

ADVANCING FOOD SAFETY WORLDWIDE.









Rhode Island Convention Center





## THEY DON'T KNOW HOW TECHNOLOGY CAN MAKE THEIR FOOD SAFER. BUT YOU DO.

At DuPont, we believe that science—particularly biotechnology—offers the potential to help ensure the safety and quality of our global food supply. Innovative science from DuPont Qualicon Diagnostics can help you perform fast, accurate food quality testing to address a broad range of challenges—so you can get products to market faster and help ensure the safety of the foods people enjoy every day.

And, with the DuPont™ Danisco® range of food ingredients, we also offer food companies a multitude of premier formulation solutions, including natural ingredients that protect food from organisms such as *Listeria* and Yeast & Mold.

IAFP2012 Providence, Rhode Island July 22-25

www.food.dupont.com | Visit us at Booth #601





I Forum Internacional de Inocuidad de los Alimentos

III Simposio Latinoamericano de Inocuidad de Alimentos

25 y 26 de Octubre de 2012 The Westin Lima - Perú







Organizers

## **An International Forum on Food Safety**

With the support of



Soporte t cnico



Comercializa



Difusi n @inocuo. Sponsors

















www.fiia-iafp.com REGISTRATION

inscripciones@fiia-iafp.com Tel. + 51 1 2426140 anexo 21 **EXHIBITION** Jennifer Vega jvega@fiia-iafp.com Tel. + 51 1 2426140 anexo 22 INFORMATION Alicia Vasquez avasquez@fiia-iafp.com Tel. + 51 1 2426140 anexo 20

## Simply Accurate. Simply Fun.



### Stop by the SDIX Booth, #907, to see what's so simply fun!

Hint: It could have something to do with giving away an iPad® 3 every day.

SDIX is focused on developing food pathogen tests that are Simply Accurate, including environmental monitoring solutions with true 24-hour results for *Listeria* and *Salmonella*.

Stop by to see SDIX and to see why Simply Accurate is also Simply Fun!

RapidChek®. Simply Accurate.

*Listeria* species, *Salmonella, Salmonella* Enteritidis, *E. coli* O157 and *E. coli* "Big 6" O-Types. Now Introducing the RapidScan™ Data Management System.

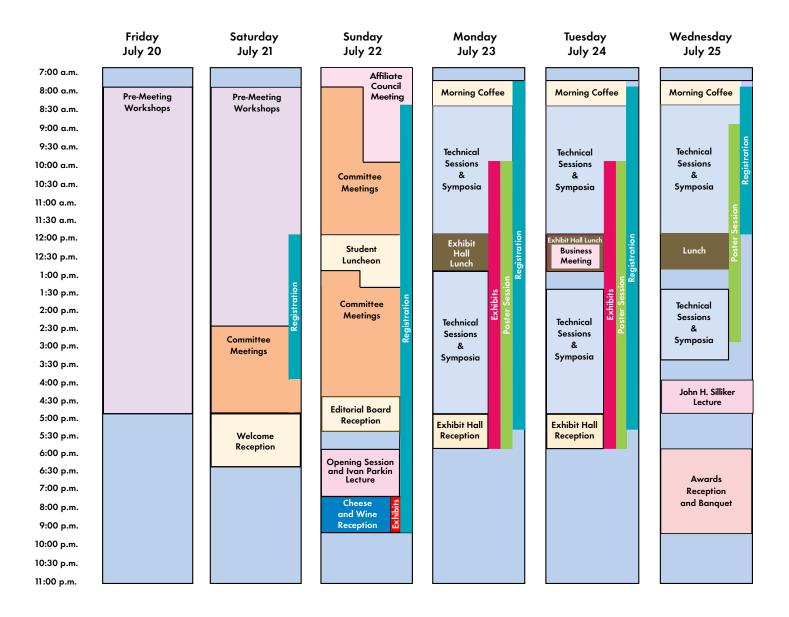


## **Table of Contents**

Meeting-at-a-Glance	6
Sessions-at-a-Glance	7
Welcome from the Executive Board	8
Special Contributors and Sponsors	9
Welcome from the Local Arrangements	10
Sustaining Members	13
Foundation Supporters	16
General Information Attendee Functions By Invitation Events	20
Program Committee	21
Committee Meetings Schedule	22
Exhibit Information	23
Student Activities	24
Opening Session	25
Ivan Parkin Lecturer	26
Ivan Parkin Lecture Abstract	27
Program	
Monday Morning	29
Monday Afternoon	34
Tuesday Morning	37
IAFP Business Meeting	40
Tuesday Afternoon	40
Wednesday Morning	43
Wednesday Afternoon	47

John H. Silliker Lecturer	50
John H. Silliker Lecture Abstract	5
Poster Sessions	
Monday Tuesday Wednesday	62
Local Arrangements	Affiliates Tal
Affiliate Council	Affiliates Tal
Affiliate Officers	8
Affiliate Awards	Awards Tal
Award Recipients	8
About the Award Recipients	88
Exhibitor Floor Plan	Exhibitors Tal
Exhibitors	11;
IAFP Workshops	132
Policy on Commercialism	134
30-Year Members	130
Past Presidents	13
Past Annual Meetings and Locations	138
JFP Award	Authors Tal
Authors and Presenters Index	139
Developing Scientist Competitors	15
Floor Plan	158

## Meeting-at-a-Glance



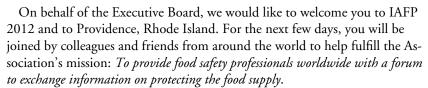
## Sessions-at-a-Glance

Exhibit Hall	Poster Session - Applied Laboratory Methods, Samtatorn, Microbal Food Spoilage, Prod Spoilage, Enthogens, Epidemiology, Food Toxicology, Communication Residual Assessment	10:00 a.m 6:00 p.m.	Poster Session - Meat and Poultry, Produce, Dairy, Anthinicrobias, Novel Laboratory Methods, Pathogens 10:00 a.m 6:00 p.m.		Seafood, Meet and Poultry, Produce, Poultry, Produce, Revorbages, Non-microbial Food Safety, General Microbiology, Antimicrobials, Pathogens, Novel Laboratory Methods 9;00 a.m 3:30 p.m.	
Ballroom E	Technical Session - Non- microbial Food Safety, Food Toxicology, Epidemiology	Technical Session - Produce	Techrical Session - Pathogens	Technical Session - Pethrogens	T10 Applied Laboratory Methods, Novel Laboratory Methods	543 50 Years of Mycotoxins: A Retrospective and Prospective Examination
Room 553	Technical Session - Produce	Technical Session - Risk Assessment	Ts Technical Session - Meat and Poultry, Seafood	Technical Session - Community Outreech and Education	T9 Technical Session - Antimicro bials, Santiation	Recillus ceres: Heat Resistance and Psychrotrophy for Better Life in RTE Foods
Room 552	Food Packaging Sustaina bility: Food Safety with Sustainable Packaging The Perhanvest Coundrum: Effeacy Versus Adoption of Food Safety interventions				Sprout Safety: What We've Done, What We've Done, What We've Learned and How We Can Continue to Move Forward  \$35  Human Pathogens on /in Plants: Muttidiscipinary Synergies for Enhancing Food Safety	Using Nanotechnology for Improved Food Safety Testing in Food Industry
Room 551	Making a Difference: Data Collection for Risk Assessments through Innovative Approaches	Type Residues in Milk and Milk Products Risk Assessment  S17  Toxoplasma: Detection and Risks Associated with Other Diseases and Latent Infection - Prevalence, Methods, Detection in Mean and Poultry, and Burden of Foodborne Illness	China: Food Safety in an Emerging Market Economy RT3  China - Food Safety for an integrated World	Long Term Health Outcomes (LTHO) of Poodborn linesses and Their Contribution to Risk Assessment and Policy Evaluation	S30 Drivers for Global Food Safety: Aligning Public, Private, and Government Resources	Translating HACP to Lean, Six Sigma - Leaning How Food Safety: An International Safety Fits into the Process Improvement Model  John H. Silliker Lecture - Ballroom BC Challenges in Food Security and Food Protection
Ballroom D	Sof Verus Control of Verus Supply Chains Supply Chains Measuring and Managing Nor or trus Cross- contamination Risks in the Food Service Environment	Food Safety Food Safety and International Trade: Opportunities and Challenges	Current Controversies in Food Safety Food Safety Microbiological Safety of Childed ESL, Acidified, and Low-/ High-acid Beverage Products	Zero R&k Pütices in a Non-zero Risk Environment RTS Where De We Go from Here. Discussion of Evidence-based Approaches to Education around Fresh Produce Safety	Tales from He Food Safety World: A Collection of Collection of Extraordinasy Stories from Our Profession	Translating HACP to Enture Challenges in Food Safety. An International Safety Fits into the Process Improvement Model  John H. Silliker Lecture - Ballroom BC International Safety Fits and Safety Fits and the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and Food Protectification of the Process In Food Security and
Room 555-556	SS Today Their Problem - Tomorrow Ours: Impact of International Trade on Food Safety	HACCP - The Rise of the Prerequisites  S14  Recall Management and Best Practices	Food Allergen Labe ling: Challenges and Best Practices  \$23 Freedom Has a Thousand Charms: Guten-free and How to Achieve It	Food Defense. Where are We and Where bo We Have to Go?	Harmonization of Methods to Pollutate and Validate Preventative Controls  532 Improving Retail Food Safety, Studies on the Presence and Transmission of Listeria moncytogenes and Predicted Public Health Benefits of Changes in Retail Practices	_
Ballroom BC	Environmental Assessments (Root Cause Analysis) during Foodborne Disease Outbreaks The Impact of Climate Change on Food Safety: Using Kore as an Example	What Goes around. Comes around: Food Safety Concerns Associated with Water Re-Use from Farm to	\$19 Foodborne Disease Outbreak Update	525 Local Foods: Food Safety Risks and Benefits	Special Session Anatomy of Product Tracing on Sush: Search for the Smoking Gun	Salmonella in Shell Eggs - Post-harvest intervention Technologies
Ballroom A	F5MA from Legislation to Implementation  S2  Microbial Safety of Dry Spices	Salmonells in Low- moisture Foods: A Continued Chaltenge	Microbial Transfer within Food Manufacturing Plants and Hygienic Zoning Control Verified by Environmental Monitoring	The Food Safety Modernization Acti Implementing the Provisions on imported  S24  The Food Safety Modernization Acti Implementing the Preventive Controls and Other Aspects on Domestic Foods	STEC in Food: It's Time for Action!	836 Mkrobiological Safety of Fresh Produce
Room	Monday 8:30 a.m12:00 p.m.	<b>Monday</b> 1:30 p.m5:00 p.m.	Tuesday 8:30 a.m12:00 p.m.	Tuesday 1:30 p.m5:00 p.m.	Wednesday 8:30 a.m12:00 p.m.	Wednesday 1:30 p.m3:30 p.m. Wednesday 4:00 p.m5:00 p.m.

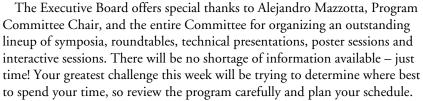
## Welcome from the Executive Board



PRESIDENT
Isabel Walls
Washington, D.C., USA



Food safety remains a top priority for consumers and food safety professionals. It is imperative that we stay in touch with current and emerging issues, the latest science, solutions to new and existing problems and continue to network with our colleagues and developing scientists. IAFP 2012 will deliver on all of that by providing the forum to promote the association's goal of advancing food safety worldwide. This year's program is outstanding and we believe you will find this meeting to be one of our most informative. Prepare to be exposed to the latest revelations in food safety. Prepare to network with leading experts from around the world – oftentimes the most valuable information is shared outside of the sessions! After attending IAFP 2012, we are sure you will be enlightened and invigorated in your role as part of the solution for tomorrow's food safety issues.



The Board would also like to thank the volunteers from the Rhode Island Department of Health; the U.S. Army Natick Soldier Research, Development & Engineering Center; and Johnson & Wales University who have been gracious enough to help host the 2012 Annual Meeting. All of their hard work will make IAFP 2012 a memorable experience for all attendees.

We also extend our gratitude to our valued exhibitors, sponsors and long-time attendees for making the IAFP Annual Meeting so successful every year. Our meeting would not be the same without your support.

So, whether you are a new Member, long-time Member, student Member or even a prospective Member, the Board eagerly welcomes you and encourages you to actively participate in this meeting.

Together, we are Advancing Food Safety Worldwide!



PRESIDENT-ELECT Katherine M. J. Swanson Ecolab Inc. Eagan, MN, USA



SECRETARY
Donald L. Zink
US Food and Drug
Administration - CFSAN
College Park, MD, USA



**VICE PRESIDENT** 

**Donald Schaffner** 

**Rutgers University** 

New Brunswick, NJ, USA

AFFILIATE COUNCIL CHAIRPERSON Gloria Swick-Brown Ohio Department of Health (Retired) Somerset, OH, USA



EXECUTIVE DIRECTOR

David W. Tharp

International Association
for Food Protection
Des Moines, IA, USA



PAST PRESIDENT Lee-Ann Jaykus North Carolina State University Raleigh, NC, USA



## Special Contributors









































### Other Sponsors

Bentley Instruments, Inc.
British Columbia Food Protection Association
California Association of Dairy and Milk Sanitarians
Ceeram
ConAgra Foods
Ecolab
F & H Food Equipment Company
Wilbur Feagan
Florida Association for Food Protection
Frozen Food Foundation

Grocery Manufacturers Association
International Center for Food Industry Excellence at Texas Tech
International Life Sciences Institute, N.A.
(ILSI, N.A.)
International Packaged Ice Association (IPIA)
Nelson-Jameson, Inc.
Pall Gene Systems
Quality Assurance and Food Safety Magazine

University of Wisconsin
Walmart

Weber Scientific

(as of June 15, 2012)

## Welcome from the Local Arrangements



#### Welcome to Rhode Island!

IAAP 2012 in Providence is packed with great presentations concerning global food safety, and the Local Arrangements Committee would like to make your stay as productive and pleasant as possible.

After the reception on Saturday night July 21st, be sure to cross the street from the Convention Center and Westin to attend the free WaterFire event. Gondolas feed wood into fires in 80 braziers on the river from 20 minutes after sunset until just past midnight. Walk along the river and enjoy the outdoor music. There is even outdoor dancing at the TD Bank Ballroom. More information about WaterFire and accompanying events is available at: http://waterfire.org/visit/plan-your-trip-to-providence/.

Johnson and Wales University graduates approximately 1,000 culinary students per year in Rhode Island, and this helps create many great places to dine. The state is especially known for excellent seafood and Italian food. Both can be found within walking distance on Federal Hill which is known for its many excellent restaurants.

For quick dining between sessions, there are many restaurants on the street, and there is also a Food Court on the top floor of the mall attached to the Convention Center. The mall also has many excellent shops if you are looking for something to bring back to your loved ones.

Stop by the Hospitality Booth if you need directions or assistance. We look forward to seeing you soon.

Ernest Julian, Ph.D.
Chief Office of Food Protection
Rhode Island Department of Health
Local Arrangements Committee





## HOITEN DOSSE JEHOITEN AFTHI SAN TOOD BROLECTION?



MUISO4MYS HAJ40AUJ ON TOOD SAFETY

PARC CHANOT CONVENTION CENTER

## There are MORE THAN 3,600 reasons for your organization to join IAFP as a

## SUSTAINING MEMBER

















- Members will see your organization's name in our monthly publications.
- Members will interact with you at IAFP's meetings throughout the world.
- Members will appreciate your sponsorship of key speakers at our global meetings.
- Members will link to your Web site from the IAFP Web site.

As a SUSTAINING MEMBER, your organization will enjoy these and other outstanding benefits of being associated with an organization representing more than 3,600 food safety professionals dedicated to *Advancing Food Safety Worldwide*, and that is the best reason of all for joining IAFP.







### **3M Food Safety**

St. Paul, MN www.3m.com



#### **DuPont Qualicon**

Wilmington, DE www.dupont.com



#### **BD** Diagnostics

Sparks, MD www.bd.com



#### Ecolab Inc.

St. Paul, MN www.ecolab.com



#### bioMérieux, Inc.

Hazelwood, MO www.biomerieux.com



#### Flying Food Group

Chicago, IL www.flyingfood.com



#### **Bio-Rad Laboratories**

Hercules, CA www.biorad.com



#### Heinz

Pittsburgh, PA www.heinz.com



#### Cargill

Minneapolis, MN www.cargill.com



#### Intralox, LLC

Harahan, LA www.intralox.com



#### **CEERAM**

La Chappelle Sur Erdre, France www.ceeram.com



#### Kellogg Company

Battle Creek, MI www.kellogg.com



#### The Coca-Cola Company

Atlanta, GA

www.thecoca-colacompany.com



#### **Kraft Foods**

Glenview, IL www.kraftfoods.com



#### ConAgra Foods, Inc.

Omaha, NE

www.conagrafoods.com



#### Life Technologies

Foster City, CA

www.lifetechnologies.com



COVANCE

#### **Covance**

Madison.WI www.covance.com



#### **Maple Leaf Foods**

Nestle USA, Inc.

Toronto, Ontario, Canada www.mapleleaf.com



#### **Deloitte**

Dallas, TX

www.deloitte.com



#### Good Food, Good Life

Glendale, CA www.nestle.com



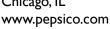
#### Diversey, Inc.

Sturtevant, WI www.diversey.com



#### **PepsiCo**

Chicago, IL









#### **QIAGEN** Inc.

Germantown, MD www.qiagen.com



#### Silliker Inc.

Chicago, IL www.silliker.com



#### **VLM Food Trading** International Inc.

Kirkland, Quebec, Canada www.vlmtrading.com



Bentonville, AR www.walmart.com



#### **AEGIS Food Testing Laborato-**

#### ries

North Sioux City, SD www.aegisfoodlabs.com



#### **Chemstar Corporation**

Lithia Springs, GA www.chemstarcorp.com



#### **Chestnut Labs**

Springfield, MO www.chestnutlabs.com



#### **Dubai Municipality**

Dubai, United Arab Emirates www.dm.gov.ae



#### **EMD Millipore**

Billerica, MA www.emdmillipore.com



#### **Eurofins**

Des Moines, IA www.eurofinsus.com



#### F & H Food Equipment Co.

Springfield, MO www.fhfoodequipment.com



#### Food Safety Net Services, Ltd.

San Antonio, TX www.food-safetynet.com



#### MATRIX MicroScience, Inc.

Golden, CO www.matrixmsci.com



#### **Neogen Corporation**

Lansing, MI www.neogen.com



## |>

## PerkinElmer\*





#### **Orkin Commercial Services**

Atlanta, GA www.OrkinCommercial.com



www.perkinelmer.com

#### **Q** Laboratories, Inc. Cincinnati, OH www.qlaboraries.com

**Quality Flow Inc.** Northbrook, IL

### www.qualityflow.com

**Rich Products Corporation** Buffalo, NY

#### **Seward Limited**

www.rich.com

Worthing, West Sussex, United Kingdom www.seward.co.uk

#### **Weber Scientific**

Hamilton, NJ www.weberscientific.com

# SUSTAINING MFMBFRS

#### SUSTAINING

3-A Sanitary Standards, Inc., McLean, VA; www.3-a.org

Abbott Nutrition, Columbus, OH; www.abbottnutrition.com

ABC Research, Gainesville, FL; www.abcr.com

Advanced Instruments, Inc., Norwood, MA; www.aicompanies.com

AEMTEK, Inc., Fremont, CA; www.aemtek.com

AIB International, Manhattan, KS; www.aibonline.org

Alpha Biosciences, Inc., Baltimore, MD; www.alphabiosciences.com

ASI Food Safety Consultants, Inc., St. Louis, MO; www.asifood.com

**BCN** Research Laboratories, Inc., Rockford, TN; www.bcnlabs.com

BioControl Systems, Inc., Bellevue, WA; www.biocontrolsys.com

Biolog, Inc., Hayward, CA; www.biolog.com

BioLumix, Inc., Ann Arbor, MI; www.mybiolumix.com

Biosafe Consultants Brasil, Rio De laneiro, Brazil; www.biosafelab.com.br

BPI Technology, Dakota Dunes, SD; www.beefproducts.com

Burger King Corp., Miami, FL; www.burgerking.com

Charm Sciences, Inc., Lawrence, MA; www.charm.com

**DARDEN Restaurants, Inc.,** Orlando.

FL; www.darden.com

De Wafelbakkers, North Little Rock, AR; www.dewafelbakkers.com

Deibel Laboratories, Inc.,

Lincolnwood. IL; www.deibellabs.com

DeltaTRAK Inc., Pleasanton, CA; www.deltatrak.com

DNV, Orland Park, IL; www.dnvcert.com

DonLevy Laboratories, Crown Point, IN; www.donlevylab.com

Electrol Specialties Co., South Beloit, IL; www.esc4cip.com

Fisher Scientific, Pittsburgh, PA; www.fishersci.com

Food Directorate, Health Canada, Ottawa, Ontario, Canada; www.hc-sc.gc.ca

Food Lion, LLC, Salisbury, NC; www.foodlion.com

Food Research Institute, University of Wisconsin-Madison Madison, WI; www.wisc.edu/fri/

Food Safety Magazine, Glendale, CA; www.foodsafetymagazine.com

**Grocery Manufacturers Association,** Washington, D.C.; www.gmaonline.org

Hardy Diagnostics, Santa Maria, CA; www.hardydiagnostics.com

HiMedia Laboratories Pvt. Limited, Mumbai, Maharashtra, India; www.himedialabs.com

IBA Inc., Millbury, MA; 508.865.6911

**IEH Laboratories & Consulting Group,** Lake Forest Park, WA; www.iehinc.com

The Industrial Fumigant Company, LLC, Lenexa, KS; www.indfumco.com

International Dairy Foods Association, Washington, D.C.; www.idfa.org

Iowa State University Food Microbiology Group, Ames, IA; www.iastate.edu

The Kroger Co., Cincinnati, OH; www.kroger.com

Margaritaville Enterprises, LLC, Orlando, FL; www.margaritaville.com

Michelson Laboratories, Inc., Commerce, CA; www.michelsonlab.com

Michigan State University-ProMS in Food Safety, East Lansing, MI; www.msu.edu

Micro-Smedt, Herentals, Belgium; www.micro-smedt.be

Microbac Laboratories, Inc., Pittsburgh, PA; www.microbac.com

Microbial-Vac Systems, Inc., Bluffdale, UT; www.m-vac.com

Microbiologics, Inc., St. Cloud, MN; www.microbiologics.com

Microbiology International, Frederick, MD; www.800ezmicro.com

MOCON, Inc., Minneapolis, MN; www.mocon.com

MOM Brands, Lakeville, MN; www.mombrands.com

Nasco International, Inc., Fort Atkinson, WI; www.enasco.com

The National Food Laboratory, Inc., Dublin, CA; www.thenfl.com

NCSI Americas, Seattle, WA; www. ncsiamericas.com

Nelson-Jameson, Inc., Marshfield, WI; www.nelsonjameson.com

Northland Laboratories,

Northbrook, IL; www.northlandlabs.com

NSF International, Ann Arbor, MI; www.nsf.com

PathSensors, Inc., Baltimore, MD; www.pathsensors.com

Penn State University, University Park, PA; www.psu.edu

Process Tek, Des Plaines, IL; www.processtek.net

Publix Super Markets, Inc., Lakeland, FL; www.publix.com

Quality Management, Inc. (dba QMI), Oakdale, MN; www.qmisystems.com

R & F Laboratories, Downers Grove, IL: www.rf-labs.com

Randolph Associates, Birmingham, AL: www.raiconsult.com

Randox Food Diagnostics, Crumlin, Co. Antrim, United Kingdom; www.randoxfooddiagnostics.com

REMEL, Inc., Lenexa, KS; www.remel.com

Rochester Midland Corporation, Rochester, NY; www.rochestermidland.com

Roka Bioscience, Inc., Warren, NJ; www.rokabio.com

Romer Labs, Inc., Union, MO; www.romerlabs.com

rtech™ laboratories, St. Paul, MN; www.rtechlabs.com

SDIX, Newark, DE; www.sdix.com

Seiberling Associates, Inc., Dublin, OH; www.seiberling.com

Sensitech Inc., Beverly, MA; www.sensitech.com

**Sodexo,** Gaithersburg, MD; www.sodexousa.com

The Steritech Group, Inc., Charlotte, NC; www.steritech.com

Supervalu, Eden Prairie, MN; www. supervalu.com

Teledyne Tekmar, Mason, OH; www.teledynetekmar.com

Texas A&M University-Center for Food Safety, College Station, TX; http://cfs.tamu.edu/

United Fresh Produce Association, Washington, D.C.; www.unitedfresh.org

United States Pharmacopera, Rockville, MD; www.usp.org

Universal Sanitizers and Supplies, Inc., Rockford, TN; www.universalsanitizers.com

The Walt Disney Company, Anaheim, CA; www.disney.com

Wegmans Food Markets, Inc., Rochester, NY; www.wegmans.com

WTI, Inc., Jefferson, GA; www.wtiinc.com

## **Foundation Contributors**

Thank you to all our Gold and Silver Sustaining Members for your support. A portion of your Membership Dues goes directly to support the Foundation!



Thanks also to the following organizations for your generous contributions:

Alpha Biosciences, Inc.

**British Retail Consortium** 

**Capital Area Food Protection Association** 

**DNV** 

**Eurofins** 

Florida Association for Food Protection

Food Research Institute, University of Wisconsin-Madison

**Kellogg Company** 

Marler Clark, LLP, PS

**Ontario Food Protection Association** 

REMEL, Inc.

Silliker Group Corp.

