.L. Greaney, A.E. Stanhewicz, W.L. Kenney and L.M. Alexander.** Penn State.
- W226 **1053.3** Augmentation of Endothelium-Dependent Vasodilatory Signaling Improves Functional Sympatholysis in Contracting Muscle of Older Adults **C.M. Hearon, Jr., M.L. Racine, J.C. Richards, G.J. Luckasen, D.G. Larson and F.A. Dinunno.** Colorado State Univ. and PVHS, Loveland, CO.
- W227 **1053.4** Greater β -Adrenergic Vasodilation in Healthy Men versus Women: Cyclooxygenase Suppresses Nitric Oxide **G.L. Peltonen, R.E. Johansson, J.K. Limberg, J.W. Harrell, B.S. Ernst, J.M. Kellawan, M.K. Crain, M.W. Eldridge, J.J. Sebranek, B.J. Walker and W.G. Schrage.** Univ. of Wisconsin-Madison.
- W228 **1053.5** Effect of Pregnancy on Sympathetic and Peripheral Vascular Responses to the Cold Pressor Test **P.K. Wakefield, C.W. Usselman, M.K. Stickland, R.S. Chari, C.G. Julian, M.H. Davenport and C.D. Steinback.** Univ. of Alberta and Univ. of Colorado Boulder.
- W229 **1053.6** Aortic Pulse Wave Characteristics in Postmenopausal Women with and without a History of Hypertensive Pregnancy **J.R.A. Shepherd, R.E. Harvey, S.M. Ranadive, V.M. Miller, M.J. Joyner and J.N. Barnes.** Mayo Clin.
- W230 **1053.7** Coronary Blood Flow Regulation Is Impaired during Exercise in Patients with Peripheral Arterial Disease **A.J. Ross, M.D. Muller, Z. Gao and L.I. Sinoway.** Penn State Col. of Med.
- W231 **1053.8** Microvascular Dysfunction Is Evident in the Cutaneous Circulation of Psoriatic Patients **B.K. Alba, J.L. Greaney, S.B. Ferguson and L.M. Alexander.** Penn State and Penn State Col. of Med.

1054. NEURAL CONTROL OF THE CIRCULATION DURING EXERCISE

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W232 **1054.1** Muscle Metaboreflex-Induced Vasoconstriction of Ischemic Active Skeletal Muscle **J. Kaur, M.D. Spranger, A.C. Krishnan, T.M. Machado, A. Alvarez, H.W. Hanna, Y.H. Altamimi and D.S. O'Leary.** Wayne State Univ. Sch. of Med.
- W233 **1054.2** Role of TNF- α in Regulating Augmented Exercise Pressor Reflex Induced by Femoral Artery Occlusion **J. Lu, J. Xing and J. Li.** Penn State Col. of Med.
- W234 **1054.3** Acute Ascorbic Acid Ingestion Does Not Blunt Sympathetically-Mediated Vasoconstriction during Handgrip Exercise in Older Adults **J.C. Richards, C.M. Hearon, Jr., M.L. Racine, G.J. Luckasen, D.G. Larson and F.A. Dinunno.** Colorado State Univ. and Med. Ctr. of Rockies Fndn., Loveland.
- W235 **1054.4** Metaboreflex Activation Delays Heart Rate Recovery after Aerobic Exercise **T. Peçanha, L. Brito, R. Fecchio, P. Sousa, N. Silva-Júnior and C. Forjaz.** Univ. of São Paulo.
- W236 **1054.5** Tetrahydrobiopterin Ameliorates the Exaggerated Exercise Pressor Response in Patients with Chronic Kidney Disease **J. Park and A. Quyyumi.** Emory Univ.
- W237 **1054.6** Role of NaV 1.7 Channels on Skeletal Muscle Afferents in Evoking the Exercise Pressor Reflex **A.J. Stone, S.W. Copp and M.P. Kaufman.** Penn State Col. of Med.
- W238 **1054.7** Responses of Thin Fiber Muscle Afferents to Contraction Are Greater in Ligated than in Freely Perfused Rats **A.J. Stone, S.W. Copp and M.P. Kaufman.** Penn State Col. of Med.
- W239 **1054.8** IL-6 Administration Increases the Exercise Pressor Reflex **S.W. Copp, A.J. Stone and M.P. Kaufman.** Penn State Col. of Med.
- W240 **1054.9** Do ATP and Hydrogen Peroxide Cause Sympatholysis in Rat Soleus Feed Arteries? **T.J. Heckle and J.L. Jasperse.** Pepperdine Univ.
- W241 **1054.10** Muscle Reflex Effects on the Autonomic Hemodynamic Response to Passive Leg Movement in Older Individuals **J.C. Weavil, S.K. Sidhu, M. Venturelli, M.J. Rossman, J.E. Jessop, R.S. Richardson, A.D. Bledsoe and M. Amann.** Univ. of Utah.

1055. EXERCISE, HEALTH AND DISEASE

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W242 **1055.1** Predictors of Walking impairment in Patients with Claudication Using Linear and Non-linear Models **P. Abraham, M. Feuilloy, T. Mezdad, P.E. Chauvet and D. Schang.** LUNAM Univ.; Grad. Sch. of Western Electronics (OCHS) and University Hosp., Angers.
- W243 **1055.2** Assessing Kinetics of Functional Electrical Stimulation Rowing in Spinal Cord Injury Patients **A.E. Draghici, S.J. Shefelbine, J.A. Taylor and G. Picard.** Northeastern Univ.; Harvard Med. Sch. and Spaulding Rehabil. Hosp., Cambridge.
- W244 **1055.3** Graded Venous Occlusion of the Lower Limbs Contributes to the Exercise Pressor Response in Healthy Humans **A. Cowl, M. Keller-Ross, T. Cross, N. Rebollo, J. Maria Rios, B. Johnson and T.P. Olson.** Mayo Clin. and Univ. of Puerto Rico Sch. of Med.
- W245 **1055.4** Differences in Correlates of Energy Balance in Normal Weight, Overweight and Obese Adults **C. Drenowatz, J.M. Jakicic, S.N. Blair, J.R. Hebert and G.A. Hand.** Univ. of South Carolina; Univ. of Pittsburgh and West Virginia Univ.
- W246 **1055.5** Race Differences in Erythropoietin, 25-Hydroxyvitamin D, and Hemoglobin Before and After Weight Loss in Women **S.J. Carter, G. Fisher, E.P. Plaisance, J.R. Fernandez, B.A. Gower and G.R. Hunter.** Univ. of Alabama at Birmingham.
- W247 **1055.6** Effects of Aging and Treadmill Exercise on the Expression of Neurotrophin and Glutamate Receptors in the Hippocampus **H. Maejima, N. Kanemura, T. Kokubun, K. Murata and K. Takayanagi.** Hokkaido Univ. and Saitama Prefect. Univ.
- W248 **1055.7** Acute and Chronic Effects of Sprint Interval Training on Postprandial Lipemia in Women At-Risk for Metabolic Syndrome **E.C. Freese, N.H. Gist, R.M. Acitelli, W.J. McConnell, C.D. Beck, D.B. Hausman, J.R. Murrow, K.J. Cureton and E.M. Evans.** Univ. of Georgia; U.S. Military Acad., West Point and Georgia Regents Univ. – Univ. of Georgia Med. Partnership.
- W249 **1055.8** Voluntary Exercise Training Attenuates the Enhanced Sympathetic Responses to Muscle Mechanoreflex Activation in Spontaneously Hypertensive Rats **M. Mizuno, G.A. Iwamoto, W. Vongpatanasin, J.H. Mitchell and S.A. Smith.** Univ. of Texas Southwestern Med. Ctr.
- W250 **1055.9** The Role of Skeletal Muscle Characteristics in the Decline of VO_{2peak} in Rats **R.G. Toedebusch, G.N. Ruegsegger and F.W. Booth.** Univ. of Missouri-Columbia.
- W251 **1055.10** Effect of Muscle Fiber Denervation on Mitochondrial Hydrogen Peroxide Generation in Adjacent Innervated Muscle Fibres: Role in Sarcopenia? **N. Pollock, A. Vasilaki, A. McArdle and M. Jackson.** Univ. of Liverpool.
- W252 **1055.11** Mitochondrial Properties in Rhabdomyosarcoma: An Insight into the Molecular Mechanisms of Muscle Differentiation **R.P. Joseph and D.A. Hood.** Sch. of Kinesiol. and Hlth. Sci., York Univ., Canada.
- W253 **1055.12** Overactivation of Muscle Mechanoreflex in Human Hypertension **A. Velasco, Z. Wang, D. Arbiq, S. Smith, J.H. Mitchell and W. Vongpatanasin.** Univ. of Texas Southwestern Med. Ctr.
- W254 **1055.13** Protecting against Ischemic Stroke in Rats by Heat Shock Protein-20-Mediated Exercise Preconditioning **Y-F. Liu, J-W. Lin, H-Y. Tu and C-P. Chang.** Chi Mei Med. Ctr., Tainan; Taipei Med. Univ.-Shuang-Ho Hosp.; Taipei Med. Univ. and Southern Taiwan Univ. of Sci. and Technol.
- W255 **1055.14** The Relationship between Foot and Knee Angle and Cardiovascular Health **J.E. Oakman, A.N. Perez, M.P. Neal, J.M. Lenzo, C.M. Cromwell, K.R. Aichele, N.L. Bye, E.L. Santaniello, J.A. Hill, R.C. Evans, T.R. Wisdo, L.N. Chavis, K.A. Thiele, A.K. Getty, V.C. Louth and D.L. Fairheller.** Ursinus Col., PA.
- W256 **1055.15** Effects of Nitrite Infusion on Exercising Skeletal Muscle Vascular Control in Chronic Heart Failure Rats **A.A. Glean, S.K. Ferguson, C.T. Holdsworth, K.S. Hageman, D.C. Poole and T.I. Musch.** Kansas State Univ.
- W257 **1055.16** Intermittent Physical Activity Produces a Leaner but “Sedentary Obese” White Adipose Tissue Phenotype **K.S. Wainright, N.J. Flemming, J.L. Rowles, R.J. Welly, T.M. Zidon, Y-M. Park, R. Scroggins, E.K. Anderson-Bacum, A.M. Hasty, V.J. Vieira-Potter and J. Padilla.** Univ. of Missouri-Columbia; Indiana Univ., Indianapolis and Vanderbilt Univ. Sch. of Med.
- W258 **1055.17** Cardiovascular Risk Related to Body Fat and Physical Activity in Young Girls **J.W. Bea, V. Lee, R.M. Blew, J. Funk and S.B. Going.** Univ. of Arizona.
- W259 **1055.18** Exercise Preconditioning Protects against Traumatic Brain Injury in Rats by Upregulating Neuronal and Astroglial Heat Shock Protein 72 **Y-C. Chen, C-C. Chio, Y-F. Liu and C-P. Chang.** Chi Mei Med. Ctr., Tainan and Southern Taiwan Univ. of Sci. and Technol.
- W260 **1055.19** Resting Brachial Artery Shear Rate Is Associated with Exercise Habituation in Middle Aged and Older Adults **K. Tanahashi, N. Akazawa, Y. Choi, K. Kosaki, J. Sugawara and S. Maeda.** Univ. of Tsukuba and Natl. Inst. of Adv. Indust. Sci. and Technol., Ibaraki.
- W261 **1055.20** Effect of Sit-Stand Workstations on Metabolic Risk in Sedentary Workers: A Randomized Controlled Trial **K.C. Carpenter, L.H. Feltes, B. Vuong, A. Kalbes, G. Koeppe, N. Dutta, J.A. Levine and M.A. Pereira.** Univ. of Minnesota, Minneapolis; Dept. of Human Svcs., St. Paul; Fairview Hlth. Svcs., St. Paul; Mayo Clin., AZ and Kansas City Univ. of Med. and Biosci.

- W262 **1055.21** In Vivo Skeletal Muscle Function and Doxorubicin Treatment in the Rat **D.S. Hydock, A.K. Omar, E.C. Bredahl and C.J. Quinn.** Univ. of Northern Colorado Sch. of Sport and Exercise Sci.
- W263 **1055.22** Quantification of Impaired Cumulative Muscle Hemodynamics during Continuous Non-steady State Exercise and Recovery in Aging Humans **M.L. Racine, C.M. Hearon, J.C. Richards and F.A. Dinunno.** Colorado State Univ.
- W264 **1055.23** Impact of Ventilatory Threshold on Myocardial Work during Exercise **C. Armstrong, J. Samuel, A. Yarett and E.J. Stöhr.** Cardiff Metro. Univ.
- W265 **1055.24** Effects of Long-Term Voluntary Exercise on the Respiratory Muscles in Young Type 2 Diabetic Rats **N. Ichinoseki-Sekine, T. Tsuzuki, T. Yoshihara, Y. Takamine, H. Kobayashi and H. Naito.** The Open Univ. of Japan; Grad. Sch. of Hlth. and Sports Sci., Juntendo Univ. and Mito Med. Ctr., Tsukuba Univ. Hosp.
- W266 **1055.25** Chronic Heart Failure and Nitrate Supplementation: Impact on Skeletal Muscle Vascular Control in Exercising Rats **S.K. Ferguson, C.T. Holdsworth, J.L. Wright, K.S. Hageman, T.I. Musch and D.C. Poole.** Kansas State Univ.
- W267 **1055.26** Effects of Voluntary Endurance Training on Skeletal Muscle Function during and following Doxorubicin Treatment **L.M. Hochberg, R.L. Borges, E.C. Bredahl, C.J. Quinn and D.S. Hydock.** Univ. of Northern Colorado.
- W268 **1055.27** Extended Daily Exercise Is the Key to Blood Pressure and BMI Reductions in High School Students **S.G. Hayes and E.D. Irvin.** HealthCorps Inc., NY.
- W269 **1055.28** Influence of Prenatal Exercise on Fetal/Infant Health **L.E. May, D. Strickland, E.R. Newton, A. Gross McMillan, D. Steed and D.M. Biko.** East Carolina Univ. and Children's Hosp. of Philadelphia.
- W270 **1055.29** In Vivo Studies of Motor Nerve Re-growth in Adult and Old Mice following Contraction-Induced Injury **A. Vasilaki, G.K. Sakellariou, A. Kayani, M.J. Jackson and A. McArdle.** Univ. of Liverpool.
- W271 **1055.30** Skeletal Muscle Afferent Inhibition Improves Exercise Tolerance in Heart Failure **M.L. Keller-Ross, A. Carlson, K. O'Malley, E. Bruhn, S. Wolhart, C. Johnson, J. Eisenach, T. Curry, M.J. Joyner, B.D. Johnson and T.P. Olson.** Mayo Clin.
- W272 **1055.31** Exercise Mitigates Hyperhomocysteinemia Induced Vascular Dysfunction and Adverse Skeletal Muscle Remodeling **L.J. Winchester, S. Veeranki, S. Pushpakumar, S. Givvimani and S.C. Tyagi.** Univ. of Louisville.
- W273 **1055.32** Spironolactone or Eplerenone Treatment Reduce the Exaggerated Pressor Response to Muscle Reflex Activation in Spontaneously Hypertensive Rats **R.M. Downey, M. Mizuno, P. Brown, J.H. Mitchell, W. Vongpatanasin and S.A. Smith.** Univ. of Texas Southwestern Med. Ctr.
- W274 **1055.33** A Pilot Exercise Intervention to Enhance Fitness and Quality of Life among African American and White Colorectal Cancer Survivors **B.T. Williams, N.B. Maxwell, J.L. Cook, M.C. Mahoney and A.D. Ray.** Univ. at Buffalo.
- W275 **1055.34** The Role of Cytokines in Muscle Fatigue in Patients with Chronic Fatigue Syndrome **K.E. Earl, G.K. Sakellariou, D. Owens, M. Sinclair, M. Fenech, G. Close, C. Lawton, L. Dye, M. Beadsworth and A. McArdle.** Univ. of Liverpool; Liverpool John Moores Univ. and Univ. of Leeds.
- W276 **1055.35** Endurance Exercise Confers Neuroprotective Mitochondrial Phenotypes in the Brain of Alzheimer's Disease Mice **J-H. Koo, E-B. Kang, I-S. Kwon, Y.C. Jang, E-J. Kim, Y. Lee, I-H. Cho and J-Y. Cho.** Korea Natl. Sport Univ. and Univ. of West Florida.

1056. AUTONOMIC AND RESPIRATORY INTERACTIONS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W277 **1056.1** Effect of Low Dose Dopamine on Ventilatory Stability in Healthy Adults **L. Veldhoven, W.W. Holbein, B.D. Johnson, J.K. Limberg and M.J. Joyner.** Mayo Clin.; Radboud Univ., Netherlands and Univ. at Buffalo.
- W278 **1056.2** Respiratory and Cardiovascular Modulations in Patients with Spinal Cord Injury **S.C. Aslan and A.V. Ovechkin.** Univ. of Louisville.
- W279 **1056.3** Distinct Brainstem Origins of Cardiac Vagal Tone and Respiratory Sinus Arrhythmia **D.G.S. Farmer, M. Dutschmann, A.E. Pickering, J.F.R. Paton and R.M. McAllen.** Florey Inst. of Neurosci. and Ment. Hlth., Parkville, Australia and Univ. of Bristol.

1057. AUTONOMIC CIRCUITRY IN THERMOREGULATION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER, EXHIBIT HALL B

Presentation time: 12:30 PM–2:15 PM

- W280 **1057.1** Leptin Regulates Synaptic Activity of Brown Adipose Tissue-Related Pre-sympathetic Neurons in the Paraventricular Nucleus of the Mice **Y. Jiang, H. Munzberg, A.V. Derbenev and A. Zsombok.** Tulane Univ. and Pennington Biomed. Res. Ctr., Baton Rouge.
- W281 **1057.2** Clozapine, an Atypical Antipsychotic, Reduces the Contribution of Brown Adipose Tissue to Emotional Hyperthermia in Rats **M. Mohammed, Y. Ootsuka and W. Blessing.** Flinders Univ., Australia.
- W282 **1057.3** Inhibitory Regulation of Skeletal Muscle Shivering **S.F. Morrison.** Oregon Hlth. & Sci. Univ.

1058. NEUROENDOCRINE FUNCTION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W283 **1058.1** Endocrine Response in Administration of 5-HT_{1A} Agonist Associated with E2 Replacement in Ovariectomized Rats **F.V. Fonseca, A.S. Mecawi, I.G. Araujo, L.N. Monteiro, G.de A. Pereira, J.A. Rodrigues and L.C. Reis.** Fed. Inst. of Educ., Sci. and Technol., Rio de Janeiro; Fed. Rural Univ. of Rio de Janeiro and Univ. of São Paulo.
- W284 **1058.2** Loss of GABAergic Inhibition in Hypothalamus in Chronic Stress **Y. Gao, J-J. Zhou, T. Kosten and D-P. Li.** Univ. of Texas, MD Anderson Cancer Ctr.; Univ. of Houston and Hebei Traditional Chinese Med. Col.
- W285 **1058.3** The Effects of Perinatal Androgen Deprivation on Sexual Motivation in Male Rats **T. Khan, A. Yn, D. Fickes, P. Vang, K. Jeong, B. Shah, F. Yousaf, G. Taylor and C. Gopalan.** St. Louis Col. of Pharm. and Univ. of Missouri-St. Louis.
- W286 **1058.4** The Effects of Perinatal Androgen Deprivation on Locomotor Activity in Male Rats **K. Jeong, A. Yn, T. Khan, D. Fickes, P. Vang, F. Yousaf, B. Shah, G. Taylor and C. Gopalan.** St. Louis Col. of Pharm. and Univ. of Missouri-St. Louis.

1059. INFLAMMATION AND AUTONOMIC REGULATION

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W287 **1059.1** Angiotensin II-Dependent increase in the Bone Marrow Sympathetic Drive Initiates the Inflammatory and Endothelial Progenitor Cell Imbalance and Precedes Blood Pressure Increase **N. Ahmari, M.M. Santisteban, D.M. Baekey, M.K. Raizada and J. Zubcevic.** Univ. of Florida.
- W288 **1059.2** Electrical Stimulation of the Cervical Vagus Nerve Protects against Renal Ischemia/Reperfusion Injury **C. Abe, T. Inoue, M.D. Okusa and P.G. Guyenet.** Univ. of Virginia.
- W289 **1059.3** Angiotensin II-Induced Neuroinflammation Contributes to Sympathetic Overactivity in Hypertensive Rats **W. Wang, X. Tan and Y. Wang.** Second Military Med. Univ., Shanghai.
- W290 **1059.4** Central Cyclooxygenase Inhibition during the Course of Lung Injury Attenuates Breathing Frequency **D.G. Litvin, D.E. Nethery, C.K. Campanaro, T.E. Dick and F.J. Jacono.** Case Western Reserve Univ. Sch. of Med.

- W291 **1059.5** Norepinephrine Increases Production of Superoxide in Cultured Peripheral Blood Mononuclear Cells and Splenocytes Isolated from Rats **J.D. Magee, S.H. Deo, P.J. Fadel and C.M. Heesch.** Univ. of Missouri-Columbia.
- W292 **1059.6** The Carotid Baroreflex Modulates the Inflammatory Response to *Escherichia coli* Lipopolysaccharide-Induced Endotoxemia **L.C. Favaro, G. Domingos, F.M. Santos-Almeida, J.A. Castania, R. Fazan and H.C. Salgado.** Med. Sch. of Ribeirão Preto, Univ. of São Paulo.
- W293 **1059.7** High-Mobility Group Box 1 in Angiotensin II-Induced Hypertension **A.R. Nair, P.J. Ebenezer and J. Francis.** LSU, Baton Rouge.

1060. REFRESHING PERSPECTIVES ON THE ROLE OF THE CHEMOREFLEXES IN THE CONTROL OF CARDIORESPIRATORY FUNCTION: NEW PATHWAYS AND PLAYERS

Poster

WED. 7:30 AM—BOSTON CONVENTION & EXHIBITION CENTER,
EXHIBIT HALL B

Presentation time: 12:30 PM—2:15 PM

- W294 **1060.1** P2X₃ Receptor Antagonism Reduces Peripheral Chemoreceptor Reflex Hypersensitivity and Blood Pressure in the Spontaneously Hypertensive Rat **W. Pijacka, A.P. Ford and J.F.R. Paton.** Univ. of Bristol and Afferent Pharmaceut., CA.
- W295 **1060.2** Carotid Body Ablation Reverses the Hypertension and Autonomic Changes Induced by Intermittent Hypoxia **R. Del Rio, D.C. Andrade and R. Iturriaga.** Pontifical Catholic Univ. of Chile, Santiago and Autonomous Univ. of Chile.
- W296 **1060.3** Role of the Peripheral Chemoreceptor Reflex on Cardiovascular and Sympathetic Responses to Obstructive Sleep Apnea in Rats **K. Miki, M. Yoshimoto, C. Kajihara and Y. Mizukami.** Nara Women's Univ., Japan.
- W297 **1060.4** Carotid Chemoreceptor Desensitization Improves Baroreflex Control of Blood Pressure during Hypoxia in Humans **M.T. Mozer, M.J. Joyner, T.B. Curry and J.K. Limberg.** Mayo Clin.
- W298 **1060.5** Endogenous Erythropoietin Is a Sex-Specific Respiratory Stimulant in Newborn and Adult Mice **O. Ballot, V. Joseph and J. Soliz.** Univ. Laval, CHU de Québec.
- W299 **1060.6** Chronic Phenytoin Treatment Reduces Hypoxic Ventilatory Responses in Rats **J. Alcayaga, M.P. Oyarce and R. Iturriaga.** Univ. of Chile Fac. of Sci. and Univ. of Chile Fac. of Biol. Sci.



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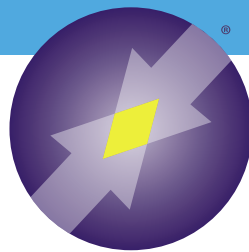
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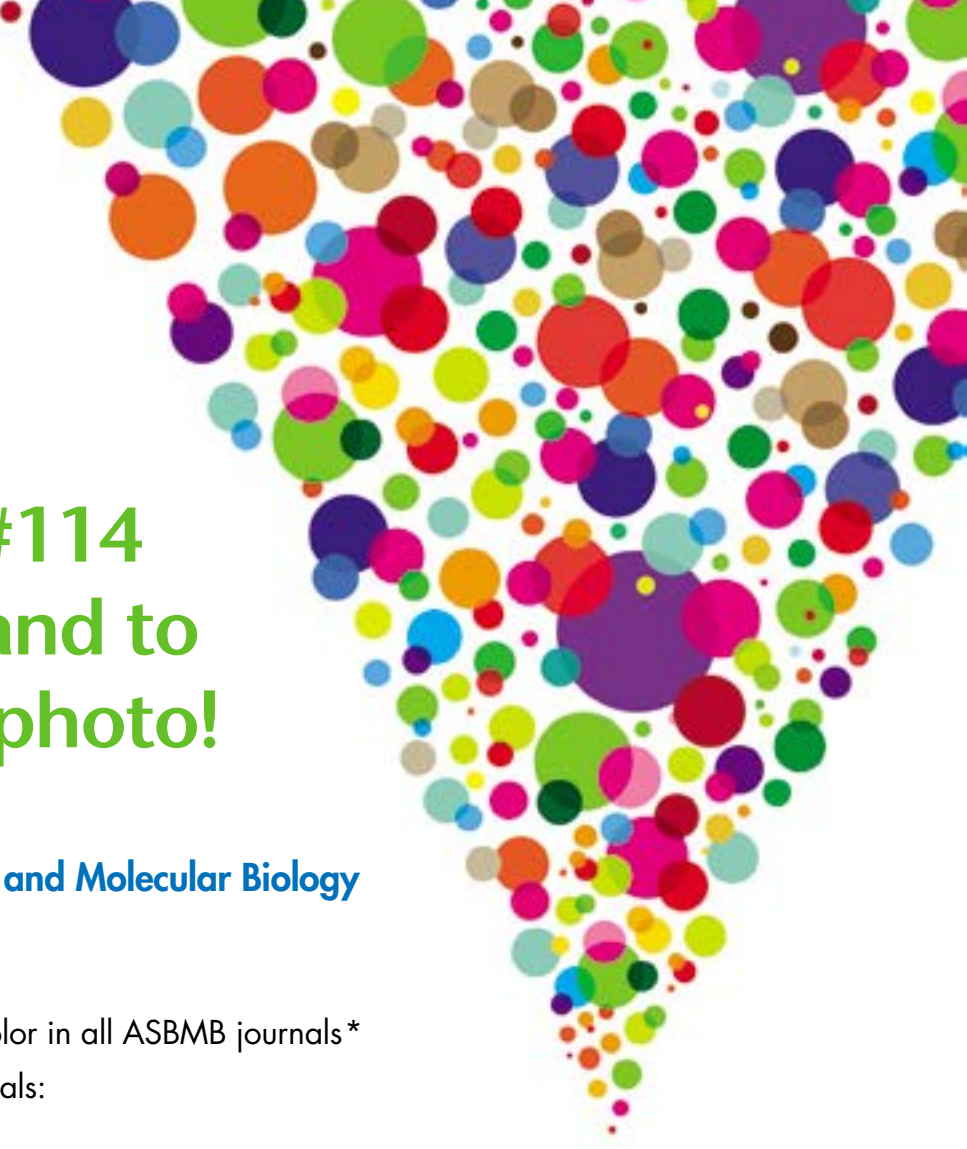


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THURSDAY, OCTOBER 8, 2015

OPENING COMMENTS, Asma Nusrat

OPENING KEYNOTE: BALANCING TOLERANCE AND AUTOIMMUNITY: STRATEGIES FOR CONTROLLING HARMFUL IMMUNE RESPONSES, Abul K. Abbas, University of California, San Francisco

Chair: Mark E. Sobel

ADAPTIVE IMMUNITY: IMMUNITY IN ATHEROSCLEROSIS AND METABOLISM

Chairs: F. William Luscinskas, Asma Nusrat

- **Regulating Supply of Myeloid Cells in Cardiovascular Disease**, Matthias Nahrendorf, Massachusetts General Hospital
- **Defective Inflammation Resolution in Atherosclerosis: Mechanisms and Therapeutic Opportunities**, Ira Tabas, Columbia University
- **How Do T Lymphocytes Influence Atherosclerosis?** Andrew Lichtman, Brigham & Women's Hospital

CELL INJURY AND REPAIR

Chairs: Richard N. Mitchell, Cary D. Austin

- **Genes and Small Molecules to Delay Diseases in Aging**, David A. Sinclair, Harvard Medical School
- **Abstract-Driven Short Talks**
- **Adult Stem Cells and Biomimetic Scaffolds for Skeletal Tissue Engineering and Regeneration**, Rocky Tuan, University of Pittsburgh
- **The Complex Roles of Autophagy in Cancer**, Jayanta (Jay) Debnath, University of California, San Francisco

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VIEW THE POSTERS**

FRIDAY, OCTOBER 9, 2015

KEYNOTE: STEM CELLS AND CANCER: Normal and Neoplastic Stem Cells, Irving L. Weissman, Stanford University Medical Center
Chair: Satdarshan Paul S. Monga

STEM CELLS AND STEM CELL SIGNATURES IN CANCER

Chairs: Christopher A. Moskaluk, Satdarshan Paul S. Monga

- **Origins, Biology, and Some Translational Implications of the Cancer Epigenome**, Stephen B. Baylin, The Johns Hopkins University School of Medicine
- **Abstract-Driven Short Talk**
- **Clonal Analysis of Experimentally Induced Human Breast Cancers**, Connie J. Eaves, BC Cancer Agency

INNATE IMMUNITY: RECRUITMENT OF LEUKOCYTES TO SITES OF INFLAMMATION

Chairs: William A. Muller, F. William Luscinskas

- **Multiple Mechanisms of Leukocyte Recruitment to a Site of Inflammation**, Paul Kubers, University of Calgary Medical Center
- **Abstract-Driven Short Talks**
- **Nociceptor-Mediated Control of Tissue Inflammation**, Ulrich H. von Andrian, Harvard Medical School
- **Leukocyte-Epithelial Interactions and Mucosal Homeostasis**, Charles A. Parkos, University of Michigan

POSTER DISCUSSIONS

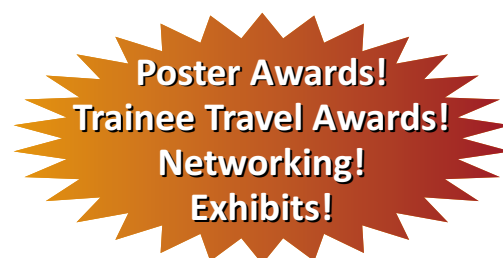
SATURDAY, OCTOBER 10, 2014

CANCER NICHES AND DEVELOPMENTAL PATHWAY SIGNALING IN CANCER

Chairs: Satdarshan Paul S. Monga, Christopher A. Moskaluk

- **Dissecting Breast Cancer Through the Lens of Development**, Geoffrey Wahl, Salk Institute
- **Abstract-Driven Short Talks**
- **Evolving Dynamic Models of Cancer Stem Cells**, Jeremy N. Rich, Cleveland Clinic Lerner Research Institute
- **Conserved Signaling Pathway Defects in Colon Cancer Pathogenesis - Modeling Colon Cancer Development and Progression in the Mouse**, Eric R. Fearon, University of Michigan

CLOSING REMARKS: COMMON THEMES AND LESSONS LEARNED, Asma Nusrat



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Sun., March 29,
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Mon., March 30,
10:30-5:00 pm

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Tues., March 31,
8:00-10:00 am

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Tues., March 31,
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Monday: 6:30am - 10:00am and 4:00pm - 7:30pm

Tuesday: 6:30am - 10:00 am and 4:00pm - 7:30 pm

Wednesday: 6:30am - 10:00am and 3:00pm - 6:00 pm

Buses run on average every 10-15 minutes.

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Route 3 – Omni Parker House

Route 4 – Courtyard Boston/Tremont, Doubletree Boston Downtown and Boston Park Plaza

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BOOTH NUMBERING SYSTEM

Exhibit space has been arranged in a grid pattern using numerical designations. The designation of each row is indicated by large overhead signs. A floor plan of the exhibit area is shown on the following pages.

EXHIBIT DAYS AND HOURS

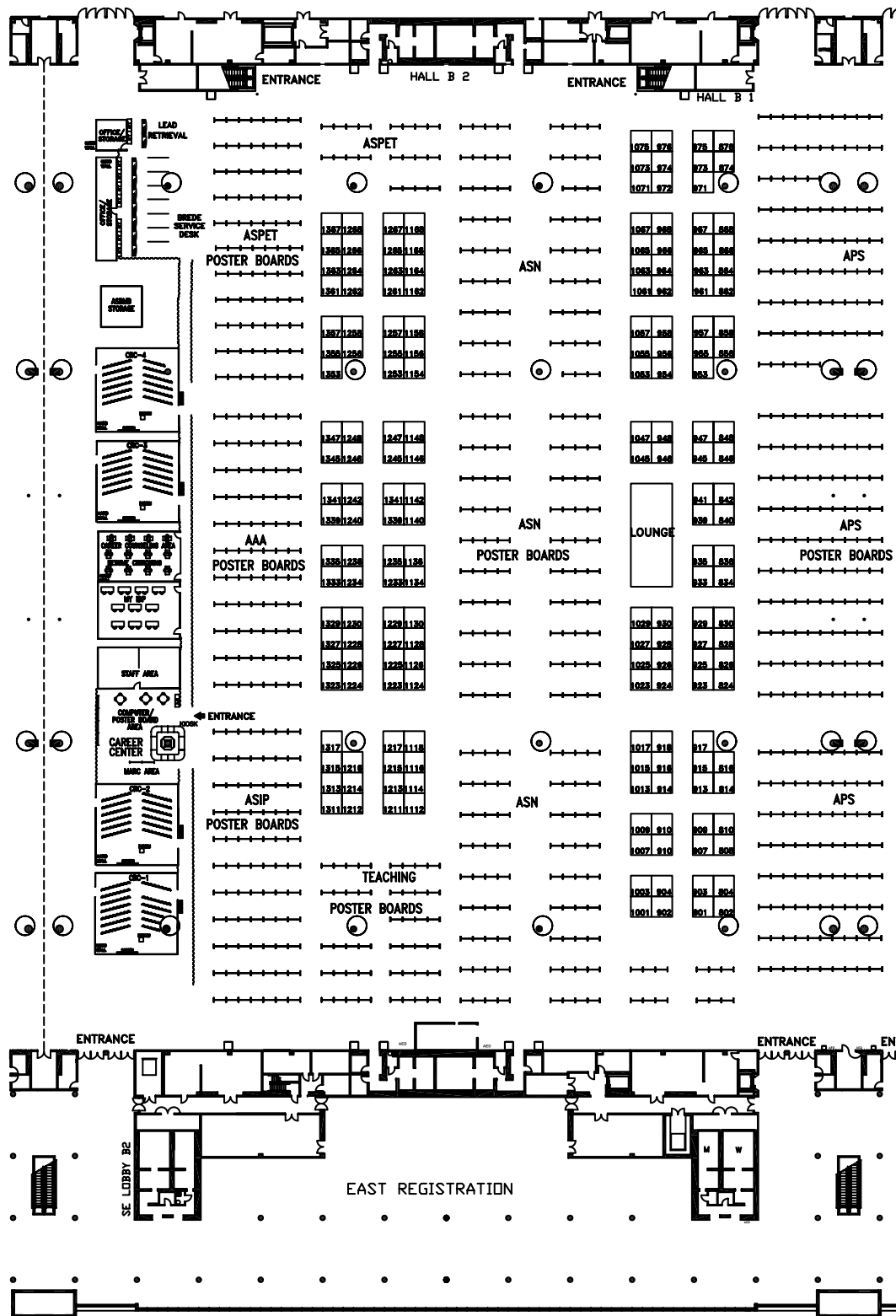
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An alphabetical listing of all exhibiting companies is provided in this program on the pages following the floor plan of the exhibit area. You can also view the exhibits online at www.experimentalbiology.org.