**United Kingdom Association for Food Protection** 



#### Thanks to the following individuals for their support of the IAFP Foundation!

Basimah S. A Dheir David W. Acheson Gary R. Acuff Nora L. Adams Catherine E. Adams Hutt Christine M. Aleski Steven D. Allard Ibrahim S. Al-Mohizea Valente B. Alvarez Elvis R. Amair S. R. Amin Kingsley K. Amoako Inmaculada Amoros Dawn L. Amundson Vidya Ananth Anthony P. Anderson Brian J. Anderson Carl E. Anderson Carl B. Anderson Curtis E. Anderson David G. Anderson Jean E. Anderson Kenneth Anderson Robert C. Anderson Nelio Jose Andrade Elizabeth L. Andress Matthew Andrews Tom Angstadt Amir H P-T Anvarian Emiko Araki María Laura Arias-Echandi Agustin Arino Stacy Atchison Henry V. Atherton Robyn Atkinson R. Todd Bacon James N. Bacus Dominic K. Bagenda J. Stan Bailey Peter J. Bailey Gary W. Baird David A. Baker Petra S. Balli Pratik Baneriee Anika Bansal Jozsef Baranyi Susan F. Barefoot Gary Barker Brandi L. Baros Donald L. Barrett Charles A. Bartleson Ralph Basile Michael Batz Derrick A. Bautista Glenn Ramon Bautista Judit Beczner Carolyn M. Bednar

Thomas Bell

Jeff Bender

Harold Bengsch Lisa A. Benjamin Reginald W. Bennett Elaine D. Berry Fred G. Beyerlein Yannick Bichot Karrie L. Bierhals Darrell Bigalke Roy Biggs Margaret Binkley Christine Binsfeld Ralph Bittel James F. Black Isabel C. Blackman Barbara Blakistone Maria MB Blaszyk Tyann Blessington David Blomquist M. Jeffrev Bloom Leslie Bluhm Stephen Blume Christian A. Blvth Shelly Bodiford Dennis Bogart Neil A. Bogart Cvril A. Bonnault Betsv L. Booren Patricia A. Borrusso Ronald G. Bottrell Jim Bouch Tom Boufford Denis S. Boursillon Renee R. Bover Robert E. Brackett Stephen Braithwaite Don M. Breiner Christy T. Brennan Julie M. Bricher Geoff Bright Fekete Brigitta Gordon M. Brock Michael H. Brodsky Robert Brooks Paul Browning John C. Bruhn John Buchanan Robert L. Buchanan Rebecca Buckner Enrico A. Buenaventura Johannes Burlin Greg M. Burnham Frank R. Burns John N. Butts Tim D. Byrne Sarah M. Cahill Steve Calhoun Melissa L. Calicchia

Robert B. Callaway

Katherine A. Campbell

Stephanie Campbell Jennifer L. Cannon Cong Cao Michael D. Carson Alejandro Castillo Jorge Castrillon David W. Caton Juan M. Cevallos-Cevallos Patrice Chablain Albert F. Chambers Benjamin J. Chapman Jason M. Cheddie Jessica L. Chen Xi Chen Yuhuan Chen Jeremy W. Chenu Danny T.L. Cheung Alessandra O. Chiareli Peter G. Chirke Hyang Sook Chun Todd A. Clark Warren S. Clark, Jr. Andrew Clarke George J. Cocoma Larry Cohen Martin B. Cole Garv E. Coleman Pam Coleman Vicki A. Collett Stefano Colombo Roger L. Cook Richard S. Cottrell Donald Countryman Maribeth A. Cousin Julian M. Cox Duncan L. Craig Edmund A.C. Crouch James Cullor Patricia A. Curtis Carl S. Custer Catherine N. Cutter Raymond H. Cypess Jennifer L. Daff Kristen Dahl Isidoros Dalezios Paw Dalgaard Timothy R. Dambaugh Michelle D. Danyluk Hossein Darvaei Catherine A. Davidson P. Michael Davidson **Rob Davies Christopher Davis** Kate E. Davis Matthew L. Davis Lieven De Zutter

Danny Debecker

Damarys Del Castillo

R. H. Deibel

Marie-Laure Delabre Pascal Delaguis Jami K. Delmore Joss Delves-Broughton Angelo DePaola Patricia M. Desmarchelier Noémie Desriac Maria Teresa Destro Govindaraj Dev Kumar Katherine Di Tommaso Sara Diederich Francisco Diez Brian P. Dirks Helga J. Doering Michael J. Dolan Konrad J. Domig Pilar Donado-Godoy Tim DonLevy Stephanie Doores Michael P. Doyle Mark T. Drake Stephenie L. Drake Elizabeth Driscoll Michael L. Dunn **Brian Dunning** Gloria Durst Joseph Gary A. Dykes Denise R. Eblen Karl F. Eckner Efi Economou Douglas W. Eddy Ruth F. Eden Nancy H. Eggink Joseph D. Eifert Barry A. Eisenberg Dave Ellingson Jay L.E. Ellingson Robert S. Elliott Randy L. Elsberry John P. Elwer Patrick C. Embwaga Elena Enache Daniel L. Engeljohn Emilio Esteban Mario Estrada, Jr. Peter S. Evans Alfred R. Fain Kristen S. Fallon John C. Fam Jeffrey M. Farber Jozsef Farkas Hamid R. Farzi Peyman Fatemi Marianne K. Fatica Willis M. Fedio, PhD Paula J. Fedorka-Cray Fave J. Feldstein Peter Feng

Jerome T. Ferguson

Richard Fernandes Louise M. Fielding Sergi Figueras Suzanne Fisher Thomas Ford Thomas L. Ford Stephen J. Forsythe Yvon Fortier Thomas G. Fortman Sylvain Fournaise Wendy S. Fox Antonio H. Frade Paulo Rogerio Franchin Bernadette D.G.M. Franco Carlos Franco Abuin Elizabeth Frankish Eelco Franz Rhonda Fraser Kevin Freeborn Lerrin French Hiroshi Fujikawa Satoshi Fukuda Karen M. Fusco Dennis Gaalswyk Greg P. Galarpe Daniel Gallagher Murray S. Gambrill Veneranda Gapud Francisco J. Garces Donna M. Garren Dhirai Gautam Jill I. Gebler Wondwossen A. Gebreyes Constantin Genigeorgis Gary E. Gensler Bruce A. George Ifigenia Geornaras Charles P. Gerba Peter Gerner-Smidt Charles J. Giambrone Rusty Gildner Alexander O. Gill Colin O. Gill Audecir Giombelli Maryline Girard Kenneth J. Givich Timothy L. Glaros Kathleen A. Glass Sandria L. Godwin David A. Golden Joshua Gong Gabriela A. Gonzalez Andrew M. Gould Richard F. Graham Dilon R. Grammentz Elizabeth Grasso Thomas R. Graumlich Robert B. Gravani

Dale Green



#### Thanks to the following individuals for their support of the IAFP Foundation!

Jennifer M. Green Susan Gregro Ibrahim G.E. Greiby, Sr. Judy D. Greig Christopher J. Griffith Mansel W. Griffiths Dale Grinstead John Grom Stephen F. Grove Lacey M. Guillen Christopher Gunter Giselle Kristi P. Guron Joshua B. Gurtler John J. Guzewich Kevin A. Habas Kathy A. Hachmeister Troy Hafer Robert B. Hagberg Paul A. Hall **Beth Hamil** Thomas S. Hammack Danielle P. Hand Yukiko Hara-Kudo Ben E. Hargrove Seth B. Harkins Sharee A. Harms Nigel M. Harper Linda J. Harris Judy A. Harrison Mark A. Harrison Renee A. Hart-Thakur Ashley Hartzog Fawzy Hashem Walther H. Heeschen David W. Heffner Joe M. Heidenreich Matt W. Henderson Nicole E. Henderson Robert F. Hennes Koen Hennon Omar Hernandez Manuela Hernandez-Herrero Peter Hibbard Walter E. Hill Lynn S. Hinckley Patricia A. Hingston Irvin N. Hirshfield Kai Lai Grace Ho John A. Hoffmann John T. Holah Ann Holden Richard A. Holley Roger Hooi Kristen B. Houck Kurt Houf Brooke V. Houston

Tsui-Ping Huang Steven R. Hunger Anthony C. Huntley Steven Huntoon Jeff Husa Jafar Husain Michael L. Hutchison Cheng-An Hwang Deng-Fwu Hwang Maria Crystina Igarashi Tetsuva Ikeda Paul in 't Veld Yasuhiro Inatsu David T. Ingram Eleni G. lossifidou Kari A. Irvin Kenii Isshiki Carol Iversen Gabriella N. Iwuchukwu Emily Jackson Tanva E. Jackson Richard E. Jacobs Kenneth Janes Marlene E. Janes Alex Janssen L. Stephen Jay Ian Jenson Lone Jespersen Oscar A. Jeter Xiuping Jiang Glenn D. Jobe Janet A. Johnson Jennifer L. Johnson Lauretta Johnson Pat Johnson Marjorie E. Jones Liza Jorbenadze Wenting Ju Giselle Julien Shannon K. Kaplan Daniel R. Kastor Fumiko Kasuga Yuii Kawai Shinichi Kawamoto Susanne E. Keller Sandra E. Kelly-Harris D. Frank Kelsey Patricia A. Kendall Johannah Kendrick Shaun Kennedy Stephen J. Kenney Christine Keys Joo-Sung Kim Bon Kimura Julie Kinder Thomas J. Kinder

Robin K. King

Darrell T. Kinkaid

Danni L. Kneeland

Kalmia E. Kniel Bill Knoespel Young Joon Koh Jens Kolstad Yukifumi Konagaya Jeffrey L. Kornacki Shigenobu Koseki Melvin N. Kramer Anita Kressner Mark Kreul Bobby Krishna Hiromi Kubota Kristy A. Kubota Li L. Kudra Thomas Kuhn Michael Kuhne Saurabh Kumar Glen Kurtz Alec L. Kvriakides Michael W. LaBosky Ainslev Lackey Bonnie J. Lacroix Andre Laflamme Weihua Lai Anna M. Lammerding Keith A. Lampel Mariza Landgraf Gary S. Larsen Lee R. Larsen Kirsten Larson Alison Larsson Yale Larv, Jr. Dwain A. Leaser Craig M. Ledbetter Loralyn Ledenbach Alvin CB Lee Dong Woo Lee Eun Seok Lee Judy Lee Marilyn B. Lee Peter Lee Steven D. Leitch Bella Leona Didier Leroux Fabrice Lesault Susan M. Leslie Vickie Lewandowski Glenn M. Liacouras Klaus Lindpaintner Roland Lindqvist Denise Lindsay James A. Lindsay Susan Linn David C. Lloyd Patrick Logan Fabienne Loisy-Hamon Gabriela Lopez-Velasco

Antonio A. Lourenco

David P. Lowry

John B. Luchansky Ryk Lues Diego Luzuriaga Dan Lynn Steven A. Lyon Lee-Anne M. Lyon-Bartley David R. Macinga Thomas E. Mackie, IV Joseph M. Madden Robert H. Madden Daniel Madgwick Wendy Maduff Akier Assanta Mafu Suzanne S. Mailman Raul C. Mainar-Jaime Jessica Maitland Adel Makdesi **Howard Malberg** Thomas Malley Caterina Mammina Jennifer M. Manion Carolyn Mann Clyde S. Manuel Frank P. Maranino Paul A. Marra Douglas L. Marshall Robert T. Marshall Eric D. Martin Rosario Martin Gabriela Martinez Rene D. Massengale Alan G. Mathew Todd R. McAloon Susan A. McCarthy William E. McCullough Sandra M. McCurdy Lindsey M. McDonnell Jennifer C. McEntire Jane W. McEwen Joseph McGraw Lorraine F. McIntyre Susan K. McKnight Jim McLauchlin Wendy McMahon Lynn M. McMullen Ann Marie McNamara Cronan McNamara David Z. McSwane Don Meeker Nicolas Meneses Joan R. Menke-Schaenzer Erin L. Mertz Robert H. Metcalf Joseph D. Meyer Denise E. Miley Arthur J. Miller John L. Miller Ricardo A. Molins Guadalupe Mondragon

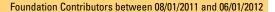
Gloria I. Montes Buffy A. Montgomery Hye-Kyung Moon Eric Moore Sandra L. Moore Mark A. Moorman Scott R. Moosekian Sara E. Mortimore Blaine Morton Sesae Mpuchane Sudarsan Mukhopadhyay Mark Muldoon Barbara A. Munce Ken Mundy Sudarsan Muralidharan Brendan G. Murphy Steven C. Murphy Gail E. Murray Patrick J. Murray Michael T. Musgrove Charles Muyanja Jessica S. Nanyunja M. Nazarowec-White Serap Nazir Carmen J. Neary Laura Nelson Csaba Nemeth Cristina Nerin Luis Augusto Nero Guadalupe V. Nevarez-Moorillon Charisse Newcomer Rossi Gregory J. Newman Debby L. Newslow Gina R. Nicholson Ranzell Nickelson II Yurong Nie Tom Nielsen Per E. Nilsson Jun Nishibu Yoshikazu Nishikawa Randy E. Nolander Londa Nwadike Tom O'Brien Corliss A. O'Bryan Yemi Ogunrinola Deog-Hwan Oh Miho Ohkochi Daniel M. N. Okenu Shunya Onodera Nydia Orue Michele M. Otte Craig Overlock Chorng-Liang Pan Xiao Jun Pan Youwen Pan Petri A. Papinaho

Violeta T. Pardio

Mickey E. Parish

Yun-Hwa P. Hsieh

Hongsheng Huang





#### Thanks to the following individuals for their support of the IAFP Foundation!

Ki-Hwan Park Yong Ho Park Nina G. Parkinson Amy R. Parks John A. Partridge Peter Paulsen Michael J. Pearsall Walter Penaloza Karen S. Pereira Paula Judith Perez Espitia Julia A. Perez-Montano **Brian Perry** Marijana Petrovic Tony M. Petrucci Charles Pettigrew Robert W. Phillips Rena M. Pierami Carol Pierson Joan M. Pinkas Paula R. Piontek Helen M. Piotter Goranka Platisa **Aaron Pleitner** Gregory S. Pluimer Richard J. Podesta Richard Podolak Kristen Pogreba-Brown Roberto Jose Poi Monica A. Ponder Anna C.S. Porto-Fett Morris E. Potter Bizhan Pourkomailian Thomas A. Powlin Mark D. Pratt Herve Prevost **Charles Price** James F. Price Kenneth R. Priest Gale Prince Tuflikha P. Putri Marty Putz William Quimby Emiliano J. Quinto Dragoslava Radin Nur Rahman Kathleen T. Rajkowski Rhonda R. Rallios Henry E. Randolph Damanna R. Rao David D. Rasmussen Ravinder Reddy Ed Reed Fred Reimers Nuno Reis Eva Rencova Brvan C. Revnolds

E. Jeffery Rhodehamel

Carrie E. Rigdon

Maynard J. Riley

Lucia Rivas Joe Rivera **Sherry Roberts** Kathrine Robnett Allison M. Roderick Rosaline Rodrigues Oscar Rodriguez Gonzalez Dragan Rogan Stacey Ross Frederic Rosseneu Pablo J. Rovira Sanz Neil Rowan Joanne Ruebl Jeffrey J. Ryan Elliot T. Ryser Kyung Ryu Courage Kosi Setsoafia Saba Sam Saltzman Ann A. Salvatore Ioannis Samelis Gregory D. Sanders Robert L. Sanders Robert Sanderson Samim Saner Anderson S. Sant'Ana Nobuhiro Sashihara Allen R. Savler Alice Saylor-Yarber Donald W. Schaffner Joshua A. Scheinberg Joseph E. Schlesser John W. Schmidt Michael Schoenherr F. Tracy Schonrock Greg Schultz William C. Schwartz Thomas L. Schwarz Howard Schwenzer Craig Scorah Jenny Scott Charles Seaman Marta Diana Segarra Jeff Seiler Jeffrev Semanchek Maggie Shah Manan Sharma Arlette G. Shazer Shari L. Shea Shiowshuh Sheen Joanna M. Shepherd Erica Sheward Erica Sheward Richard G. Shields, Jr. Tadashi Shimamoto Michael A. Shirer Mike Shoop

Philomena Short

Todd M. Silk

Julie Simcox **Sharrann Simmons** Amarat H. Simonne Randall S. Singer Jennifer Singh Mike Sipp Panagiotis Skandamis Peter J. Slade Alyson Slatkin Ronald D. Smiley James L. Smith Jim Smith Mary Alice Smith Caroline Smith DeWaal Richard B. Smittle L. Michele Smoot Marianne Smukowski John N. Sofos Danièle Sohier Christopher H. Sommers Jan Mei Soon Nikolaos D. Soultos Yesim Sover William H. Sperber D. Wayne Sprung Brenda S. Stahl Kathleen A. Stalev Kim Stanford Natisha Stashko Larry R. Steenson Grace E. Steinke Jefferv G. Stenner Roger Stephan Beatrix Stessl Diana S. Stewart Bruce N. Stewart-Brown Richard F. Stier **Tori Stivers** Joel M. Storck Laura K. Strawn Stacy L. Street Robert C. Strong Qian Sui Trevor V. Suslow Katherine M.J. Swanson Gloria I. Swick-Brown Sue A. Sykes Elizabeth A. Szabo Hong Liong Tan Peter J. Taormina Rodrigo Tarte Judith K. Taylor Michael A. Taylor Steve L. Taylor Margaret Tentser Carl Teravainen

Gry Dawn C. Terrell

Siddhartha Thakur

David W. Tharp

Donald W. Thayer Anne Thebault **David Theno** Pierre Louis Thiney **Paul Thomas** Stephen M. Thome Eric Thomsen Ewen C. D. Todd Al Tokar Alejandro Tomas Callejas R. B. Tompkin Mary Lou Tortorello Matsuda Toshio Payap J. Tosinthiti Chuck Toth Jean-Philippe Tourniaire Suzanne A. Trigg Patricia Tripp-Lazakis Anatoliy M. Trokhymchuk Lisbeth Truelstrup Hansen Kwok Man Tsui Erdal U. Tuncan Mark Turner Hiroshi Urakami Ron Usborne Kathleen Vail Ariena HC Van Bruggen Barbara VanRenterghem Purnendu C. Vasavada Ellen Vestergaard Abigail Villalba David L. Voelker Corene Von Holy Roxanne R. VonTayson Ron Wacker Shaila Wadud Joseph M. Walker Isabel Walls Patrick Ward Molly W. Warren Karen Wasiluk Elaine Watkinson Glen Weaver **Christopher Webb** Fred Weber John Weisgerber John M. Wendell Thomas R. Weschler Kurt E. Westmoreland Diane Wetherington Tim Wheeler Robert Whitaker Russell A. White Wendy N. White Barry Whitman Brooke M. Whitney Robert Wiebe

Thomas C. Wiester, Jr.

Anne Wilcock

Sommer R. Wild Pamela A. Wilger Barbara J. Williams Elizabeth N. Williams Jill Ann Williams John Williams Robert C. Williams Sally K. Williams Christina R. Wilson George E. Wilson Sharon Wilson Charlie Wind Lizziane K. Winkelstroter James Winn Paul P. Winniczuk Rebecca K. Wisby Ryan E. Wist Selamawit Woldesenbet Maxwell Wolf Philip S. Wolff Charlene E. Wolf-Hall Sang Kee Woo Tamara L. Wood Dorothy M. Wrigley Changqing Wu Katie Wymore Bob Wynne Mizuo Yajima Fuminori Yamazaki Julie Yang Ahmet Yemenicioglu No Ki Yeul Royce O. Yokote Thomas J. Young Ruth Zeltner **Guodong Zhang** Shaohua Zhao Tong Zhao Bin Zhou Ting Zhou Michael R. Ziegler John S. Zimmermann Don L. Zink Siti S. Zulfakar Claudio Zweifel Marcel H. Zwietering

## **General Information**

#### ALL EVENTS WILL BE HELD AT THE RHODE ISLAND CONVENTION CENTER

#### SATURDAY, JULY 21

#### **COMMITTEE MEETINGS**

2:30 p.m. — 5:00 p.m. Sponsored by Roka Bioscience

#### **WELCOME RECEPTION**

5:00 p.m. — 6:30 p.m.

Ballroom A

Sponsored by Eurofins Scientific

#### **SUNDAY, JULY 22**

#### **COMMITTEE MEETINGS**

7:00 a.m. — 4:30 p.m.

Sponsored by Roka Bioscience

#### STUDENT LUNCHEON (ticket required)

12:00 p.m. — 1:30 p.m. Rotunda

#### **EDITORIAL BOARD RECEPTION** (by invitation)

4:30 p.m. — 5:30 p.m.

Room 553

Sponsored by Roka Bioscience

#### **OPENING SESSION AND IVAN PARKIN LECTURE**

6:00 p.m. — 7:30 p.m.

Ballroom

#### **CHEESE AND WINE RECEPTION**

7:30 p.m. — 9:30 p.m.

Exhibit Hall

Sponsored by Diversey Inc. and Kraft Foods

#### **EXHIBIT HOURS**

7:30 p.m. — 9:30 p.m.

#### **MONDAY, JULY 23**

#### **COMMITTEE AND PDG CHAIRPERSON**

**BREAKFAST** (by invitation)

7:00 a.m. — 9:00 a.m.

Room 557

#### **SYMPOSIA & TECHNICAL SESSIONS**

8:30 a.m. — 5:00 p.m.

#### **EXHIBIT HOURS**

10:00 a.m. — 6:00 p.m.

#### **EXHIBIT HALL LUNCH**

12:00 p.m. — 1:00 p.m.

Sponsored by Diversey Inc.

#### **EXHIBIT HALL RECEPTION**

5:00 p.m. — 6:00 p.m.

Sponsored by DuPont Qualicon

#### **TUESDAY, JULY 24**

#### SYMPOSIA & TECHNICAL SESSIONS

8:30 a.m. — 5:00 p.m.

#### **EXHIBIT HOURS**

10:00 a.m. — 6:00 p.m.

#### **EXHIBIT HALL LUNCH**

12:00 p.m. — 1:00 p.m.

Sponsored by DNV

#### **BUSINESS MEETING**

12:15 p.m. — 1:00 p.m.

Room 552

#### **EXHIBIT HALL RECEPTION**

5:00 p.m. — 6:00 p.m.

Sponsored by 3M Food Safety

#### PRESIDENT'S RECEPTION (by invitation)

6:00 p.m. — 7:00 p.m.

Rotunda

Sponsored by ConAgra Mills

#### PAST PRESIDENT'S DINNER (by invitation)

7:00 p.m. — 9:00 p.m.

Room 550B

#### STUDENT MIXER

7:00 p.m. — 9:00 p.m.

Room 555AB

#### **WEDNESDAY, JULY 25**

#### SYMPOSIA & TECHNICAL SESSIONS

8:30 a.m. — 3:30 p.m.

#### **NETWORKING LUNCH**

12:00 p.m. — 1:00 p.m.

Sponsored by bioMérieux

#### JOHN H. SILLIKER LECTURE

4:00 p.m. — 5:00 p.m.

Ballroom BC

#### AWARDS RECEPTION AND BANQUET

6:00 p.m. — 9:30 p.m.

Ballroom

#### **REGISTRATION HOURS**

Saturday: 12:00 p.m. – 6:30 p.m.

Sunday: 8:30 a.m. – 9:00 p.m.

Monday: 7:30 a.m. – 5:30 p.m.

Tuesday: 8:00 a.m. – 5:30 p.m.

Wednesday: 8:00 a.m. - 12:00 p.m.

#### **Speaker-Ready Room**

The Speaker-Ready Room is located in 554B, Rhode Island Convention Center, and is available for speakers Sunday through Wednesday, 8:00 a.m. to 5:00 p.m.

#### **Press Release Postings**

A Press Release poster board will be available in the Exhibit Hall for all Press Releases. Post your Press Releases for maximum exposure.

#### **Cell Phone Policy**

As a courtesy to our presenters, we request that you turn off cell phones while attending sessions. Thank you for your cooperation.

#### **Recording Policy**

Unauthorized video, still photography or audio recording will not be allowed. By attending the IAFP Annual Meeting, you authorize IAFP to take your picture and use it in our publications.

#### **NEW THIS YEAR!**

#### Internet

Free access to the Internet is available on the 5th Floor of the Rhode Island Convention Center.

Sponsored by DuPont Qualicon

#### **Meeting App**

A meeting app is available for download from the IAFP website.

Sponsored by DuPont Qualicon

## **Program Committee**

#### Chairperson

Alejandro Mazzotta, Campbell Soup Company

#### Vice Chairperson

Mary Lou Tortorello, U.S. Food and Drug Administration

#### Members

Mindy Brashears, Texas Tech University Jinru Chen, The University of Georgia Maria Teresa Destro, University of Sao Paulo Paula Fedorka-Cray, U.S. Department of Agriculture-ARS-BEAR Joshua Gurtler, U.S. Department of Agriculture-ARS Scott Hood, General Mills Ian Jenson, Meat & Livestock Australia Eric Martin, Margaritaville Enterprises, LLC Mickey Parish, U.S. Food and Drug Administration Mary Lou Tortorello, U.S. Food and Drug Administration Purnendu C. Vasavada, University of Wisconsin-River Falls

#### **Board Liaisons**

Katie Swanson, Ecolab Inc. Isabel Walls

## Committee Meetings Schedule

### **All Attendees are Encouraged to Participate**

TIMES	MEETING	ROOM
<b>SATURDAY, JULY 21</b> 2:30 p.m. – 5:00 p.m. 3:00 p.m. – 4:30 p.m. 3:30 p.m. – 4:30 p.m.	International Food Protection Issues PDG Membership Committee Past Presidents' Committee	Ballroom B 550A 550B
<b>SUNDAY, JULY 22</b> 7:00 a.m. – 10:00 a.m.	Affiliate Council	Rotunda
8:00 a.m. — 10:00 a.m. 8:00 a.m. — 10:00 a.m. 8:00 a.m. — 10:00 a.m.	Food Defense PDG Food Packaging PDG Pre Harvest Food Safety PDG	550B 550A 556AB
8:00 a.m. – 12:00 p.m.	Committee on Control of Foodborne Illness	553AB
8:30 a.m. – 10:00 a.m.	New Media Task Force	551A
9:00 a.m. — 11:00 a.m. 9:00 a.m. — 11:00 a.m. 9:00 a.m. — 11:00 a.m.	Beverage PDG Food Law PDG Viral and Parasitic Foodborne Disease PDG	552B 557 552A
9:00 a.m. – 12:00 p.m.	Dairy Quality and Safety PDG	Ballroom C
10:00 a.m. — 12:00 p.m. 10:00 a.m. — 12:00 p.m. 10:00 a.m. — 12:00 p.m. 10:00 a.m. — 12:00 p.m.	Developing Food Safety Professionals PDG  JFP Management Committee  Meat and Poultry Safety and Quality PDG  Retail Food Safety and Quality PDG	551A 551B Ballroom B 555AB
11:00 a.m. – 12:00 p.m.	Constitution and Bylaws Committee	552B
12:00 p.m. – 1:30 p.m.	Student PDG	Rotunda
1:00 p.m. — 3:00 p.m. 1:00 p.m. — 3:00 p.m. 1:00 p.m. — 3:00 p.m. 1:00 p.m. — 3:00 p.m. 1:00 p.m. — 3:00 p.m.	3-A Committee on Sanitary Procedures Applied Laboratory Methods PDG Food Hygiene and Sanitation PDG Fruit and Vegetable Safety and Quality PDG Seafood Safety and Quality PDG	550B 555AB 556AB Ballroom B 552A
2:00 p.m. – 4:00 p.m. 2:00 p.m. – 4:00 p.m. 2:00 p.m. – 4:00 p.m. 2:00 p.m. – 4:00 p.m. 2:00 p.m. – 4:00 p.m.	Food Chemical Hazards and Food Allergy PDG FPT Management Committee Food Safety Education PDG Microbial Modelling and Risk Analysis PDG Water Safety and Quality PDG	557 551B 551A Ballroom C 552B
3:00 p.m. – 4:30 p.m.	Foundation Committee	552A
3:30 p.m. – 4:30 p.m.	Nominating Committee	550A

## **Exhibit Information**

#### Sunday, July 22

Cheese and Wine Reception — 7:30 p.m. - 9:30 p.m.

Sponsored by



#### Monday, July 23

Pastries and Coffee — 10:00 a.m.

Sponsored by



Lunch in the Exhibit Hall — 12:00 p.m. - 1:00 p.m.

Sponsored by



Coffee Break — 3:00 p.m.

Sponsored by COVANCE

Exhibit Hall Reception — 5:00 p.m. - 6:00 p.m.

Sponsored by



#### Tuesday, July 24

Pastries and Coffee — 10:00 a.m.

Sponsored by



Lunch in the Exhibit Hall — 12:00 p.m. – 1:00 p.m.

Sponsored by



Coffee Break — 3:00 p.m.

Exhibit Hall Reception — 5:00 p.m. – 6:00 p.m.

Sponsored by



#### 20-Year Exhibitors

3-A Sanitary Standards, Inc. 3M Food Safety Advanced Instruments, Inc. Aqualab by Decagon BD Diagnostics BioControl Systems, Inc. bioMérieux Charm Sciences Michelson Laboratories, Inc. Nasco Whirl-Pak Nelson Jameson Q Laboratories, Inc. rtech laboratories Silliker Thermo Scientific Weber Scientific

### 10-Year Exhibitors

ABC Research Corporation
American Proficiency Institute
ASI Food Safety Consultants
Bio-Rad Laboratories
Deibel Laboratories
DuPont Qualicon
Ecolab
EMD Millipore
FDA/Center for Food Safety and

**Applied Nutrition** 

Food Quality Magazine
Food Safety Magazine
Food Safety Net Services
Food Safety Summit
Hardy Diagnostics
Hygiena
IEH Laboratories and
Consulting
International Food Hygiene

Michigan State University
Master of Science in Food
Safety
Microbiologics
Microbiology International
The National Food Lab, LLC
Neogen Corporation
Orkin Commercial Services
SDIX
Springer

## Exhibit Hours

Sunday, July 22 7:30 p.m. – 9:30 p.m.

Monday, July 23 10:00 a.m. – 6:00 p.m.

Tuesday, July 24 10:00 a.m. – 6:00 p.m.

## **Student Activities**

### Student Luncheon

Sunday, July 22

12:00 p.m. - 1:30 p.m. • Rotunda

### Student Mixer

Tuesday, July 24

7:00 p.m. - 9:00 p.m. • Room 555AB



#### **Sponsor**

International Center for Food Industry Excellence at Texas Tech

#### **Additional Contributors**

British Columbia Food Protection Association California Association of Dairy and Milk Sanitarians Florida Association for Food Protection



## Support the Student PDG!



**Purchase your T-Shirt Today** at the Student Booth.

## Job Board

**Attention Job Seekers** and Employers!

Job announcements will be posted on the career board at the Student PDG booth.

FOOD SCIENCE // IQ-CHECK™ REAL-TIME PATHOGEN DETECTION



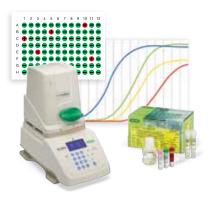
## Bio-Rad Serves Up the Best Combo.

Combine years of experience and the latest PCR technology for fast, accurate, and reliable results. How delicious is that?

At Bio-Rad we have a proud 60 year history of serving the life science and diagnostic markets. Take advantage of our expertise in PCR and our five star service to get the answers you need from any type of sample.

- Perform rapid screening of samples with enrichment times of 24 hours or less for all tests
- Detect even low levels of contaminants quickly and accurately with highly sensitive tests utilizing our patented technology
- Use iQ-Check kits to identify Big 6 STEC, Campylobacter spp, Cronobacter, E. coli O157:H7, Listeria spp, Listeria monocytogenes, and Salmonella spp in food or environmental samples

To learn more about real-time PCR and iQ-Check kits, visit us at **www.foodscience.bio-rad.com** and request an in-lab demo.



Bio-Rad delivers a comprehensive suite of tools for food safety testing, including the latest PCR technology.



## Bid It Up — At the Silent Auction

### **Proceeds from the Silent Auction Benefit the Foundation**







### **Silent Auction Hours**

 $\begin{array}{lll} Sunday, July 22 & 7:30 \text{ p.m.} - 9:30 \text{ p.m.} \\ Monday, July 23 & 10:00 \text{ a.m.} - 6:00 \text{ p.m.} \\ Tuesday, July 24 & 10:00 \text{ a.m.} - 3:15 \text{ p.m.} \end{array}$ 

Final Bids must be made by 3:15 p.m. on Tuesday.

Bid sheets will be pulled promptly at 3:15 p.m.

Successful bidders can claim items immediately following.

Located in the Exhibit Hall, Rhode Island Convention Center



## **Opening Session**

### Sunday, July 22

#### **Welcome to IAFP 2012**

Isabel Walls, IAFP President
Michael Fine, Rhode Island Department of Health

#### **Presentation of Affiliate Charters**

Isabel Walls, IAFP President

#### **IAFP Foundation Presentation**

Larry Cohen, Foundation Committee

#### **Presentation of the Student Travel Scholarship Awards**

Isabel Walls, IAFP President Larry Cohen, Foundation Committee

Frederick Adzitey Wei Chen Laura Strawn
Sharon Bagaaya Chawalit Kocharunchitt Fabrício Luiz Tulini
Eva Danira Borjas Orellan Min Hwa Lee Qiongqiong Yan

#### Presentation of the Travel Award for State or Local Health or State Agricultural Employees

Isabel Walls, IAFP President

William Marler, Marler Clark, LLP, PS

Jeanne Garbarino Chris Malota Brian Sauders
Tim Jenkins Amie Minor

#### **Presentation of the Fellow Awards**

Isabel Walls IAFP President Lee-Ann Jaykus, IAFP Past President

Christine Bruhn Ann Marie McNamara

#### Introduction of the Ivan Parkin Lecture

Katie Swanson, IAFP President-Elect

#### The Ivan Parkin Lecture

Industry and Government Roles in Food Safety Controls – A Perspective from Two Sides

Jenny Scott, Senior Advisor, Office of Food Safety, U.S. Food and Drug Administration,
Center for Food Safety and Applied Nutrition, College Park, Maryland

#### **Closing Comments**

Isabel Walls, IAFP President

#### **Cheese and Wine Reception**







## Ivan Parkin Lecturer

#### At the Opening Session • Sunday, July 22 • 6:00 p.m. – 7:30 p.m.



**Jenny Scott** 

Senior Advisor, Office of Food Safety U.S. Food and Drug Administration Center for Food Safety and **Applied Nutrition** College Park, Maryland

enny Scott is Senior Advisor to the Director of the Office of Food Safety at the Food and Drug Administration's Center for Food Safety and Applied Nutrition. In that position she develops and implements policies, regulations and guidelines related to food safety and provides technical expertise in a variety of food safety areas. Prior to joining FDA in August 2009, Ms. Scott was Vice President of Science Policy, Food Protection, at the Grocery Manufacturers Association in Washington, D.C., where she held various positions over a 29-year tenure.

She received a B. A. degree in biology from Wellesley College, an M.S. in bacteriology from the University of Wisconsin, and an M.S. in food science from the University of Maryland. Ms. Scott has published widely in the areas of microbial food safety and has been active in professional associations such as the American Society for Microbiology, the Institute of Food Technologists, and the International Association for Food Protection, of which she was President in 2000-2001. She is a fellow of both IAFP and IFT.

Ms. Scott served 3 terms on the US National Advisory Committee on Microbiological Criteria for Foods and currently serves as the U.S. Delegate to the Codex Committee on Food Hygiene. She currently leads both the Workgroup for the Preventive Controls Rule for Human Food and the Workgroup for Preventive Controls Guidance for Human Food.

## Ivan Parkin Lecture Abstract

## Industry and Government Roles in Food Safety Controls – A Perspective from Two Sides

## **Jenny Scott**

Senior Advisor, Office of Food Safety
U.S. Food and Drug Administration
Center for Food Safety and Applied Nutrition
College Park, Maryland

orking for an industry trade association and for FDA has given me the opportunity to see how the industry and government carry out their roles in ensuring the safety of food in a complementary way. I also better see how we have become more proactive over the years and how we can work more cooperatively to enhance food safety.

Both industry and government must assess the risk of illness or injury from food. Industry generally assesses this qualitatively by identifying and evaluating the hazards associated with the food being produced. Industry uses information from a variety of sources, including government. Recently there has been more emphasis on doing quantitative microbial risk assessments. Industry rarely does a quantitative risk assessment, since this is not needed to determine appropriate control measures for a hazard, but industry is beginning to see how conducting such risk assessments can benefit them, e.g., to support labeling a product "pasteurized." Government is more likely to conduct quantitative risk assessments to describe the risk to consumers, which then become resources for industry in assessing hazards in, or risk from, specific food products. To conduct such risk assessments, the government must often rely on industry data. Although industry and government need data from each other to assess the risk from foods, both industry and government have issues related to data sharing, especially availability of data and timeliness.

Implementation of control measures is industry's role, but government regulations are often needed to establish the standards that industry as a whole must follow. In the absence of government regulations or guidance, industry must

establish its own standards, but in the absence of regulations these may not be uniformly applied. Industry often recognizes a need and takes action well before the government can develop regulations and/or guidance (a slow process, even when government uses "expedited" approaches, because of the many layers of approvals needed). There are many examples in which industry has been proactive and moved much more quickly than government, including guidance on pathogens in refrigerated foods and low moisture foods. The government is willing to participate in the development of industry guidance documents, which can lead to a common understanding of the issues to be addressed and help ensure industry guidance will be acceptable to the relevant government agency. Sharing guidance documents with government can lead to disseminating them on a government website and to the development of agency guidance via a shortened process. Such sharing also has an advantage for industry in that government guidance is more likely to be practical for industry.

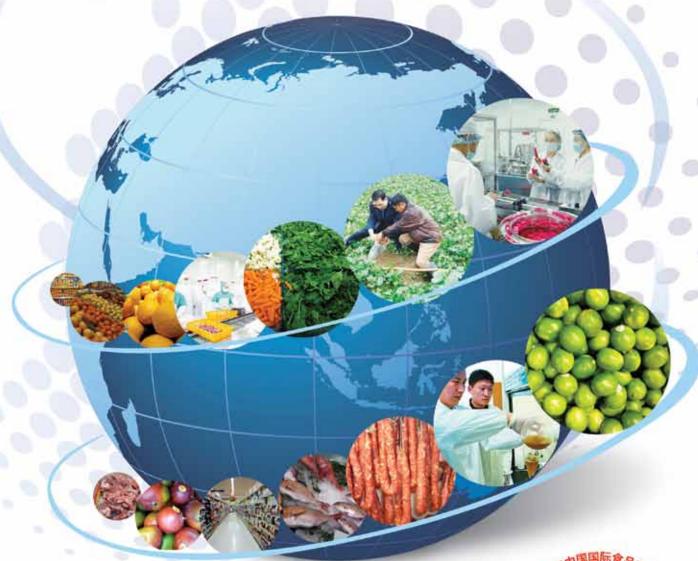
Recently much more emphasis has been placed on validating that control measures can achieve desired outcomes. Validation of control measures is primarily the role of industry, but government has much to offer in support of validation. Cooperative approaches can ensure acceptance of specific control measures by both industry and government. The passage of the Food Safety Modernization Act is providing many opportunities for industry and government to work together to share food safety data and information, e.g., in the development of training and education materials and guidance documents. Industry and government should not waste these opportunities to work together to enhance the safety of the food supply.

2012

www.chinafoodsafety.com

November 7 - 8, 2012
The Longemont Hotel
Shanghai, P.R.C

## China International Food Safety & Quality Conference + Expo 2012



#### Tackling the Global Food Safety Challenges

Food safety and quality are among the most important prerequisites for a sustainable and prosperous global food trade. Timely and well focused, the 6th China International Food Safety & Quality Conference + Expo will once again allow stakeholders in government, science, industry and academia to examine the many ways of creating a stronger food safety system. For more information on how you can take part in this important meeting, please visit: www.chinafoodsafety.com





# Pure and simple. Pathogen testing.







## Monday, July 23

#### **ALL DAY**

Poster Session - 10:00 a.m. - 6:00 p.m. - Held in the Exhibit Hall

P1 Applied Laboratory Methods, Sanitation, Microbial Food Spoilage, Pathogens, Epidemiology, Food Toxicology, Communication Outreach and Education and Risk Assessment P1-01 through P1-89 – Authors present 10:00 a.m.-11:30 a.m. and 5:00 p.m.-6:00 p.m. P1-90 through P1-178 – Authors present 2:00 p.m.-3:30 p.m. and 5:00 p.m.-6:00 p.m.

#### **MORNING**

8:30 a.m. – 12:00 p.m.		
555-556	S5	Today Their Problem – Tomorrow Ours: Impact of International Trade on Food Safety
551	S8	Making a Difference: Data Collection for Risk Assessments through Innovative Approaches
553	T1	Produce
Ballroom E	T2	Non-microbial Food Safety, Food Toxicology and Epidemiology
8:30 a.m. – 10:00 a.m.		
Ballroom A	S1	FSMA from Legislation to Implementation
Ballroom BC	S3	Environmental Assessments (Root Cause Analysis) during Foodborne Disease Outbreaks
Ballroom D	S6	Control of Virus Contamination in Food Supply Chains
552	S9	Food Packaging Sustainability: Food Safety with Sustainable Packaging
10:30 a.m. – 12:00 p.m		
Ballroom A	S2	Microbial Safety of Dry Spices
Ballroom BC	S4	The Impact of Climate Change on Food Safety: Using Korea as an Example
Ballroom D	S7	Measuring and Managing Norovirus Cross-contamination Risks in the Food Service Environment
552	S10	The Pre-harvest Conundrum: Efficacy Versus Adoption of Food Safety Interventions

Lunch in the Exhibit Hall - 12:00 p.m. - 1:00 p.m., Exhibit Hall, Rhode Island Convention Center

#### **AFTERNOON**

1:30 p.m. – 5:00 p.m.		
Ballroom A	S11	Salmonella in Low-moisture Foods: A Continued Challenge
Ballroom BC	S12	What Goes around Comes around: Food Safety Concerns Associated with Water Re-use from
		Farm to Table
Ballroom D	S15	Food Safety and International Trade: Opportunities and Challenges
553	T3	Risk Assessment
Ballroom E	T4	Produce
1:30 p.m. – 3:00 p.m.		
555-556	S13	HACCP – The Rise of the Prerequisites
551	S16	Drug Residues in Milk and Milk Products Risk Assessment
3:30 p.m. – 5:00 p.m.		
555-556	S14	Recall Management and Best Practices
551	S17	Toxoplasma: Detection and Risks Associated with Other Diseases and Latent
		Infection - Prevalence, Methods, Detection in Meat and Poultry, and Burden of

Foodborne Illness

M

M



# Program

#### **Monday Morning** July 23

	s will be on display 10:00 a.m. – 6:00 p.m. ails beginning on page 53.)	S3	Environmental Assessments (Root Cause Analysis) during Foodborne Disease Outbreaks Rhode Island Convention Center, Ballroom BC	
S1	FSMA from Legislation to Implementation  Rhode Island Convention Center, Ballroom A		Organizers: Jack Guzewich, Sharon Wood Convenors: Jack Guzewich, Sharon Wood	
	Organizers: George Wilson, Keith Lampel, Purnendu Vasavada Convenors: George Wilson, Keith Lampel	8:30	CDC's Environmental Assessment Program CAROL SELMAN, Centers for Disease Control and Prevention, Atlanta, GA, USA	
8:30	Overview of the Food Safety Modernization Act JENNY SCOTT, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA	8:50	FDA's Implementation of Environmental Assessment SHERRI MCGARRY, U.S. Food & Drug Administration, College Park, MD, USA	
8:50	Third Party Certification and Foreign Supplier Verification PAMELA WILGER, Cargill, Inc., Wayzata, MN, USA	9:10	Panel Discussion on Environmental Assessment LARRY KOHL, Food Lion Family - Delhaize America,	
9:10	Implementation and Training – FSPC Alliance PURNENDU VASAVADA, University of Wisconsin-River Falls, River Falls, WI, USA		Salisbury, NC, USA, PAT MALONEY, Brookline Health Department, Brookline, MA, USA, CATHY BUREAU, Buffalo Wild Wings, Minneapolis, MN, USA	
9:30	European Deservative of ESMA	10:00	Break	
9.30	European Perspective of FSMA CARLOS ALVAREZ ANTOLINEZ, European Union, Washington, D.C., USA	<b>S4</b>	The Impact of Climate Change on Food Safety: Using Korea as an Example Rhode Island Convention Center, Ballroom BC	
10:00	Break		Sponsored by the IAFP Foundation Organizers: Ewen Todd, Deog-Hwan Oh	
S2	Microbial Safety of Dry Spices  Rhode Island Convention Center, Ballroom A		Convenors: Ewen Todd, Deog-Hwan Oh	
	Organizers: Hudaa Neetoo, Joshua Gurtler, Jeffrey Kornacki Convenors: Joshua Gurtler, Jeffrey Kornacki	10:30	Overview of Research Group on Food Safety Control against Climate Change in Korea KI-HWAN PARK, Chung-Ang University, Anseong, Gyeonggi, South Korea	
10:30	So Many Spices, So Many Paths to Microbial Safety MARGARET HARDIN, IEH Laboratories & Consulting, Lake Forest Park, WA, USA	10:45	Effect of Seafood Toxins (Plankton) by Climate Changes SANG-DO HA, Chung-Ang University, Ansung-Si, South Korea	
11:00	FSMA Foreign Supplier Verification Program and Imported Spices MICKEY PARISH, U.S. Food and Drug Administration, Washington, D.C., USA	11:00	Impact of Climate Change on Behavior of Foodborne Pathogens DEOG-HWAN OH, Kangwon National University, Chunchon, South Korea	
11:30	Emerging Technologies and New Processes NATHAN ANDERSON, U.S. Food and Drug Administration, Summit-Argo, IL, USA	11:15	Implication of Mycotoxin Contamination of Foods HYANG SOOK CHUN, Korea Food Research Institute, Sungnam, South Korea	
		11:30	Panel Discussion	

**Blue Text - Developing Scientist Competitors** 

M

**S5** 

	of International Trade on Food Safety  Rhode Island Convention Center, Room 555-556  Sponsored by the ILSI North America Technical		GARY RICHARDS, U.S. Department of Agriculture- ARS, Dover, DE, USA
	Committee on Food Microbiology and the IAFP Foundation	10:00	Break
	Organizer: Alison Kretser Convenors: Jean Anderson, Thomas Graumlich	<b>S7</b>	Measuring and Managing Norovirus Cross- contamination Risks in the Food Service Environment
8:30	Pathogens in the International Food Supply – Why a Broader Perspective is Needed MARTIN WIEDMANN, Cornell University, Ithaca, NY, USA		Rhode Island Convention Center, Ballroom D Sponsored by Ceeram and the IAFP Foundation Organizers: Stephen Grove, Katherine Swanson Convenors: Jan Singleton, Alvin Lee
8:45	How International Surveillance of Foodborne Infections is Performed: The Role of the WHO Global Foodborne Infections Network, PulseNet International, WHO-INFOSAN and WHO-IHR PETER GERNER-SMIDT, Centers for Disease Control and Prevention, Atlanta, GA, USA	10:30	Transfer of Noroviruses during Preparation of Fresh Produce STEPHEN GROVE, Institute for Food Safety and Health, Bedford Park, IL, USA, CAROL SHIEH, U.S. Food and Drug Administration, Summit-Argo, IL, USA
9:10	Salmonella—Unusual Serotypes in Southeast Asia RENE HENDRIKSEN, National Food Institute and Technical University of Denmark, Lyngby, Denmark	11:00	Determining the Risk of Norovirus during Food Service Preparation of Fresh Produce DONALD SCHAFFNER, Rutgers University, New Brunswick, NJ, USA
9:35	Global Food Trade and Emerging Foodborne Pathogens: The Example of <i>Escherichia coli</i> O104 Stefano Morabito, Istituto Superiore Di Sanita, Roma, Italy	11:30	Observing Behavior in the Kitchen and Educating Food Service Personnel MIRIAM EISENBERG, EcoSure, a Division of Ecolab, Lincolnshire, IL, USA
10:00	Break	00	
10:30	Foodborne Viruses—What Else is Out There? DANIEL BAUSCH, Tulane University, New Orleans, LA, USA	<b>S8</b>	Making a Difference: Data Collection for Risk Assessments through Innovative Approaches Rhode Island Convention Center, Room 551 Sponsored by the IAFP Foundation Organizers: Yuhuan Chen, Donald Schaffner
10:55	Parasites—Southeast Asia PETER BEN EMBAREK, World Health Organization Geneva, Switzerland		Convenors: Yuhuan Chen, Jane Van Doren, Donald Schaffner
11:20	Panel Discussion	8:30	Overview of Identifying, Evaluating and Using Data from Multiple Sources to Inform Risk Assessments at FDA WENDY FANASELLE, YUHUAN CHEN, U.S. Food
S6	Control of Virus Contamination in Food Supply Chains Rhode Island Convention Center, Ballroom D		and Drug Administration-CFSAN, College Park, MD, USA
	Sponsored by Ceeram and the IAFP Foundation Organizers: Nigel Cook, Gary Richards Convenor: Gary Richards	8:55	Use of Agency-generated Data to Inform Risk Assessment Activities at USDA-FSIS RACHEL JOHNSON, U.S. Department of Agriculture- FSIS, Washington, D.C., USA
8:30	New Paradigms in HACCP for Foodborne Viruses KRIS WILLEMS, University Leuven, Brussels, Belgium	9:20	Collecting National Baseline Data on the Prevalence and
9:00	Application of Standardized Methods for Virus Detection in Food Chain Monitoring NIGEL COOK, The Food and Environment Research Agency, York, United Kingdom		Levels of <i>Salmonella</i> and <i>Campylobacter</i> in Poultry Meat in Australia – A Collaborative Approach DUNCAN CRAIG, Food Standards Australia New Zealand, Canberra BC, Australia
	5 7	9:45	Panel Discussion
		10:00	Break

**Today Their Problem – Tomorrow Ours: Impact** 9:30

Control of Viruses in Shellfish Production

10:30	Parameterizing FDA's Risk Assessment Models Using Spatio-temporal Data Acquired from Field Trials and Targeted Environmental Sampling DAVID ORYANG, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA	11:30	Why We Do the Things We Do: Opportunities for Systemic Intervention MORGAN SCOTT, Kansas State University, Manhattan, KS, USA
10:55	Making Sense of a Complex System: Data and the Ongoing Search for Answers about Produce Contamination WILL DANIELS, Earthbound Farm, San Juan Bautista, CA, USA	<b>T1</b>	Technical Session 1 - Produce  Rhode Island Convention Center, Room 553  Convenors: Annemarie Buchholz, Jeffrey LeJeune
11:20	Innovative Data Collection for Risk Assessment in a Systems Approach to Produce Safety ROBERT BUCHANAN, University of Maryland, College Park, MD, USA	8:30	The Role of Aggregative Fimbriae and Cellulose in the Persistence of <i>Salmonella</i> Typhimurium on Tomatoes MARIANNE FATICA, Max Teplitski, Keith Schneider, University of Florida, Gainesville, FL, USA
11:45	Panel Discussion	T1-02	
S9	Food Packaging Sustainability: Food Safety with Sustainable Packaging  Rhode Island Convention Center, Room 552 Organizers: Linda Leake, Albert Elboudwarej,  Harold Ewell Convenors: Linda Leake, Albert Elboudwarej,  Harold Ewell	8:45	Influence of Soil Type, Nitrogen Application and Microbial Community Composition on Survival of <i>Escherichia coli</i> O157:H7 under Organic and Conventional Spinach Production EDUARDO GUTIERREZ-RODRIGUEZ, Johan Six, Kate Scow, Trevor Suslow, University of California-Davis, Davis, CA, USA
8:30	Practical Applications: Global Industry Perspective on Safe, Sustainable Packaging ROGER BONT, Cargill, Inc., Minneapolis, MN, USA	T1-03 9:00	Airborne Soil Particulates as Vehicles for Salmonella Contamination in Tomatoes GOVINDARAJ DEV KUMAR, Robert Williams,
9:00	Positive Impact: Chemical Migration in Food Packaging for Control of Pathogens KAY COOKSEY, Clemson University, Clemson, SC, USA		Renee Boyer, Joseph Eifert, Nammalwar Sriranganathan, University of Arizona, Tucson, AZ, USA
9:30	Green Guidelines: Regulatory Issues Associated with Sustainable Packaging and Food Safety ALLAN BAILEY, U.S. Food and Drug Administration, Baltimore, MD, USA	T1-04 9:15	Influence of Soil Particles on the Survival of <i>Salmonella</i> on Plastic Tomato Harvest Containers JOHN COTTER, Joey Talbert, Julie Goddard, Wesley Autio, Lynne McLandsborough, University of Massachu-
10:00	Break		setts-Amherst, Amherst, MA, USA
S10	The Pre-harvest Conundrum: Efficacy Versus Adoption of Food Safety Interventions Rhode Island Convention Center, Room 552 Organizers: Carl Custer, Jeffrey LeJeune, Guy Loneragan Convenor: Guy Loneragan	T1-05 9:30	Influence of Poultry Litter and Dairy Manure on Persistence of Non-pathogenic <i>Escherichia coli</i> and <i>E. coli</i> O157:H7 Applied to Fields Kelly Jones, Fawzy Hashem, Corrie Cotton, Cheryl Roberts, Manan Sharma, PATRICIA MILLNER, U.S. Department of Agriculture-ARS, Beltsville, MD, USA
10:30	Pre-harvest Interventions and Public-Health Impact – Why Both Adoption and Efficacy are Critical GUY LONERAGAN, Texas Tech University, Lubbock, TX, USA	T1-06 9:45	Inactivation of <i>Escherichia coli</i> O157:H7 in Crop Soil by Amending with Fast and Slow Pyrolysis-generated Biochar JOSHUA GURTLER, Akwasi Boateng, David Douds,
11:00	Knowledge as an Intervention TODD BRASHEARS, Texas Tech University, Lubbock, TX, USA		U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
		10:00	Break

T1-07

10:30	Effects of Temperature Differential and Immersion Time on Internalization of <i>Salmonella</i> Newport in Tomatoes YAGUANG LUO, Bin Zhou, Yang Yang, Yunpeng Wu, Yitzy Paul, Xiangwu Nou, Qin Wang, U.S. Department of Agriculture-ARS, Beltsville, MD, USA	8:45	Modeling of Bisphenol A Migration from LDPE into Food Simulants YINING XIA, Maria Rubino, Michigan State University, East Lansing, MI, USA
T1-08 10:45	Impact of Organic Load on <i>Escherichia coli</i> O157:H7 Survival during Pilot-scale Processing of Iceberg Lettuce with Acidified Sodium Hypochlorite GORDON DAVIDSON, Chelsea Kaminski, Lin Ren, Elliot Ryser, Michigan State University, East Lansing, MI, USA	T2-03 9:00	A Comparison of the Effectiveness of Allergen Verification Methods and Test Kits in a Real-time Food Manufacturing Environment HELEN TAYLOR, Ryan Dias, UWIC, Cardiff, Wales, United Kingdom
T1-09 11:00	Impact of Roller Type on <i>Salmonella</i> Transfer during Simulated Commercial Conveyance of Tomatoes HAIQIANG WANG, Lin Ren, Elliot Ryser, Michigan State University, East Lansing, MI, USA	9:15	Efficacy of Yeast Enriched Either with Glutathione (GSH) or with Selenomethinonine (SE) to Decrease Ochratoxin A Genotoxicity in Human Renal Cells and in Poultry Kheira Hadjeba-Medjdoub, Jan Schrickx, Nathalie Ballet, Joahnna Fink-Gremmels, ANNIE PFOHL-LESZKOW-ICZ, Institut National Polytechnique Toulouse, Auzeville-Tolosane, France
T1-10 11:15	Enhanced Inactivation of <i>Salmonella, Escherichia coli</i> O157:H7 and <i>Pseudomonas</i> Biofilms Using Fresh Produce Washing Aid, T-128, on Cantaloupe Rinds with Chlorinated Wash Solutions CANGLIANG SHEN, Yaguang Luo, Xiangwu Nou, Qin Wang, Patricia Millner, U.S. Department of Agriculture-ARS, Beltsville, MD, USA	T2-05 9:30	Molecular Epidemiology of <i>Campylobacter coli</i> isolated from Conventional and Antimicrobial-free (ABF) Swine and their Environment Macarena Quintana-Hayashi, Leanne Magestro, SIDDHARTHA THAKUR, North Carolina State University, Raleigh, NC, USA
T1-11 11:30	Inactivation of <i>Escherichia coli</i> O157:H7 and <i>Salmonella enterica</i> on Strawberries by Sanitizing Solutions JOSHUA GURTLER, Rebecca Bailey, Tony Jin, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA	T2-06 9:45	Occurrence of Food or Waterborne Illness Outbreaks in Africa in 2011 OLUWATOSIN ADEMOLA IJABADENIYI, Akingboye Dauda, Durban University of Technology, Durban, South Africa
T1-12 11:45	Sanitizer Efficacy against <i>Salmonella</i> during Simulated Commercial Packing of Tomatoes HAIQIANG WANG, Elliot Ryser, Michigan State University, East Lansing, MI, USA	10:00 T2-07 10:30	Break  Pathogen-annotated Tracking Resource Network for Vibrio Risk Assessment and Management Jessica Jones, ANGELO DEPAOLA, John Bowers, Ben
T2	Technical Session 2 - Non-microbial Food Safety, Food Toxicology and Epidemiology Rhode Island Convention Center, Ballroom E Convenors: Lisa Lucore, Ruth Petran		Tall, Marc Glatzer, John Schwarz, Richard Lillie, Rick Porso, Kumar Hari, U.S. Food and Drug Administration, Dauphin Island, AL, USA
T2-01 8:30	Residues from Chlorine Dioxide Gas Treatment, Generated from Different Delivery Systems, in Fresh Produce FABIANE STASCHOWER, Siriyupa Netramai, Maria Rubino, Rafael Auras, Michigan State University, East Lansing, MI, USA	T2-08 10:45	Traceback and Environmental Investigation of an Outbreak of <i>Salmonella</i> Enteritidis Associated with Organic Eggs BENJAMIN MILLER, Minnesota Department of Agriculture, Saint Paul, MN, USA

T2-02

T2-09 11:00	Reactive Arthritis Incident Estimates from Four Foodborne Pathogens SUSAN VAUGHN GROOTERS, STOP Foodborne Illness, Chicago, IL, USA	T2-11 11:30	Integrating Information from Outbreaks, Expert Elicitation, and Case-control Studies to Attribute Foodborne Illness to Foods MICHAEL BATZ, Sandra Hoffmann, J. Glenn Morris, University of Florida, Gainesville, FL, USA
T2-10			
11:15	Foodborne Disease Outbreaks Attributed to Peanuts, Tree	T2-12	
	Nuts and Association Products, United States 1998-2009 L. HANNAH GOULD, Uma Pulendran, Centers for	11:45	Coagulase-negative Staphylococci (CoNS): Reservoir of Multidrug Resistance in Animals
	Disease Control & Prevention, Atlanta, GA, USA		Kanika Bhargava, YIFAN ZHANG, Wayne State
			University, Detroit, MI, USA

# Q Laboratories, Inc.

Microbiology and Analytical Chemistry Laboratory and Research and Development Services

Visit us at IAFP Booth #1002 and ask us about our new state-of-the-art R&D Laboratory facilities



Exceptional Science, Superior Service

1400 Harrison Avenue, Cincinnati, Ohio 45214 Phone: (513) 471-1300 + Fax: (513) 471-5600 Email: office@glaboratories.com www.qlaboratories.com