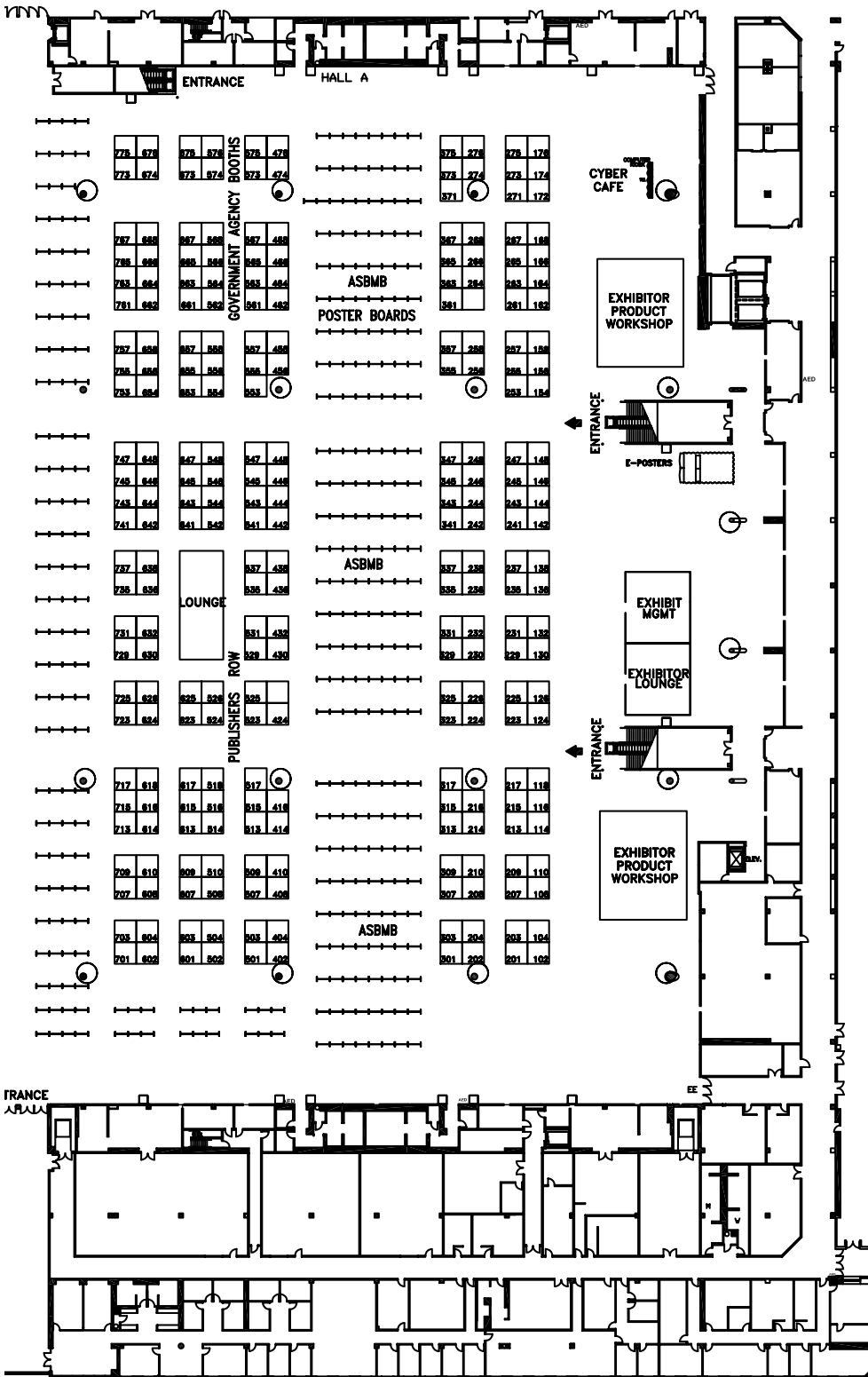
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Foxx Life Sciences	1134
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Embi Tec.....	414
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Sutter Instrument	834
UVP, LLC	630
Warner Instruments	826
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Accurate Chemical & Scientific Corp.....	315
Avanti Polar Lipids, Inc.....	623
Cayman Chemical Company.....	753
Cedarlane.....	1001
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Art Robbins Instruments	464
BioTek Instruments, Inc.	136
Drummond Scientific	723
Hamilton Company	331
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Society for Neuroscience.....	963
The Histochemical Society.....	1116
The Physiological Society.....	615

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Instech Laboratories, Inc.....	945	nanoAnalytics/APIcells.....	217
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GlobalTown Microtech, Inc.....	1353	MICROTOMES	
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Sutter Instrument.....	834	MBL International.....	474
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BioTek Instruments, Inc.....	136	Accurate Chemical & Scientific Corp.....	315
Hofer, Inc.....	408	Adipogen International, Inc.....	245
Neogen Corporation.....	916	ALPCO.....	765

Arbor Assays	329
B-Bridge International, Inc.....	402
Biorbyt Ltd	1166
Bio-Techne	456
Cell Signaling Technology	162
Fitzgerald Industries International.....	256
Innova Biosciences.....	1140
Jackson ImmunoResearch Laboratories, Inc.....	953
Kerafast, Inc.	658
Lampire Biological Laboratories, Inc.	868
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PeproTech, Inc.....	156
Phoenix Pharmaceuticals, Inc.....	1136
RayBiotech	1118
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LC Sciences LLC	609
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Cambridge Electronic Design Ltd.....	775
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Alfa Aesar, a Johnson Matthey Company	902
New England Biolabs.....	608
USB Products From Affymetrix, Inc.....	907
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Innova Biosciences.....	1140
Integrated DNA Technologies	676
LC Sciences LLC	609
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GlobalTown Microtech, Inc.	1353
Hugo Sachs Elektronik/Harvard Apparatus	828
SCIREQ USA Inc.....	432

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Chemglass Life Sciences.....	929
UVP, LLC.....	630

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Coy Laboratory Products.....	836
Innovative Instruments, Inc.....	975
Sable Systems International, Inc.	1015
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TSE Systems, Inc.	908
Unisense A/S	238

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Integrated DNA Technologies.....	676		
New England Biolabs.....	608	PHOSPHO-SPECIFIC ANTIBODIES	
Norgen Biotek Corporation.....	229	21st Century Biochemicals, Inc.....	613
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Sarstedt, Inc.....	624	EMD Millipore.....	1223
ScienCell Research Laboratories.....	958	Expedeon, Inc.....	273
Selleck Chemicals LLC.....	607	MBL International.....	474
Source BioScience.....	258	PhosphoSolutions.....	301
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		Kent Scientific Corporation.....	642
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Innovative Instruments, Inc.....	975	Aurora Scientific, Inc.....	667
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Luxcel Bioscience.....	468	Hugo Sachs Elektronik/Harvard Apparatus.....	828
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		Millar, Inc.....	654
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Chemglass Life Sciences	929
Foxx Life Sciences	1134
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Hugo Sachs Elektronik/Harvard Apparatus	828
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Faxitron	647
LI-COR Biosciences	614
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Millar, Inc.	654
SCIREQ USA Inc.	432
Transonic	939
TSE Systems, Inc.	908

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Integrated DNA Technologies	676
Luxcel Bioscience	468
Moor Instruments, Inc.	741
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Plastics One, Inc.	223

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NanoTemper Technologies, Inc.	313
Selleck Chemicals LLC	607

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Accurate Chemical & Scientific Corp.	315
Analytik Jena	725
EMD Millipore	1223
Expedeon, Inc.	273
Foxx Life Sciences	1134

GE Healthcare	436
GeneAll Biotechnology Co. Ltd.	309
GenScript USA Inc.	904
Innova Biosciences	1140
New England Biolabs	608
Norgen Biotek Corporation	229
Selleck Chemicals LLC	607
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Aviva Systems Biology Corporation	371
Bio-Rad Laboratories	262
Biorbyt Ltd	1166
Fitzgerald Industries International	256
Kerafast, Inc.	658
LI-COR Biosciences	614
LifeSensors	215
OZ Biosciences	625
PeproTech, Inc.	156
RayBiotech	1118
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Data Sciences International	808
Kent Scientific Corporation	642
SCIREQ USA Inc.	432
Starr Life Sciences Corp.	927

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Cambridge Electronic Design Ltd.	775
DMT-USA, Inc.	923
World Precision Instruments	955

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ALZET® Osmotic Pumps/DURECT Corporation	130
BrandTech Scientific, Inc.	930
Coulbourn Instruments/PanLab	830
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Harvard Apparatus	824
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IITC Inc.	814
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iPRECIO® Infusion Pumps by Primetech Corporation	225
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Oxford Biomedical Research.....	966
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BIOPAC Systems, Inc.....	856
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Coulbourn Instruments/PanLab.....	830
iWorx Systems, Inc.....	755
Sable Systems International, Inc.....	1015
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MBL International.....	474

RNA ISOLATION KITS	
Analytik Jena.....	725
B-Bridge International, Inc.....	402
GeneAll Biotechnology Co. Ltd.....	309
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Fitzgerald Industries International.....	256
Jackson ImmunoResearch Laboratories, Inc.....	953
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Cayman Chemical Company.....	753
Cell Signaling Technology.....	162
Hello Bio.....	1067
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List Biological Laboratories, Inc.....	232
Oxford Biomedical Research.....	966
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BTX/Harvard Apparatus.....	410
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ADInstruments.....	743, 840
Applied BioPhysics, Inc.....	903
Aurora Scientific, Inc.....	667
Carl Zeiss Microscopy, LLC.....	707
CleverSys Inc.....	876
Data Sciences International.....	808
DMT-USA, Inc.....	923
ELSEVIER, INC.....	542
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Gel Company, Inc.....	663
GraphPad Software, Inc.....	735
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MBF Bioscience.....	235
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Shamrock Scientific Specialty Systems, Inc.....	146

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Bruker Corporation.....	846
nanoAnalytics/APIcells.....	217
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Shimadzu Scientific Instruments, Inc.....	345

SPECTROPHOTOMETERS	
Analytik Jena.....	725
DeNovix Inc.....	914
Expedeon, Inc.....	273
GE Healthcare.....	436
Hofer, Inc.....	408
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Narishige International USA, Inc.....	767
RWD Life Science Co., Ltd.....	773
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Chemglass Life Sciences.....	929
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Kent Scientific Corporation.....	642
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Hamilton Company.....	331
Instech Laboratories, Inc.....	945
Kent Scientific Corporation.....	642
RWD Life Science Co., Ltd.....	773

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BIOPAC Systems, Inc.....	856
Data Sciences International.....	808
emka TECHNOLOGIES.....	430
Millar, Inc.....	654
SCIREQ USA Inc.....	432
Starr Life Sciences Corp.....	927
Transonic.....	939
Triangle BioSystems International.....	866
TSE Systems, Inc.....	908

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Aurora Scientific, Inc.....	667
IITC Inc.....	814
Kent Scientific Corporation.....	642
Living Systems Instrumentation.....	862
Moor Instruments, Inc.....	741
RWD Life Science Co., Ltd.....	773
Sable Systems International, Inc.....	1015
Warner Instruments.....	826
WPI Instruments.....	961

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Luxcel Bioscience.....	468
Moor Instruments, Inc.....	741
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Electron Microscopy Sciences.....	1323
Flexcell International Corp.....	737
nanoAnalytics/APIcells.....	217

TISSUE CULTURE APPARATUS LABWARE

Applied BioPhysics, Inc.....	903
Chemglass Life Sciences.....	929
Drummond Scientific.....	723
Flexcell International Corp.....	737
Foxx Life Sciences.....	1134
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Baker Ruskinn.....	261
Coy Laboratory Products.....	836
DMT-USA, Inc.....	923
Electron Microscopy Sciences.....	1323
ibidi LLC.....	674
Physiologic Instruments, Inc.....	632

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Cell Biologics, Inc.....	216
Essential Pharmaceuticals, LLC.....	874
ibidi LLC.....	674
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DMT-USA, Inc.....	923
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GlobalTown Microtech, Inc.....	1353
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BIOPAC Systems, Inc.	856
GlobalTown Microtech, Inc.	1353
Hugo Sachs Elektronik/Harvard Apparatus	828
Millar, Inc.	654
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CleverSys Inc	876
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MED Associates, Inc.	1365

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Aurora Scientific, Inc.	667
CleverSys Inc	876
Coulbourn Instruments/PanLab.....	830
IonOptix	761

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Faxitron	647
MED Associates, Inc.	1365

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Faxtiron	647
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EXHIBITOR WORKSHOPS

EB 2015

**Boston Convention & Exhibition Center
Boston, MA**

Sunday, March 29

BioTek Cytation Product Workshop and User Group Meeting

BioTek Instruments

Highland Park Box 998

Winooski, VT 05404

Phone: 802-861-8637

Web: www.biotek.com

11:00 AM–1:00 PM–Room A (Hall A) – Show Floor

Presenters: Joseph Haegele, Cornell Univ. Grad. Student

Neil Emans, PhD, Persomics, CEO

Brad Larson, BioTek Instruments, Inc.,
Principal Scientist

Peter Banks, PhD, BioTek Instruments, Inc.,
Scientific Dir.

Xavier Amouretti, BioTek Instruments, Inc.,
Mgr. Product Mktg.

The Cytation™ series of imaging readers combine automated digital widefield microscopy with conventional multi-mode microplate detection to provide phenotypic cellular information and well-based quantitative data. With up to 60x magnification, a microscopy module provides high-quality cellular and sub-cellular visualization in fluorescence, brightfield, color brightfield and phase contrast channels. A multi-mode detection module features variable bandwidth monochromator optics and high sensitivity filter-based detection optics for unmatched versatility and performance. Come to hear talks given by BioTek Applications Scientists along with current Cytation users describing the research and techniques their labs are performing with BioTek's breakthrough product line. Highlights from the new Gen5™ v2.07 software release will also be presented. Complimentary lunch will be served. Free gift to the first 50 attendees.

Life Science in Space: The New Frontier

NASA Space Life Sciences

NASA Ames Research Center

Moffett Field, CA 94305

Phone: 650-604-1174

Web: www.nasa.gov

3:00 PM–5:00 PM–Room A (Hall A)–Show Floor

NASA has developed advanced technologies for molecular biology and on-orbit measurement of gene expression bringing the ISS National Laboratory one step closer to becoming a fully functional space laboratory for advancing space biological sciences. Learn about the kinds of life sciences research capabilities, funding, and collaboration opportunities that are now available.

Monday, March 30

Increase Your Success in Rodent Surgery

Kent Scientific Corporation

1116 Litchfield Street
Torrington, CT 06790
Phone: 888-572-8887
Email: dfitzmiller@kentscientific.com
Web: www.kentscientific.com

10:00 AM–11:00 AM–Room A (Hall A)–Show Floor

Presenter: Andrew Ide

Biomedical research involves eliminating variables so you can focus on your study objective, produce valid/reproducible data and publish your research. The normal physiological condition of rodents under surgery is altered by the introduction of the anesthetic. Subsequent surgical procedures and other activities performed while the animal is under anesthesia can further change the physiological state of the rodent. Any change in temperature, oxygen saturation, respiratory rate, heart rate or blood pressure introduces a variable into your study that can be controlled.

Multimedia Resources for Teaching Evolution and Genetics

HHMI Biointeractive

4000 Jones Bridge Road
Chevy Chase, MD 20815
Phone: 301-215-8754
Email: ricee10@hhmi.org
Web: www.hhmi.org

10:00 AM–11:00 AM–Room B (Hall A)–Show Floor

Presenter: Elizabeth Rice

Discover free multi-media resources for teaching key concepts in evolution and genetics. We will explore exciting new short films and multimedia resources from HHMI that bring science to life and place biological concepts in an exciting context. Activities include use of primary literature, data analysis and statistics. Participants will receive free films and read-to-use resources suitable for Introductory Biology courses.

Building Connections in the Research Community

Thomson Reuters

610 Opperman Drive
Eagan, MN 55123
Phone: 800-336-4474
Email: meredith.mccusker@thomsonreuters.com
Web: www.thomsonreuters.com

12:00 PM–1:00 PM – Room B (Hall A) – Show Floor

Presenter: Meredith McCusker

Are you interested in understanding the impact of your work? In learning how to become more efficient in moving through the research process? Or identifying potential collaborators in your field? At Thomson Reuters, we offer a unique combination of deep analytical insight and research workflow tools to help inform you in every step of your career - whether establishing professional profiles and networks, preparing to publish research, or making informed decisions on what projects and with whom to work. Our unmatched content and technology helps uncover connections within the global research community - bringing together influential researchers, leading institutions, and the most trusted science. Stop by our workshop to learn how Thomson Reuters can connect you with data and tools that help drive discovery and innovation, giving you the best ability to make an impact and advance research in your field.

Variables in FBS Impact Cell Performance, Reproducibility and Relevant Experimental Results

Essential Pharmaceuticals LLC
100 Princeton South Corporate Center
Ewing, NJ 08628
Phone: 609-323-7838
Email: info@essentialpharma.com
Web: www.essentialpharma.com

2:00 PM–3:00 PM–Room A (Hall A)–Show Floor

Presenter: Dr. Adam Elhofy

Fetal bovine serum (FBS) has been used in cell culture for decades. Even though it introduces the greatest variability into cell culture, surprisingly FBS is not intensely scrutinized as a reagent. The use of FBS in cell culture applications will be examined, as its use may go against the basic principles of scientific experimentation in that the variables are not controlled for, it contains unknowns, and results from experiments using FBS in cell culture potentially cannot be replicated.

Tips and Tricks for Improved Immunostaining

Abcam
1 Kendall Square, Suite B2304
Cambridge, MA 02139
Phone: 888-77-ABCAM
Fax: 877-775-8286
Email: us.orders@abcam.com
Web: www.abcam.com

2:00 PM–3:00 PM – Room B (Hall A) – Show Floor

Presenter: Brendan Collins

Immunohistochemistry can be a very frustrating and time consuming technique to get right. Over the years, Abcam's Scientific Support team have successfully helped many scientists with their immunostaining experiments.