An **ISO/IEC 17025** Accredited Laboratory

M

	Monday Afternoon	3:00	Бгеак	
Monday Afternoon  July 23  (Posters will be on display 10:00 a.m. – 6:00 p.m.		3:30	Water Re-use in the Food and Beverage Industry: Balancing Safety, Sustainability and Efficiency DAN BENA, PepsiCo, Vahalla, NY, USA	
See der	See details on page 53.)		Re-use Opportunities in Dairy: New Options and Challenges	
S11	Salmonella in Low-moisture Foods: A Continued Challenge		PHYLLIS POSY, Atlantium Technologies, Beit Shemesh, Israel	
	Rhode Island Convention Center, Ballroom A Sponsored by the ILSI North America Technical	4:30	Panel Discussion	
	Committee on Food Microbiology  Organizer: Alison Kretser	S13	HACCP – The Rise of the Prerequisites  Rhode Island Convention Center, Room 555-556	
	Convenors: Sanjit Fernandes, Laurie Post		Organizers: Sara Mortimore, John Holah Convenor: Jenny Scott	
1:30	Salmonella in Low-moisture Foods: Challenges and Potential Solutions DON ZINK, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA	1:30	The Importance of Prerequisites in the Management of Potential Pathogen Contamination in RTE Foods SARA MORTIMORE, Land O'Lakes, Saint Paul, MN, USA	
2:00	Inactivation of <i>Salmonella</i> on Raw Nuts Using Low-energy X-ray SANGHYUP JEONG, Michigan State University, East	2:00	Factory-based Studies to Establish Potential Pathogen Sources and Contamination Vectors JANET SCOTT, PepsiCo Europe, Leicester, United Kingdom	
2:30	Lansing, MI, USA  Thermal Inactivation and Survival of <i>Salmonella</i> in Food as a Function of Water Activity and Fat Level ELENA ENACHE, GMA, Washington, D.C., USA	2:30	Risk Assessment of Potential Pathogen Sources and Vectors to Establish Operational Prerequisites JOHN HOLAH, Campden BRI, Gloucestershire, United Kingdom	
3:00	Break	3:00	Break	
3:30	Influence of Water Mobility on Persistence of Salmonella in Low-moisture Foods JOSEPH FRANK, University of Georgia, Athens, GA, USA	S14	Recall Management and Best Practices  Rhode Island Convention Center, Room 555-556  Organizer: Michael Roberson  Convenor: Michael Roberson	
4:00	Improved Process Validation Strategies for <i>Salmonella</i> Inactivation on Low-moisture Food Products Subjected to	3:30	Informing the Industry of Recalls and Critical Events	
	Thermal Pasteurization Processes BRADLEY MARKS, Michigan State University, East	4:00	ROBERT WAITE, FoodTrack, Inc., Wellington, FL, USA Maneuvering the FDA Reportable Foods Registry	
4:30	Lansing, MI, USA Using Limited Data Sets to Assess Salmonella Risk in		KATHY GOMBAS, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA	
C42	Low-moisture Foods DONALD SCHAFFNER, Rutgers University, New Brunswick, NJ, USA	4:30	GS1 U.S. Rapid Recall Exchange: A Leading Industry Solution for Recall Management BRIAN LYNCH, Grocery Manufacturers Association,	
S12	What Goes around Comes around: Food Safety Concerns Associated with Water Re-use from Farm to Table	S15	Washington, D.C., USA  Food Safety and International Trade:	
	Rhode Island Convention Center, Ballroom BC Sponsored by the IAFP Foundation		Opportunities and Challenges Rhode Island Convention Center, Ballroom D	
	Organizers: Susan McKnight, Wendy Maduff, Kathleen Lawlor Convenors: Susan McKnight, Kathleen Lawlor		Sponsored by the IAFP Foundation Organizers: Walid Alali, Isabel Walls, Ian Jenson Convenors: Walid Alali, Jeffrey Farber	
1:30	Water Re-use in Agricultural Practice TREVOR SUSLOW, University of California-Davis, Davis, CA, USA	1:30	The Role of Food Safety in International Trade ISABEL WALLS, U.S. Department of Agriculture-NIFA, Washington, D.C., USA	
2:00	Ensuring the Safety of Recirculation Water in Aquaculture Systems KEVAN MAIN, Mote Marine Laboratory, Sarasota, FL, USA	2:00	Compliance to Food Safety Standards in the Fresh Produce Chain – Bottlenecks and Opportunities to Access the EU Market MIEKE LIVITENDARIE Chapt University Chapt Balaium	
2:30	Water Re-use Standards for Canned, Refrigerated and Frozen Foods Manufacturing SUZANNE TORTORELLI, Campbell Soup Company,	2:30	MIEKE UYTTENDAELE, Ghent University, Ghent, Belgium U.S. Food Imports and Food Safety Standards JEAN BUSBY, U.S. Department of Agriculture-ERS, Washington, D.C., USA	
	Camden, NJ, USA			

RT – Roundtables T – Technicals

**Blue Text – Developing Scientist Competitors** 

3:00

Break

S – Symposia

3:00	Break	4:30	Schizophrenia and Other Syndromes, Symptoms and	
3:30	Veterinary Residues and Its International Restrictions DORY BARNINKA, JBS, Sao Paulo, Brazil		Maladies Linked to Latent Infection of Toxoplasma ROBERT YOLKEN, The Johns Hopkins University School of Medicine, Baltimore, MD, USA	
4:00	Retailer Perspective: Navigating International Import and Export Requirements NATALIE DYENSON, Walmart, Fayetteville, AR, USA	Т3	Technical Session 3 - Risk Assessment  Rhode Island Convention Center, Room 553  Convenors: Alejandro Amezquita, Yuhuan Chen	
4:30	Import and Export – Risk Assessment to Maintain a Safe International Food Supply IAN JENSON, Meat & Livestock Australia, North Sydney, Australia	T3-01 1:30	Factors That Predict the Likelihood of <i>Listeria</i> monocytogenes Contamination in Produce Fields LAURA STRAWN, Randy Worobo, Yrjo Grohn,	
S16	Drug Residues in Milk and Milk Products Risk Assessment Rhode Island Convention Center, Room 551 Sponsored by the IAFP Foundation	T3-02	Martin Wiedmann, Peter Bergholz, Cornell University, Ithaca, NY, USA	
	Organizers: Wendy Fanaselle, John Sheehan, Deborah Cera Convenor: John Sheehan	1:45	Development of an Interactive Modeling Tool to Predict the Risks Associated with Contaminated Fresh-cut Lettuce in Canadian Distribution Systems Sebastien Villeneuve, Leila Hashemi Beni, Kevin Cote,	
1:30	Reasons for a Risk Assessment on Drug Residues in Milk and Milk Products from an Industry and FDA Perspective ROGER HOOI, Morningstar Foods/Dean Foods, Dallas, TX, USA and JOHN SHEEHAN, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA	T3-03	Denyse LeBlanc, Aamir Fazil, Ainsley Otten, Robin McKellar, PASCAL DELAQUIS, Agriculture & Agri-Food Canada, Summerland, BC, Canada	
1:45	Consumer Perspective on Drug Residues in Milk and Milk Products DAVID PLUNKETT, CSPI, Washington, D.C., USA	2:00	Risk Assessment of Field Survival of Salmonella enterior and Escherichia coli O157:H7 Surrogates on Cilantro Relation to Sequential Cutting, Re-growth and Postha Washing and Storage	
2:00	Overview: Drug Residues in Milk and Milk Products Risk Assessment WENDY FANASELLE, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA		ALEJANDRO TOMAS-CALLEJAS, Gabriela Lopez- Velasco, Adrian Sbodio, Polly Wei, Trudy Pham, Alex Camacho, Trevor Suslow, University of California-Davis, Davis, CA, USA	
2:15	Modeling the Impact of Dairy Processing on Drug Residue Concentration JANE VAN DOREN, U.S. Food and Drug Administra- tion-CFSAN-OFDCER, College Park, MD, USA	T3-04 2:15	Risk Assessment and Spatial Distribution of Human Pathogen Contamination of a Cantaloupe Field Adjacent to a Small Dairy Operation	
2:30	Hazard Characterization of Drug Residues in Milk STEFANO LUCCIOLI, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA	T0.05	TREVOR SUSLOW, Eduardo Gutierrez-Rodriguez, Gabriela Lopez-Velasco, Adrian Sbodio, Alejandro Tomas- Callejas, University of California-Davis, Davis, CA, USA	
3:00	Break	T3-05 2:30	Risk Factors for Microbial Contamination in Fruits	
S17	Toxoplasma: Detection and Risks Associated with Other Diseases and Latent Infection – Prevalence, Methods, Detection in Meat and Poultry, and Burden of Foodborne Illness Rhode Island Convention Center, Room 551 Sponsored by the IAFP Foundation	T3-06		and Vegetables at the Pre-harvest Level: A Systematic Review SANG SHIN PARK, Barbara Szonyi, Raju Gautam, Juan Anciso, Kendra Nightingale, Renata Ivanek, Texas A&M University, College Station, TX, USA
3:30	Organizer: Kalmia Kniel Convenor: Nathan Bauer Life Cycle; Revalence in U.S. Livestock/Products; Methods Detection for Toxoplasma in Livestock/Products DOLORES HILL, U.S. Department of Agriculture-ARS, Beltsville, MD, USA	2:45	Cross-contamination and Distribution of Salmonella in Processed Fresh Apples Gro Johannessen, Mumtaz Begum, FERNANDO PEREZ RODRIGUEZ, University of Cordoba, Cordoba, Spain Break	
4:00	Prevalence in European Livestock/Products, Magnetic Capture PCR for Detecting Toxoplasma in Meat MARIEKE OPSTEEGH, National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands	T3-07 3:30	An Integrated, Risk-informed System for Informing Food Safety Decision Making AMIR MOKHTARI, Stephen Beaulieu, Lee-Ann Jaykus, David Oryang, RTI International, Washington, D.C., USA	
e	Symposia RT - Roundtables T - Technic	olo	Blue Text - Developing Scientist Competitors	

M

0

N

D

M

# Doing Growth Curves?

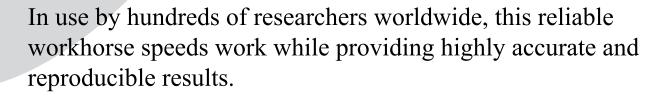
Want to do them faster...easier...better?

# Bioscreen C<sup>TM</sup>

**Automated Growth Curve Analysis System** 

From 200 samples to 200 results in 2 hours

- ► Saves time
  - ► Reduces errors
    - ► Speeds results



See the Bioscreen C at the IAFP booth # 919 in Providence, RI, visit our website or call today.



Phone: 732-457-9070

# Tuesday, July 24

# **ALL DAY**

Poster Session - 10:00 a.m. - 6:00 p.m.

P2 Meat and Poultry, Produce, Dairy, Antimicrobials, Novel Laboratory Methods and Pathogens P2–01 through P2–89 – Authors present 10:00 a.m.–11:30 a.m. and 5:00 p.m.–6:00 p.m. P2–90 through P2-172 – Authors present 2:00 p.m.–3:30 p.m. and 5:00 p.m.–6:00 p.m.

# **MORNING**

8:30 a.m. – 12:00 p.m.		
Ballroom A	S18	Microbial Transfer within Food Manufacturing Plants and Hygienic Zoning Control Verified
		by Environmental Monitoring
Ballroom BC	S19	Foodborne Disease Outbreak Update
553	T5	Meat and Poultry, Seafood
Ballroom E	T6	Pathogens
8:30 a.m. – 10:00 a.m.		
555-556	S20	Food Allergen Labeling: Challenges and Best Practices
Ballroom D	RT1	Current Controversies in Food Safety
551	S22	China: Food Safety in an Emerging Market Economy
10:30 a.m. – 12:00 p.m	ı <b>.</b>	
555-556	S21	Freedom Has a Thousand Charms: Gluten-free and How to Achieve It
Ballroom D	RT2	Microbiological Safety of Chilled ESL, Acidified, and Low-/High-acid Beverage Products
551	RT3	China – Food Safety for an Integrated World
555-556 Ballroom D	S21 RT2	Microbiological Safety of Chilled ESL, Acidified, and Low-/High-acid Beverage Products

Lunch in the Exhibit Hall - 12:00 p.m. - 1:00 p.m., Exhibit Hall, Rhode Island Convention Center

# **AFTERNOON**

<b>12:15</b> p.m. – <b>1:00</b> p.m. 552		Business Meeting
1:30 p.m. – 5:00 p.m.		
555-556	S27	Food Defense: Where are We and Where Do We Have to Go?
551	S28	Long Term Health Outcomes (LTHO) of Foodborne Illnesses and Their Contribution to Risk Assessment and Policy Evaluation
553	T7	Community Outreach and Education
Ballroom E	Т8	Pathogens
1:30 p.m. – 3:00 p.m.		
Ballroom A	S23	The Food Safety Modernization Act: Implementing the Provisions on Imported Foods
Ballroom BC	S25	Local Foods: Food Safety Risks and Benefits
Ballroom D	RT4	Zero Risk Policies in a Non-zero Risk Environment
3:30 p.m. – 5:00 p.m.		
Ballroom A	S24	The Food Safety Modernization Act: Implementing the Preventive Controls and Other Aspects on Domestic Foods
Ballroom D	RT5	Where Do We Go from Here: Discussion of Evidence-based Approaches to Education around Fresh Produce Safety

Exhibit Hall Reception – 5:00 p.m. – 6:00 p.m., *Exhibit Hall, Rhode Island Convention Center* bioMérieux Symposium – 7:00 p.m. – 10:00 p.m., *Narragansett Ballroom, Westin Hotel* 

<b>Tuesday</b>	<b>Morning</b>
July	/ 24

(Posters will be on display 10:00 a.m. - 6:00 p.m. See details beginning on page 62.)

See details beginning on page 62.)			
S18	Microbial Transfer within Food Manufacturing Plants and Hygienic Zoning Control Verified by Environmental Monitoring Rhode Island Convention Center, Ballroom A Organizers: Frederick Cook, Jenny Scott Convenors: Frederick Cook, Jenny Scott		
8:30	USDA's Learnings from Environmental Testing and Expectations for Pathogen Control in Plants KRISTINA BARLOW, U.S. Department of Agriculture-FSIS, Fairfax, VA, USA		
9:00	FDA's Learnings from Environmental Testing and Expectations for Pathogen Control in Plants JENNY SCOTT, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA		
9:30	Hygienic Zoning Controls in a Processed Meat Plant STEVEN TSUYUKI, Maple Leaf Foods, Toronto, ON, Canada		
10:00	Break		
10:30	Hygienic Controls in a Low-moisture Food Plant FREDERICK COOK, Malt-O-Meal Company, Lakeville, MN, USA		
11:00	Studies on Modes of Microbial Transfer in Plant Environments JOHN HOLAH, Campden BRI, Gloucestershire, United Kingdom		
11:30	Studies on Transfer of Microbial Contamination from One Surface to Another DONALD SCHAFFNER, Rutgers University, New Brunswick, NJ, USA		
S19	Foodborne Disease Outbreak Update  Rhode Island Convention Center, Ballroom BC  Sponsored by the IAFP Foundation  Organizer: Jack Guzewich  Convenor: Jack Guzewich		
8:30	Epidemiological Investigation of <i>Listeria monocytogenes</i> Linked to Fresh Cantaloupe BENJAMIN SILK, Centers for Disease Control and Prevention, Atlanta, GA, USA		

Listeria monocytogenes Outbreak Environmental

**RT – Roundtables** 

9:00

Assessment

S – Symposia

College Park, MD, USA

9:30	Multi-Drug Resistant Salmonella enterica Serovar Heidelberg Outbreak Linked with Ground Turkey – Epidemiologic Investigation PATRICIA WHITE, U.S. Department of Agriculture- FSIS, Omaha, NE, USA
10:00	Break
10:30	Multi-Drug Resistant Salmonella enterica Serovar Heidelberg Outbreak Linked with Ground Turkey – Food Safety Assessment STEPHANIE DEFIBAUGH-CHAVEZ, U.S. Food and Drug Administration-CFSAN, Washington, D.C., USA
11:00	CDC's Foodborne Disease Surveillance Efforts Including the Food Safety Modernization Act DALE MORSE, Centers for Disease Control and Prevention, Atlanta, GA, USA
11:30	FDA's Actions to Improve Foodborne Disease Outbreak Surveillance and Response KARI IRVIN, U.S. Food and Drug Administration, College Park, MD, USA
S20	Food Allergen Labeling: Challenges and Best Practices  Rhode Island Convention Center, Room 555-556  Sponsored by the IAFP Foundation  Organizers: Tong-Jen Fu, Kathy Gombas,  Craig Henry  Convenors: Kathy Gombas, Lee Sanders
8:30	Food Allergen Labeling and the Impact on Food Industry and Consumers JOSEPH BAUMERT, University of Nebraska-Lincoln, Lincoln, NE, USA
8:45	Food Allergen Labeling Regulation: A Japanese Perspective REIKO ADACHI, National Institute of Health Sciences, Tokyo, Japan
9:00	Analysis of FDA Recall Database: What Leads to Labeling Errors STEVEN GENDEL, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA
9:15	Managing Allergens across the Supply Chain THOMAS WIESTER, Campbell Soup Company, Camden, NJ, USA
9:30	Q&A

**T – Technicals** 

10:00 Break

Freedom Has a Thousand Charms: Gluten-free **S21** and How to Achieve It Rhode Island Convention Center, Room 555-556

> **Organizer: Peter Slade Convenor: Peter Slade**

**Blue Text - Developing Scientist Competitors** 

10:30	Background and Current Issues: Industry Best Practices for Gluten-free MOHAMMED OBANNI, Hain Celestial Group, Modesto, CA, USA	9:00	Food Safety Knowledge Network – A Global Competency- based Program to Improve Knowledge and Skills of Food Safety Professionals LESLIE BOURQUIN, Michigan State University, East Lansing, MI, USA
11:00	Analysis Advances: Testing for Gluten THOMAS GRACE, Bia Diagnostics, Burlington, VT, USA	9:30	Cargill and Their Control Management System for Food
11:30	High Stakes: Certification Schemes for Gluten-free JOSEPH BAUMERT, University of Nebraska-Lincoln, Lincoln, NE, USA		Safety within China PAMELA WILGER, Cargill, Inc., Wayzata, MN, USA
	Lincolli, INE, USA	10:00	Break
RT1	Current Controversies in Food Safety  Rhode Island Convention Center, Ballroom D  Sponsored by the ILSI North America Technical Committee on Food Microbiology  Organizer: Alison Kretser  Convenors: Joe Shebuski, Marguerite Neill, Skip	<b>RT3</b>	China – Food Safety for an Integrated World Rhode Island Convention Center, Room 551 Organizers: Vanessa Cranford, Zhinong Yan Convenor: Zhinong Yan Panelists: PETER BEN EMBAREK, World Health Organization,
8:30	Seward Panelists: W. PAYTON PRUETT, The Kroger Company, Cincinnati, OH, USA		Geneva, Switzerland XIUMEI LIU, Ministry of Health, Beijing, China LEON GORRIS, Unilever, Shanghai, China
	BETSY BOOREN, American Meat Institute Foundation, Washington, D.C., USA GLENN SONGER, The University of Arizona, Tucson, AZ, USA BRANDI LIMBAGO, Centers for Disease Control and Prevention, Atlanta, GA, USA	<b>T5</b>	Technical Session 5 - Meat and Poultry and Seafood Rhode Island Convention Center, Room 553 Convenors: Randall Phebus, Chander Shekhar Sharma
	DAVID ACHESON, Leavitt Partners, Glenelg, MD, USA JENS KIRK ANDERSEN, Technical University of Denmark, Copenhagen, Denmark	8:30	Thermal Tolerance of Shiga Toxin-producing Escherichia coli (STEC) Strains in Ground Beef of Varying Fat Levels AKHILA VASAN, Steve Ingham, Barbara Ingham,
10:00	Break		University of Wisconsin-Madison, Madison, WI, USA
RT2 10:30	Microbiological Safety of Chilled ESL, Acidified, and Low-/High-acid Beverage Products  Rhode Island Convention Center, Ballroom D  Organizers: Wilfredo Ocasio, Kathleen Lawlor Convenors: Wilfredo Ocasio, L. Jason Richardson, Kathleen Lawlor  Panelists:	T5-02 8:45	Validation Study for the Detection of <i>Escherichia coli</i> O157:H7 from Ground Beef and Beef Trimmings FELICITAS DUKER, Holger Schonenbrucher, Charlotte Lindhardt, Rolf Ossmer, Michael Bulte, Justus-Liebig-University, Giessen, Germany
	ALBERT ELBOUDWAREJ, Belkin International, Los Angeles, CA, USA	T5-03	
	GLENN BLACK, Grocery Manufacturers Association, Washington, D.C., USA FRED BREIDT, U.S. Department of Agriculture-ARS, Raleigh, NC, USA NATHAN ANDERSON, U.S. Food and Drug	9:00	Quality System Implementation in Mexican Exporting Pork Packers EMA MALDONADO-SIMAN, Universidad Autonoma Chapingo, Texcoco, Mexico
	Administration, Summit-Argo, IL, USA CARRIE FERSTL, The National Food Lab, Livermore, CA, USA	T5-04 9:15	Survival of <i>Salmonella</i> on Cooked Pig Ear Pet Treats PETER TAORMINA, John Morrell & Co., Cincinnati, OH, USA
S22	China: Food Safety in an Emerging Market Economy  Rhode Island Convention Center, Room 551  Organizers: Vanessa Cranford, Zhinong Yan, Ram Rao Convenors: Vanessa Cranford, Zhinong Yan	T5-05 9:30	Effect of Non-pharmaceutical Compounds on <i>Salmonella</i> Shedding and Colonization in Broiler Chickens WALID ALALI, Charles Hofacre, Greg Mathis, Gary Faltys, Steven Ricke, Michael Doyle, University of Georgia,
8.30	Approaches for Product Safety and Sustainability		Griffin, GA, USA

LEON GORRIS, Unilever, Shanghai, China

M

T5-06 9:45	A Microbiological Comparison of Poultry Products Obtained from Farmers' Markets and Supermarkets in Pennsylvania JOSHUA SCHEINBERG, Stephanie Doores, Rama Radhakrishna, Catherine Cutter, Pennsylvania State University, State College, PA, USA	T6-03 9:00	The Long-term Survival of <i>Escherichia coli</i> O157:H7 and <i>Salmonella</i> on Lettuce Seeds and Their Subsequent Survival and Growth on Germinating Sprouts INGE VAN DER LINDEN, Bart Cottyn, Geertrui Vlaemynck, Mieke Uyttendaele, Martine Maes, Marc Heyndrickx, Institute for Agricultural and Fisheries Research (ILVO), Melle, Belgium
10:00	Break	T6-04	recentor (12 + e), france, 2018.um
T5-07 10:30	Reductions in Pathogens and Quality Characteristics of Poultry Carcasses Treated with Various Antimicrobials in a Finishing Chiller GRETCHEN NAGEL, Laura Bauermeister, Amit Morey, Shelly McKee, Auburn University, Auburn, AL, USA	9:15	Development of a Phage-based Typing System to Use in Combination with Multi-locus Variable Number of Tandem Repeat Analysis (MLVA) to Differentiate <i>Escherichia coli</i> O157:H7 Isolates YANYING PAN, Melanie Papariella, Paul Ebner, Purdue University, West Lafayette, IN, USA
T5-08 10:45	Effect of Vaccines in Commercial Layer Chickens against Various <i>Salmonella</i> Serovars Susan Sharpe, Peter Groves, JULIAN COX, The University of New South Wales, Sydney, Australia	T6-05 9:30	Comparison of Real-time RT-PCR and RT-LAMP Assays for Human Norovirus GII Detection Sensitivity CONG CAO, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA
T5-09 11:00	The Effects of Salinity on the In Vitro Growth and Survival of Pathogenic <i>Vibrio</i> Species Michael Hubbard, Daniel Bryan, ANITA WRIGHT, University of Florida, Gainesville, FL, USA	T6-06 9:45	Attachment, Internalization and Dissemination of Human Norovirus Surrogates in Romaine Lettuce ERIN DICAPRIO, The Ohio State University, Columbus, OH, USA
T5-10	•	10:00	Break
11:15	A Predictive Model for the Decontamination Effect of Lactic Acid and Chitosan on <i>Vibrio</i> parahaeomolyticus in Shrimp WEN WANG, Min Li, Yanbin Li, Zhejiang University, Hangzhou, China	T6-07 10:30	High Pressure Processing of Human Norovirus Virus-like Particles: Evidence That Human Norovirus May be Highly Pressure Resistant FANGFEI LOU, Pengwei Huang, Hudaa Neetoo, Joshua Gurtler, Brendan Niemira, Haiqiang Chen,
T5-11 11:30	Effect of <i>Lactobacillus acidophilus</i> La-5 Fraction on the Presence of <i>Salmonella</i> Typhimurium in Pigs ROCIO MORALES RAYAS, University of Guelph, Guelph, ON, Canada	T6-08 10:45	Xi Jiang, Jianrong Li, The Ohio State University, Columbus, OH, USA  Sensitivity of Murine Norovirus and Hepatitis A Virus to
Т6	Technical Session 6 - Pathogens Rhode Island Convention Center, Ballroom E Convenors: Manan Sharma, Kaiping Deng		E-beam Irradiation in Whole Oyster and Oyster Homogenate CHANDNI NAIR, Texas A&M University, College Station, TX, USA
T6-01 8:30	Thermal Inactivation of Stationary Phase and Acid Adapted Shiga Toxin-producing <i>Escherichia coli</i> in Single-strength Orange Juice ZEYNAL TOPALCENGIZ, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA	T6-09 11:00	High-pressure Processing of Rotaviruses: The Roles of Strain Diversity and Treatment Temperature in Virus Inactivation ELBASHIR ARAUD, Fangfei Lou, Xinhui Li, Haiqiang Chen, Jianrong Li, The Ohio State University, Columbus, OH, USA
T6-02 8:45	Human Norovirus Surrogate Reduction in Milk and Juice Blends by High Pressure Homogenization KATIE HORM, Federico Harte, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA	T6-10 11:15	Internalization Rates and Survival of Campylobacter jejuni by Acanthamoeba castellanii Varies by Strains of Campylobacter BRIAN DIRKS, Jennifer Quinlan, Drexel University, Philadelphia, PA, USA

T – Technicals

RT – Roundtables

S – Symposia

**Blue Text – Developing Scientist Competitors** 

M

1/	AFP Business Meeting • 12:15 p.m. – 1:00 p.m.	3:00	Break
Rhode Island Convention Center, Room 552		<b>S27</b>	Food Defense: Where are We and Where Do We
(Posters will be on display 10:00 a.m. – 6:00 p.m. See details on page 62.)			Have to Go?  Rhode Island Convention Center, Room 555-556  Organizer: Faye Feldstein
S23	The Food Safety Modernization Act: Implementing the Provisions on Imported Foods		Convenors: Faye Feldstein, Shaun Kennedy
	Rhode Island Convention Center, Ballroom A Organizers: Shaun Kennedy, Caroline Smith Dewaal Convenors: Shaun Kennedy, Caroline Smith Dewaal	1:30	FDA Perspective on Food Defense and the Food Safety Modernization Act TED ELKIN, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA
1:30	Potential Impact of Foreign Supplier Verification Requirements on the Private Sector TBD	2:00	USDA Perspective on Food Defense Plans and Preparedness RYAN NEWKIRK, U.S. Department of Agriculture-FSIS, Washington, D.C., USA
2:00	How Will Inspection Targeting Change MARK ZINER, Department of Homeland Security, Washington, D.C., USA	2:30	What is Happening out There: Event Tracking SHAUN KENNEDY, University of Minnesota, Saint Paul, MN, USA
2:30	Engaging Foreign Governments in the Foreign Supplier	3:00	Break
	Verification Requirements KATHY GOMBAS, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA	3:30	Utilizing Global Supply Security Initiatives for Food Defense BILL RAMSEY, McCormick & Co., Sparks, MD, USA
3:00	Break	4:00	Management of Food Defense across the Borders DANE BERNARD, Keystone Foods L.L.C., West
S24	The Food Safety Modernization Act: Implementing the Preventive Controls and	/ 20	Conshohocken, PA, USA
	Other Aspects on Domestic Foods  Rhode Island Convention Center, Ballroom A  Sponsored by the IAFP Foundation	4:30	What is Happening out There: Boots on the Ground Perspective GALE PRINCE, Sage Food Safety Consultants, Cincinnati, OH, USA
	Organizers: Caroline Smith Dewaal, Jenny Scott Convenor: Caroline Smith Dewaal	RT4	Zero Risk Policies in a Non-zero Risk Environment Rhode Island Convention Center, Ballroom D
3:30	Produce Safety Standards RITA JOHNSON, Florida Department of Agriculture and Consumer Services, Tallahassee, FL, USA	1:30	Organizers: David Gombas, Robert Buchanan Convenor: David Gombas Panelists: BARBARA CASSENS, U.S. Food and Drug Administra-
4:00	Preventive Controls for Human Foods JENNY SCOTT, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA		tion, Alameda, CA, USA CAROLINE SMITH DEWAAL, Center for Science in the Public Interest, Washington, D.C., USA ROBERT BUCHANAN, University of Maryland, College
4:30	Traceability Requirements and Technology Options JENNIFER MCENTIRE, Leavitt Partners, Frederick,		Park, MD, USA
	MD, USA	3:00	Break
S25	Local Foods: Food Safety Risks and Benefits  Rhode Island Convention Center, Ballroom BC  Sponsored by the IAFP Foundation	RT5	Where Do We Go from Here: Discussion of Evidence-based Approaches to Education around Fresh Produce Safety
	Organizers: Jeffrey LeJeune, Craig Henry, Siddhartha Thakur		Rhode Island Convention Center, Ballroom D Organizer: Benjamin Chapman
	Convenors: Sanja Ilic, Divya Jaroni	3:30	Convenors: Linda Harris, David Gombas Panelists:
1:30	Applying FSMA Produce Preventative Controls to Local Produce JAMES GORNY, U.S. Food and Drug Administration-CFSAN, Fulton, MD, USA	3.30	DIANE DUCHARME, North Carolina State University, Kannapolis, NC, USA ELIZABETH BIHN, Cornell University, Geneva, NY, USA KEITH SCHNEIDER, University of Florida, Gainesville, FL, USA
2:00	Local Foods: Fresh, Safe and Healthy MICHELLE GREGG, Ohio Ecological Food and Farm Association, Columbus, OH, USA		BETH BLAND, Georgia Fruit and Vegetable Growers Association, LaGrange, GA, USA JAMES GORNY, U.S. Food and Drug Administration-
	Symposia RT – Roundtables T – Technic	als	Blue Text – Developing Scientist Competitors
40 PR	OGRAM BOOK		