Our expert from the Scientific Support team will share some of the most common problems and mistakes made in the lab when performing immunostaining on tissue or cell culture samples, and reveal their top tips for troubleshooting your experiment. The topics covered in this talk will address the entire experimental procedure: treatment of cells or tissue to modulate protein expression, preparation of samples for immunochemical analysis, and protein visualization. If you have any specific questions, our team would be happy to answer them after the presentation.

Society Special Functions

Daily Listing

Thursday, March 26, 2015

*ASIP Council Meeting—8:00 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

*ASBMB Finance Committee Meeting—8:30 AM
(*Westin Boston Waterfront, Faneuil*)

ASN Office—9:30 AM
(*Renaissance Boston Waterfront Hotel, Georges*)

*ASPET Finance Committee Meeting—5:00 PM
(*Westin Boston Waterfront, Douglas*)

*ASBMB Council Reception and Working Dinner—5:30 PM
(*Westin Boston Waterfront, Stone*)

Friday, March 27, 2015

*AAA Board Meeting—8:00 AM
(*Westin Boston Waterfront, Faneuil*)

*ASIP Committee for Career Development & Diversity—8:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

*ASBMB Council Meeting—9:00 AM
(*Westin Boston Waterfront, Burroughs*)

NIH Boot Camp: Becoming a Manager—9:00 AM
(*Boston Convention & Exhibition Center, Room 206B*)

*ASIP Education Committee Meeting—9:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

ASN Sponsored Satellite Program: Whole-Milk Dairy Foods in Nutrition and Health: An Evaluation of the Current State of the Science Session Description, Organized and Sponsored by the Dairy Research Institute/National Dairy Council—9:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E*)

ASPET Give a Day of Service to Boston at EB2015—10:00 AM
(*Cradles to Crayons*)

*ASIP Membership Committee Meeting—11:00 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

*APS Endocrinology and Metabolism Section Steering Committee Meeting—12:00 PM
(*Westin Boston Waterfront, Paine*)

*ASIP Task Force on Scientific Events and Special Programs—12:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

*ASPET Council Meeting—12:00 PM
(*Westin Boston Waterfront, Douglas*)

ASN Caretonoid and Retinoid Interactive Group RIS (CARIG) Annual Symposium—1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Ballroom A/B/C*)

ASN Sponsored Satellite Program: Neural - Physiologic Mechanisms Regulating Sodium Appetite, Organized and Sponsored by Grocery Manufactures Association—1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E*)

ASN Sponsored Satellite Program: Science and Policy: Adopting a Fruitful Vegetable Encounter for Our Children, Organized and Sponsored by the Alliance for Potato Research and Education—1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F/G/H*)

*ASPET Council of Division Chairs Meeting—1:00 PM
(*Westin Boston Waterfront, Revere*)

*ASIP Publications Committee Meeting—1:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

*ASIP Program Committee Meeting—2:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

APS Environmental & Exercise Physiology Section Program Committee Meeting—3:00 PM
(*Westin Boston Waterfront, Independence Boardroom*)

*ASBMB Student Chapters Committee Meeting—3:00 PM
(*Westin Boston Waterfront, Lewis*)

*ASIP Research and Science Policy Committee—3:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

Special Functions—FRIDAY/SATURDAY

*ASBMB Graduate/Postdoctoral Travel Award Professional Networking Reception—5:30 PM
(*Boston Convention & Exhibition Center, Northeast Lobby, Prefunction Level 2*)

*ASBMB JBC Associate Editor's Reception and Working Dinner—5:30 PM
(*Westin Boston Waterfront, Carlton/Burroughs*)

*ASIP Volunteer Appreciation Reception—5:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 2*)

ASN Industry Forum—5:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN Carotenoid and Retinoid Interactive Group RIS (CARIG) Poster Competition and Reception—6:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D*)

*ASN Reception for Partners and Leaders—7:00 PM
(*Off-Site*)

Saturday, March 28, 2015

ASN Sponsored Satellite Program: Body Water Regulation: Vasopressin as a New Predictor of Disease Risk, Organized and Sponsored by Danone Nutrition Research—6:30 AM
(*Boston Convention & Exhibition Center, 156 B/C*)

ASN Sponsored Satellite Program: Sweeteners and Health: Current Understandings, Research Findings and Directions for Future Research, Organized and Sponsored by The Rippe Lifestyle Institute—6:30 AM
(*Boston Convention & Exhibition Center, 153A/B*)

ASN Nutritional Sciences Council Business Meeting and Breakfast—7:00 AM
(*Boston Convention & Exhibition Center, 150*)

AAA Anatomy Lounge—7:30 AM
(*Boston Convention & Exhibition Center, 103*)

ASN Member and Attendee Lounge—7:30 AM
(*Boston Convention & Exhibition Center, 155*)

*APS Animal Care and Experimentation Committee—8:00 AM
(*Westin Boston Waterfront, Otis*)

*APS Epithelial Transport Group Pre-EB Meeting—8:00 AM
(*Boston Convention & Exhibition Center, Room 50*)

APS Refresher Course: It's All in Your Head - A Refresher Course on the Brain and Systems Control—8:00 AM
(*Boston Convention & Exhibition Center, 210A*)

ASIP Office—8:00 AM
(*Boston Convention & Exhibition Center, 159*)

ASN/ILSI North America Special Conference: Creating the Future of Evidence-based Nutrition Recommendations, using Lipid Research Case Studies—8:00 AM
(*Boston Convention & Exhibition Center, Ballroom East*)

SEBM Council Meeting—8:00 AM
(*Westin Boston Waterfront, Lewis*)

*ASBMB Journal of Biological Chemistry Editorial Board Orientation—8:30 AM
(*Westin Boston Waterfront, Grand Ballroom A*)

*ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees—8:30 AM
(*Boston Convention & Exhibition Center, 253A*)

ASIP Course: Pathobiology for Basic Scientists: Looking Into the Crystal Ball: Inflammasomes and Disease—8:30 AM
(*Boston Convention & Exhibition Center, 160A/B*)

ASIP F TROOP: Roadmap to Fellowship Grant Applications—8:30 AM
(*Boston Convention & Exhibition Center, 154*)

*ASBMB How to Incorporate Science Outreach into Your Portfolio – Best Practices and Broader Impacts—9:00 AM
(*Boston Convention & Exhibition Center, 253B*)

NIH Boot Camp: Becoming a Manager—9:00 AM
(*Boston Convention & Exhibition Center, Room 206B*)

ASPET Speed Networking for Careers Beyond the Academic Bench—9:30 AM
(*Boston Convention & Exhibition Center, 106*)

AAA Career Networking Break—10:00 AM
(*Boston Convention & Exhibition Center, 105*)

APS Central Nervous System Steering Committee Meeting—11:00 AM
(*Westin Boston Waterfront, Quincy*)

ASN Volunteer Leadership Forum—11:00 AM
(*Boston Convention & Exhibition Center, Room 152*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

- *APS Neural Control and Autonomic Regulation Steering Committee Meeting—11:30 AM
(*Westin Boston Waterfront, Stone*)
- ASBMB Poster Competition Judges Orientation—11:30 AM
(*Boston Convention & Exhibition Center, 52A*)
- ASBMB Undergraduate Annual Meeting Orientation—11:30 AM
(*Boston Convention & Exhibition Center, 254AB*)
- ASIP XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist—11:45 AM
(*Westin Boston Waterfront, Marina Ballroom I*)
- APS Teaching Section Steering Committee meeting—12:00 PM
(*Boston Convention & Exhibition Center, Room 201/202*)
- *ASBMB Journal of Biological Chemistry Editorial Board Luncheon—12:00 PM
(*Westin Boston Waterfront, Grand Ballroom B*)
- ASPET 2015 Teaching Institute: Training Students for Teaching Careers—12:00 PM
(*Boston Convention & Exhibition Center, 108*)
- *AAA Career Networking Lunch—12:30 PM
(*Boston Convention & Exhibition Center, 101*)
- *AAA Fellows Circle Meeting—12:30 PM
(*Westin Boston Waterfront, Faneuil*)
- ASN Sponsored Satellite Program: Current Perspective on Protein Quality and Practical Implications for Policy, Organized and Sponsored by DuPont Nutrition & Health—12:45 PM
(*Boston Convention & Exhibition Center, 153A/B*)
- ASN Sponsored Satellite Program: Yogurt in Nutrition: The Role of Yogurt in Weight Management, Organized and Sponsored by Danone Institute International and ASN—12:45 PM
(*Boston Convention & Exhibition Center, 156 B/C*)
- ASBMB Undergraduate Student Research Poster Competition—1:00 PM
(*Boston Convention & Exhibition Center, East Registration – Exhibit Level*)
- ASN Nutrition Education in Medical Schools—1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom B/C*)
- First APS Physiological Genomics Group Conference—1:00 PM
(*Boston Convention & Exhibition Center, 211*)
- *ASBMB Journal of Biological Chemistry Editorial Board Meeting—1:30 PM
(*Westin Boston Waterfront, Grand Ballroom A*)
- ASIP Highlights: Graduate Student Research in Pathology—1:30 PM
(*Boston Convention & Exhibition Center, 162B*)
- *AAA Publications Committee Meeting—2:00 PM
(*Westin Boston Waterfront, Hale*)
- APS WEH Section Trainee Symposium and Data Diuresis Session—2:00 PM
(*Boston Convention & Exhibition Center, 206A*)
- ASIP Cotran Early Career Investigator Award Lecture: Cancer Progression: The Failure to Resolve?—2:00 PM
(*Boston Convention & Exhibition Center, 160 AB*)
- ASN Experimental Animal Nutrition RIS Business Meeting—2:00 PM
(*Boston Convention & Exhibition Center, 156A*)
- ASN First-Time Attendee and New Member Orientation, Organized by the Membership Committee—2:00 PM
(*Boston Convention & Exhibition Center, 150*)
- *APS Frontiers in Physiology Research Teacher Orientation—2:30 PM
(*Westin Boston Waterfront, Revere*)
- ASPET Graduate Student-Postdoctoral Colloquium: How to Get Started—2:45 PM
(*Boston Convention & Exhibition Center, 109A/B*)
- APS Cell and Molecular Physiology Section Steering Committee meeting—3:00 PM
(*Westin Boston Waterfront, Stone*)
- APS Data NCARNation—3:00 PM
(*Boston Convention & Exhibition Center, 212*)
- APS Experimental Physiology Editorial Board Meeting—3:00 PM
(*Boston Convention & Exhibition Center, Room 201/202*)

Special Functions—SATURDAY/SUNDAY

ASN Energy and Macronutrient Metabolism RIS Hot Topics Seminar—3:00 PM
(*Boston Convention & Exhibition Center, 152*)

APS Communications Symposium: “Communicating with the Media” (Alan Alda Center for Communicating Science)—3:15 PM
(*Boston Convention & Exhibition Center, 207*)

APS Undergraduate Orientation Session—3:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom A/B*)

ASIP Young Scientist Leadership Award Lecture: IQGAP1 is a Critical Regulator of Transendothelial Migration—3:30 PM
(*Boston Convention & Exhibition Center, 162B*)

APS Environmental & Exercise Physiology Section Steering Committee Meeting—4:00 PM
(*Westin Boston Waterfront, Otis*)

ASIP Trainee Welcome Reception—4:00 PM
(*Boston Convention & Exhibition Center, Northwest Lobby A*)

ASBMB Careers Speed-Dating for Undergraduates—4:45 PM
(*Boston Convention & Exhibition Center, 257AB*)

ASIP Outstanding Investigator Award Lecture: High Throughput Sequencing for Discovering New Biology—5:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)

ASN Emerging Leaders in Nutrition Science Poster Competition—5:00 PM
(*Boston Convention & Exhibition Center, Ballroom East*)

Penn State / Cornell Nutrition Mixer—5:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

AAA Welcome Reception—6:00 PM
(*Westin Boston Waterfront, Grand Ballroom C/D*)

ASBMB Opening Lecture: Herbert Tabor Research Award—6:00 PM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASPET Business Meeting and Awards Presentation—6:00 PM
(*Boston Convention & Exhibition Center, Room 107AB*)

*ASIP The American Journal of Pathology Editorial Board Dinner—6:30 PM
(*Renaissance Boston Waterfront Hotel, Brewster*)

*National Dairy Council Reception—6:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1/2*)

*ASBMB Journal of Biological Chemistry Reception and Dinner—7:00 PM
(*Westin Boston Waterfront, Grand Ballroom A*)

ASBMB Opening Reception—7:30 PM
(*Boston Convention & Exhibition Center, Ballroom Pre-function Area*)

ASPET Opening and Awards Reception—7:30 PM
(*Boston Convention & Exhibition Center, Southwest Prefunction Area - Level 1*)

ASN University Mixer and Membership Reception—8:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D/E/F/G/H*)

University of Michigan - The Department of Pharmacology and Department of Biological Chemistry Social Hour—9:00 PM
(*Westin Boston Waterfront, Marina Ballroom II*)

Sunday, March 29, 2015

ASN Sponsored Satellite Program: Oats: More than just a Whole Grain, Organized and Sponsored by PepsiCo, Inc.—6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E*)

ASN Sponsored Satellite Program; Running on Empty: Is There a Metabolic or Cognitive Benefit to a Morning Meal? Organized and Sponsored by the Kellogg Company—6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)

ASN Graduate Student Breakfast Supported by the National Dairy Council—6:45 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

APS Business Office—7:00 AM
(*Westin Boston Waterfront, Hancock*)

APS Excellence in Professional Student Travel Award Orientation Session—7:00 AM
(*Westin Boston Waterfront, Stone*)

APS Physiology Understanding Week Poster Session—7:00 AM
(*Westin Boston Waterfront, Grand Ballroom B*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

AAA First Time Attendee Welcome Breakfast—7:30 AM
(*Boston Convention & Exhibition Center, 101*)

APS Cell and Molecular Physiology Section Trainee Breakfast with the Hugh Davson Distinguished Speaker—7:30 AM
(*Westin Boston Waterfront, Commonwealth Ballroom A*)

APS Respiration Section Trainee Highlights Breakfast—7:30 AM
(*Westin Boston Waterfront, Grand Ballroom A*)

*ASPET Diversity Mentoring Breakfast—7:30 AM
(*Westin Boston Waterfront, Faneuil*)

*ASPET JPET Associate Editors Breakfast Meeting—7:30 AM
(*Westin Boston Waterfront, Douglas*)

*APS Bruce Award Poster Judging—8:00 AM
(*Boston Convention & Exhibition Center, East Registration – Exhibit Level*)

APS Membership Committee Meeting—8:00 AM
(*Westin Boston Waterfront, Revere*)

ASBMB Plenary Lecture and Earl and Thressa Stadtman Distinguished Scientist Award Lecture—8:00 AM
(*Boston Convention & Exhibition Center, Ballroom West*)

APS Cell and Molecular Physiology Section Trainee Award Poster Judging—8:30 AM
(*Westin Boston Waterfront, Grand Ballroom C*)

APS Comparative and Evolutionary Physiology Section Steering Committee Meeting—8:30 AM
(*Westin Boston Waterfront, Paine*)

ASBMB Office—8:30 AM
(*Boston Convention & Exhibition Center, Northeast Lobby Outside Room 252*)

*ASBMB Publications Committee Meeting—8:30 AM
(*Westin Boston Waterfront, Lewis*)

AAA Education Roundtable Session—10:00 AM
(*Boston Convention & Exhibition Center, 52A*)

Journal of Histochemistry & Cytochemistry Lecture—10:30 AM
(*Boston Convention & Exhibition Center, 160C*)

XVth Annual ASIP/AAA Career Development & Mentoring Program and Lunch: Fundamentals of Success: How to Give an Award Winning Presentation—11:45 AM
(*Westin Boston Waterfront, Marina Ballroom I*)

*AAA Career Lunch—12:00 PM
(*Boston Convention & Exhibition Center, 101*)

*APS Environmental & Exercise Physiology Section Adolph Lecturer & Trainee Luncheon—12:00 PM
(*Westin Boston Waterfront, Commonwealth Ballroom A*)

*APS Science Policy Committee Meeting—12:00 PM
(*Westin Boston Waterfront, Marina Ballroom III*)

APS Teaching of Physiology Roundtable Box Luncheon—12:00 PM
(*Boston Convention & Exhibition Center, Room 50*)

ASBMB Award for Exemplary Contributions to Education Lecture—12:15 PM
(*Boston Convention & Exhibition Center, 253B/C*)

APS: Water & Electrolyte Homeostasis Section Luncheon and Business Meeting—12:30 PM
(*Salvatores*)

ASBMB Who SHOULD be Funding Biomedical Research?—12:30 PM
(*Boston Convention & Exhibition Center, 253A*)

ASN Nutrition Translation RIS Business Meeting and Networking Luncheon—12:30 PM
(*Boston Convention & Exhibition Center, 150*)

*ASPET Board of Publications Trustees Meeting—12:30 PM
(*Westin Boston Waterfront, Douglas*)

*ASPET Division for Cardiovascular Pharmacology (CVP) Executive Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Adams*)

*ASPET Division for Drug Discovery and Development (DDD) Executive Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Bulfinch*)

*ASPET Division for Drug Metabolism (DM) Executive Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Executive Boardroom*)

ASN National Osteoporosis Foundation/American Society for Nutrition Draft Statement on Peak Bone Mass Development and Lifestyle Factors—12:45 PM
(*Boston Convention & Exhibition Center, 151AB*)

ASN Vitamins and Minerals RIS Forum and Business Meeting—12:45 PM
(*Boston Convention & Exhibition Center, 156A*)

Special Functions—SUNDAY

*AAA Scientific Affairs Committee Meeting—1:00 PM
(*Westin Boston Waterfront, Hale*)

ASN Diet and Cancer RIS Business Meeting & Funding Update from NIH & AICR—1:00 PM
(*Boston Convention & Exhibition Center, 156C*)

*SEBM Editorial Board Meeting—1:00 PM
(*Westin Boston Waterfront, Marina Ballroom IV*)

ASN Nutrient-Gene Interactions RIS Business Meeting—1:30 PM
(*Boston Convention & Exhibition Center, 153B*)