2:30

Tuesday Afternoon July 24

Microbiological Assessment of Poultry Sold in Farmers' Markets CATHERINE CUTTER, The Pennsylvania State

University, University Park, PA, USA

	CFSAN, Fulton, MD, USA MICHAEL VILLANEVA, California Leafy Green Marketing Agreement, Sacramento, CA, USA	4:30	How Risk Assessments Can Incorporate New Data on LTHOs and Aid Public and Private Decision-Making ROBERT BUCHANAN, University of Maryland, College Park, MD, USA
S28	Long Term Health Outcomes (LTHO) of Foodborne Illnesses and Their Contribution to Risk Assessment and Policy Evaluation Rhode Island Convention Center, Room 551 Sponsored by the IAFP Foundation Organizers: Tanya Roberts, Anna Lammerding Convenor: Anna Lammerding	<b>T7</b>	Technical Session 7 - Communication Outreach and Education Rhode Island Convention Center, Room 553 Convenors: Kalmia Kniel, Barakat Mahmoud
1:30	Chronic Sequelae Post Gastrointestinal Illness Infections: Evidence to Support Canadian Burden of Illness Estimates KATE THOMAS, Public Health Agency of Canada, Guelph, ON, Canada	1:30	Exploring Temperature Patterns of Leafy Greens in Institutional Kitchens ELLEN THOMAS, Benjamin Chapman, North Carolina State University, Raleigh, NC, USA
2:00	Significance of <i>Salmonella</i> in Europe: LTHO vs. Acute Illness ALESSANDRO CASSINI, European Centre for Disease Prevention and Control, Stockholm, Sweden	T7-02 1:45	GAPs Training at University Farms, Orchards, and Gardens ELIZABETH BIHN, Cornell University, Geneva, NY, USA
2:30	Disease Burden of LTHO vs. Acute Illness: Ranking of 14 Foodborne Pathogens in The Netherlands ARIE HAVELAAR, National Institute for Public Health and the Environment, Bilthoven, The Netherlands	T7-03 2:00	Can a Passively Delivered Paper-based Educational Intervention Improve Restaurant Food Handler Knowledge? MARK DWORKIN, Palak Panchal, Li Liu, University of Illinois-Chicago, Chicago, IL, USA
3:00	Break	T7-04	
3:30	Benefits and Limitations of General Practitioners Databases for Case Information BARBARA KOWALCYK, Center for Foodborne Illness, Grove City, PA, USA	2:15	Opening Markets: Identifying Barriers and Developing Guidance for GAP Certification AUDREY KRESKE, Diane Ducharme, Christopher Gunter, Roland McReynolds, Benjamin Chapman, North Carolina State University, Raleigh, NC, USA
4:00	Importance of Economic Valuation and Burden Estimates of LTHO to Define the Societal Cost and Public Health Impacts of Foodborne Pathogens for Policymaking TANYA ROBERTS, Center for Foodborne Illness Research & Prevention, Vashon, WA, USA	T7-05 2:30	Identifying Food Safety Risks for Minority Racial/ Ethnic Consumers SHAUNA HENLEY, Susan Stein, Jennifer Quinlan, Drexel University, Philadelphia, PA, USA

# Join bioMérieux at the 11th Annual Scientific Symposium!



**Increasing the Efficiency of Producing, Monitoring and Distributing Foods – How Your Microbiology Testing Program Can Help** 

Tuesday, July 24 at 7:00 p.m. Westin-Providence Hotel in the Narragansett Ballroom bioMérieux welcomes keynote speaker, Michael C. Robach

Mike Robach is Vice President of Corporate Food Safety and Regulatory Affairs for Cargill, Inc. He joined Cargill in 2004 to lead the company's global food safety and regulatory programs. In this role, he leads Cargill's corporate efforts across food protection and security, quality assurance, animal health and regulatory compliance.

# Additional speakers include:

- Russell Flowers, PhD, Chairman of the Board & Chief Scientific Officer, Silliker Group Corp
- James Marsden, Professor of Food Safety and Security, Kansas State University Moderator: Michael Brodsky

For more information:

visit www.biomerieux-usa.com/iafp2012

Visit us at IAFP booth #619!



T7-06 2:45	Development of the "I'm Gloving It!" Campaign to Promote Glove Use Behaviors among College and University Dining Foodservice Workers LAKSHMAN RAJAGOPAL, Catherine Strohbehn, Iowa State University, Ames, IA, USA	T8-04 2:15	Regional Risks for <i>Salmonella</i> spp., <i>Escherichia coli</i> O157:H7 and <i>Campylobacter jejuni</i> Contamination of Irrigation Pond Water in the Suwannee River Watershed GANYU GU, Zhiyao Luo, Juan Cevallos-Cevallos, Anita Wright, Michelle Danyluk, Mary Adams, George Vellidis, Ariena
3:00	Break		Van Bruggen, University of Florida, Gainesville, FL, USA
T7-07 3:30	Produce Safety Alliance – A Fresh Perspective on Produce Safety GRETCHEN WALL, Robert Gravani, Elizabeth Bihn, Cornell University, Geneva, NY, USA	T8-05 2:30	Detecting <i>Salmonella</i> Enteritidis in Laying Hens and Eggs after Experimental Infection at Different Oral Dose Levels RICHARD GAST, Rupa Guraya, Jean Guard, Peter Holt, U.S. Department of Agriculture-ARS-ESQRU, Athens, GA, USA
T7-08 3:45	Economic Benefits from a Food Safety Education Program ROBERT SCHARFF, Joyce McDowell, Maria Lambea, Valerie White, The Ohio State University, Columbus, OH, USA	T8-06 2:45	Geographical Factors Influence the Spatio-temporal Distribution of <i>Listeria monocytogenes</i> in Natural Environments of New York State
T7-09 4:00	Effective Good Agricultural Practices Training for Farmers: A Two-day Approach ELIZABETH BIHN, Craig Kahlke, Robert Hadad,		TRAVIS CHAPIN, Martin Wiedmann, Peter Bergholz, Cornell University, Ithaca, NY, USA
	William Lyons, Cornell University, Geneva, NY, USA	3:00	Break
T7-10 4:15	An Investigation of Attitudes and Behaviors Related to Food Safety Training in Chinese Restaurants in the U.S.: An Exploratory Study PEI LIU, Junehee Kwon, Kansas State University, Manhattan, KS, USA	T8-07 3:30	Antibiotic Resistance and Genetic Diversity of <i>Listeria</i> spp. Not Showing 16S rDNA Sequence Similar to Known <i>Listeria</i> Strains Isolated from Pekin Ducks and Their Environmental Sample FREDERICK ADZITEY, Gulam Rusul Rahmat Ali, Nurul Huda, Janet Corry, Tristan Cogan, University for Development Studies, Tamale, Ghana
4:30	Produce Handlers' Handwashing Behaviors in Secondary School Foodservice Facilities JUNEHEE KWON, Kevin Sauer, Yee Ming Lee, Pei Liu, Ju Won Choi, Ewen Todd, Dojin Ryu, Kansas State University, Manhattan, KS, USA	T8-08 3:45	Listeria monocytogenes Strains Differ in Their Ability to Form Biofilms but Show Similar Swarming and Response to Sanitizers JESSICA CHEN, Kendra Nightingale, Texas Tech University, Lubbock, TX, USA
T7-12 4:45	Assessment of Basic Food Safety Knowledge by Farmers Market Participants ANGELA LAURY, Texas Tech University, Lubbock, TX, USA	T8-09 4:00	Analysis of Data from FSIS Routine and Intensified
T8 01	<b>Technical Session 8 - Pathogens</b> <i>Rhode Island Convention Center, Ballroom E</i> Convenors: David Golden, Kendra Nightingale		Sampling Programs for <i>Listeria monocytogenes</i> from Establishments that Produce Ready-to-Eat Products KRISTINA BARLOW, Stephen Mamber, Timothy Mohr, Philip Bronstein, Meryl Silverman, U.S. Department of Agriculture-FSIS, Fairfax, VA, USA
T8-01 1:30	Salmonella in FSIS-tested Ready-to-Eat (RTE) Meat and Poultry Products, 2005-2011, with Special Reference to Salmonella in Pork Barbecue STEPHEN MAMBER, Timothy Mohr, Kristina Barlow, Philip Bronstein, Carrie Leathers, Nelson Clinch, U.S. Department of Agriculture-ODIFP-DAIG, Washington, D.C., USA	T8-10 4:15	Comparison of Growth of a Combined Strain <i>Listeria monocytogenes</i> Challenge Study Inoculum in Different Chloride Salt Solutions PETER TAORMINA, John Morrell & Co., Cincinnati, OH, USA
1:45 T8-03	Differential Expression of Salmonella Tennessee Membrane-associated Genes in a Low Water Activity Food WEI CHEN, David Golden, Doris D'Souza, Faith Critzer, University of Tennessee, Knoxville, Knoxville, TN, USA	T8-11 4:30	Desiccation Survival of <i>Listeria monocytogenes</i> in Mixed Biofilms with <i>Pseudomonas fluorescens</i> , <i>Serratia liquefaciens</i> and <i>Shewanella putrefaciens</i> HESSAM EDIN DANESHVAR ALAVI, Lisbeth Truelstrup Hansen, Dalhousie University, Halifax, NS, Canada
2:00	Effect of the rdar Morphotype on Salmonella enterica Dispersal by Rain and Aerosols JUAN CEVALLOS-CEVALLOS, Ganyu Gu, Michelle Danyluk, Ariena Van Bruggen, University of Florida, Gainesville, FL, USA	T8-12 4:45	Transcriptional Profile of <i>Listeria monocytogenes</i> Exposed to Sublethal Chlorine Dioxide AARON PLEITNER, Valentina Trinetta, Mark Morgan, Richard Linton, Haley Oliver, Purdue University, West Lafayette, IN, USA

# CERTIFIED REFERENCE MATERIAL

FOR USE IN ISO 17025 ACCREDITED LABORATORIES

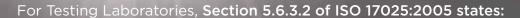
QUANTITATIVE QUALITY CONTROL MICROORGANISMS







New Epower<sup>™</sup> Certified Reference Material (CRM) is a quantitative microorganism preparation.



"Reference materials shall, where possible, be traceable to SI units of measurements, or to **CERTIFIED REFERENCE MATERIALS**."

Epower<sup>™</sup> CRM is available in **63 different microorganism strains** with concentrations ranging from **10**<sup>2</sup> **to 10**<sup>8</sup> **CFU per pellet**. The complete Epower<sup>™</sup> CRM kits includes:

- Vial of 10 lyophilized quantitative microorganism pellets
- Peel-off identification label with Certified Value for easy documentation
- Comprehensive Certificate of Analysis detailing each lot's Certified Value, Expanded Uncertainty, and Standard Deviation as required by ISO Guide 34 for Reference Material Producers
- Instructions For Use

**Includes Certificate of Analysis!** 





A safer, healthier world.

www.microbiologics.com



Reference Material Producer CERT # 2655.02



# Wednesday, July 25

# **ALL DAY**

Poster Session - 9:00 a.m. - 3:00 p.m.

P3 Seafood, Meat and Poultry, Produce, Beverages, Non-microbial Food Safety, General Microbiology, Antimicrobials, Pathogens and Novel Laboratory Methods
P3-01 through P3-89 – Authors present 9:00 a.m.–11:00 a.m.
P3-90 through P3-173 – Authors present 1:00 p.m.–3:00 p.m.

# **MORNING**

# Symposia - 8:30 a.m. - 12:00 p.m.

Ballroom A	S29	STEC in Food: It's Time for Action!
Ballroom BC	Special Session	Anatomy of Product Tracing on Sushi: Search for the Smoking Gun
551	S30	Drivers for Global Food Safety: Aligning Public, Private, and Government Resources
Ballroom D	S33	Tales from the Food Safety World: A Collection of Extraordinary Stories from Our Profession
553	Т9	Antimicrobials, Sanitation
Ballroom E	T10	Applied Laboratory Methods, Novel Laboratory Methods

# Symposia - 8:30 a.m. - 10:00 a.m.

555-556	S31	Harmonization of Methods to Evaluate and Validate Preventative Controls
552	S34	Sprout Safety: What We've Done, What We've Learned and How We Can Continue to
		Move Forward

# Symposia - 10:30 a.m. - 12:00 p.m.

555-556	S32	Improving Retail Food Safety: Studies on the Presence and Transmission of Listeria
		monocytogenes and Predicted Public Health Benefits of Changes in Retail Practices
552	S35	Human Pathogens on/in Plants: Multidisciplinary Synergies for Enhancing Food Safety

IAFP Lunch - 12:00 p.m. - 1:00 p.m., Exhibit Hall, Rhode Island Convention Center

# **AFTERNOON**

1:30 p.m. – 3:30 p.m.		
Ballroom A	S36	Microbiological Safety of Fresh Produce
Ballroom BC	S37	Salmonella in Shell Eggs - Post-harvest Intervention Technologies
555-556	S38	Sanitation Challenges in the Retail Food Kitchen
Ballroom D	S39	Translating HACCP to Lean, Six Sigma – Learning How Food Safety Fits into the
		Process Improvement Model
551	S40	Future Challenges in Food Safety: An International Perspective
552	S41	Using Nanotechnology for Improved Food Safety Testing in Food Industry
553	S42	Bacillus cereus: Heat Resistance and Psychrotrophy for Better Life in RTE Foods
Ballroom E	S43	Fifty Years of Mycotoxins: A Retrospective and Prospective Examination

4:00 p.m. – 5:00 p.m. John H. Silliker Lecture – Dr. Catherine Woteki

# **Awards Banquet and Reception**

Reception, 6:00 p.m. – 7:00 p.m. — Ballroom, Rhode Island Convention Center Banquet, 7:00 p.m. – 9:30 p.m. — Ballroom, Rhode Island Convention Center

# **Wednesday Morning** July 25

(Posters will be on display 9:00 a.m. - 3:00 p.m. See details on page 71)

# **Special Session**

**Anatomy of Product Tracing on Sushi: Search for** the Smoking Gun

Rhode Island Convention Center, Ballroom BC Sponsored by the IAFP Foundation

Organizers: Barbara Blakistone, Veneranda Gupta

Convenors: Barbara Blakistone, Veneranda Gupta

- Salmonella in RTE Seafood and Sushi 8:30 DOUG MARSHALL, Eurofins, Fort Collins, CO, USA
- 9:00 Multistate Outbreak of Salmonella Bareilly and Salmonella Nchanga Infections Associated with a Raw Scraped Ground Tuna Product THANE HANCOCK, Centers for Disease Control and Prevention, Atlanta, GA, USA
- State's Perspective of the Samonella Bareilly and Nchanga 9:30 Investigation DAVID NICHOLAS, New York State Health, Dept. of Troy, NY, USA
- Break 10:00
- FDA Response to the Outbreak of Salmonella Bareilly and 10:30 Nchanga: Challenges in Tracking and Tracing KARI IRVIN, CORE, College Park, MD, USA, and SHERRI MCGARRY, U.S. Food and Drug Administration, College Park, MD, USA
- 11:00 Maintaining Best Practices in the Tuna Industry DOUG BRINSMADE, Sea-Delight, Miami, FL, USA
- Panel Discussion 11:35
- **S29** STEC in Food: It's Time for Action! Rhode Island Convention Center, Ballroom A Sponsored by PALL, Inc. and the IAFP Foundation

**Organizers: Patrice Arbault, Guy Loneragan Convenors: Patrice Arbault, Guy Loneragan** 

- 8:30 Challenges of Detecting and Isolating Non-O157 STEC in JOSEPH BOSILEVAC, U.S. Department of Agriculture-ARS, Clay Center, NE, USA
- 9:00 Hunting the Elusive Pathogenic STEC in Australian Beef IAN JENSON, Meat & Livestock Australia, North Sydney, Australia

- STEC Meat Operations: An Industry Perspective of the 9:30 Challenges and Approaches to Success JOHN RUBY, JBS, Green Bay, WI, USA
- 10:00 Break
- 10:30 STECs, Your HACCP Plan and How to Cope? KERRI HARRIS, Texas A&M University, College Station, TX, USA
- Can We Control STECs before They Get in the Abattoir 11:00 GUY LONERAGAN, Texas Tech University, Lubbock, TX, USA
- 11:30 Panel Discussion
- **S30 Drivers for Global Food Safety: Aligning Public, Private, and Government Resources** Rhode Island Convention Center, Room 551 Sponsored by Cargill, Bio-Rad and the IAFP Foundation Organizers: Pamela Wilger, Keith Lampel, **Andrew Benson** Convenors: Pamela Wilger, Keith Lampel, **Andrew Benson**
- 8:30 Who are the Main Drivers; How are Industry, Regulatory and NGOs Coming Together? PATRICK WALL, University College Dublin, Belfield, Ireland
- 9:00 Programs WHO/FAO Has or is Creating to Drive Global Food Safety Forward PETER BEN EMBAREK, World Health Organization Geneva, Switzerland
- 9:30 What Does the World Bank Do for Global Food Safety and What Can We Do to Help? JEAN KAMANZI, The World Bank, Washington, D.C., **USA**
- 10:00 Break
- 10:30 How Does IUFoST Work with Industry, Academia and Governments to Drive Global Food Safety? MARY SCHMIDL, IUFoST, Minneapolis, MN, USA
- What is the FDA Doing to Drive Global Food Safety Such 11:00 as Import Inspection, Third Party Certification and Learning from the Food and Feed Industry to Affect the Global Food Market? KATHY GOMBAS, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA
- How Can Industry Align with Governments and NGOs to 11:30 Help Drive Global Food Safety? MICHAEL ROBACH, Cargill, Minneapolis, MN, USA

**S31** 

**Harmonization of Methods to Evaluate and** 

	Validate Preventative Controls  Rhode Island Convention Center, Room 555-556  Organizers: Alvin Lee, Purnendu Vasavada,		BENJAMIN CHAPMAN, North Carolina State University, Raleigh, NC, USA
	Zhinong Yan Convenors: Alvin Lee, Purnendu Vasavada, Zhinong Yan	9:30	Behind Kitchen Doors: Tales from Your Local Health Inspector JEANNINE RIESS, Colorado State University, Fort Collins, CO, USA
8:30	What is Validation and Verification of a Preventative Control? LARRY KEENER, International Product Safety	10:00	Break
	Consultants, Seattle, WA, USA	10:30	Tales from the Chicken Coop: Case Studies in <i>Salmonella</i> Reduction in Poultry Plants
9:00	Criteria Used to Evaluate a Validated Process or Preventative Control JOHN LARKIN, U.S. Food and Drug Administration-		SCOTT RUSSELL, University of Georgia, Athens, GA, USA
	CFSAN, Bedford Park, IL, USA	11:00	Spicing up Salmonella Diversity: Reflections from International Studies in Mexico and Honduras
9:30	Harmonization of Methods for Validation and Verification RUSSELL FLOWERS, Silliker Group Corp., Chicago, IL, USA		MINDY BRASHEARS, Texas Tech University, Lubbock, TX, USA
10:00	Break	11:30	Taking One for the Team: A Historical Perspective on Human Challenge Studies MARK CARTER, QC Laboratories, Southampton, PA,
S32	Improving Retail Food Safety: Studies on the Presence and Transmission of <i>Listeria</i>		USA
	monocytogenes and Predicted Public Health Benefits of Changes in Retail Practices Rhode Island Convention Center, Room 555-556	S34	Sprout Safety: What We've Done, What We've Learned and How We Can Continue to Move Forward
	Organizers: Nathan Bauer, Kristina Barlow Convenor: Nathan Bauer		Rhode Island Convention Center, Room 552 Sponsored by the IAFP Foundation Organizers: Michelle Smith, Tong-Jen Fu, Robert
10:30	Listeria monocytogenes Contamination in Ready-to-Eat Foods JOHN LUCHANSKY, U.S. Department of Agriculture- ARS-ERRC, Wyndmoor, PA, USA		Sanderson Convenor: Tong-Jen Fu
11:00	Listeria monocytogenes Contamination in the	8:30	Enhancing Sprout Food Safety through Partnership: It Takes a Village
	Environment of Retail Operations MARTIN WIEDMANN, Cornell University, Ithaca, NY, USA		TONG-JEN FU, U.S. Food and Drug Administration, Bedford Park, IL, USA
11:30	Modeling the Risk of <i>Listeria monocytogenes</i> Cross-	8:40	The State of the Sprout Industry: A Food Safety Perspective
	contamination at Retail REGIS POUILLOT, U.S. Food and Drug Administration- CFSAN, College Park, MD, USA		ROBERT SANDERSON, Jonathan Sprouts Inc., Marion, MA, USA
S33	Tales from the Food Safety World: A Collection of Extraordinary Stories from Our Profession <i>Rhode Island Convention Center, Ballroom D</i>	9:00	Sprout Food Safety: A U.S. Regulatory Perspective MICHELLE SMITH, U.S. Food and Drug Administration, College Park, MD, USA
	Sponsored by Bentley Instruments and the IAFP Foundation Organizers: Clyde Manuel, Gry Dawn Terrell Convenors: Clyde Manuel, Jessica Butler	9:20	Best Practices for Safer Production of Sprouts: A Grower's Perspective MANSOUR SAMADPOUR, LifeForce Foods, Lake Forest Park, WA, USA
8:30	The Case of the Numb Nuts: Unsavory Toxins in a Savory Snack Food PAUL HALL, AIV Microbiology & Food Safety Consultants, Inc., Overland Park, KS, USA	9:40	Best Practices for Safer Production of Sprouts: A Seed Supplier's Perspective BOB RUST, International Specialty Supply, Cookeville, TN, USA

T – Technicals

9:00

Tales from Barfblog: Weird Stories from the Front Lines

**Blue Text - Developing Scientist Competitors** 

**RT – Roundtables** 

10:00	Break	T9-05	
S35	Human Pathogens on/in Plants: Multidisciplinary Synergies for Enhancing Food Safety Rhode Island Convention Center, Room 552 Sponsored by the IAFP Foundation Organizers: Kellye Eversole, Jacqueline Fletcher Convenor: Kellye Eversole	9:30 T9-06	Screening Antimicrobial Activities of the Herbal Plants against <i>Listeria monocytogenes</i> and Cytotoxicity Assays of the Plants using Caco-2 Cell YOHAN YOON, Hyunjoo Yoon, Ahreum Park, Kyoung-Hee Choi, Sookmyung Women's University, Seoul, South Korea
10:30	Highlights of New Multidisciplinary Research Reported at the Human Pathogens on Plants Workshop – Multidisciplinary Strategies for Research JERI BARAK, University of Wisconsin-Madison,	9:45	Chemical Decontamination of Footwear Soles to Limit Microbial Transfer in a Dry Environment SCOTT BURNETT, Malt-O-Meal Company, Lakeville, MN, USA
	Madison, WI, USA	10:00	Break
11:00	Plant Pathology Extension in Implementation of FDA Produce Standards STEVEN RIDEOUT, Virginia Tech, Painter, VA, USA	T9-07 10:30	Mechanisms of the Resistance of <i>Bacillus subtilis</i> Spores to Pulsed UV-Light Julia Esbelin, Sabine Mallea, FREDERIC CARLIN,
11:30	FDA Strategic Research Agenda for Produce Regulations MICHAEL MAHOVIC, U.S. Food and Drug Administration, College Park, MD, USA	T9-08	Inra-UMR, Avignon, France
Т9	Technical Session 9 - Antimicrobials and Sanitation  Rhode Island Convention Center, Room 553  Convenors: Rocelle Clavero, Elizabeth Grasso	10:45	Fresh Produce Washing Aid, T-128, Enhances Inactivation of <i>Salmonella</i> and <i>Pseudomonas</i> Biofilms on Stainless Steel Coupons in Chlorinated Wash Solutions CANGLIANG SHEN, Yaguang Luo, Xiangwu Nou, Bin Zhou, Qin Wang, Patricia Millner, U.S. Department of Agriculture-ARS, Beltsville, MD, USA
T9-01 8:30	Temperature and Time-dependence Effects of Cranberry Proanthocyanidins and Pomegranate Polyphenols on Hepatitis A Virus Infectivity XIAOWEI SU, Amy Howell, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA	T9-09 11:00	Pasteurization or Sterilization of Spices – Food Safety and Quality Considerations RAINER PERREN, Tobias Lohmueller, RPN EXCELLENCE AG, Sursee, Switzerland
T9-02 8:45	Genes Involved in Biosynthesis of Paenibacillin, a Novel Antimicrobial Peptide EN HUANG, Ahmed Yousef, The Ohio State University, Columbus, OH, USA	T9-10 11:15	Chemical Disinfection of Human Norovirus Surrogates for the Prevention of Human Norovirus Outbreaks CONG CAO, Doris D'Souza, University of Tennessee-Knoxville, Knoxville, TN, USA
T9-03 9:00	Optimal Dispersion of nanoZnO and Antimicrobial Activity against <i>Staphylococcus aureus</i> and <i>Escherichia coli</i> PAULA ESPITIA, Nilda Soares, Reinaldo Teofilo, Debora Vitor, Jane Coimbra, Eber Medeiros, Federal University of Vicosa, Vicosa, Brazil	T9-11 11:30	Efficacy of Handwashing Duration and Drying Methods DANE JENSEN, Donald Schaffner, Michelle Danyluk, Linda Harris, Rutgers University, New Brunswick, NJ, USA
T9-04 9:15	Time-dependent Effects of Myricetin and L-epicatechin against Human Norovirus Surrogates Xiaowei Su, DORIS D'SOUZA, University of Tennessee-Knoxville, Knoxville, TN, USA	T9-12 11:45	Eradication of <i>Salmonella</i> in a Dry Processing Environment: First Step Moisten, Second Step Decontaminate TYLER MATTSON, ClorDiSys Solutions, Inc., Lebanon, NJ, USA

T – Technicals

# T10 **Technical Session 10 - Applied Laboratory Methods and Novel Laboratory Methods** Rhode Island Convention Center, Ballroom E

Convenors: Lawrence Goodridge, Lee-Ann **Jaykus** 

# T10-01

8:30 Comparative Evaluation of an Enrichment Media with a Time-release Selective Agent Tablet for Recovering Nitrite-stressed Listeria monocyto-

> ESMOND NYARKO, Catherine Donnelly, Bob Koeritzer, Patrick Mach, Wensheng Xia, Dennis D'Amico, University of Vermont, Burlington, VA, **USA**

### T10-02

Molecular Subtyping of a Large Collection of 8:45 Historical Listeria monocytogenes Strains Using an Improved Multiple-Locus Variable-Number Tandem Repeat Analysis (MLVA) Saleema Saleh-Lakha, Vanessa Allen, Jiping Li, Franco Pagotto, Joseph Odumeru, Eduardo Taboada, Burton Blais, Dele Ogunremi, Gavin Downing, Susan Lee, Anli Gao, SHU CHEN, University of Guelph, Guelph, ON, Canada

### T10-03

Improvement of Mannitol-yolk-polymyxin B Agar by 9:00 Supplementing with Trimethoprim for Quantitative Detection of Bacillus cereus in Foods JUNG-WHAN CHON, Ji-Yeon Hyeon, Jun-Ho Park, Kwang-Young Song, Kun-Ho Seo, Konkuk University, Seoul, South Korea

# T10-04

The Escherichia coli Common Pilus: A Diagnostic 9:15 Target for Point-of-Need LAMP Assays Detecting the Fecal Indicator *E. coli* JEFFREY CHANDLER, Alma Perez-Mendez, Bledar Bisha, Shannon Coleman, Lawrence Goodridge, Colorado State University, Fort Collins, CO, USA