APS Medical Physiology Course Directors Meeting—2:00 PM
(*Westin Boston Waterfront, Stone*)

ASBMB Mildred Cohn Award in Biological Chemistry Lecture and Ruth Kirschstein Diversity in Science Award Lecture—2:30 PM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASPET Division for Pharmacology Education Symposium: Active Learning: What's Up With That Flipping Classroom—3:00 PM
(*Westin Boston Waterfront, Grand Ballroom D*)

APS Undergraduate Poster Session and David Bruce Awards Reception—3:30 PM
(*Boston Convention & Exhibition Center, East Registration – Exhibit Level*)

ASBMB Young Investigator Award Lecture—3:55 PM
(*Boston Convention & Exhibition Center, 257AB*)

ASN Nutritional Epidemiology RIS Business Meeting and Mentoring Event—4:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN Nutritional Immunology RIS Business Meeting—4:00 PM
(*Renaissance Boston Waterfront Hotel, Spectacle*)

The Microcirculatory Society Business Meeting—4:30 PM
(*Boston Convention & Exhibition Center, 205B*)

ASIP Rous-Whipple Award Lecture: Leukocyte-Epithelial Interactions: A Double-Edged Sword—5:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)

Global GI Club Business & Scientific Meeting—5:00 PM
(*Westin Boston Waterfront, Faneuil*)

SEBM Career Roundtable and Socializer—5:00 PM
(*Westin Boston Waterfront, Marina Ballroom IV*)

APS Renal Section Posters and Professors—5:30 PM
(*Westin Boston Waterfront, Grand Ballroom C*)

Microcirculatory Society Reception (Award and Poster Presentations)—5:30 PM
(*Boston Convention & Exhibition Center, Room 205A*)

ASN Awards Ceremony—6:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)

The Histochemical Society Annual Business Meeting and Awards Reception—6:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

ASPET Student/Postdoc Best Abstract Competition—6:30 PM
(*Westin Boston Waterfront, Galleria*)

APS Physiologists in Industry Mixer—6:45 PM
(*Westin Boston Waterfront, Revere*)

*ASBMB Student Chapter Advisers Networking Reception—7:00 PM
(*Westin Boston Waterfront, Burroughs*)

Christian Fellowship Meeting—7:00 PM
(*Westin Boston Waterfront, Quincy*)

ASBMB Welcome Reception, hosted by the Minority Affairs Committee—7:30 PM
(*Westin Boston Waterfront, Harbor Ballroom II*)

*ASPET Board of Publications Trustees Joint Editorial Boards Dinner—7:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom BC*)

ASPET Student & Postdoc Mixer—8:30 PM
(*Westin Boston Waterfront, Harbor Ballroom III*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

Monday, March 30, 2015

ASN Sponsored Satellite Program: A Healthy Approach to Dietary Fat Consumption: Understanding the Science and Taking Action to Clear Up Consumer Confusion, Organized and Sponsored by the Hass Avocado Board—6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D*)

ASN Sponsored Satellite Program: Breakfast Bioactives Organized and Sponsored by PepsiCo, Inc.—6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Ballroom E*)

*APS Awards Committee Meeting—7:00 AM
(*Westin Boston Waterfront, Stone*)

APS GI&L Programming Committee—7:00 AM
(*Westin Boston Waterfront, Hale*)

*APS Respiration Steering Committee Meeting—7:00 AM
(*Westin Boston Waterfront, Otis*)

ASN Aging and Chronic Disease RIS Business Meeting—7:00 AM
(*Renaissance Boston Waterfront Hotel, Caspian*)

*ASN Department Heads Breakfast, Sponsored by the Kellogg Company—7:00 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B*)

*APS Physiology for Life Science Teachers & Students—7:30 AM
(*Westin Boston Waterfront, Commonwealth Ballroom A/B*)

*ASPET Behavioral Pharmacology Executive Committee Meeting—7:30 AM
(*Westin Boston Waterfront, Adams*)

*ASPET Division for Neuropharmacology Executive Committee Meeting—7:30 AM
(*Westin Boston Waterfront, Bulfinch*)

*ASPET Division for Pharmacology Education (DPE) Executive Committee Meeting—7:30 AM
(*Westin Boston Waterfront, Executive Boardroom*)

*ASPET Molecular Pharmacology Editorial Board Meeting—7:30 AM
(*Westin Boston Waterfront, Douglas*)

ASBMB Plenary/Merck Award Lecture and Bert and Natalie Vallee Award in Biomedical Science Lecture—8:00 AM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASBMB Alice and C.C. Wang Award in Molecular Parasitology Lecture and Symposium—9:45 AM
(*Boston Convention & Exhibition Center, 253A*)

ASN Students Meet the Fellows, Supported by PepsiCo, Inc.—10:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 2*)

*APS Cardiovascular Section Trainee Committee Meeting—11:00 AM
(*Westin Boston Waterfront, Independence Boardroom*)

*ASBMB AMGDB Mid-Year Meeting—11:00 AM
(*Westin Boston Waterfront, Lewis*)

*ASPET/BPS Pharmacology Research & Perspectives Editorial Board Meeting—11:00 AM
(*Westin Boston Waterfront, Executive Boardroom*)

ASN Fellows, 50-Year Members and Past Presidents Luncheon, Supported by Nestlé—11:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

*APC Chairs Lunch—11:45 AM
(*Westin Boston Waterfront, Marina Ballroom III*)

*AAA Career Lunch—12:00 PM
(*Boston Convention & Exhibition Center, 101*)

*APS Chapter Advisory Committee Meeting—12:00 PM
(*Westin Boston Waterfront, Webster*)

*APS Epithelial Transport Group Steering Committee Meeting—12:00 PM
(*Westin Boston Waterfront, Stone*)

APS International Physiology Committee Meeting—12:00 PM
(*Westin Boston Waterfront, Otis*)

APS Journal of Neurophysiology EIC Meeting—12:00 PM
(*Westin Boston Waterfront, Independence Boardroom*)

*AAA Membership Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Hale*)

ASBMB Accreditation Workshop—12:30 PM
(*Boston Convention & Exhibition Center, 256*)

Special Functions—MONDAY

ASBMB Bioinformatics and Modeling Tools for Discovering Functions of Unknown Enzymes Workshop—12:30 PM
(*Boston Convention & Exhibition Center, 251*)

ASBMB Disease-on-a-Chip: New Frontiers in Biomedical Research (Physicians Cmte for Responsible Med)—12:30 PM
(*Boston Convention & Exhibition Center, 255*)

ASBMB Improv for STEM Professionals: Creating Engaging Conversations—12:30 PM
(*Boston Convention & Exhibition Center, 253B/C*)

*ASBMB Lipid Research Division Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Burroughs*)

ASN Lactation RIS/ISRHML Business Meeting—12:30 PM
(*Boston Convention & Exhibition Center, 150*)

*ASPET Division for Molecular Pharmacology Executive Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Douglas*)

*ASPET Division for Toxicology Executive Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Frost Boardroom*)

*ASPET Division for Translational and Clinical Pharmacology (formerly ISTCP) Executive Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Adams*)

*ASPET Mentoring and Career Development Committee Meeting—12:30 PM
(*Westin Boston Waterfront, Executive Boardroom*)

*ASPET Pharmacological Reviews Editorial Board Meeting—12:30 PM
(*Westin Boston Waterfront, Bulfinch*)

ASN Community and Public Health Nutrition RIS Business Meeting and Hot Topic Session—12:45 PM
(*Boston Convention & Exhibition Center, 153C*)

ASN Dietary Bioactive Components RIS: The Role of Dietary Bioactive Components in Bone Health and Development—12:45 PM
(*Boston Convention & Exhibition Center, 152*)

*APS Physiology for Life Science Student Workshop—1:00 PM
(*Westin Boston Waterfront, Grand Ballroom E*)

*APS Physiology for Life Science Teachers Workshop—1:00 PM
(*Westin Boston Waterfront, Commonwealth Ballroom C*)

ASN Medical Nutrition Council Business Meeting—1:00 PM
(*Boston Convention & Exhibition Center, 154*)

ASIP Presidential Symposium: Molecular and Cellular Basis of Disease: Neuropathology as a Paradigm for Disease Processes: President's Symposium: Advances in Investigative Neuropathology—2:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)

Association of Scientists of Origin in America-Business Meeting & Award Lectures—2:00 PM
(*Boston Convention & Exhibition Center, Room 205A*)

ASBMB William C. Rose Award Lecture and Avanti Award in Lipids Lecture—2:30 PM
(*Boston Convention & Exhibition Center, Ballroom West*)

APS Gastrointestinal & Liver Section Trainee Symposium—3:00 PM
(*Westin Boston Waterfront, Harbor Ballroom II*)

ASN Nutrition Education and Behavioral Science RIS Business Meeting and Special Event "Digging Deeper: An Overview of Qualitative Data Collection and Analysis"—3:00 PM
(*Boston Convention & Exhibition Center, 150*)

ASN Minority and Diversity Affairs Forum—4:15 PM
(*Boston Convention & Exhibition Center, 156C*)

ASIP Membership Business Meeting & Awards Presentation—5:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)

ASN Listening Session: Open Access Journal Development—5:15 PM
(*Boston Convention & Exhibition Center, 150*)

APS Central Nervous System Section Awards and Social—5:30 PM
(*Westin Boston Waterfront, Harbor Ballroom II*)

ASPET Division for Drug Discovery and Development Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 107C*)

ASPET Division for Drug Metabolism Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 109A*)

ASPET Division for Molecular Pharmacology Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 108*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

ASPET Division for Neuropharmacology Annual Division Meeting—5:30 PM

(Boston Convention & Exhibition Center, 106)

ASPET Division for Pharmacology Education Annual Division Meeting—5:30 PM

(Boston Convention & Exhibition Center, 109B)

APS Teaching Section Business Meeting—5:45 PM

(Boston Convention & Exhibition Center, Room 213)

Comparative and Evolutionary Physiology Section Trainee Mixer—5:45 PM

(NoName Restaurant, 15 Fish Pier St W, South Boston, MA 02210)

APS Neural Control and Autonomic Regulation Section Reception and Awards Presentation—6:00 PM

(Westin Boston Waterfront, Harbor Ballroom I)

APS Teaching Section Banquet Dinner—6:00 PM

(Odyssey Starlight, 60 Rowes Wharf, Boston)

APS: Gastrointestinal & Liver Section Banquet and Business Meeting—6:00 PM

(Odyssey Starlight, 60 Rowes Wharf, Boston)

APS: Respiration Section Banquet and Business Meeting—6:00 PM

(Odyssey Starlight, 60 Rowes Wharf, Boston)

ASIP Awards Reception—6:00 PM

(Boston Convention & Exhibition Center, Southeast Pre-Function Area - Lobby C)

GI&L Annual Banquet—6:00 PM

(Odyssey Starlight, 60 Rowes Wharf, Boston)

University of Illinois Nutrition Mixer—6:00 PM

(Renaissance Boston Waterfront Hotel, Caspian)

ASBMB Celebrate with the JBC—6:15 PM

(Boston Convention & Exhibition Center, Northeast Lobby, Prefunction Level 2)

AAA Student Poster Reception—6:30 PM

(Boston Convention & Exhibition Center, Northwest Prefunction Area Level 1)

APS Endocrinology and Metabolism Section Business Meeting and Awards Reception—6:30 PM

(Westin Boston Waterfront, Grand Ballroom B)

APS: Renal Section Banquet/Dinner—6:30 PM

(Seaport Hotel, Lighthouse Ballroom)

ASN Global Nutrition Council Business Meeting and Kellogg Prize for International Nutrition Research Lecture—6:30 PM

(Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D)

ASPET Division for Molecular Pharmacology Mixer—6:30 PM

(Westin Boston Waterfront, Burroughs)

ASPET Divisions for Behavioral Pharmacology & Neuropharmacology Joint Mixer—6:30 PM

(Westin Boston Waterfront, Lewis)

ASPET Divisions for Pharmacology Education, Drug Discovery and Development, and Translational, and Clinical Pharmacology (DPE, DDD, TCP) Joint Mixer—6:30 PM

(Westin Boston Waterfront, Carlton)

APS Environmental & Exercise Physiology Section Business & Awards Meeting—7:00 PM

(Westin Boston Waterfront, Marina Ballroom I)

ASBMB and improvscience present LiVE: The Living Improv Experiment—7:00 PM

(Ned Devine's Irish Pub, 1 Faneuil Hall, Quincy Market Building)

Comparative and Evolutionary Physiology Section Business and Dinner Meeting—7:00 PM

(NoName Restaurant, 15 Fish Pier St W, South Boston, MA 02210)

Iowa State University Reception—7:00 PM

(Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3)

APS: Cardiovascular Section Reception and Dinner—7:30 PM

(New England Aquarium)

*ASN Speed Mentoring for Students (SIG/YPIG)—7:30 PM

(Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom H)

*Tufts University Friedman School and HNRCA Alumni and Friends Reception—7:30 PM

(Westin Boston Waterfront, Marina Ballroom I)

ASN Global Nutrition Council Reception—8:00 PM

(Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1)

Special Functions—MONDAY/TUESDAY

APS Environmental & Exercise Physiology Section Social Mixer—8:15 PM
(*Westin Boston Waterfront, Marina Ballroom Foyer*)

EB Young Experimental Scientists (Y.E.S.) Mixer—9:00 PM
(*Westin Boston Waterfront, Galleria Hall*)

ASN Postdoc and Young Professional Networking Event, Organized by YPIG—9:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F/G*)

Tuesday, March 31, 2015

ASN Sponsored Satellite Program: Pairing Nuts and Dried Fruit for Cardiometabolic Health, Organized and Sponsored by Sun-Maid Growers of California & American Pistachio Growers—6:30 AM
(*Boston Convention & Exhibition Center, 52A*)

ASN Sponsored Satellite Program: Smart Snacking: When Science Meets Nutrition, Organized and Sponsored by PepsiCo, Inc.—6:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1/2/3*)

*AAA ASE Editorial Board Meeting—7:00 AM
(*Westin Boston Waterfront, Hale*)

*AAA Public Affairs Committee Meeting—7:00 AM
(*Boston Convention & Exhibition Center, 101*)

*APS Committee on Honors—7:00 AM
(*Westin Boston Waterfront, Revere*)

APS GI & Liver Section Steering Committee Meeting—7:00 AM
(*Westin Boston Waterfront, Independence Boardroom*)

ASN MDAC MARC Travel Awardees Poster Session and Networking Breakfast—7:00 AM
(*Boston Convention & Exhibition Center, 150*)

ASPET Networking Walk (weather permitting)—7:00 AM
(*Westin Boston Waterfront, Meet at Alcott Room*)

*ASPET Drug Metabolism and Disposition Editorial Board Meeting—7:30 AM
(*Westin Boston Waterfront, Douglas*)

*ASPET Nominating Committee Meeting—7:30 AM
(*Westin Boston Waterfront, Frost Boardroom*)

APS Careers Symposium: Resilience is Power: Dealing With the Ups and Downs of Your Scientific Career—8:00 AM
(*Boston Convention & Exhibition Center, Room 207*)

ASBMB Plenary Lecture/ Fritz Lipmann Lectureship and Delano Award for Computational Biosciences Lecture—8:00 AM
(*Boston Convention & Exhibition Center, Room 253 ABC*)

ASIP Specimens for HS Teachers—9:00 AM
(*Westin Boston Waterfront, Marina Ballroom II*)

ASIP Scientific Sleuthing of Human Disease for High School Teachers—9:30 AM
(*Westin Boston Waterfront, Marina Ballroom I*)

ASPET “Can We Talk?” Strategies for Collaborative Pharmacology Education—9:30 AM
(*Westin Boston Waterfront, Grand Ballroom C*)

ASN Obesity RIS Business Meeting and Hot Topic Discussion: The Future of Obesity Treatment—11:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F/G*)

APS Respiration Section Program Committee Meeting—11:45 AM
(*Westin Boston Waterfront, Webster*)

ASIP Lunch & Learn: The Ethics of Personalized Medicine: Quandaries Among the Possibilities—11:45 AM
(*Westin Boston Waterfront, Marina Ballroom IV*)

*AAA Career Lunch—12:00 PM
(*Boston Convention & Exhibition Center, 101*)

*ASPET Cancer Division Discussion—12:00 PM
(*Westin Boston Waterfront, Bulfinch*)

*AAA Educational Affairs Committee—12:30 PM
(*Westin Boston Waterfront, Hale*)

*APS Frontiers in Physiology Research Teacher Fellowship Awards Luncheon—12:30 PM
(*Westin Boston Waterfront, Otis*)

APS: History of Physiology Luncheon and Lecture Sponsored Presentation by Kathy L. Ryan, Ph.D., entitled: Walter B. Cannon’s WWI Experience: Treatment of Traumatic Shock Then and Now—12:30 PM
(*Westin Boston Waterfront, Grand Ballroom E*)

ASBMB Chemical and Optogenetic Manipulation of Lipid Signaling Workshop—12:30 PM
(*Boston Convention & Exhibition Center, Room 251*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

- *ASPET Division Communications Officer Meeting—12:30 PM
(*Westin Boston Waterfront, Executive Boardroom*)
- ASPET Division for Translational and Clinical Pharmacology: Meet The Experts Lunch: Benchside-to-Bedside Research—12:30 PM
(*Westin Boston Waterfront, Douglas*)
- ASN Pediatric Nutrition RIS Interest Meeting—1:45 PM
(*Boston Convention & Exhibition Center, 158*)
- ASBMB Plenary Lecture—2:45 PM
(*Boston Convention & Exhibition Center, 253A/B/C*)
- *ASPET Science Policy Committee Meeting—3:00 PM
(*Westin Boston Waterfront, Bulfinch*)
- *ASPET/BPS Pharmacology Research & Perspectives Management Committee Meeting—3:00 PM
(*Westin Boston Waterfront, Executive Boardroom*)
- ASIP Scientific Interest Group Networking Events and Poster Sessions—5:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)
- ASPET Division for Behavioral Pharmacology Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 109A*)
- ASPET Division for Cardiovascular Pharmacology Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 107AB*)
- ASPET Division for Toxicology Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 108*)
- ASPET Division for Translational and Clinical Pharmacology Annual Division Meeting—5:30 PM
(*Boston Convention & Exhibition Center, 107C*)
- APS Business Meeting—5:45 PM
(*Boston Convention & Exhibition Center, 210*)
- ASBMB Women BMB Scientists' Panel and Networking Reception—6:15 PM
(*Westin Boston Waterfront, Marina Ballroom III/IV*)
- ASPET Division for Cardiovascular Pharmacology (CVP) Mixer—6:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom B*)
- ASPET Divisions for Drug Metabolism & Toxicology Joint Mixer—6:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom A*)
- Calcutta University Alumni Dinner Meeting—6:30 PM
(*Kashmir Indian Restaurant*)
- AAA Closing Awards Reception—7:00 PM
(*Westin Boston Waterfront, Harbor Ballroom Foyer*)
- *Catecholamine Club Dinner—7:00 PM
(*Private Event - Offsite*)
- *ASPET Program Committee Meeting—7:30 PM
(*Westin Boston Waterfront, Adams*)
- AAA Closing Awards Ceremony and Banquet—8:00 PM
(*Westin Boston Waterfront, Harbor Ballroom*)

Wednesday, April 1, 2015

- ASN Sponsored Satellite Program: National Food and Nutrition Policy: Balancing the Role of Research, Nutrition Science and Public Health, Organized and Sponsored by the Corn Refiners Association—6:30 AM
(*Boston Convention & Exhibition Center, 151A/B*)
- APS Women in Physiology Committee Mentoring Symposium: Mentoring for Diverse Careers: Mentor and Protégé Perspectives—8:00 AM
(*Boston Convention & Exhibition Center, 205B*)
- ASBMB Plenary Lecture—8:00 AM
(*Boston Convention & Exhibition Center, 253A/B/C*)
- ASN Sponsored Satellite Program: Phenotypic Flexibility, Organized and Sponsored by Nutritech, a European Commission-Funded Project—9:00 AM
(*Boston Convention & Exhibition Center, 151A/B*)
- APS Trainee Symposium: Scientists as Supervisors: Hiring, Firing and Beyond—10:30 AM
(*Boston Convention & Exhibition Center, 206A*)
- ASBMB Walter A. Shaw Young Investigator Award in Lipid Research Lecture—1:15 PM
(*Boston Convention & Exhibition Center, 252AB*)
- APS Nobel Prize in Physiology of Medicine Lecture—4:45 PM
(*Boston Convention & Exhibition Center, Room 210 B/C*)
- APS Closing Reception—7:00 PM
(*Westin Boston Waterfront, Marina Ballroom I/II/III*)

Society Special Functions

Alphabetical Listing

- AAA Anatomy Lounge—Saturday, 7:30 AM
(*Boston Convention & Exhibition Center, 103*)
- *AAA ASE Editorial Board Meeting—Tuesday, 7:00 AM
(*Westin Boston Waterfront, Hale*)
- *AAA Board Meeting—Friday, 8:00 AM
(*Westin Boston Waterfront, Faneuil*)
- *AAA Career Lunch—Sunday, 12:00 PM
(*Boston Convention & Exhibition Center, 101*)
- *AAA Career Lunch—Monday, 12:00 PM
(*Boston Convention & Exhibition Center, 101*)
- *AAA Career Lunch—Tuesday, 12:00 PM
(*Boston Convention & Exhibition Center, 101*)
- AAA Career Networking Break—Saturday, 10:00 AM
(*Boston Convention & Exhibition Center, 105*)
- *AAA Career Networking Lunch—Saturday, 12:30 PM
(*Boston Convention & Exhibition Center, 101*)
- AAA Closing Awards Ceremony and Banquet—
Tuesday, 8:00 PM
(*Westin Boston Waterfront, Harbor Ballroom*)
- AAA Closing Awards Reception—Tuesday, 7:00 PM
(*Westin Boston Waterfront, Harbor Ballroom Foyer*)
- AAA Education Roundtable Session—Sunday, 10:00 AM
(*Boston Convention & Exhibition Center, 52A*)
- *AAA Educational Affairs Committee—Tuesday, 12:30 PM
(*Westin Boston Waterfront, Hale*)
- *AAA Fellows Circle Meeting—Saturday, 12:30 PM
(*Westin Boston Waterfront, Faneuil*)
- AAA First Time Attendee Welcome Breakfast—
Sunday, 7:30 AM
(*Boston Convention & Exhibition Center, 101*)
- *AAA Membership Committee Meeting—
Monday, 12:30 PM
(*Westin Boston Waterfront, Hale*)
- *AAA Public Affairs Committee Meeting—
Tuesday, 7:00 AM
(*Boston Convention & Exhibition Center, 101*)
- *AAA Publications Committee Meeting—Saturday, 2:00 PM
(*Westin Boston Waterfront, Hale*)
- *AAA Scientific Affairs Committee Meeting—
Sunday, 1:00 PM
(*Westin Boston Waterfront, Hale*)
- AAA Student Poster Reception—Monday, 6:30 PM
(*Boston Convention & Exhibition Center, Northwest
Prefunction Area Level 1*)
- AAA Welcome Reception—Saturday, 6:00 PM
(*Westin Boston Waterfront, Grand Ballroom C/D*)
- *APC Chairs Lunch—Monday, 11:45 AM
(*Westin Boston Waterfront, Marina Ballroom III*)
- *APS Animal Care and Experimentation Committee—
Saturday, 8:00 AM
(*Westin Boston Waterfront, Otis*)
- *APS Awards Committee Meeting—Monday, 7:00 AM
(*Westin Boston Waterfront, Stone*)
- *APS Bruce Award Poster Judging—Sunday, 8:00 AM
(*Boston Convention & Exhibition Center, East Registration
– Exhibit Level*)
- APS Business Meeting—Tuesday, 5:45 PM
(*Boston Convention & Exhibition Center, 210*)
- APS Business Office—Saturday, 7:00 AM
(*Westin Boston Waterfront, Hancock*)
- *APS Cardiovascular Section Trainee Committee Meeting—
Monday, 11:00 AM
(*Westin Boston Waterfront, Independence Boardroom*)
- APS Careers Symposium: Resilience is Power: Dealing
With the Ups and Downs of Your Scientific Career—
Tuesday, 8:00 AM
(*Boston Convention & Exhibition Center, Room 207*)
- APS Cell and Molecular Physiology Section Steering
Committee Meeting—Saturday, 3:00 PM
(*Westin Boston Waterfront, Stone*)
- APS Cell and Molecular Physiology Section Trainee Award
Poster Judging—Sunday, 8:30 AM
(*Westin Boston Waterfront, Grand Ballroom C*)

****By invitation only. For up-to-date information, please visit www.experimentalbiology.org***

- APS Cell and Molecular Physiology Section Trainee Breakfast with the Hugh Davson Distinguished Speaker—Sunday, 7:30 AM
(*Westin Boston Waterfront, Commonwealth Ballroom A*)
- APS Central Nervous System Section Awards and Social—Monday, 5:30 PM
(*Westin Boston Waterfront, Harbor Ballroom II*)
- APS Central Nervous System Steering Committee Meeting—Saturday, 11:00 AM
(*Westin Boston Waterfront, Quincy*)
- *APS Chapter Advisory Committee Meeting—Monday, 12:00 PM
(*Westin Boston Waterfront, Webster*)
- APS Closing Reception—Wednesday, 7:00 PM
(*Westin Boston Waterfront, Marina Ballroom I/II/III*)
- *APS Committee on Honors—Tuesday, 7:00 AM
(*Westin Boston Waterfront, Revere*)
- APS Communications Symposium: “Communicating with the Media” (Alan Alda Center for Communicating Science)—Saturday, 3:15 PM
(*Boston Convention & Exhibition Center, 207*)
- APS Comparative and Evolutionary Physiology Section Steering Committee Meeting—Sunday, 8:30 AM
(*Westin Boston Waterfront, Paine*)
- APS Data NCARnation—Saturday, 3:00 PM
(*Boston Convention & Exhibition Center, 212*)
- APS Endocrinology and Metabolism Section Business Meeting and Awards Reception—Monday, 6:30 PM
(*Westin Boston Waterfront, Grand Ballroom B*)
- *APS Endocrinology and Metabolism Section Steering Committee Meeting—Friday, 12:00 PM
(*Westin Boston Waterfront, Paine*)
- *APS Environmental & Exercise Physiology Section Adolph Lecturer & Trainee Luncheon—Sunday, 12:00 PM
(*Westin Boston Waterfront, Commonwealth Ballroom A*)
- APS Environmental & Exercise Physiology Section Business & Awards Meeting—Monday, 7:00 PM
(*Westin Boston Waterfront, Marina Ballroom I*)
- APS Environmental & Exercise Physiology Section Program Committee Meeting—Friday, 3:00 PM
(*Westin Boston Waterfront, Independence Boardroom*)
- APS Environmental & Exercise Physiology Section Social Mixer—Monday, 8:15 PM
(*Westin Boston Waterfront, Marina Ballroom Foyer*)
- APS Environmental & Exercise Physiology Section Steering Committee Meeting—Saturday, 4:00 PM
(*Westin Boston Waterfront, Otis*)
- *APS Epithelial Transport Group Pre-EB Meeting—Saturday, 8:00 AM
(*Boston Convention & Exhibition Center, Room 50*)
- *APS Epithelial Transport Group Steering Committee Meeting—Monday, 12:00 PM
(*Westin Boston Waterfront, Stone*)
- APS Excellence in Professional Student Travel Award Orientation Session—Sunday, 7:00 AM
(*Westin Boston Waterfront, Stone*)
- APS Experimental Physiology Editorial Board Meeting—Saturday, 3:00 PM
(*Boston Convention & Exhibition Center, Room 201/202*)
- *APS Frontiers in Physiology Research Teacher Fellowship Awards Luncheon—Tuesday, 12:30 PM
(*Westin Boston Waterfront, Otis*)
- *APS Frontiers in Physiology Research Teacher Orientation—Saturday, 2:30 PM
(*Westin Boston Waterfront, Revere*)
- APS Gastrointestinal & Liver Section Trainee Symposium—Monday, 3:00 PM
(*Westin Boston Waterfront, Harbor Ballroom II*)
- APS GI & Liver Section Steering Committee Meeting—Tuesday, 7:00 AM
(*Westin Boston Waterfront, Independence Boardroom*)
- APS GI&L Programming Committee—Monday, 7:00 AM
(*Westin Boston Waterfront, Hale*)
- APS International Physiology Committee Meeting—Monday, 12:00 PM
(*Westin Boston Waterfront, Otis*)
- APS Journal of Neurophysiology EIC Meeting—Monday, 12:00 PM
(*Westin Boston Waterfront, Independence Boardroom*)
- APS Medical Physiology Course Directors Meeting—Sunday, 2:00 PM
(*Westin Boston Waterfront, Stone*)

Special Functions—ALPHABETICAL

APS Membership Committee Meeting—Sunday, 8:00 AM
(*Westin Boston Waterfront, Revere*)

APS Neural Control and Autonomic Regulation Section
Reception and Awards Presentation—Monday, 6:00 PM
(*Westin Boston Waterfront, Harbor Ballroom I*)

*APS Neural Control and Autonomic Regulation Steering
Committee Meeting—Saturday, 11:30 AM
(*Westin Boston Waterfront, Stone*)

APS Nobel Prize in Physiology of Medicine Lecture—
Wednesday, 4:45 PM
(*Boston Convention & Exhibition Center, Room 210 B/C*)

APS Physiologists in Industry Mixer—Sunday, 6:45 PM
(*Westin Boston Waterfront, Revere*)

*APS Physiology for Life Science Student Workshop—
Monday, 1:00 PM
(*Westin Boston Waterfront, Grand Ballroom E*)

*APS Physiology for Life Science Teachers & Students—
Monday, 7:30 AM
(*Westin Boston Waterfront, Commonwealth Ballroom A/B*)

*APS Physiology for Life Science Teachers Workshop—
Monday, 1:00 PM
(*Westin Boston Waterfront, Commonwealth Ballroom C*)

APS Physiology Understanding Week Poster Session—
Sunday, 7:00 AM
(*Westin Boston Waterfront, Grand Ballroom B*)

APS Refresher Course: It's All in Your Head – A Refresher
Course on the Brain and Systems Control—Saturday,
8:00 AM
(*Boston Convention & Exhibition Center, 210A*)

APS Renal Section Posters and Professors—Sunday, 5:30 PM
(*Westin Boston Waterfront, Grand Ballroom C*)

APS Respiration Section Program Committee Meeting—
Tuesday, 11:45 AM
(*Westin Boston Waterfront, Webster*)

APS Respiration Section Trainee Highlights Breakfast—
Sunday, 7:30 AM
(*Westin Boston Waterfront, Grand Ballroom A*)

*APS Respiration Steering Committee Meeting—
Monday, 7:00 AM
(*Westin Boston Waterfront, Otis*)

*APS Science Policy Committee Meeting—
Sunday, 12:00 PM
(*Westin Boston Waterfront, Marina Ballroom III*)

APS Teaching of Physiology Roundtable Box Luncheon—
Sunday, 12:00 PM
(*Boston Convention & Exhibition Center, Room 50*)

APS Teaching Section Banquet Dinner—Monday, 6:00 PM
(*Odyssey Starlight, 60 Rowes Wharf, Boston*)

APS Teaching Section Business Meeting—Monday, 5:45 PM
(*Boston Convention & Exhibition Center, Room 213*)

APS Teaching Section Steering Committee Meeting—
Saturday, 12:00 PM
(*Boston Convention & Exhibition Center, Room 201/202*)

APS Trainee Symposium: Scientists as Supervisors:
Hiring, Firing and Beyond—Wednesday, 10:30 AM
(*Boston Convention & Exhibition Center, 206A*)

APS Undergraduate Orientation Session—Saturday, 3:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom A/B*)

APS Undergraduate Poster Session and David Bruce
Awards Reception—Sunday, 3:30 PM
(*Boston Convention & Exhibition Center, East Registration
– Exhibit Level*)

APS WEH Section Trainee Symposium and Data Diuresis
Session—Saturday, 2:00 PM
(*Boston Convention & Exhibition Center, 206A*)

APS Women in Physiology Committee Mentoring
Symposium: Mentoring for Diverse Careers: Mentor and
Protégé Perspectives—Wednesday, 8:00 AM
(*Boston Convention & Exhibition Center, 205B*)

APS: History of Physiology Luncheon and Lecture
Sponsored Presentation by Kathy L. Ryan, Ph.D., entitled:
Walter B. Cannon's WWI Experience: Treatment of
Traumatic Shock Then and Now—Tuesday, 12:30 PM
(*Westin Boston Waterfront, Grand Ballroom E*)

APS: Cardiovascular Section Reception and Dinner—
Monday, 7:30 PM
(*New England Aquarium*)

APS: Gastrointestinal & Liver Section Banquet and Business
Meeting—Monday, 6:00 PM
(*Odyssey Starlight, 60 Rowes Wharf, Boston*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

APS: Renal Section Banquet/Dinner—Monday, 6:30 PM
(*Seaport Hotel, Lighthouse Ballroom*)

APS: Respiration Section Banquet and Business Meeting—
Monday, 6:00 PM
(*Odyssey Starlight, 60 Rowes Wharf, Boston*)

APS: Water & Electrolyte Homeostasis Section Luncheon
and Business Meeting—Sunday, 12:30 PM
(*Salvatores*)

ASBMB Accreditation Workshop—Monday, 12:30 PM
(*Boston Convention & Exhibition Center, 256*)

ASBMB Alice and C.C. Wang Award in Molecular
Parasitology Lecture and Symposium—Monday, 9:45 AM
(*Boston Convention & Exhibition Center, 253A*)

*ASBMB AMGDB Mid-Year Meeting—Monday, 11:00 AM
(*Westin Boston Waterfront, Lewis*)

ASBMB and improvscience present LiVE: The Living
Improv Experiment—Monday, 7:00 PM
(*Ned Devine's Irish Pub, 1 Faneuil Hall, Quincy
Market Building*)

ASBMB Award for Exemplary Contributions to Education
Lecture—Sunday, 12:15 PM
(*Boston Convention & Exhibition Center, 253B/C*)

ASBMB Bioinformatics and Modeling Tools for
Discovering Functions of Unknown Enzymes Workshop—
Monday, 12:30 PM
(*Boston Convention & Exhibition Center, 251*)

ASBMB Careers Speed-Dating for Undergraduates—
Saturday, 4:45 PM
(*Boston Convention & Exhibition Center, 257AB*)

ASBMB Celebrate with the JBC—Monday, 6:15 PM
(*Boston Convention & Exhibition Center, Northeast Lobby,
Prefunction Level 2*)

ASBMB Chemical and Optogenetic Manipulation of Lipid
Signaling Workshop—Tuesday, 12:30 PM
(*Boston Convention & Exhibition Center, Room 251*)

*ASBMB Council Meeting—Friday, 9:00 AM
(*Westin Boston Waterfront, Burroughs*)

*ASBMB Council Reception and Working Dinner—
Thursday, 5:30 PM
(*Westin Boston Waterfront, Stone*)

ASBMB Disease-on-a-Chip: New Frontiers in Biomedical
Research (Physicians Cmte for Responsible Med)—
Monday, 12:30 PM
(*Boston Convention & Exhibition Center, 255*)

*ASBMB Finance Committee Meeting—Thursday, 8:30 AM
(*Westin Boston Waterfront, Faneuil*)

*ASBMB Graduate/Postdoctoral Travel Award Professional
Networking Reception—Friday, 5:30 PM
(*Boston Convention & Exhibition Center, Northeast Lobby,
Prefunction Level 2*)

*ASBMB How to Incorporate Science Outreach into
Your Portfolio – Best Practices and Broader Impacts—
Saturday, 9:00 AM
(*Boston Convention & Exhibition Center, 253B*)

ASBMB Improv for STEM Professionals:
Creating Engaging Conversations—Monday, 12:30 PM
(*Boston Convention & Exhibition Center, 253B/C*)