# T10-05

Evaluation of a Novel Microbial Source Tracking 9:30 Method for Identification of Fecal Contamination in the Fresh Produce Production Environment KRUTI RAVALIYA, Juan Leon, Anna Fabiszewski, Faith Bartz, Norma Heredia, Santos Garcia, Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, USA

### T<sub>10</sub>-06

Colorimetric Paper-based Detection of Salmonella 9:45 spp. and Escherichia coli from Artificially Contaminated Irrigation River Water BLEDAR BISHA, Jana Jokerst, Jaclyn Adkins, Shannon Coleman, Jeffrey Chandler, Alma Perez-Mendez, Charles Henry, Lawrence Goodridge, Colorado State University, Fort Collins, CO, USA

10:00 Break

### T10-07

10:30 Development of Latex Agglutination Tests for Non-O157 Shiga Toxin-producing Escherichia coli O26, O45, O103, O111, O121 and O145 MARJORIE MEDINA, Weilin Shelver, Pina Fratamico, Laurie Fortis, Glenn Tillman, Neelam Narang, William Cray, Emilio Esteban, Chitrita DebRoy, U.S. Department of Agriculture-ARS-ERRC, Wyndmoor, PA, USA

### T10-08

10:45 Continuous Aerosol Sampling of Interstitial Headspace for Post-process Contaminants in Dry Foods MARK MOORMAN, Kellogg's, Battle Creek, MI, USA

### T10-09

11:00 Development of New Methods for Potential Detection of Blastocystis sp. in Fresh Produce DUMITRU MACARISIN, Monica Santin, Ronald Fayer, U.S. Department of Agriculture-ARS, Beltsville, MD, **USA** 

### T10-10

11:15 Rapid Detection of Salmonella spp. in Foods and Environmental Samples Using Isothermal Nucleic Acid Amplification Paul Norton, Lisa Pinkava, Karen Luplow, Susan Alles, R. Lucas Gray, Jill Feldpausch, Jerry Tolan, Bryan Kraynack, Glenn Johns, MARK MOZOLA, Jennifer Rice, Neogen Corporation, Lansing, MI, USA

## T10-11

11:30 Homogenous Detection of Fumonisin B1 with Molecule Beacon Based on Fluorescence Resonance Energy Transfer between Upconversion Nanoparticles and Gold **Nanoparticles** Shijia Wu, Nuo Duan, Changqing Zhu, Jingdong Shao, ZHOUPING WANG, Jiangnan University, Wuxi, China

### T10-12

11:45 Easy, Rapid, and Cost-effective Real-time PCR Detection of Norovirus GI and GII with a Single Tube Lyophilized One-step Reverse Transcription PCR Mix Bill Marion, George Blackstone, Greer Kaufman, MICHAEL VICKERY, BioGX, Birmingham, AL, USA

	Wednesday Afternoon	3:30	Break
	July 25	S38	Sanitation Challenges in the Retail Food Kitchen Rhode Island Convention Center, Room 555-556
(Posters will be on display 9:00 a.m. – 3:00 p.m. See details on page 71.)			Organizer: Gina Nicholson
S36	Microbiological Safety of Fresh Produce  Rhode Island Convention Center, Ballroom A  Organizers: Joshua Gurtler, Mary Lou Tortorello	1:30	How Does Improper Case Sanitation Really Affect Refrigeration Units on the Sales Floor? GINA NICHOLSON, The Kroger Company, Cincinnati, OH, USA
1:30	Convenors: Joshua Gurtler, Mary Lou Tortorello  Proposed FSMA Rule for Fresh Produce JAMES GORNY, U.S. Food and Drug Administration- CFSAN, Fulton, MD, USA	2:00	Is the Kitchen Really Clean? Sanitation Research Conducted by Purdue University and Cornell University in Three Retail Grocers HALEY OLIVER, Purdue University, West Lafayette, IN, USA
2:00	Leafy Greens Safety Update WILL DANIELS, Earthbound Farm, San Juan Bautista, CA, USA	2:30	Validation of Cleaning Processes JEFFREY ANDERSON, Procter and Gamble Professional, Covington, KY, USA
2:30	Non-leafy Perishable Produce: Roots to Fruits TREVOR SUSLOW, University of California-Davis, Davis, CA, USA	3:00	Food Employees Reveal if the Food Safety Training at the Store Really Helps TBD
3:00	Roundtable Session ROBERT BRACKETT, Institute for Food Safety and Health, Bedford Park, IL, USA, ELIZABETH BIHN,	3:30	Break
	Cornell University, Ithaca, NY, USA, WILL DANIELS, Earthbound Farm, San Juan Bautista, CA, USA, JAMES GORNY, U.S. Food and Drug Administration-CFSAN, Fulton, MD, USA, TREVOR SUSLOW, University of California-Davis, Davis, CA, USA	S39	Translating HACCP to Lean, Six Sigma – Learning How Food Safety Fits into the Process Improvement Model Rhode Island Convention Center, Ballroom D Organizer: Gina Nicholson Convenor: Ken Davenport
3:30	Break	1.20	·
S37	Salmonella in Shell Eggs – Post-harvest Intervention Technologies	1:30	The Five Principles of Lean Thinking TBD
	Rhode Island Convention Center, Ballroom BC Organizers: David Geveke, Gregory Fleischman Convenors: Gregory Fleischman, David Geveke	2:00	Fishbone Diagram, Spaghetti Chart and Detailed Process Map – HACCP or Six Sigma? KEN DAVENPORT, 3M Microbiology, Saint Paul, MN, USA
1:30	The Effect of Hot Water Immersion Pasteurization of Shell Eggs on <i>Salmonella</i> Enteritidis and Quality DAVID GEVEKE, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA	2:30	Links to Shrink TBD
2:00	Challenges to Microwave Pasteurization of Shell Eggs GREGORY FLEISCHMAN, U.S. Food and Drug Administration, Bedford Park, IL, USA	3:00	Elevator Speech – How Do You Tell Your Story? LARRY KOHL, Food Lion Family - Delhaize America, Salisbury, NC, USA
2:30	Decontamination of Shell Eggs Using Heat-ozone	3:30	Break
_,,,	Combinations AHMED YOUSEF, The Ohio State University, Columbus, OH, USA	S40	Future Challenges in Food Safety: An International Perspective Rhode Island Convention Center, Room 551 Sponsored by the IAFP Foundation
3:00	Preventing Salmonellosis from Shell Eggs Using Rapid Cooling with Carbon Dioxide Gas JEAN JENSEN, Purdue University, West Lafayette, IN, USA		Organizers: Joshua Gurtler, Vijay Juneja Convenors: Joshua Gurtler, Vijay Juneja

3:30

Break

1:30

Africa: Food Safety on the Dark Continent

FREDERIC CARLIN, Inra-UMR, Avignon, France

in Bacillus cereus and Consequences for Risk Assessment in

Agriculture Washington, D.C.

Novel Insights in Bacillus cereus Emetic Toxin

1:55

# AFP Worksho

# **Cleaning and Sanitizing Practices Workshop:**

A Hands-on Look at How Chemical, Process and Equipment Choices Impact Cleaning Performance

**Sponsored by the IAFP Food Hygiene and Sanitation PDG** 

**September 27-28, 2012** 

Held at Intralox facilities in Harahan, Louisiana

Go to www.foodprotection.org for more information.



The National Center for Food Protection and Defense (NCFPD) is proud to congratulate the **Brick Burners** of Marshalltown, lowa, winners of the NCFPD-sponsored FIRST LEGO League Global Innovation Award Food Protection Team. The Brick Burners, associated with the Central Iowa Christian Home Educators, won for their invention, the "Shield of Protection Food Safe Label," a sticker made out of food grade materials that would not peel off, but would have to be scrubbed off, to remind people to wash their fruit thoroughly prior to consumption.

The team won a trip to IAFP 2012, and will be presenting at the Silliker Lecture. Please stop by the NCFPD booth (#1022) to congratulate these young scientists as they display their invention.

CONGRATULATIONS TO THE BRICK BURNERS!

# John H. Silliker Lecturer

Wednesday, July 25 • 4:00 p.m. – 5:00 p.m.



**Dr. Catherine** Woteki

Under Secretary for Research, Education, and Economics (REE) and the Department's Chief Scientist U.S. Department of Agriculture Washington, D.C.

r. Catherine Woteki is Under Secretary for USDA's Research, Education, and Economics (REE) mission area, and the Department's Chief Scientist.

Before joining USDA, Dr. Woteki served as Global Director of Scientific Affairs for Mars, Incorporated, where she managed the company's scientific policy and research on matters of health, nutrition, and food safety. From 2002–2005, she was Dean of Agriculture and Professor of Human Nutrition at Iowa State University. Dr. Woteki served as the first Under Secretary for Food Safety at the U.S. Department of Agriculture (USDA) from 1997–2001, where she oversaw U.S. Government food safety policy development and USDA's continuity of operations planning. Dr. Woteki also served as the Deputy Under Secretary for REE at USDA in 1996.

Prior to going to USDA, Dr. Woteki served in the White House Office of Science and Technology Policy as Deputy Associate Director for Science from 1994–1996. Dr. Woteki has also held positions in the National Center for Health Statistics of the U.S. Department of Health and Human Services (1983–1990), the Human Nutrition Information Service at USDA (1981– 1983), and as Director of the Food and Nutrition Board of the Institute of Medicine at the National Academy of Sciences (1990–1993). In 1999, Dr. Woteki was elected to the Institute of Medicine of the National Academy of Sciences, where she has chaired the Food and Nutrition Board (2003–2005). She received her M.S. and Ph.D. in Human Nutrition from Virginia Polytechnic Institute and State University (1974). Dr. Woteki received her B.S. in Biology and Chemistry from Mary Washington College (1969).

# John H. Silliker Lecture Abstract

# Challenges in Food Security and Food Protection Dr. Catherine Woteki

Under Secretary for Research, Education, and Economics (REE) and the Department's Chief Scientist U.S. Department of Agriculture Washington, D.C.

# **Abstract:**

With global population expected to reach 9 billion by 2050, our agricultural systems are facing enormous challenges to produce enough food for all who will need it. Research and education are the best tools available to address that challenge, as sustainable intensification will be needed to boost agricultural production on a limited supply of arable land. To protect our natural resources and provide a nutritious diet for all, we will need to work on both securing enough food and ensuring that the food supply promotes life-long health. Those involved in nutrition and food safety understand that a food that is not safe is not nutritious. And we need to consider the supply chain from farm to table. Technologies can be helpful in reducing the estimated 40 percent of crops that are lost pre- and post-harvest to rodents and rot.

Scientists around the globe are making a priority of current research into crop diseases such as the wheat pathogen UG99, which threatens a key staple of many countries' diets. Protecting our food supply requires ongoing research into both plant and animal diseases that could, in a short period of time, be devastating. Just as new breeds of diseaseresistant plants are developed, new diseases emerge that require new solutions. Both plant and animal specific as well as zoonotic pathogens are constantly evolving, and research is critical to staying ahead of the threat pathogens pose to crops, food animals and humans.

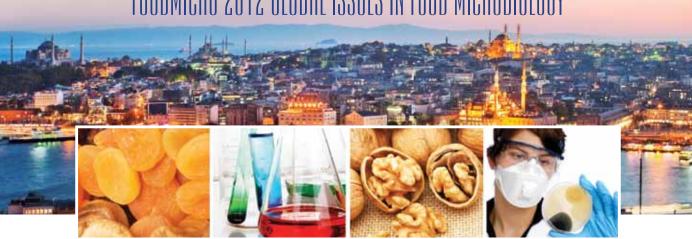








# FOODMICRO 2012 GLOBAL ISSUES IN FOOD MICROBIOLOGY



# 3 - 7 SEPTEMBER 2012, ISTANBUL - TURKEY

# GRAND CEVAHİR HOTEL

# **IMPORTANT DATES**

- Announcement of accepted abstracts: 30 May 2012
- Early bird registration deadline: 07 June 2012 Regular registration: 07 June 26 August 2012
  - Late registration: 27 August 3 September 2012

# **CONGRESS HEADLINES**

- 1. Global Food Safety
- Foodborne pathogens
- Food-borne viruses-surveillance, detections and control
- Food-borne parasites
- Moulds and mycotoxins
- Consumer safety
- Risk assesments and communication in different geographical regions
- Nanotechnology and alternative approaches towards improving food safety
- Microbiological quality and safety on non-pasteurized dry foods in the international trade

# 2. Food Fermentation

- Moving towards multifunctional microorganisms
- Safety and quality of traditional fermented food products
- New approaches in food fermentation

# 3. Bioprotection

- Bacteria for bioprotection
- Yeasts for bioprotection
- Antimicrobial metabolites

# 4. Food Biotechnology

- Biotechnology in the food industry
- New approaches in methodology
- Development of new biotechnological process

# BRONZE SPONSORS

































# **OFFICIAL AIRLINE NETWORK**



# **Poster Sessions**

# MONDAY, JULY 23 - 10:00 A.M. - 6:00 P.M.

P1 Applied Laboratory Methods, Sanitation, Microbial Food Spoilage, Pathogens, Epidemiology, Food Toxicology, Communication Outreach and Education and Risk Assessment Rhode Island Convention Center, Exhibit Hall

P1-01 through P1-89 - Authors present 10:00 a.m. - 11:30 a.m. and 5:00 p.m. - 6:00 p.m. P1-90 through P1-178 - Authors present 2:00 p.m. - 3:30 p.m. and 5:00 p.m. - 6:00 p.m.

# TUESDAY, JULY 24 - 10:00 A.M. - 6:00 P.M.

P2 Meat and Poultry, Produce, Dairy, Antimicrobials, Novel Laboratory Methods and Pathogens Rhode Island Convention Center, Exhibit Hall

P2-01 through P2-89 - Authors present 10:00 a.m. - 11:30 a.m. and 5:00 p.m. - 6:00 p.m. P2-90 through P2-172 - Authors present 2:00 p.m. - 3:30 p.m. and 5:00 p.m. - 6:00 p.m.

# WEDNESDAY, JULY 25 – 9:00 A.M. – 3:00 P.M.

P3 Seafood, Meat and Poultry, Produce, Beverages, Non-microbial Food Safety, General Microbiology, Antimicrobials, Pathogens and Novel Laboratory Methods

\*Rhode Island Convention Center, Exhibit Hall\*

P3-01 through P3-89 - Authors present 9:00 a.m. - 11:00 a.m. P3-90 through P3-173 - Authors present 1:00 p.m. - 3:00 p.m.

# **MONDAY POSTERS 10:00 AM - 6:00 PM**

**P1** Poster Session - Applied Laboratory Methods, Sanitation, Microbial Food Spoilage, Pathogens, **Epidemiology, Food Toxicology, Communication Outreach and Education and Risk Assessment** Rhode Island Convention Center, Exhibit Hall

> P1-01 through P1-89 - Authors present 10:00 a.m. – 11:30 a.m. and 5:00 p.m. – 6:00 p.m. P1-90 through P1-178 – Authors present 2:00 p.m. – 3:30 p.m. and 5:00 p.m. – 6:00 p.m.

# **Applied Laboratory Methods**

- Preliminary Evaluation of VIDAS® UP Listeria (LPT) Assay for the Detection of Listeria in Select Food and Environmental Surface Samples - Brian Kupski, HARI PRAKASH DWIVEDI, Gregory Devulder, bioMerieux, Inc., Hazelwood, MO, USA
- Performance Tested Method<sup>SM</sup> Evaluation of the Roka P1-02 Salmonella Detection System for Food and Environmental Surfaces on the Atlas™ System - WILLIAM KWONG, Roka Bioscience, San Diego, CA, USA
- Performance Tested Method<sup>SM</sup> Evaluation of a Novel *List*eria Detection Assay for Food and Environmental Surfaces - HUA YANG, Roka Bioscience, San Diego, CA, USA
- A New Phage-based Immunoassay for Detection of Listeria in Food and Environmental Samples - DENISE HUGHES, Jennifer Chen, Selina Begum, DH MICRO Consulting, Greenacre, Australia
- P1-05 What's Up with VIDAS UP? - ANTHONY PAVIC, Jeremy Chenu, Alison Le, Wylie Armstrong, Nemah Atallah, Baiada Poultry, Bringelly, Australia
- P1-06 Detection of Five Shiga Toxin-producing Escherichia coli Genes with Multiplex PCR - INSOOK SON, Julie Kase, Rachel Binet, Andrew Lin, Thomas Hammack, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA
- Comparison of Phenotypic and Genotypic Subtyping P1-07 Methods for Differentiating Salmonella Enteritidis Isolates Obtained from Food and Human Source -JI-YEON HYEON, Jung-Whan Chon, Yun-Gyeong Kim, Jun-Ho Park, Dong-Hyeon Kim, Hong-Seok Kim, Kwang-Young Song, Kun-Ho Seo, Konkuk University, Seoul, South Korea
- P1-08 Robustness of Loop-mediated Isothermal Amplification Assays for Salmonella Detection - QIANRU YANG, Witoon Prinyawiwatkul, Beilei Ge, Louisiana State University, Baton Rouge, LA, USA

- Monitoring Campylobacter Population on Poultry by P1-09 Magnetostrictive Biosensor - Ou Wang, Lin Zhang, TUNG-SHI HUANG, Zhongyang Cheng, Shelly Mckee, Yating Chai, Jean Weese, Auburn University, Auburn, AL, USA
- P1-10 Modification of Charcoal-cefoperazone-deoxycholate Agar by Supplementation with a High Concentration of Polymyxin B for Detecting Campylobacter jejuni and Campylobacter coli in Chicken Carcass Rinse -JIN-HYEOK YIM, Jung-Whan Chon, Ji-Yeon Hyeon, Jun-Ho Park, Kwang-Young Song, Hong-Seok Kim, Dong-Hyeon Kim, Soo-Kyung Lee, Kun-Ho Seo, Konkuk University, Seoul, South Korea
- P1-11 Comparison of an Automated Most Probable Number (MPN) Technique to a Manual Method for the Enumeration of Total Aerobic Counts in Food Contact Surface Samples - Hari Prakash Dwivedi, GREGORY DEVULDER, bioMérieux, Hazelwood, MO, USA
- P1-12 A Multiplex Real-time PCR Method for Simultaneous Detection of Salmonella spp., Escherichia coli O157 and Listeria monocytogenes in Soft Cheese - VENUGOPAL SATHYAMOORTHY, Atin Datta, Chloe Lee, Yiping He, Jennifer Sadowski, Ben Tall, Barbara McCardell, U.S. Food and Drug Administration-CFSAN, Laurel, MD, **USA**
- P1-13 Evaluation of a Compact Dry Plate Method for Enumeration of Yeasts and Molds in Foods during a Microval EN ISO 16140 Validation - ROY BETTS, Gail Betts, Rebecca Green, Campden BRI, Chipping Campden, United Kingdom
- P1-14 Evaluation of a Compact Dry Plate Method for Enumeration of Staphylococcus aureus in Foods during a Joint MicroVal, AOAC Research Institute EN ISO 16140 Validation - ROY BETTS, Gail Betts, Rebecca Green, Campden BRI, Chipping Campden, United Kingdom
- Loop-mediated Isothermal Amplification Assays for Detecting Seven Major Serogroups of Shiga Toxinproducing Escherichia coli in Produce - FEI WANG, Qianru Yang, Jianghong Meng, Beilei Ge, Louisiana State University, Baton Rouge, LA, USA
- FDA Campylobacter jejuni and Campylobacter coli Detection Method from Raw Silo Milk - QIAN WANG, Lacey Guillen, Don Bark, Carlos Abeyta, Greg Gharst, Illinois Institute of Technology, Bedford Park, IL, USA
- P1-17 Recovery of Listeria monocytogenes in RTE Foods Using a 125 g Sample Compared to the 25 g Reference Method -MARK PRATT, Tharon Hoepfner, Mary Niemann, John Jarosh, Stephen Mamber, Kristina Barlow, Zhihong Wang, Harry Marks, U.S. Department of Agriculture-FSIS, Saint Louis, MO, USA

- P1-18 Comparison of a Reference Method of Bioaerosol Sampling to a Newly Developed Compressed Air Microbial Testing Unit (CAMTU) - Youngsu Lee, Paul Rebe, Allan Fish, LYNNE MCLANDSBOROUGH, University of Massachusetts-Amherst, Amherst, MA, USA
- P1-19 Effect of Contamination Matrices on the Persistence of Escherichia coli O157:H7 on Romaine Lettuce Leaves - DAVID INGRAM, Patricia Millner, Xiangwu Nou, Yaguang Luo, U.S. Department of Agriculture-ARS, Beltsville, MD, USA
- P1-20 Same-day Detection of *Escherichia coli* O157:H7 and *Salmonella* in 375 g of Ground Beef SSYLVANIE CASSARD, bioMérieux, Nantes, France
- P1-21 16S rDNA Intervening Sequences of Faecalibacteriumlike Bacteria: Potential Genetic Markers for Tracking the Source of Fecal Contamination in Food - ZHENYU SHEN, Charles Carson, Guolu Zheng, University of Missouri-Columbia, Columbia, MO, USA
- P1-22 Validation of Two New Real-time PCR Multiplex Kits for the Detection of Shiga Toxin-producing *Escherichia coli* (STEC) - Celine Cadot, Jean-Philippe Tourniaire, Wendy Lauer, Pina Fratamico, Jean-Francois Mouscadet, SOPHIE PIERRE, Bio-Rad Laboratories, Marnes-La-Coquette, France
- P1-23 Evaluation of a Real-time PCR Method to Detect Salmonella Enteritidis in Whole Shell Eggs - ROBERT TEBBS, Peyman Fatemi, Olga Petrauskene, Arlene Nunez, Craig Cummings, Erin Crowley, Patrick Bird, Kiel Fisher, James Agin, Pius Brzoska, David Goins, Manohar Furtado, Catherine O'Connell, Life Technologies, Austin, TX, USA
- P1-24 Utilization of Pre-enrichment for Improved Sensitivity of an ELISA-based Detection System for *Escherichia coli* O157:H7 Barbara Gillespie, DORIS D'SOUZA, Charles Barnett, Andrew Gehring, Shannon Eaker, Kevin Jones, Jun Lin, Ashan Perera, Stephen Oliver, University of Tennessee-Knoxville, Knoxville, TN, USA
- P1-25 Evaluation of the BAM EHEC qPCR Assay Results in the ORA Laboratories WEN LIN, Joy Waite-Cusic, U.S. Food and Drug Administration-ORA-DFS, Rockville, MD, USA
- P1-26 FERN Multi-laboratory Evaluation of MicroSEQ® Salmonella spp. Detection Kit in Comparison with an FDA Rapid Screening qPCR Method Chorng-Ming Cheng, Tara Doran, Wen Lin, Kai-Shun Chen, Donna Williams-Hill, FERN Laboratory Cadre, RUIQING PAMBOUKIAN, U.S. Food and Drug Administration, Rockville, MD, USA
- P1-27 Recovery of *Escherichia coli* O157:H7 from Ground Beef after Enrichment in Three Different Media Types Using

- the BAX® Real-time PCR Assay CHRISTINA FERRATO, Linda Chui, Marie Louie, Provincial Laboratory for Public Health, Alberta, Calgary, AB, Canada
- P1-28 Comparison of Different Enrichment Media for Non-O157 Shiga Toxin-producing *Escherichia coli* Strains in Beef Trim - JASON CANTERA, Ruth Cantera, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P1-29 Development and Validation of a Real-time PCR Method for Detecting Non-O157 Shiga Toxin-producing *Escherichia coli* Strains in Beef JASON CANTERA, Ruth Cantera, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P1-30 Simple Filter Paper as a Shipping and Storage Medium for Human Enteric Viruses ALMA PEREZ-MENDEZ, Jeffrey Chandler, Bledar Bisha, Shannon Coleman, Lawrence Goodridge, Colorado State University, Fort Collins, CO, USA
- P1-31 Validation of a Test System for Detecting Non-O157 Shiga Toxin-producing *Escherichia coli* Strains in Beef - JASON CANTERA, Sukkyun Han, Ruth Cantera, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P1-32 Potential of Dye Uptake and Interference with qPCR Assays by Pooled STEC Colony Picks KEN YOSHITOMI, Karen Pukalo, Karen Jinneman, U.S. Food and Drug Administration-ORA, Bothell, WA, USA
- P1-33 Evaluation of Surface Sampling Performance of Four Commercially Available Swab Materials on Human Norovirus GII.4 - GEUN WOO PARK, David Lee, Jan Vinje, Centers for Disease Control and Prevention, Atlanta, GA, USA
- P1-34 Comparison of Different Agars for the Recovery and Isolation of Non-O157 STECs from Baby Spinach and a Raw Milk Cheese JULIE KASE, Anna Maounounen-Laasri, Tina Lusk, Insook Son, Willis Fedio, Thomas Hammack, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA
- P1-35 Validation of a Commercial Real-time PCR Assay for Screening *Salmonella* in Foods MORGAN WALLACE, Bridget Andaloro, Dawn Fallon, Stephen Varkey, Daniel DeMarco, Andrew Farnum, Monica Tadler, Steven Hoelzer, Julie Kraynak, Eugene Davis, Jeffrey Rohrbeck, George Tice, DuPont Qualicon, Wilmington, DE, USA
- P1-36 Growth of *Escherichia coli* O157:H7 in Common Pre-enrichment Broths - EMILY JACKSON, Annemarie Buchholz, Ravinder Reddy, U.S. Food and Drug Administration, Bedford Park, IL, USA

- P1-37 Concentration of Spiked Salmonella spp. and Escherichia coli 0157:H7 from Large Volumes of Irrigation Water with Subsequent Detection by the VIDAS Technology -SHANNON COLEMAN, Bledar Bisha, Jeffrey Chandler, Alma Perez-Mendez, Lawrence Goodridge, Colorado State University, Fort Collins, CO, USA
- P1-38 Detection and Isolation of Salmonella from Naturally Contaminated Pine Nuts Using Several Different Preenrichment Media - HUA WANG, U.S. Food and Drug Administration, College Park, MD, USA
- P1-39 Development and Validation of an Immunoaffinity Column for Detection of Aflatoxins in Agricultural Produce - VALENTINA VORONKOVA, Richard Krebs, Asa Bergdahl, Veronica Migo, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- Performance of a New Molecular Platform for the Recovery and Detection of Salmonella spp. from Fresh Raspberries - JORGE ADRIAN MUNIZ FLORES, Cristina Martinez Cardenas, Mayra Marquez Gonzalez, Ofelia Rodriguez Garcia, Veronica Zavala, Universidad de Guadalajara, Guadalajara, Mexico
- Hepatitis E Virus: A New Food Safety Issue? FABIENNE LOISY, Geraldine Leturnier, Sandrine Hattet, Axelle Delage, Benoit Lebeau, CEERAM S.A.S, La Chapelle-Sur-Erdre, France
- Comparison of Molecular and Classical Serotyping Approaches for Serovar Identification of Salmonella Isolated from Food Products - PRECIAUS HEARD, Peter Boleij, Thijs Weijers, Wendy McMahon, Sarita Raengpradub-Wheeler, Silliker, Inc., South Holland, IL, USA
- A Comparative Evaluation for Listeria Species in Food P1-43 with the Roka Listeria Detection Assay on Atlas™ System vs. DuPont Qualicon's BAX® System 24E Assay -CHRISTINE GWINN, Roka Bioscience, Warren, NJ, USA
- A Comparative Evaluation of Environmental Samples from Food Plants with the Roka Listeria Detection Assay on Atlas™ System, DuPont Qualicon's BAX® System 24E Assay, and bioMerieux VIDAS® LSX - Christine Gwinn, SHANNON KAPLAN, Roka Bioscience, Inc., San Diego, CA, USA
- Impact of Strain Variation on the Ability of Biosensor Technology to Detect Salmonella enterica - JEAN GUARD, U.S. Department of Agriculture-ARS-ESQRU, Athens, GA, USA

# Sanitation

Investigating Bacillus cereus Behavior to Optimize Food Pro-P1-46 cess and Surface Sanitation - FLORENCE POSTOLLEC, Anne-Gabrielle Mathot, Eugenie Baril, Noemie Desriac, Ivan Leguerinel, Louis Coroller, Daniele Sohier, ADRIA, Quimper, France