*ASBMB JBC Associate Editor's Reception and Working
Dinner—Friday, 5:30 PM
(*Westin Boston Waterfront, Carlton/Burroughs*)

*ASBMB Journal of Biological Chemistry Editorial Board
Luncheon—Saturday, 12:00 PM
(*Westin Boston Waterfront, Grand Ballroom B*)

*ASBMB Journal of Biological Chemistry Editorial Board
Meeting—Saturday, 1:30 PM
(*Westin Boston Waterfront, Grand Ballroom A*)

*ASBMB Journal of Biological Chemistry Editorial Board
Orientation—Saturday, 8:30 AM
(*Westin Boston Waterfront, Grand Ballroom A*)

*ASBMB Journal of Biological Chemistry Reception and
Dinner—Saturday, 7:00 PM
(*Westin Boston Waterfront, Grand Ballroom A*)

*ASBMB Lipid Research Division Committee Meeting—
Monday, 12:30 PM
(*Westin Boston Waterfront, Burroughs*)

ASBMB Mildred Cohn Award in Biological Chemistry
Lecture and Ruth Kirschstein Diversity in Science Award
Lecture—Sunday, 2:30 PM
(*Boston Convention & Exhibition Center, Ballroom West*)

Special Functions—ALPHABETICAL

ASBMB Office—Sunday, 8:30 AM
(*Boston Convention & Exhibition Center, Northeast Lobby Outside Room 252*)

ASBMB Opening Lecture: Herbert Tabor Research Award—Saturday, 6:00 PM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASBMB Opening Reception—Saturday, 7:30 PM
(*Boston Convention & Exhibition Center, Ballroom Pre-function Area*)

ASBMB Plenary Lecture—Tuesday, 2:45 PM
(*Boston Convention & Exhibition Center, 253A/B/C*)

ASBMB Plenary Lecture—Wednesday, 8:00 AM
(*Boston Convention & Exhibition Center, 253A/B/C*)

ASBMB Plenary Lecture and Earl and Thressa Stadtman Distinguished Scientist Award Lecture—Sunday, 8:00 AM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASBMB Plenary Lecture/ Fritz Lipmann Lectureship and Delano Award for Computational Biosciences Lecture—Tuesday, 8:00 AM
(*Boston Convention & Exhibition Center, Room 253 ABC*)

ASBMB Plenary/ Merck Award Lecture and Bert and Natalie Vallee Award in Biomedical Science Lecture—Monday, 8:00 AM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASBMB Poster Competition Judges Orientation—Saturday, 11:30 AM
(*Boston Convention & Exhibition Center, 52A*)

*ASBMB Professional Development Program for Graduate Students and Postdoctoral Trainees—Saturday, 8:30 AM
(*Boston Convention & Exhibition Center, 253A*)

*ASBMB Publications Committee Meeting—Sunday, 8:30 AM
(*Westin Boston Waterfront, Lewis*)

*ASBMB Student Chapter Advisers Networking Reception—Sunday, 7:00 PM
(*Westin Boston Waterfront, Burroughs*)

*ASBMB Student Chapters Committee Meeting—Friday, 3:00 PM
(*Westin Boston Waterfront, Lewis*)

ASBMB Undergraduate Annual Meeting Orientation—Saturday, 11:30 AM
(*Boston Convention & Exhibition Center, 254AB*)

ASBMB Undergraduate Student Research Poster Competition—Saturday, 1:00 PM
(*Boston Convention & Exhibition Center, East Registration – Exhibit Level*)

ASBMB Walter A. Shaw Young Investigator Award in Lipid Research Lecture—Wednesday, 1:15 PM
(*Boston Convention & Exhibition Center, 252AB*)

ASBMB Welcome Reception, hosted by the Minority Affairs Committee—Sunday, 7:30 PM
(*Westin Boston Waterfront, Harbor Ballroom II*)

ASBMB Who SHOULD be Funding Biomedical Research?—Sunday, 12:30 PM
(*Boston Convention & Exhibition Center, 253A*)

ASBMB William C. Rose Award Lecture and Avanti Award in Lipids Lecture—Monday, 2:30 PM
(*Boston Convention & Exhibition Center, Ballroom West*)

ASBMB Women BMB Scientists' Panel and Networking Reception—Tuesday, 6:15 PM
(*Westin Boston Waterfront, Marina Ballroom III/IV*)

ASBMB Young Investigator Award Lecture—Sunday, 3:55 PM
(*Boston Convention & Exhibition Center, 257AB*)

ASIP Awards Reception—Monday, 6:00 PM
(*Boston Convention & Exhibition Center, Southeast Pre-Function Area – Lobby C*)

*ASIP Committee for Career Development & Diversity—Friday, 8:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

ASIP Cotran Early Career Investigator Award Lecture: Cancer Progression: The Failure to Resolve?—Saturday, 2:00 PM
(*Boston Convention & Exhibition Center, 160 AB*)

*ASIP Council Meeting—Thursday, 8:00 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

ASIP Course: Pathobiology for Basic Scientists: Looking Into the Crystal Ball: Inflammasomes and Disease—Saturday, 8:30 AM
(*Boston Convention & Exhibition Center, 160A/B*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

- *ASIP Education Committee Meeting—Friday, 9:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)
- ASIP F TROOP: Roadmap to Fellowship Grant Applications—Saturday, 8:30 AM
(*Boston Convention & Exhibition Center, 154*)
- ASIP Highlights: Graduate Student Research in Pathology—Saturday, 1:30 PM
(*Boston Convention & Exhibition Center, 162B*)
- ASIP Lunch & Learn: The Ethics of Personalized Medicine: Quandaries Among the Possibilities—Tuesday, 11:45 AM
(*Westin Boston Waterfront, Marina Ballroom IV*)
- ASIP Membership Business Meeting & Awards Presentation—Monday, 5:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)
- *ASIP Membership Committee Meeting—Friday, 11:00 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)
- ASIP Office—Saturday, 8:00 AM
(*Boston Convention & Exhibition Center, 159*)
- ASIP Outstanding Investigator Award Lecture: High Throughput Sequencing for Discovering New Biology—Saturday, 5:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)
- ASIP Presidential Symposium: Molecular and Cellular Basis of Disease: Neuropathology as a Paradigm for Disease Processes: President's Symposium: Advances in Investigative Neuropathology—Monday, 2:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)
- *ASIP Program Committee Meeting—Friday, 2:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)
- *ASIP Publications Committee Meeting—Friday, 1:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)
- *ASIP Research and Science Policy Committee—Friday, 3:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)
- ASIP Rous-Whipple Award Lecture: Leukocyte-Epithelial Interactions: A Double-Edged Sword—Sunday, 5:00 PM
(*Boston Convention & Exhibition Center, 160A/B*)
- ASIP Scientific Interest Group Networking Events and Poster Sessions—Tuesday, 5:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)
- ASIP Scientific Sleuthing of Human Disease for High School Teachers—Tuesday, 9:30 AM
(*Westin Boston Waterfront, Marina Ballroom I*)
- ASIP Specimens for HS Teachers—Tuesday, 9:00 AM
(*Westin Boston Waterfront, Marina Ballroom II*)
- *ASIP Task Force on Scientific Events and Special Programs—Friday, 12:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)
- *ASIP The American Journal of Pathology Editorial Board Dinner—Saturday, 6:30 PM
(*Renaissance Boston Waterfront Hotel, Brewster*)
- ASIP Trainee Welcome Reception—Saturday, 4:00 PM
(*Boston Convention & Exhibition Center, Northwest Lobby A*)
- *ASIP Volunteer Appreciation Reception—Friday, 5:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 2*)
- ASIP XVth Annual Workshop on Graduate Education in Pathology: Developing and Training the Physician Scientist—Saturday, 11:45 AM
(*Westin Boston Waterfront, Marina Ballroom I*)
- ASIP Young Scientist Leadership Award Lecture: IQGAP1 is a Critical Regulator of Transendothelial Migration—Saturday, 3:30 PM
(*Boston Convention & Exhibition Center, 162B*)
- ASN Aging and Chronic Disease RIS Business Meeting—Monday, 7:00 AM
(*Renaissance Boston Waterfront Hotel, Caspian*)
- ASN Awards Ceremony—Sunday, 6:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)
- ASN Caretonoid and Retinoid Interactive Group RIS (CARIG) Annual Symposium—Friday, 1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Ballroom A/B/C*)
- ASN Carotenoid and Retinoid Interactive Group RIS (CARIG) Poster Competition and Reception—Friday, 6:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D*)

Special Functions—ALPHABETICAL

ASN Community and Public Health Nutrition RIS Business Meeting and Hot Topic Session—Monday, 12:45 PM
(*Boston Convention & Exhibition Center, 153C*)

*ASN Department Heads Breakfast, Sponsored by the Kellogg Company—Monday, 7:00 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B*)

ASN Diet and Cancer RIS Business Meeting & Funding Update from NIH & AICR—Sunday, 1:00 PM
(*Boston Convention & Exhibition Center, 156C*)

ASN Dietary Bioactive Components RIS: The Role of Dietary Bioactive Components in Bone Health and Development—Monday, 12:45 PM
(*Boston Convention & Exhibition Center, 152*)

ASN Emerging Leaders in Nutrition Science Poster Competition—Saturday, 5:00 PM
(*Boston Convention & Exhibition Center, Ballroom East*)

ASN Energy and Macronutrient Metabolism RIS Hot Topics Seminar—Saturday, 3:00 PM
(*Boston Convention & Exhibition Center, 152*)

ASN Experimental Animal Nutrition RIS Business Meeting—Saturday, 2:00 PM
(*Boston Convention & Exhibition Center, 156A*)

ASN Fellows, 50-Year Members and Past Presidents Luncheon, Supported by Nestlé—Monday, 11:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN First-Time Attendee and New Member Orientation, Organized by the Membership Committee—Saturday, 2:00 PM
(*Boston Convention & Exhibition Center, 150*)

ASN Global Nutrition Council Business Meeting and Kellogg Prize for International Nutrition Research Lecture—Monday, 6:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)

ASN Global Nutrition Council Reception—Monday, 8:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN Graduate Student Breakfast Supported by the National Dairy Council—Sunday, 6:45 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN Industry Forum—Friday, 5:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN Lactation RIS/ISRHML Business Meeting—Monday, 12:30 PM
(*Boston Convention & Exhibition Center, 150*)

ASN Listening Session: Open Access Journal Development—Monday, 5:15 PM
(*Boston Convention & Exhibition Center, 150*)

ASN MDAC MARC Travel Awardees Poster Session and Networking Breakfast—Tuesday, 7:00 AM
(*Boston Convention & Exhibition Center, 150*)

ASN Medical Nutrition Council Business Meeting—Monday, 1:00 PM
(*Boston Convention & Exhibition Center, 154*)

ASN Member and Attendee Lounge—Saturday–Tuesday, 7:30 AM
(*Boston Convention & Exhibition Center, 155*)

ASN Minority and Diversity Affairs Forum—Monday, 4:15 PM
(*Boston Convention & Exhibition Center, 156C*)

ASN National Osteoporosis Foundation/American Society for Nutrition Draft Statement on Peak Bone Mass Development and Lifestyle Factors—Sunday, 12:45 PM
(*Boston Convention & Exhibition Center, 151AB*)

ASN Nutrient-Gene Interactions RIS Business Meeting—Sunday, 1:30 PM
(*Boston Convention & Exhibition Center, 153B*)

ASN Nutrition Education and Behavioral Science RIS Business Meeting and Special Event “Digging Deeper: An Overview of Qualitative Data Collection and Analysis”—Monday, 3:00 PM
(*Boston Convention & Exhibition Center, 150*)

ASN Nutrition Education in Medical Schools—Saturday, 1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom B/C*)

ASN Nutrition Translation RIS Business Meeting and Networking Luncheon—Sunday, 12:30 PM
(*Boston Convention & Exhibition Center, 150*)

ASN Nutritional Epidemiology RIS Business Meeting and Mentoring Event—Sunday, 4:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1*)

ASN Nutritional Immunology RIS Business Meeting—Sunday, 4:00 PM
(*Renaissance Boston Waterfront Hotel, Spectacle*)

ASN Nutritional Sciences Council Business Meeting and Breakfast—Saturday, 7:00 AM
(*Boston Convention & Exhibition Center, 150*)

ASN Obesity RIS Business Meeting and Hot Topic Discussion: The Future of Obesity Treatment—Tuesday, 11:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F/G*)

ASN Office—Thursday - Tuesday, 9:30 AM
(*Renaissance Boston Waterfront Hotel, Georges*)

ASN Pediatric Nutrition RIS Interest Meeting—Tuesday, 1:45 PM
(*Boston Convention & Exhibition Center, 158*)

ASN Postdoc and Young Professional Networking Event, Organized by YPIG—Monday, 9:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F/G*)

*ASN Reception for Partners and Leaders—Friday, 7:00 PM
(*Off-Site*)

*ASN Speed Mentoring for Students (SIG/YPIG)—Monday, 7:30 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom H*)

ASN Sponsored Satellite Program: Pairing Nuts and Dried Fruit for Cardiometabolic Health, Organized and Sponsored by Sun-Maid Growers of California & American Pistachio Growers—Tuesday, 6:30 AM
(*Boston Convention & Exhibition Center, 52A*)

ASN Sponsored Satellite Program: A Healthy Approach to Dietary Fat Consumption: Understanding the Science and Taking Action to Clear Up Consumer Confusion, Organized and Sponsored by the Hass Avocado Board—Monday, 6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D*)

ASN Sponsored Satellite Program: Body Water Regulation: Vasopressin as a New Predictor of Disease Risk, Organized and Sponsored by Danone Nutrition Research—Saturday, 6:30 AM
(*Boston Convention & Exhibition Center, 156 B/C*)

ASN Sponsored Satellite Program: Breakfast Bioactives Organized and Sponsored by PepsiCo, Inc.—Monday, 6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Ballroom E*)

ASN Sponsored Satellite Program: Current Perspective on Protein Quality and Practical Implications for Policy, Organized and Sponsored by DuPont Nutrition & Health—Saturday, 12:45 PM
(*Boston Convention & Exhibition Center, 153A/B*)

ASN Sponsored Satellite Program: National Food and Nutrition Policy: Balancing the Role of Research, Nutrition Science and Public Health, Organized and Sponsored by the Corn Refiners Association—Wednesday, 6:30 AM
(*Boston Convention & Exhibition Center, 151A/B*)

ASN Sponsored Satellite Program: Neural - Physiologic Mechanisms Regulating Sodium Appetite, Organized and Sponsored by Grocery Manufactures Association—Friday, 1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E*)

ASN Sponsored Satellite Program: Oats: More than just a Whole Grain, Organized and Sponsored by PepsiCo, Inc.—Sunday, 6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E*)

ASN Sponsored Satellite Program: Phenotypic Flexibility, Organized and Sponsored by Nutritech, a European Commission-Funded Project—Wednesday, 9:00 AM
(*Boston Convention & Exhibition Center, 151A/B*)

ASN Sponsored Satellite Program; Running on Empty: Is There a Metabolic or Cognitive Benefit to a Morning Meal? Organized and Sponsored by the Kellogg Company—Sunday, 6:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom A/B/C/D*)

Special Functions—ALPHABETICAL

ASN Sponsored Satellite Program: Science and Policy: Adopting a Fruitful Vegetable Encounter for Our Children, Organized and Sponsored by the Alliance for Potato Research and Education—Friday, 1:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F/G/H*)

ASN Sponsored Satellite Program: Smart Snacking: When Science Meets Nutrition, Organized and Sponsored by PepsiCo, Inc.—Tuesday, 6:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1/2/3*)

ASN Sponsored Satellite Program: Sweeteners and Health: Current Understandings, Research Findings and Directions for Future Research, Organized and Sponsored by The Rippe Lifestyle Institute—Saturday, 6:30 AM
(*Boston Convention & Exhibition Center, 153A/B*)

ASN Sponsored Satellite Program: Whole-Milk Dairy Foods in Nutrition and Health: An Evaluation of the Current State of the Science Session Description, Organized and Sponsored by the Dairy Research Institute/National Dairy Council—Friday, 9:30 AM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom E*)

ASN Sponsored Satellite Program: Yogurt in Nutrition: The Role of Yogurt in Weight Management, Organized and Sponsored by Danone Institute International and ASN—Saturday, 12:45 PM
(*Boston Convention & Exhibition Center, 156 B/C*)

ASN Students Meet the Fellows, Supported by PepsiCo, Inc.—Monday, 10:30 AM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 2*)

ASN University Mixer and Membership Reception—Saturday, 8:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom D/E/F/G/H*)

ASN Vitamins and Minerals RIS Forum and Business Meeting—Sunday, 12:45 PM
(*Boston Convention & Exhibition Center, 156A*)

ASN Volunteer Leadership Forum—Saturday, 11:00 AM
(*Boston Convention & Exhibition Center, Room 152*)

ASN/ILSI North America Special Conference: Creating the Future of Evidence-Based Nutrition Recommendations, using Lipid Research Case Studies—Saturday, 8:00 AM
(*Boston Convention & Exhibition Center, Ballroom East*)

ASPET “Can We Talk?” Strategies for Collaborative Pharmacology Education—Tuesday, 9:30 AM
(*Westin Boston Waterfront, Grand Ballroom C*)

ASPET 2015 Teaching Institute: Training Students for Teaching Careers—Saturday, 12:00 PM
(*Boston Convention & Exhibition Center, 108*)

*ASPET Behavioral Pharmacology Executive Committee Meeting—Monday, 7:30 AM
(*Westin Boston Waterfront, Adams*)

*ASPET Board of Publications Trustees Joint Editorial Boards Dinner—Sunday, 7:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom BC*)

*ASPET Board of Publications Trustees Meeting—Sunday, 12:30 PM
(*Westin Boston Waterfront, Douglas*)

ASPET Business Meeting and Awards Presentation—Saturday, 6:00 PM
(*Boston Convention & Exhibition Center, Room 107AB*)

*ASPET Cancer Division Discussion—Tuesday, 12:00 PM
(*Westin Boston Waterfront, Bulfinch*)

*ASPET Council Meeting—Friday, 12:00 PM
(*Westin Boston Waterfront, Douglas*)