- P1-47 Pulsed Light Inactivation of Salmonella Enteritidis on Almond Surfaces - VINIL APELAGUNTA, Kathiravan Krishnamurthy, Nathan Anderson, Illinois Institute of Technology, Bedford Park, IL, USA
- P1-48 Use of UV-C Light and Chemical Sanitizers to Inactivate Internalized Salmonella Typhimurium in Iceberg Lettuce - CHONGTAO GE, Jiyoung Lee, The Ohio State University, Columbus, OH, USA
- P1-49 Validation of Quaternary Ammonia and Hydrogen Peroxide Powder for Control of Listeria monocytogenes in Ready-to-Eat Meat and Poultry Plants - ERDOGAN CEYLAN, Silliker, Inc., South Holland, IL, USA
- P1-50 Role of sigB and in IA Genes in Biofilm Formation and Antimicrobial Efficacy of Neutral Electrochemically Activated Water on Listeria monocytogenes - Hongshun Yang, Joellen Feirtag, FRANCISCO DIEZ, University of Minnesota, Saint Paul, MN, USA
- Evaluation of Biofilm Adaptability after the Use of P1-51 Inadequate Disinfectant Solutions - Theodora Kouklada, Nikolaos Chorianopoulos, Efstathios Giaouris, Efstathios Panagou, GEORGE-JOHN NYCHAS, Agricultural University of Athens, Athens, Greece
- P1-52 Evaluation of the Effectiveness of Five Sanitizers Using a Surface ATP Test System and Plate Counts - Leticia Casarin, Cheila de Paula, Aline Oliveira, Leonardo Teixeira, CRISTINA CONSTANTINO, Victor Corder, Alejandro Rojas, Kenneth Davenport, Eduardo Cesar Tondo, 3M Brazil, Sumare, Brazil
- P1-53 Efficiency of Repeated Treatment with γ-irradiation to Eliminate Vegetative and Spore Forms of Bacillus cereus from Raw Rice - ADELARD MTENGA, Neema Kassim, Won-Bo Shim, Yohan Yoon, Jeong-Sook Kim, Duck-Hwa Chung, Gyeongsang National University, Jinju, South Korea
- P1-54 Isolation and Characterization of Bacteriophages for Escherichia coli O157:H7 - JIN-YOUNG KIM, Hye-Lim Yoo, Young-Duck Lee, Jong-Hyun Park, Gachon University, Sung-nam, South Korea
- P1-55 Biofilm Removal from Stainless Steel Surfaces Using Abrasive Mechanical Disruption Combined with Lowvolume Electrostatic Application of Sanitizer Spray -SHERRE CHAMBLISS-BUSH, Mark Harrison, S. Edward Law, University of Georgia, Athens, GA, USA
- Use of Bacteriophage Cocktail for Biocontrol and Biofilm P1-56 Removal of Bacillus cereus - HYELIM YOO, Jin Young Kim, Young-Duck Lee, Jong-Hyun Park, Gachon University, Kyunggi-Do, South Korea

- Superficial Contamination of Conveyor Belts in Chicken Cutting Area: Effect of Cleaning by Water Spray at 45°C -LUCIANO DOS SANTOS BERSOT, Juliano Goncalves Pereira, Cristina Maria Zanette, Vanessa Mendonca Soares, Luis Augusto Nero, Jose Paes de Almeida Nogueira Pinto, Vinicius Cunha Barcellos, Federal University of Paraná, Palotina, Brazil
- Efficacy of an Isopropyl Alcohol Quaternary Ammonium Formula and Carbon Dioxide Sanitizer System for Reducing Salmonella on Food Contact Surfaces - DEBORAH KANE, Campbell Soup Company, Camden, NJ, USA
- Presence of Norwalk Virus RNA on the Hands of Infected Individuals - PENGBO LIU, Emory University, Atlanta, GA, USAA
- P1-60 Microbiological Evaluation of Carcass Transport Vehicles and a Survey on the Sanitary Performance at the Meat Cutting Plants in Korea - SEUNG-HEE BAEK, Joo-Yeon Lee, Hee-Jin Suk, Jae-Jin Cho, Hyun-Su Kim, Hyeong-Geun Lim, Korea Livestock Products HACCP Accreditation Service, Kyunggi, South Korea
- Evaluation of Alcohol Wipes and Microfiber Cloths for P1-61 Cleaning Dairy-Contact Stainless Steel Surfaces - DENISE LINDSAY, Briar Davies, Fonterra Co-Operative Group Ltd., Palmerston North, New Zealand
- Cleaning and Sanitation of Salmonella-contaminated Peanut Butter Processing Equipment - ELIZABETH GRASSO, Lindsay Halik, Stephen Grove, Yue Zheng, Fletcher Arritt, Susanne Keller, U.S. Food and Drug Administration-ISFH, Bedford Park, IL, USA
- P1-63 Survival of Listeria monocytogenes on Stainless Steel Exposed to Dry Heat - PAMELA MCKELVEY, Peter Bodnaruk, Ecolab, Eagan, MN, USA
- P1-64 Cross-contamination Risks in Reusable Grocery Shopping Bags - SARAH SMATHERS, Benjamin Chapman, Trevor Phister, North Carolina State University, Raleigh, NC, USA
- Effect of Detergent and Food Residues on the Survival of P1-65 Listeria monocytogenes and Salmonella spp. in Sponges -Anastasios Panagiotakis, Sofia Poimenidou, PANAGIOTIS SKANDAMIS, Agricultural University of Athens, Kallithea, Greece
- Norovirus Inactivation Using Chlorine Dioxide Gas on P1-66 Stainless Steel Coupons - JIA WEI YEAP, Mark Morgan, Fangfei Lou, Jianrong Li, Richard Linton, The Ohio State University, Columbus, OH, USA
- P1-67 Inactivation of Norovirus Surrogates by UV Irradiation and Chlorine Disinfection on Stainless Steel Surfaces and Development of Predictive Reduction Models - SE-HEE JEONG, Seok-Won Kim, Jihyoung Ha, Shin Young Park, Sang-Do Ha, Chung-Ang University, Ansung, South Korea

# Microbial Food Spoilage

- Sporeforming Bacteria: Biodiversity and Prevalence in Food Industries - FLORENCE POSTOLLEC, Anne-Gabrielle Mathot, Olivier Couvert, Emeline Cozien, Louis Coroller, Frederic Carlin, Daniele Sohier, ADRIA, Quimper, France
- Chlorine Treatment and Lactic Acid Bacteria Application P1-69 for Reduction of Spoilage Microorganisms from Clover Seeds and Sprouts - JONGKIT MASIRI, Lucille Villegas, Tam Mai, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P1-70 The Metagenomic in the Service of the Food Microbiology - Bernard Taminiau, Carine Nezer, YSABELLE ADOLPHE, Antoine Clinquart, Georges Daube, Jean-Baptiste Poullet, University of Liege, Liege, Belgium
- Freshness and Quality Change in Tofu Measured by P1-71 Glucose Level - SEONMI LEE, Dongguk University, Seoul, South Korea

# **General Microbiology**

P1-72 Genotypic Characterization of Brochothrix thermosphacta Strains that Developed during Storage of Minced Pork under Aerobic or Modified Atmosphere Packaging Conditions - Olga Papadopoulou, Agapi Doulgeraki, Efstathios Panagou, GEORGE-JOHN NYCHAS, Agricultural University of Athens, Athens, Greece

# Microbial Food Spoilage

- Conventional Methodologies vs. Metabolomics for the Quantification of Spoilage of Beef Filets and Minced Beef - Anthoula Argyri, Efstathios Panagou, Fady Mohareb, Conrad Bessant, GEORGE-JOHN NYCHAS, Agricultural University of Athens, Athens, Greece
- P1-74 Bacterial Growth and Histamine Production in Tuna Salad Preparations - SUSAN MCCARTHY, Kristin Butler, Ronald Benner, Jr., U.S. Food and Drug Administration, Dauphin Island, AL, USA
- P1-75 Viability of Salmonella and Listeria monocytogenes in Delicatessen Salads and Hummus as Affected by Sodium Content - Walid Alali, Larry Beuchat, DAVID MANN, University of Georgia, Griffin, GA, USA
- Occurrence of *Pseudomonas* spp. with Proteolytic Activity P1-76 in Raw Goat Milk - Anderson Keizo Yamazi, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- Optimization of Formula of NaCl, pH and a, in Low-salt Soy Sauce against Zygosaccharomyces rouxii using Experimental Mixture Design - JAE-HAN PARK, Jae-Wook Kim, Jun-Hwan Ryang, Cheong-Tae Kim, NONGSHIM, Seoul, South Korea

# **Non-Microbial Food Safety**

- P1-78 Good Manufacturing Practices: Knowledge of Food Handlers, Perception of Consumers and Its Adoption in Foodservice Restaurants - Leticia Paiva, Adriano Cruz, Jose de Assis Fonseca Faria, ANDERSON SANT'ANA, University of Sao Paulo, Sao Paulo, Brazil
- P1-79 WITHDRAWN

# **Microbial Food Spoilage**

- Vinegar as a Sanitizing Agent for Leafy Greens on Small P1-80 Farms - CECILIA ZERIO, Sujata Sirsat, Jack Neal, University of Houston, Houston, TX, USA
- P1-81 Spoilage Classification Models Using Metabolomics and Fingerprinting - FADY MOHAREB, Anthoula Argyri, Efstathios Panagou, George-John Nychas, Conrad Bessant, Cranfield University, Cranfield, United Kingdom

# **Pathogens**

- Persistence of Human Norovirus in Simulated Gastric P1-82 Fluid - GRACE TUNG, Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, USA
- P1-83 Genomic Attributes Associated with Host Adaptation in Campylobacter jejuni and Campylobacter coli from Poultry and Swine - MARIA CRESPO, Eric Altermann, Jonathan Olson, Robin Siletzky, Sophia Kathariou, North Carolina State University, Raleigh, NC, USA
- The Addition of Putative Virulence Markers to an P1-84 Established P-BIT Typing Scheme Enables Campylobacter coli, but not Campylobacter jejuni, to be Separated into Country of Origin - LESLEY DUFFY, Gary Dykes, Kinga Wieczorek, CSIRO, Brisbane, Australia
- P1-85 Survival of *Staphylococcus aureus* on Dried Fishery Products as a Function of Temperature - NA YOON PARK, Kyung Jin Min, Hee Jin Park, Junil Jo, SoonHo Lee, Ingyun Hwang, Kisun Yoon, Kyung Hee University, Seoul, South Korea
- Distribution of Pathogenicity Islands in Shiga Toxin-P1-86 producing Escherichia coli - WENTING JU, Jinling Shen, Magaly Toro, Shaohua Zhao, Jianghong Meng, University of Maryland, College Park, MD, USA
- Occurrence of Campylobacter spp. in Dairy Cattle Farms of P1-87 Quebec, Canada - EVELYNE GUEVREMONT, Lisyanne Lamoureux, Catherine Loubier, Jocelyn Dubuc, Agriculture and Agri-Food Canada, St-Hyacinthe, QC, Canada
- P1-88 CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) as a Potential Molecular Subtyping Marker for High-risk Shiga Toxin-producing Escherichia coli

- (STEC) Isolates SHUANG YIN, Chitrita DebRoy, Edward Dudley, The Pennsylvania State University, University Park, PA, USA
- P1-89 Comparative Genomics of Salmonella Phage Diversity on Dairy Farms: Distinguishing the "Good" from the "Bad" - ANDREA MORENO SWITT, Renato Orsi, Kitiya Vongkamjan, Henk den Bakker, Kevin Cummings, Martin Wiedmann, Cornell University, Ithaca, NY, USA
- P1-90 The Spread of Cronobacter sakazakii in the Domestic Kitchen - AGNES KILONZO-NTHENGE, Emily Rotich, Sandria Godwin, Samuel Nahashon, Fur-Chi Chen, Tennessee State University, Nashville, TN, USA
- P1-91 Survival of Escherichia coli O157:H7, Salmonella Enteritidis and Listeria monocytogenes during Storage of Fermented Black and Green Table Olives - Anthoula Argyri, Athena Grounta, GEORGE-JOHN NYCHAS, Efstathios Panagou, Chrysoula Tassou, Agricultural University of Athens, Athens, Greece
- Spray Intervention Treatments and Cooking to Reduce P1-92 Escherichia coli 0157:H7 and Non-0157 STECs on the Surface of Beef Subprimals, and within Needle-tenderized Steaks - YEN TE LIAO, J. Chance Brooks, Jennifer Martin, Alejandro Echeverry, Guy Loneragan, Mindy M. Brashears, Texas Tech University, Lubbock, TX, USA
- P1-93 Comparative Genomics Analysis of Salmonella Pathogenicity Islands (SPI-5 and SPI-6) of Salmonella Newport - GUOJIE CAO, University of Maryland, College Park, MD, USA
- Evaluations of Three Multiplex Real-time PCR Assays for P1-94 the Detection of Six Shiga Toxin-producing Escherichia coli (STEC) Serogroups and the eae, stx1, and stx2 Genes in Ground Beef and Trim Enrichments - DANIEL DE-MARCO, Dawn Fallon, Stephen Varkey, Morgan Wallace, Bridget Andaloro, DuPont, Wilmington, DE, USA

# **Dairy and Other Food Commodities**

P1-95 Optimization and Characterization of an Integrated Cell Culture-PCR Assay for the Detection of Coxiella burnetii Nine Mile in Whole Milk - SONGCHUAN MA, Diana Stewart, Joseph Schlesser, Carol Shieh, Arlette Shazer, Mary Lou Tortorello, Illinois Institute of Technology, Bedford Park, IL, USA

# **Pathogens**

P1-96 Motility of Filamentous Cells of Salmonella enterica Serovar Enteritidis E40 - NAN FAITH, Joanne Tsarouha, Charles Kaspar, Amy Wong, Charles Czuprynski, University of Wisconsin-Madison, Madison, WI, USA

- Pentaplex Tagman Assay for the Detection of Patho-P1-97 genic and Multidrug Resistant Strains of Salmonella - PRASHANT PRASHANT, Azlin Mustapha, University of Missouri, Columbia, MO, USA
- P1-98 Lactic Acid Resistance of Non-O157 Shiga Toxin-producing Escherichia coli and Multidrug Resistant and Susceptible Salmonella as Compared to Escherichia coli O157:H7 - ALIYAR FOULADKHAH, Ifigenia Geornaras, Hua Yang, John Sofos, Colorado State University, Fort Collins, CO, USA
- P1-99 Inactivation of Salmonella, Escherichia coli O157:H7 and Non-O157 STEC by Hypochlorite Solutions with High Organic Loads - CANGLIANG SHEN, Yaguang Luo, Xiangwu Nou, Qin Wang, Patricia Millner, U.S. Department of Agriculture-ARS, Beltsville, MD, USA
- P1-100 Biofilms Improve Survival of Salmonella enterica vs. Tennessee in Dry Milk Powder and within a Simulated Gastrointestinal Environment - Bryan Aviles, MONICA PONDER, Virginia Tech, Blacksburg, VA, USA
- P1-101 Distribution of Antibiotic Resistant Phenotypes and Genotypes among Salmonella spp. Isolated from Broiler Chickens in British Columbia, Canada - Moussa Diarra, Heidi Rempel, Susan Bach, Colleen Harlton, PASCAL DELAQUIS, Jane Pritchard, Mueen Aslam, Mira Leslie, Ed Topp, Agriculture and Agri-Food Canada, Summerland, BC, Canada
- P1-102 Comparative Evaluation of the 3M<sup>™</sup> Molecular Detection Assay Escherichia coli O157 (including H7) for the Detection of Escherichia coli O157 in Foods - ME-LINDA HAYMAN, Sergio Montez, John David, Cynthia Zook, Food Safety Net Services, San Antonio, TX, USA
- P1-103 A Comparative Evaluation of the 3M<sup>™</sup> Molecular Detection Assay Salmonella for the Detection of Salmonella in a Variety of Foods - Erin Crowley, PATRICK BIRD, Cynthia Zook, John David, Kiel Fisher, Marc Juenger, Megan Boyle, Rachel Leiva, Travis Huffman, M. Joseph Benzinger, James Agin, David Goins, Q Laboratories, Inc., Cincinnati, OH, USA
- P1-104 Effect of Boyamine® on Prevalence and Concentration of Escherichia coli O157:H7 and Non-O157 Shiga Toxinproducing Escherichia coli (STEC) on Beef Feedlot Cattle - ALEXANDRA CALLE, Mindy M. Brashears, Guy Loneragan, Texas Tech University, Lubbock, TX, USA
- A Longitudinal Study on Escherichia coli 0157:H7, Salmonella enterica, and Listeria monocytogenes Isolated from Ready-to-Eat Meat Processing Facilities - ALEX BRANDT, Eva Borjas, John Sofos, Martin Wiedmann, Kendra Nightingale, Texas Tech University, Lubbock, TX, **USA**

- P1-106 Detection of Viable Escherichia coli O157:H7 by Propidium Monoazide Real-time PCR - YARUI LIU, Azlin Mustapha, University of Missouri-Columbia, Columbia, MO, USA
- Norovirus Transfer between Hands and Fresh Produce - HENG ZHAO, Stephen Grove, Mingming Li, Alvin Lee, Institute for Food Safety and Health, Bedford Park, IL, USA
- Norovirus Transfer during Chopping of Contaminated P1-108 Romaine Lettuce - MINGMING LI, Stephen Grove, Heng Zhao, Alvin Lee, Institute for Food Safety and Health, Bedford Park, IL, USA
- P1-109 Genotypic and Cytotoxicity Analysis of Non-O157 Shiga Toxin-producing Escherichia coli Isolates from Humans, Animals and Food - JINLING SHEN, Wenting Ju, Shaohua Zhao, Eric Brown, Jianghong Meng, University of Maryland, College Park, MD, USA
- P1-110 Molecular and Phenotypic Characterization of Salmonella enterica Serotypes Typhimurium and 4,5,12:i:- in Thailand - SORAYA CHATURONGAKUL, Laingshun Huoy, Mahidol University, Bangkok, Thailand
- P1-111 Development of BAX® System Real-Time PCR Assay for Shigella - LINDA XUAN PENG, Dan Delduco, Julie Kraynak, Jackie Harris, Lois Fleck, Andrew Farnum, DuPont Qualicon, Wilmington, DE, USA
- P1-112 Validation of BAX® System Real-time PCR Assay for Detection of Shigella in Foods - LINDA XUAN PENG, Dan Delduco, Julie Kraynak, Gongbo Wang, Jun Luan, Changqing Zhu, Yiqian Wang, Yang Zhou, Rui Zhang, Yuan Jiang, DuPont Qualicon, Wilmington, DE, USA
- P1-113 Comparison of Phage-based Magnetoelastic Biosensors with TaqMan-based Quantitative Real-Time PCR for the Detection of Salmonella Typhimurium Directly Grown on Spinach Leaves - MI-KYUNG PARK, Shin Horikawa, Suigiong Li, Yating Chai, Jun-Hyun Oh, Bryan Chin, Auburn University, Auburn, AL, USA
- P1-114 Mechanisms of Inactivation Affect the Relationship between Viral Attachment and Infectivity - KIRSTEN HIRNEISEN, Kalmia Kniel, University of Delaware, Newark, DE, USA
- P1-115 Optimization of Extrusion for the Inactivation of Enterococcus faecium NRRL-B2354 Using a Response Surface for Moisture and Temperature - Andreia Bianchini, Jayne Stratton, Steven Weier, Brian Plattner, Galen Rokey, Gerry Hertzel, Tim Hartter, LAKSHMI GOMPA, Bismarck Martinez, University of Nebraska-Lincoln, Lincoln, NE, **USA**
- P1-116 Comparison of Ultraviolet Light against Log and Stationary Phase Listeria monocytogenes - DEEPIKA SURESH, Manpreet Singh, Auburn University, Auburn, AL, USA

- P1-117 Characterization of agr Groups in Staphylococcus aureus Strains and Association with Classical Enterotoxins Genes, Coagulase and Thermonuclease - Gabriela Nogueira Vicosa, Milena Tomasi Bassani, Wladimir Padilha da Silva, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- P1-118 Influence of Water Mobility on the Survival of Salmonella spp. in Low-moisture Whey Protein Powder at 80°C -SOFIA SANTILLANA-FARAKOS, Donald Schaffner, Joseph Frank, University of Georgia, Athens, GA, USA
- P1-119 Comparative Survival of Shiga-toxin Producing Escherichia coli in Ground Beef with Different Fat Levels under Conditions Resembling Refrigeration, Partial Cooking and Digestion - KYRIAKI CHATZIKYRIAKIDOU, Steve Ingham, Barbara Ingham, University of Wisconsin-Madison, Madison, WI, USA
- P1-120 Validation of Lactic Acid Dip and Spray in Reducing Escherichia coli O157:H7, Salmonella, and Non-O157 Shiga-toxigenic Escherichia coli (STEC) on Beef Trim and Ground Beef - MAXWELL WOLF, Mark Miller, Amy Parks, Guy Loneragan, Andrea Garmyn, Leslie Thompson, Mindy Brashears, Texas Tech University, Lubbock, TX, USA
- P1-121 Identification of Variable Regions within Genomes of Shiga Toxin Prophage from Escherichia coli O157:H7 - KA-KOLIE GOSWAMI, Chun Chen, Edward Dudley, The Pennsylvania State University, University Park, PA, USA

# **Epidemiology**

- P1-122 Development of Predictive Models for Foodborne Disease Outbreak Due to Climate Change in Korea - YONG-SOO KIM, Korea Health Industry Development Institute, Seoul, South Korea
- P1-123 A Review of Nosocomial Salmonella Outbreaks: Effective Infection Control Interventions - MARILYN LEE, Judy Greig, Ryerson University, Toronto, ON, Canada
- P1-124 A Restaurant Food Handler Knowledge Assessment in a French-speaking Canton of Switzerland - PALAK PANCHAL, Pierre Bonhote, Mark Dworkin, University of Illinois-Chicago, Chicago, IL, USA
- P1-125 Stakeholder Engagement in an Interactive Scoping Study of the Role of Wildlife in the Transmission of Pathogenic Bacteria and AMR to the Food Chain - JUDY GREIG, Lisa Waddell, Jeffrey LeJeune, Andrijana Rajic, Public Health Agency of Canada, Guelph, ON, Canada
- P1-126 Foodborne and Waterborne Diseases in Four World Regions Using Informal Reporting Methods, 2009-2010 - CAROLINE SMITH DEWAAL, Caitlin Catella, Katherine Kreil, Center for Science in the Public Interest, Washington, D.C., USA

- P1-127 Estimating the Relative Risk of Raw Dairy Consumption in the State of California Using Online Resources - DOUGLAS MORIER, Shira Shafir, UCLA School of Public Health, Los Angeles, CA, USA
- P1-128 Identifying Turkish Pine Nuts Linked to an Outbreak of Salmonella Enteritidis: Using Product Traceback in Conjunction with Laboratory Data - KARI IRVIN, Johnson Nsubuga, David Rotstein, J. Douglas Park, Ernest Levins, Stelios Viazis, Jeshua Pringle, Seth Levine, Matthew Ettinger, Denise Toney, Jessica Egan, Deena Reyes, Erin Sawyer, Peter Olsen, Carla Tuite, U.S. Food and Drug Administration, College Park, MD, USA

# **Food Toxicology**

- P1-129 Immunoreactivity of Hypoallergenic Peanuts Produced Using the Duodenal Endopeptidases Trypsin and α-Chymotrypsin - LORA BENOIT, Jongkit Masiri, Asa Bergdahl, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P1-130 Occurrence of Aflatoxigenic Aspergillus Species in Corn Harvested from Different Locations in Korea - Dong Min Kim, Nari Lee, Soo Hyun Chung, HYANG SOOK CHUN, Korea Food Research Institute, Sungnam, South Korea
- P1-131 Toxicity Profile of Commercially Produced Indigenous Rwandan Banana Beer 'Urgwagwa' - KARABO SHALE, Ryk Lues, Pierre Venter, Central University of Technology, Bloemfontein, Free State, South Africa
- P1-132 A Seven-year Study (2005-2011) on the Occurrence of Patulin in Juices and Pulps of Different Fruits in Argentina - Juan Oteiza, ANDERSON SANT'ANA, Silvina Soto, Leda Giannuzzi, University of Sao Paulo, Sao Paulo, Brazil
- P1-133 Occurrence of Ochratoxin A in Fruit Juices and Wine in Argentina between 2005 and 2011 - Juan Oteiza, ANDERSON SANT'ANA, Silvina Soto, Leda Giannuzzi, University of Sao Paulo, Sao Paulo, Brazil
- P1-134 Distribution of Fusarium Mycotoxins Deoxynivalenol and Zearalenone in Milling Fractions of Rice (Oryza sativa) Harvested from Korea - Hyun Ee Ok, Sung-Wook Choi, Hyun-Joo Chang, Ki-Hwan Park, HYANG SOOK CHUN, Korea Food Research Institute, Sungnam, South
- P1-135 An Experimental Study on Aflatoxin M1 Binding by Probiotic Bacteria in Yogurt - GUITY KARIM, Mahsa Tabari, University of Tehran, Tehran, Iran
- P1-136 Isolation and Characterization of Emetic Toxin Producer Bacillus cereus from Milk Tea - LEE-YAN SHEEN, National Taiwan University, Taipei, Taiwan

Rapid Detection and Discrimination of Bacillus P1-137 Species Using Immunomagnetic Separation Combined with Surface-enhanced Raman Spectroscopy -BRONWYN DEEN, Tom Rodda, Lili He, Francisco Diez-Gonzalez, Theodore Labuza, University of Minnesota, St. Paul, MN, USA

### **Communication Outreach and Education**

- P1-138 A Comprehensive Curriculum to Prepare Consumers to Keep Food Safe before, during and after a Disaster - SANDRIA GODWIN, Richard Stone, Leslie Speller-Henderson, Richard Coppings, Sheri Cates, Tennessee State University, Nashville, TN, USA
- The Impact of a Food Hygiene Training Program on Foodservice Staff in Saudi Arabian Hospitals - MOHAMMED AL-MOHAITHEF, Peter Fryer, Madeleine Smith, University of Birmingham, Birmingham, United Kingdom
- P1-140 Integration of Pulsed Field Gel Electrophoresis Technology into an Undergraduate Food Science Curriculum -HALEY OLIVER, Aaron Pleitner, Susan Hammons, Purdue University, West Lafayette, IN, USA
- P1-141 Development of an Effective Mechanism to Improve Food Safety and Quality Standards in Small and Medium Sized Enterprises (SMEs) in the Manufacturing and Processing Sector - ELIZABETH REDMOND, David Lloyd, Cardiff Metropolitan University (UWIC), Cardiff, United Kingdom
- P1-142 Experiences of Food Allergy Sufferers with College and University Dining Services - Adam Bernstein, MATTHEW MONACO, Lakshman Rajagopal, Adam Bernstein, Iowa State University, Ames, IA, USA
- P1-143 Development of the Food Safety Wiki Aims to Provide Comprehensive Information and Resources about Food Safety Education - ANNA VAN STELTEN, Steven Warchoki, Kendra Nightingale, Martin Wiedmann, Texas Tech University, Lubbock, TX, USA
- P1-144 Organizational Climate and Food Safety Training Change Employee Behaviors and Pathogen Loads in Non-inspected Beef Packing Plants in Mexico - ASHLEY HARTZOG-HAWKINS, Texas Tech University, Lubbock, TX, USA
- P1-145 Determination of Microbiological and Behavioral Risks Associated with Listeriosis in Older Adults' (> 60 Years) Domestic Kitchens - ELLEN EVANS, Elizabeth Redmond, Louise Fielding, Cardiff Metropolitan University, Cardiff, United Kingdom
- P1-146 A Comparison of Food Safety Climate at Municipal and Private Beef Slaughter Plants in Mexico - LAURA LEMONS, Todd Brashears, Ashley Hartzog, Alejandro Echeverry, Leslie Thompson, Mark Miller, Lyda Garcia, Mindy Brashears, Texas Tech University, Lubbock, TX, USA

- P1-147 Assessment of Food Safety Practices of Older Adults (> 60 years) in a Model Kitchen - ELLEN EVANS, Elizabeth Redmond, Louise Fielding, Cardiff Metropolitan University, Cardiff, United Kingdom
- P1-148 Effect of Multi-level Spanish Food Safety Training on Knowledge, Behavior and System Change - KENDRA KAUPPI, Claudia Diez, Francisco Diez-Gonzalez, Glenyce Peterson-Vangsness, Tom Bartholomay, University of Minnesota, St. Paul, MN, USA
- P1-149 Retention of Food Safety Knowledge after Faith-based Organization Volunteer Training - JUNEHEE KWON, Pei Liu, Yee Ming Lee, Lisa Zottarelli, Dojin Ryu, Kansas State University, Manhattan, KS, USA