*ASPET Council of Division Chairs Meeting—Friday, 1:00 PM
(*Westin Boston Waterfront, Revere*)

*ASPET Diversity Mentoring Breakfast—Sunday, 7:30 AM
(*Westin Boston Waterfront, Faneuil*)

*ASPET Division Communications Officer Meeting—Tuesday, 12:30 PM
(*Westin Boston Waterfront, Executive Boardroom*)

ASPET Division for Behavioral Pharmacology Annual Division Meeting—Tuesday, 5:30 PM
(*Boston Convention & Exhibition Center, 109A*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

- *ASPET Division for Cardiovascular Pharmacology (CVP) Executive Committee Meeting—Sunday, 12:30 PM
(*Westin Boston Waterfront, Adams*)
- ASPET Division for Cardiovascular Pharmacology (CVP) Mixer—Tuesday, 6:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom B*)
- ASPET Division for Cardiovascular Pharmacology Annual Division Meeting—Tuesday, 5:30 PM
(*Boston Convention & Exhibition Center, 107AB*)
- *ASPET Division for Drug Discovery and Development (DDD) Executive Committee Meeting—Sunday, 12:30 PM
(*Westin Boston Waterfront, Bulfinch*)
- ASPET Division for Drug Discovery and Development Annual Division Meeting—Monday, 5:30 PM
(*Boston Convention & Exhibition Center, 107C*)
- *ASPET Division for Drug Metabolism (DM) Executive Committee Meeting—Sunday, 12:30 PM
(*Westin Boston Waterfront, Executive Boardroom*)
- ASPET Division for Drug Metabolism Annual Division Meeting—Monday, 5:30 PM
(*Boston Convention & Exhibition Center, 109A*)
- ASPET Division for Molecular Pharmacology Annual Division Meeting—Monday, 5:30 PM
(*Boston Convention & Exhibition Center, 108*)
- *ASPET Division for Molecular Pharmacology Executive Committee Meeting—Monday, 12:30 PM
(*Westin Boston Waterfront, Douglas*)
- ASPET Division for Molecular Pharmacology Mixer—Monday, 6:30 PM
(*Westin Boston Waterfront, Burroughs*)
- ASPET Division for Neuropharmacology Annual Division Meeting—Monday, 5:30 PM
(*Boston Convention & Exhibition Center, 106*)
- *ASPET Division for Neuropharmacology Executive Committee Meeting—Monday, 7:30 AM
(*Westin Boston Waterfront, Bulfinch*)
- *ASPET Division for Pharmacology Education (DPE) Executive Committee Meeting—Monday, 7:30 AM
(*Westin Boston Waterfront, Executive Boardroom*)
- ASPET Division for Pharmacology Education Annual Division Meeting—Monday, 5:30 PM
(*Boston Convention & Exhibition Center, 109B*)
- ASPET Division for Pharmacology Education Symposium: Active Learning: What's Up With That Flipping Classroom—Sunday, 3:00 PM
(*Westin Boston Waterfront, Grand Ballroom D*)
- ASPET Division for Toxicology Annual Division Meeting—Tuesday, 5:30 PM
(*Boston Convention & Exhibition Center, 108*)
- *ASPET Division for Toxicology Executive Committee Meeting—Monday, 12:30 PM
(*Westin Boston Waterfront, Frost Boardroom*)
- *ASPET Division for Translational and Clinical Pharmacology (formerly ISTCP) Executive Committee Meeting—Monday, 12:30 PM
(*Westin Boston Waterfront, Adams*)
- ASPET Division for Translational and Clinical Pharmacology Annual Division Meeting—Tuesday, 5:30 PM
(*Boston Convention & Exhibition Center, 107C*)
- ASPET Division for Translational and Clinical Pharmacology: Meet The Experts Lunch: Benchside-to-Bedside Research—Tuesday, 12:30 PM
(*Westin Boston Waterfront, Douglas*)
- ASPET Divisions for Behavioral Pharmacology & Neuropharmacology Joint Mixer—Monday, 6:30 PM
(*Westin Boston Waterfront, Lewis*)
- ASPET Divisions for Drug Metabolism & Toxicology Joint Mixer—Tuesday, 6:30 PM
(*Westin Boston Waterfront, Commonwealth Ballroom A*)
- ASPET Divisions for Pharmacology Education, Drug Discovery and Development, and Translational, and Clinical Pharmacology (DPE, DDD, TCP) Joint Mixer—Monday, 6:30 PM
(*Westin Boston Waterfront, Carlton*)
- *ASPET Drug Metabolism and Disposition Editorial Board Meeting—Tuesday, 7:30 AM
(*Westin Boston Waterfront, Douglas*)
- *ASPET Finance Committee Meeting—Thursday, 5:00 PM
(*Westin Boston Waterfront, Douglas*)

Special Functions—ALPHABETICAL

ASPET Give a Day of Service to Boston at EB2015—
Friday, 10:00 AM
(*Cradles to Crayons*)

ASPET Graduate Student-Postdoctoral Colloquium: How
to Get Started—Saturday, 2:45 PM
(*Boston Convention & Exhibition Center, 109A/B*)

*ASPET JPET Associate Editors Breakfast Meeting—
Sunday, 7:30 AM
(*Westin Boston Waterfront, Douglas*)

*ASPET Mentoring and Career Development Committee
Meeting—Monday, 12:30 PM
(*Westin Boston Waterfront, Executive Boardroom*)

*ASPET Molecular Pharmacology Editorial Board
Meeting—Monday, 7:30 AM
(*Westin Boston Waterfront, Douglas*)

ASPET Networking Walk (weather permitting)—
Tuesday, 7:00 AM
(*Westin Boston Waterfront, Meet at Alcott Room*)

*ASPET Nominating Committee Meeting—Tuesday, 7:30 AM
(*Westin Boston Waterfront, Frost Boardroom*)

ASPET Opening and Awards Reception—Saturday, 7:30 PM
(*Boston Convention & Exhibition Center, Southwest
Prefunction Area – Level 1*)

*ASPET Pharmacological Reviews Editorial Board
Meeting—Monday, 12:30 PM
(*Westin Boston Waterfront, Bulfinch*)

*ASPET Program Committee Meeting—Tuesday, 7:30 PM
(*Westin Boston Waterfront, Adams*)

*ASPET Science Policy Committee Meeting—Tuesday, 3:00 PM
(*Westin Boston Waterfront, Bulfinch*)

ASPET Speed Networking for Careers Beyond the
Academic Bench—Saturday, 9:30 AM
(*Boston Convention & Exhibition Center, 106*)

ASPET Student & Postdoc Mixer—Sunday, 8:30 PM
(*Westin Boston Waterfront, Harbor Ballroom III*)

ASPET Student/Postdoc Best Abstract Competition—
Sunday, 6:30 PM
(*Westin Boston Waterfront, Galleria*)

*ASPET/BPS Pharmacology Research & Perspectives
Editorial Board Meeting—Monday, 11:00 AM
(*Westin Boston Waterfront, Executive Boardroom*)

*ASPET/BPS Pharmacology Research & Perspectives
Management Committee Meeting—Tuesday, 3:00 PM
(*Westin Boston Waterfront, Executive Boardroom*)

Association of Scientists of Origin in America-Business
Meeting & Award Lectures—Monday, 2:00 PM
(*Boston Convention & Exhibition Center, Room 205A*)

Calcutta University Alumni Dinner Meeting—Tuesday, 6:30 PM
(*Kashmir Indian Restaurant*)

*Catecholamine Club Dinner—Tuesday, 7:00 PM
(*Private Event – Offsite*)

Christian Fellowship Meeting—Sunday, 7:00 PM
(*Westin Boston Waterfront, Quincy*)

Comparative and Evolutionary Physiology Section Business
and Dinner Meeting—Monday, 7:00 PM
(*NoName Restaurant, 15 Fish Pier St W, South Boston,
MA 02210*)

Comparative and Evolutionary Physiology Section Trainee
Mixer—Monday, 5:45 PM
(*NoName Restaurant, 15 Fish Pier St W, South Boston,
MA 02210*)

EB Young Experimental Scientists (Y.E.S.) Mixer—
Monday, 9:00 PM
(*Westin Boston Waterfront, Galleria Hall*)

First APS Physiological Genomics Group Conference—
Saturday, 1:00 PM
(*Boston Convention & Exhibition Center, 211*)

GI&L Annual Banquet—Monday, 6:00 PM
(*Odyssey Starlight, 60 Rowes Wharf, Boston*)

Global GI Club Business & Scientific Meeting—
Sunday, 5:00 PM
(*Westin Boston Waterfront, Faneuil*)

Iowa State University Reception—Monday, 7:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

Journal of Histochemistry & Cytochemistry Lecture—
Sunday, 10:30 AM
(*Boston Convention & Exhibition Center, 160C*)

*By invitation only. For up-to-date information, please visit www.experimentalbiology.org

Microcirculatory Society Reception (Award and Poster Presentations)—Sunday, 5:30 PM
(*Boston Convention & Exhibition Center, Room 205A*)

*National Dairy Council Reception—Saturday, 6:30 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 1/2*)

NIH Boot Camp: Becoming a Manager—Friday, 9:00 AM
(*Boston Convention & Exhibition Center, Room 206B*)

NIH Boot Camp: Becoming a Manager—Saturday, 9:00 AM
(*Boston Convention & Exhibition Center, Room 206B*)

Penn State / Cornell Nutrition Mixer—Saturday, 5:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

SEBM Career Roundtable and Socializer—Sunday, 5:00 PM
(*Westin Boston Waterfront, Marina Ballroom IV*)

SEBM Council Meeting—Saturday, 8:00 AM
(*Westin Boston Waterfront, Lewis*)

*SEBM Editorial Board Meeting—Sunday, 1:00 PM
(*Westin Boston Waterfront, Marina Ballroom IV*)

The Histochemical Society Annual Business Meeting and Awards Reception—Sunday, 6:00 PM
(*Renaissance Boston Waterfront Hotel, Atlantic Ballroom 3*)

The Microcirculatory Society Business Meeting—Sunday, 4:30 PM
(*Boston Convention & Exhibition Center, 205B*)

*Tufts University Friedman School and HNRCA Alumni and Friends Reception—Monday, 7:30 PM
(*Westin Boston Waterfront, Marina Ballroom I*)

University of Illinois Nutrition Mixer—Monday, 6:00 PM
(*Renaissance Boston Waterfront Hotel, Caspian*)

University of Michigan - The Department of Pharmacology and Department of Biological Chemistry Social Hour—Saturday, 9:00 PM
(*Westin Boston Waterfront, Marina Ballroom II*)

XVth Annual ASIP/AAA Career Development & Mentoring Program and Lunch: Fundamentals of Success: How to Give an Award Winning Presentation—Sunday, 11:45 AM
(*Westin Boston Waterfront, Marina Ballroom I*)

Ancillary Functions

- 48th Non-annual Control of Respiration Mixer 2015: Hot Topics in Respiratory Control—Saturday, 6:00 PM
(*Westin Boston Waterfront, Grand Ballroom E*)
- AMSPC Reception—Sunday, 6:00 PM
(*Westin Boston Waterfront, Hale*)
- General Meeting of the Association of African Biomedical Scientists, Inc.—Monday, 4:00 PM
(*Boston Convention & Exhibition Center, Room 50*)
- German Science Breakfast—Monday, 8:00 AM
(*Boston Convention & Exhibition Center, Room 50*)
- International Transmembrane Transporter Society (ITTS) Mixer—Sunday, 7:00 PM
(*Renaissance Boston Waterfront Hotel, Pacific Grand Ballroom F*)
- Michigan State University Pharmacology and Toxicology Reception—Tuesday, 6:00 PM
(*Westin Boston Waterfront, Commonwealth Ballroom C*)
- Protein Quality, Growth and Malnutrition: Advances in Science and the Role of Dairy Ingredients in Food Aid—Monday, 10:00 AM
(*Westin Boston Waterfront, Marina Ballroom II*)
- Special Mixer Hosted by The British Pharmacological Society—Sunday, 5:30 PM
(*Westin Boston Waterfront, Marina Ballroom III*)
- *University of Mississippi Medical Center Graduate Studies in the Health Sciences Alumni Reception—Monday, 6:00 PM
(*Westin Boston Waterfront, Grand Ballroom D*)

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HOTEL LOCATIONS

- 1 - Boston Park Plaza
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Arlington Stop
- 2 - Hilton Boston Back Bay
1617-2316-1100
Hynes Auditorium Stop
- 3 - Boston Marriott Copley Place
1617-2316-5800
Westin Copley Place
1617-262-9600
Midtown Hotel
1617-262-1000
Back Bay Stop
- 4 - Sheraton Boston
1617-2316-2000
Prudential Stop
- 5 - Omni Parker House
1617-227-8600
Government Center Stop
- 6 - Embassy Suites at Logan Airport
1617-567-5000
Hilton Logan Airport
1617-668-6700
Airport Stop
- 7 - Hyatt Regency Boston
1617-912-1234
Downtown Crossing Stop
- 8 - Boston Convention & Exhibition Center
Renaissance Boston Waterfront
1617-338-4111
Westin Boston Waterfront
1617-532-4600
Seaport Hotel
1617-385-4000
North Thirde Center Stop
- 9 - Hilton Boston Financial
1617-556-0006
Intercontinental
1617-767-1000
South Station Stop
- 10 - Doubletree Boston Bayside
1617-822-3600
JFK Stop
- 11 - Courtyard Boston Tremont
1617-426-1400
Doubletree Boston Downtown
1617-956-7900
Chatham Stop
- 12 - Liberty Hotel
1617-224-4000
Charles/MGH Stop
- 13 - Doubletree Suites by Hilton
1617-783-0090
Central Stop
- 14 - Free Airport Shuttle Bus
Provided by Airport

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
RAPID TRANSIT/
KEY BUS ROUTES MAP

LEGEND

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- Key Bus Route (Frequent Service)
- Commuter Rail
- Ferry
- Free shuttle bus service provided by Marriott
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- Transfer station
- Terminus station
- AMTRAK service

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In the advent of industrialization and globalization, humanity has greatly enjoyed the convenience brought about by science and technology, reaping unprecedented benefits made possible by progress and development. Yet, humanity also faces a multitude of critical environmental, socio-cultural, and ethical issues on an unparalleled scale, such as climate change, inequality, and moral degradation. Against this backdrop, Dr. Samuel Yin established the Tang Prize in December 2012 to encourage individuals across the globe to chart the middle path to achieving sustainable development by recognizing and supporting scholars for conducting revolutionary research in the four major fields of Sustainable Development, Biopharmaceutical Science, Sinology, and the Rule of Law. The Tang Prize is truly global in reach, with laureates selected on the basis of the originality of their research along with their contributions to society irrespective of their nationality or ethnicity.

Rooted in the long-standing cultural traditions of Chinese philosophical thinking and in an outlook of convergence and mutual enrichment with other traditions, the Tang Prize aims to provide fresh impetus to the promotion of first-class research and development in the 21st century. Implemented with self-effacement and selflessness, the Tang Prize seeks to bring about positive changes to the global community and to create a brighter future for all humanity.

The Tang Prize in Biopharmaceutical Science recognizes original biopharmaceutical or biomedical research that has led to significant advances towards preventing, diagnosing and/or treating major human diseases to improve human health.

A New Paradigm: Cancer Immunotherapy



James P. Allison



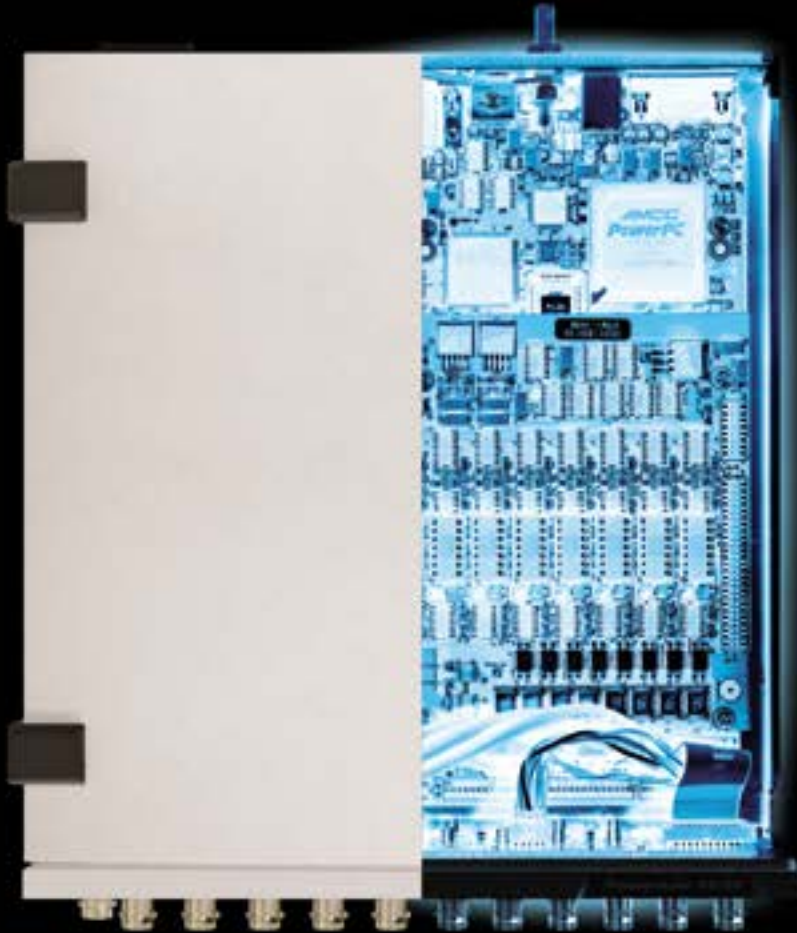
Tasuku Honjo

The 2014 Tang Prize Laureates In Biopharmaceutical Science

For the discoveries of CTLA-4 and PD-1 as immune inhibitory molecules that led to their applications in cancer immunotherapy.



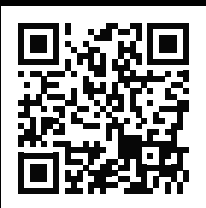
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