# **Risk Assessment**

- P1-150 Modeling Growth/No Growth Boundaries of Escherichia coli O157:H7 on Polyethylene Cutting Boards -JOO-YEON LEE, Hee-Jin Suk, Heeyoung Lee, Soomin Lee, Yohan Yoon, Korea Livestock Products HACCP Accreditation Service, Kyunggi, South Korea
- P1-151 Validation of a Salmonella Survival and Growth Model for Extrapolation to a Different Previous History: Frozen Storage - THOMAS OSCAR, U.S. Department of Agriculture-ARS, Princess Anne, MD, USA
- P1-152 Estimation of Consumption Patterns of Potentially Hazardous Foods Including Ready-to-Eat Foods in Korea - HEE JIN PARK, Kyung Jin Min, Na Yoon Park, Junil Jo, SoonHo Lee, Ingyun Hwang, Kisun Yoon, Kyung Hee University, Seoul, South Korea
- Development of a QMRA Model for Listeria monocytogenes P1-153 on Frankfurters to Determine Risk-based Critical Control Points at the Processing Level - ELIZABETH WILLIAMS, Robert Buchanan, University of Maryland, College Park, MD, USA
- P1-154 Nitrite Supplementation of Drinking Water Does Not Impair the Resistance of Mice to Intragastric Inoculation with Listeria monocytogenes - KEITH POULSEN, Nan Faith, Charles Czuprynski, University of Wisconsin-Madison, Madison, WI, USA
- P1-155 Comparing Cost of Illness and QALY Loss as Measures of Foodborne Illness Burden - SANDRA HOFFMANN, Michael Batz, John Morris, U.S. Department of Agriculture-ERS, Washington, D.C., USA
- P1-156 Chemical, Physical and Biological Indicators for Salmonella spp. in Central Florida Surface Waters -RACHEL MCEGAN, Gabriel Mootian, Lawrence Goodridge, Donald Schaffner, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA
- P1-157 Risk Assessment of Vibrio parahaemolyticus in Fishery Products in Korea - JOON IL CHO, Korea Food & Drug Administration, Chungcheongbuk-do, South Korea

- P1-158 Prevalence, Antibiotic Susceptibility and Genetic Diversity of Cronobacter spp. from Desiccated Ready-to-Eat Products in Korea - KWANG-YOUNG SONG, Jung-Whan Chon, Dong-Hyeon Kim, Ji-Yeon Hyeon, Jin-Hyeok Yim, Jun-Ho Park, Yun-Gyeong Kim, Chang-Hyeon Sung, Soo-Kyong Lee, Hong-Seok Kim, Ah-Sa Oh, Jong-Ik Lee, Kun-Ho Seo, Konkuk University, Seoul, South Korea
- P1-159 Risk of Infection with Salmonella and Listeria monocytogenes Due to Consumption of Ready-to-Eat Leafy Vegetables in Sao Paulo, Brazil - ANDERSON SANT'ANA, Bernadette Franco, Donald Schaffner, University of Sao Paulo, Sao Paulo, Brazil
- P1-160 Potential Cross-contamination Transfer Dynamics at Retail Deli Markets - JESSICA MAITLAND, Virginia Tech, Blacksburg, VA, USA
- P1-161 Microbiological Hazard Analysis on the Harvesting Steps of Perilla Leaf to Apply Good Agricultural Practices (GAP) System - WOO-HYUN KWON, Chi-Yeop Lee, Su-Hee Park, Chae-Won Lee, Jeong-Sook Kim, Won-Bo Shim, Duck-Hwa Chung, Gyeongsang National University, Jinju, South Korea
- P1-162 Development and Validation of a Predictive Growth Model for Pathogenic Escherichia coli O157:H7 in Red Leaf Lettuce - WON-IL KIM, Hyang-Mi Jung, Se-Ri Kim, Kyeong-Hun Park, Kyoung-Yul Ryu, Jong-Chul Yun, Byung Seok Kim, Rural Development Administration, Suwon, South Korea
- P1-163 Variability and Uncertainty Analysis of the Crosscontamination Rates of Salmonella during Pork Cutting - JOOST SMID, Rob de Jonge, Arno Swart, Annemarie Pielaat, Arie Havelaar, Utrecht University, Utrecht, The Netherlands
- P1-164 Microbiological Quality of Tilapia and Shrimp Ceviches and its Raw Material Sold at the Metropolitan Area of San Jose, Costa Rica - MARIA LAURA ARIAS, Evelyn Carolina Chaves, Universidad de Costa Rica, San Jose, Costa Rica
- P1-165 Comparison between the Exponential and Weibull-gamma Dose-response Model Approaches to Quantitative Microbial Risk Assessment - Sang-Kyu Kim, Jeong-Ae Choi, Moon-Sil Choi, GYUNG-JIN BAHK, Kunsan National University, Gunsan, South Korea
- P1-166 Survival of Salmonella spp. and Escherichia coli O157:H7 Inoculated in Raw Peanuts Stored at -20, 4, and 23°C - ROBERT MIKSCH, Tam Mai, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P1-167 An Alternative Approach for Predicting Probability of Pathogen Growth on Iceberg Lettuce Using Logistic Regression - SHIGE KOSEKI, National Food Research Institute, Tsukuba, Ibaraki, Japan

- P1-168 Prevalence of Salmonella and Escherichia coli O157:H7 in Cow/Calf Operations in Texas, New Mexico and Oklahoma during the Summer and Fall Months - ANSEN POND, Guy Loneragan, Todd Brashears, Divya Jaroni, Mark Miller, Laura Lemons, Mindy Brashears, Texas Tech University, Lubbock, TX, USA
- P1-169 Considering Uncertainty and Variability in Models for Assessing the Microbiological Shelf-life of Foods -Mohammed El Jabri, Anthony Pinon, Mariem Ellouze, Valerie Stahl, Catherine Denis, Dominique Thuault, Laurent Guillier, FLORENCE POSTOLLEC, Jean Christophe Augustin, ADRIA, Quimper, France
- P1-170 Impact of Product Water Activity on the Validity of Thermal Inactivation Models for Salmonella on Almonds - MICHAEL JAMES, Sanghyup Jeong, Bradley Marks, Elliot Ryser, Michigan State University, East Lansing, MI,
- P1-171 Time Temperature Pathogen Predictor (T2P2): Expansion of a Risk Assessment Tool Based on Interval Accumulation of Dynamic Temperature Profiles Associated with Shortterm Temperature Abuse of Raw Shrimp - FLORENCE FEEHERRY, Cheryl Baxa, Greg Burnham, United States Army Natick Soldier Research, Natick, MA, USA
- P1-172 Impact of the Local Microenvironment in a Food Matrix on Salmonella Survival - HAIPING LI, Anuhya Goutham Bhaskara, Christina Megalis, Fei Yang, Gregory Fleischman, John Koontz, Mary Lou Tortorello, U.S. Food and Drug Administration, Bedford Park, IL, USA
- P1-173 Predictive Microbiology Approach for Enumeration of Salmonella on Chicken Parts during Pre-enrichment - THOMAS OSCAR, U.S. Department of Agriculture-ARS, Princess Anne, MD, USA
- P1-174 A Quantitative Meta-analysis of Existing Foodborne Pathogen Transfer Data - AMANDA BENOIT, Bradley Marks, Elliot Ryser, Michigan State University, East Lansing, MI, USA
- P1-175 Evaluation of Norovirus Dose-response Models with Outbreak Data - NICOLE VAN ABEL, John Kissel, John Meschke, University of Washington, Seattle, WA, USA
- Modeling the Effect of Temperature and pH on the Lag Time of Salmonella on Cut Tomatoes - WENCHAO LI, Rutgers University, New Brunswick, NJ, USA
- P1-177 Willingness to Pay for HACCP in Foodservice AMIT SHARMA, Penn State University, State College, PA, USA
- P1-178 Implementation of Food Safety Management Systems in Small Enterprises in Cyprus - MARIANNA CHARAL-AMBOUS, Peter Fryer, Madeleine Smith, University of Birmingham, Birmingham, United Kingdom

# TUESDAY POSTERS 10:00 AM - 6:00 PM

**P2** Poster Session - Meat and Poultry, Produce, Dairy, Antimicrobials, Novel Laboratory **Methods and Pathogens** Rhode Island Convention Center, Exhibit Hall

> P2–01 through P2–89 – Authors present 10:00 a.m. – 11:30 a.m. and 5:00 p.m. – 6:00 p.m. P2-90 through P2-172 - Authors present 2:00 p.m. – 3:30 p.m. and 5:00 p.m. – 6:00 p.m.

# **Meat and Poultry**

- Monitoring of Salmonella spp. on Egg and Liquid Whole P2-01 Eggs from Egg-breaking Plant in Korea - Young Jo Kim, Eun Jeong Heo, Hyun Jung Kim, Hyunjung Park, Sung Hwan Wee, JIN SAN MOON, Quarantine and Inspection Agency, Anyang, South Korea
- P2-02 Listeria spp. and Listeria monocytogenes in Beef Cuts and in a Beef Processing Plant Located at Minas Gerais State, Brazil - Anderson Carlos Camargo, Marcus Vinicius Coutinho Cossi, Frederico Germano P. Alvarenga Lanna, Mariane Rezende Dias, Paulo Sergio de Arruda Pinto, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- P2-03 PFGE Characterization and Adhesion Capability of Listeria monocytogenes Isolates Obtained from Bovine Carcasses and Beef Processing Facilities - Newton Nascentes Galvao, Eb Chiarini, Maria Teresa Destro, Marcia de Aguiar Ferreira, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- P2-04 Monitoring of Hygiene Indicator Microorganisms in Bovine Carcasses from Three Slaughterhouses Located in Minas Gerais State, Brazil - Frederico Germano P. Alvarenga Lanna, Marcus Vinicius Coutinho Cossi, Anderson Carlos Camargo, Mariane Rezende Dias, Paulo Sergio de Arruda Pinto, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- P2-05 Effect of Acetic and Lactic Acids on Survival of Hygiene Indicator Microorganisms and Salmonella Typhimurium in a Beef Cube System - Raquel Cristina Konrad Burin, Valeria Quintana Cavicchioli, Joao Paulo Andrade Araujo, Ricardo Antonio Pileg Sfaciotte, Anderson Keizo Yamazi, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- P2-06 Food and Environmental Safety of Pastured Poultry Processed On-farm and at a USDA-Inspected Facility -LISA TRIMBLE, Mark Berrang, Walid Alali, University of Georgia, Griffin, GA, USA

- Prevalence of Non-O157 EHEC in Australian P2-07 Manufacturing Beef - ROBERT BARLOW, Kathryn Bridger, Deric Renton, Peter Horchner, David Jordan, Ian Jenson, CSIRO, Brisbane, Australia
- Salmonella and Campylobacter Populations of Poultry P2-08 Carcasses during Slaughter - CRAIG LEDBETTER, Deborah W. Klein, James White III, Joseph Morelli, Peter Bodnaruk, Jeremy Adler, Ecolab Inc., Eagan, MN, USA
- P2-09 Microbiological Quality of Australian Beef Primals and Manufacturing Meat - IAN JENSON, Meat & Livestock Australia, North Sydney, Australia
- P2-10 Comparison of Sensitivity of Shiga Toxin-producing Escherichia coli Serotypes Inoculated on Beef Trimmings to Various Chemical Decontamination Treatments -IFIGENIA GEORNARAS, Hua Yang, Stavros Manios, Nikolaos Andritsos, Keith Belk, Dale Woerner, John Sofos, Colorado State University, Fort Collins, CO, USA
- P2-11 Effects of Antimicrobial Treatments, Surface Browning Method and Product Dimensions on Salmonella Contamination in Not-Ready-to-Eat, Surface-browned, Frozen, Breaded Chicken Products - Galatios Moschonas, IFIGENIA GEORNARAS, Jarret Stopforth, Dale Woerner, Keith Belk, Gary Smith, John Sofos, Colorado State University, Fort Collins, CO, USA
- WITHDRAWN P2-12
- Effect of Potassium Lactate on Clostridium perfringens P2-13 **Growth during Extended Cooling of Uncured Turkey** Breasts - KATHERINE KENNEDY, Andrew Milkowski, Kathleen Glass, University of Wisconsin-Madison, Madison, WI, USA
- P2-14 **WITHDRAWN**
- Characterization of Salmonella Isolated from the Lymph P2-15 Nodes and Feces of Cattle Presented for Harvest at a Slaughter Facility in Mexico - SARA GRAGG, Kendra Nightingale, Jacob Elder, Henry Ruiz, Guy Loneragan, Mark Miller, Alejandro Echeverry, Mindy Brashears, Texas Tech University, Lubbock, TX, USA
- Comparison of Peroxyacetic Acid Treatment and P2-16 Standard Hot Water Treatment for the Inactivation of Non-O157 STECs on Meat Cutting Tools - Gerard Hinrichs, ELAINE BLACK, John Hilgren, Peter Bodnaruk, Ecolab Inc., Eagan, MN, USA
- P2-17 Characterization of Antimicrobial Resistance and Virulence Genes in Enterococcus faecalis Isolated from a Pork Processing Plant - MUEEN ASLAM, Moussa Diarra, Luke Masson, Agriculture and Agri-Food Canada, Lacombe, AB, Canada

- Growth of Clostridium perfringens from Spores in Beef, Pork and Poultry Barbeque Products - VIJAY JUNEJA, David Baker, Harshavardhan Thippareddi, Oscar Snyder, U.S. Department of Agriculture-ARS-ERRC, Wyndmoor, PA, USA
- P2-19 Characterization of Extraintestinal Pathogenic Escherichia coli Isolated from Retail Poultry Meats Purchased in Alberta, Canada - Moussa Diarra, Vita Lai, Rempel Heidi, Claudia Narvaez, MUEEN ASLAM, Amee Manges, Agriculture and Agri-Food Canada, Lacombe, AB, Canada
- Poultry Processing Steps That Lower the Number of P2-20 Escherichia coli on Whole Chickens May Result in a Similar Decline in Campylobacter Numbers - LESLEY DUFFY, Patrick J. Blackall, Rowland Cobbold, Narelle Fegan, CSIRO, Brisbane, Australia
- Microbiological Profile of the Most Important Steps during the Poultry Slaughter - AUDECIR GIOMBELLI, M. Beatriz Gloria, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
- P2-22 Biofilm vs. Planktonic Cells: A Comparative Study on Cross-contamination Levels of Beef Filets by the Pathogenic Bacteria Listeria monocytogenes, Escherichia coli O157:H7 and Salmonella enterica ser. Typhimurium -Nikolaos Chorianopoulos, Eleni Gkana, Athena Grounta, Efstathios Panagou, Kostas Koutsoumanis, GEORGE-JOHN NYCHAS, Agricultural University of Athens, Athens, Greece
- Source Tracking of Salmonella enterica in Broiler P2-23 Production - ROIKHWAN SOONTRAVANICH, Sarinya Pornaem, Chulalungkorn University, Bangkok, Thailand
- P2-24 Analysis of Data from FSIS Sampling Programs for Salmonella in Cattle, Swine, and Poultry Products - STEPHANIE DEFIBAUGH-CHAVEZ, John Linville, Christopher Aston, Bonnie Kissler, U.S. Food and Drug Administration-CFSAN, Washington, D.C., USA
- From Farm-to-Fork: Campylobacter Immunological Rapid P2-25 Screening Tool for Farm-based, Pre-slaughter Screening of Live Chicken - LISA JOHN, Joerg Slaghuis, Martina Wadl, Thomas Poelzler, Beatrix Stessl, Martin Wagner, Merck Millipore, Darmstadt, Germany
- A Novel Extraction and LAMP Assay to Detect Pork in P2-26 Processed Meat Products - TORREY PARRISH, Megan Duggan, Patrick Williams, Evogen, Inc., Lenexa, KS, USA

## **Produce**

P2-27 Survival of Salmonella enterica in Dried Turkey Manure -RUTH ONI, Robert Buchanan, Manan Sharma, University of Maryland, College Park, MD, USA

- Growth of Salmonella enterica Serovars in Pesticide P2-28 Solutions and Their Survival during Production and Processing of Field-grown Tomatoes - GABRIELA LOPEZ-VELASCO, Alejandro Tomas-Callejas, Dawit Diribsa, Polly Wei, Trevor Suslow, University of California-Davis, Davis, CA, USA
- P2-29 Efficacy of Natural Antimicrobial Interventions against Salmonella and Escherichia coli on Fresh Leafy Greens - SUJATA SIRSAT, Jack Neal, University of Houston, Houston, TX, USA
- P2-30 Colonization of Salmonella spp. on Surface of Apple - Sofia Arvizu-Medrano, M. CARMEN GONZALEZ LOPEZ, Ramon Martinez Peniche, Montserrat Hernandez Iturriaga, Universidad Autonoma de Queretaro, Queretaro, Mexico
- Evaluation of Factors that Influence the Cross-contam-P2-31 ination of Escherichia coli between Gloves and Lettuce during Harvesting - IRENE ZHAO, Linda Harris, University of California-Davis, Davis, CA, USA
- P2-32 Effect of Sanitizers and Ozone Combinations against Salmonella enterica Typhimurium on Green Onions -WENQING XU, Haigiang Chen, Changging Wu, University of Delaware, Newark, DE, USA
- P2-33 The PCS, D-FENS, and D-FEND\_ALL: Novel Chlorine Dioxide Technologies for Military Applications in Fresh Produce Safety - CHRISTOPHER DOONA, Kenneth Kustin, U.S. Army - Natick Soldier RDEC, Natick, MA, **USA**
- Transfer Potential of Salmonella between Cardboard P2-34 Cartons and Tomatoes - LORETTA FRIEDRICH, Keith Schneider, Michelle Danyluk, University of Florida, Lake Alfred, FL, USA
- P2-35 Inactivation of Listeria innocua, Salmonella Typhimurium and Escherichia coli O157:H7 on the Surface and Stem Scar of Tomatoes Using In-package Ozonation -XUETONG FAN, Kimberly Sokorai, Jurgen Engemann, Joshua Gurtler, Yanhong Liu, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P2-36 Fate of Escherichia coli 0157:H7 and Salmonella spp. on Bruised and Intact Strawberries - THAO NGUYEN, Michelle Danyluk, University of Florida, Lake Alfred, FL, **USA**
- P2-37 Antimicrobial Activity of Oregano Oil against Salmonella enterica on Organic Leafy Greens at Varying Exposure Times and Storage Temperatures - Katherine Moore-Neibel, Jitu Patel, Mendel Friedman, SADHANA RAVISHANKAR, University of Arizona, Tucson, AZ, USA

- Microbial Survey of Fresh Produce Obtained from Retail P2-38 Stores on the Eastern Shore of Maryland - SALINA PARVEEN, Robert Korir, Fawzy Hashem, John Bowers, University of Maryland Eastern Shore, Princess Anne, MD, USA
- P2-39 Temperature-dependent Survival of Hepatitis A Virus in Contaminated Green Onions - YAN SUN, David Laird, Carol Shieh, U.S. Food and Drug Administration, Bedford Park, IL, USA
- P2-40 Microbial Quality of Fresh Produce: Impact of Farming Operations and Readiness for Traceability Requirement -Tracie Davis, IPEK GOKTEPE, Tarik Bor, North Carolina A&T State University, Greensboro, NC, USA
- P2-41 Behavior of Salmonella spp. on Fresh-cut Dragon Fruits at Different Storage Temperatures - Hui Li Sim, HYUN-GYUN YUK, National University of Singapore, Singapore
- Impact of Pig Slurry and Irrigation on Broccoli Safety: Field Experiment - MYLENE GENEREUX, Caroline Cote, John Fairbrother, Research and Development Institute for the Agri-Environment (IRDA), St-Hyacinthe, QC, Canada
- P2-43 Transfer of *Enterobacter aerogenes* from Surface to Flesh during Peeling of Raw Carrots and Cucumbers - Iris Wade, Cristi Santiago, Karina Avila, Sophie Perez, ANDERSON SANT'ANA, Donald Schaffner, University of Sao Paulo, Sao Paulo, Brazil
- Enteric Virus Survival on Alfalfa Seeds and Sprouts -P2-44 QING WANG, Kirsten Hirneisen, Sarah Markland, Kalmia Kniel, University of Delaware, Elkton, MD, USA
- P2-45 Effect of Chlorine Dioxide Treatment Followed by Storage in a Modified Atmosphere on Inactivating Cronobacter spp. on Radish Seeds - EUN-GYEONG KIM, Hoikyung Kim, Wonkwang University, Iksan, South Korea
- P2-46 Effectiveness of Pulsed-Ultra Violet Light on Biofilms Formed by Escherichia coli 0157:H7 and Listeria monocytogenes - A Comparative Study - Nedra Montgomery, NICOLE KENNEDY, Josh Herring, Pratik Banerjee, Alabama A&M University, Harvest, AL, USA
- P2-47 Minimizing Salmonella Contamination in Sprouts by Controlling the Germination Temperature - HANSHUAI ZHANG, Tong-Jen Fu, Illinois Institute of Technology, Bedford Park, IL, USA
- The Role of Cellulose in Attachment of Shiga Toxin-P2-48 producing Escherichia coli to Lettuce and Spinach in Different Water Hardness Environments - CHI-CHING LEE, Jinru Chen, Joseph Frank, University of Georgia, Athens, GA, USA

- The Fate of Salmonella Typhimurium in Foliar Fertilization P2-49 Solutions in Groundwater under Different Storage Temperatures - ANGELA VALADEZ, Lawrence Goodridge, Michelle Danyluk, University of Florida, Lake Alfred, FL, **USA**
- P2-50 Control and Prevention of Microbial Hazards in Greenhouse Tomatoes: Integrated Food Safety and Plant Health Approach - SANJA ILIC, Sally Miller, Melanie Lewis Ivey, Xuilan Xu, Fulya Baysal-Gurel, Jeffrey LeJeune, The Ohio State University, Wooster, OH, USA
- P2-51 The Impact of Shell Damage and Paracetic Acid on Microbial Loads of Harvested and Hulled Walnuts -JOHN FRELKA, Tyann Blessington, Linda Harris, University of California - Davis, Davis, CA, USA
- The Effects of Integrated Treatment of UV Light and P2-52 Low-dose Gamma Radiation on Escherichia coli O157:H7 and Salmonella enterica on Grape Tomatoes -SUDARSAN MUKHOPADHYAY, Dike Ukuku, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- A Baseline Analysis of Washington State Fresh Market P2-53 Apple Packinghouse Food Safety Practices Relating to Microbial Hazards - SUSAN LEAMAN, Diane Wetherington, Intertox, Inc., Seattle, WA, USA

# **Dairy and Other Food Commodities**

- P2-54 Hard and Semi-hard Natural Cheese Slices Do Not Support Growth of Salmonella spp. during Storage at 25°C - SARAH ENGSTROM, Steve Ingham, Barbara Ingham, University of Wisconsin-Madison, Madison, WI, USA
- Microbiological Profile of Two Artisanal Mexican Cheeses P2-55 During Manufacturing Process - Meyli Escobar-Ramirez, DINORAH PEREZ-ESCALANTE, Fernando Mejia-Ruiz, Dulce Avila-Vega, Sofia Arvizu-Medrano, Gerardo Nava, Montserrat Iturriaga, Universidad Autonoma de Queretaro, Queretaro, Mexico
- Antimicrobial Residues in Raw Milk Produced in Minas P2-56 Gerais State, Brazil - MONICA CERQUEIRA, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
- P2-57 Residues of Pesticides in Raw Milk from Minas Gerais State - Brazil - MONICA CERQUEIRA, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
- Comparing the Behavior of Multidrug-resistant and Pan-susceptible Salmonella during the Manufacture and Aging of a Semi-hard Cheese Manufactured from Raw Milk - DENNIS D'AMICO, Marc Druart, Catherine Donnelly, University of Vermont, Burlington, VT, USA

- Bacteriocinogenic and Virulence Potential of Enterococcus P2-59 spp. Isolated from Raw Milk and Cheese - Paula Mendonca Moraes, Luana Martins Perin, Svetoslav Todorov, Abelardo Silva Junior, Bernadette Franco, LUIS AUGUSTO NERO, Universidade Federal de Vicosa, Vicosa, Brazil
- P2-60 Inactivation of *Listeria monocytogenes* and Shiga Toxinproducing Escherichia coli in Low-sodium Cheddar **Cheese Extract Supplemented with Natural Fermentates** and Adjunct Cultures - REBECCA KALSCHEUER, Russell McMinn, Kathleen Glass, University of Wisconsin-Madison, Madison, WI, USA
- P2-61 **Evaluation of Compositional Factors of Low-sodium** Cheddar Cheeses on the Growth of Pathogens in a Model System - JEEHWAN OH, Elena Vinay-Lara, Russell McMinn, Kathleen Glass, James Steele, University of Wisconsin-Madison, Madison, WI, USA
- Free Amino Acids and Biogenic Amines in High-pressure P2-62 Treated Blue Cheese - Javier Calzada, Ana Del Olmo, Antonia Picon, Pilar Gaya, MANUEL NUNEZ, INIA, Madrid, Spain
- P2-63 Optimizing Bulk Milk Dioxin Monitoring Based on Costs and Effectiveness - VICTOR LASCANO, Wageningen University, Wageningen, The Netherlands
- Survival of Lactic Acid Bacteria with Probiotic Potential during Shelf Life of Fermented Green Olives under Modified Atmospheres - Anthoula Argyri, Efstathia Lyra, Paraskevi Pramateftaki, Aspasia Nisiotou, Efstathios Panagou, CHRYSOULA TASSOU, National Agricultural Research Foundation, Lycovrissi, Greece
- P2-65 Poor GMPs Lead to a Second Occurrence of Staphylococcal Food Poisoning - JENNIFER HAIT, Sandra Tallent, David Melka, Christine Keys, Reginald Bennett, U.S. Food and Drug Administration, College Park, MD, USA
- In Vitro Probiotic Potential of Lactic Acid Bacteria Isolated from Minas Artisanal Cheese Produced in Serra da Canastra, Brazil - MARCELO SOUZA, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
- P2-67 Pickled Egg Production: Effect of Brine Acetic Acid Concentration, Brine Fill Temperature, and Post-packing Temperature on Acidification Rate - OSCAR ACOSTA, Elizabeth Sullivan, Xiaofan Gao, Olga Padilla-Zakour, Cornell University, Geneva, NY, USA
- P2-68 Antagonism of Lactobacillus spp. Isolated from Minas Artisanal Cheese Produced in Serra da Canastra, Brazil, against Staphylococcus spp. - MARCELO SOUZA, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

- Thermophilic Bacterial Populations from Raw Milk Differ P2-69 from Those in Final Powder Products - DENISE LINDSAY, Roger Collin, Fonterra Co-Operative Group Ltd., Palmerston North, New Zealand
- P2-70 Characterization of the Lactic Acid Bacteria in Anbris (Fermented Goat's Milk) and Preliminary Probiotic Selection - ZEINA KASSAIFY, American University of Beirut, Beirut, Lebanon
- P2-71 Fate of Listeria innocua in a Probiotic Dairy Dessert -Meg Fernandes, Adriano Gomes da Cruz, ANDERSON SANT'ANA, Jose de Assis Fonseca Faria, Carlos Augusto Oliveira, Marcelo Cristianini, University of Sao Paulo, Sao Paulo, Brazil
- P2-72 Behavior of *Listeria monocytogenes* in Dairy Products Contaminated Post-process - LORALYN LEDENBACH, Wendy McMahon, Kraft Foods, Glenview, IL, USA

# **Antimicrobials**

- P2-73 Survival of *Arcobacter butzleri* in Apple and Pear Purees - MIN HWA LEE, Chung-Ang University, Ansung, South Korea
- P2-74 Pilot Survey for Antimicrobial Resistance (AMR) in Bacteria from Australian Retail Foods - ROBERT BARLOW, Kari Gobius, CSIRO, Brisbane, Australia
- P2-75 Growth and Resistant Patterns of Various Bacillus cereus Isolates from Food-related Environments -SUNAH LEE, Ahreum Park, Hyunjoo Yoon, Heeyoung Lee, Minseon Koo, Yohan Yoon, Sookmyung Women's University, Seoul, South Korea
- Killing Efficiencies of Salmonella Bacteriophages and P2-76 Survivability under Various Environmental Conditions -JIAYI ZHANG, Meghan Costello, Kristyn Howe, Megan Stanley, Craig Martin, Paul Ebner, Purdue University, West Lafayette, IN, USA
- P2-77 Thymol and Carvacrol Binary Mixtures to Control Fusarium and Rhizopus spp. - RAUL AVILA SOSA, Maria de Lourdes Bello-Sanchez, Maria de la Cruz Meneses-Sanchez, Addi Navarro-Cruz, Obdulia Vera-Lopez, Gabriela Gastelum, Benemerita Universidad Autonoma de Puebla, Puebla, Mexico
- P2-78 Effect of Alginate Coatings Containing Essential Oils and Alcoholic Beverages on Growth of Listeria monocytogenes in Modified Atmosphere Packaged Apples, Pears and Bananas - EVANGELIA ZILELIDOU, Ioanna Grigoraki, Panagiotis Skandamis, Agricultural University of Athens, Athens, Greece

- Survival and Growth of Escherichia coli O157:H7 in the Presence of Caffeine and Cinnamon - RABIN GYAWALI, Alani Adkins, Salam Ibrahim, North Carolina A&T State University, Greensboro, NC, USA
- P2-80 Treatment with Warm Water Containing Ethanol for Controlling Salmonella spp. on Post-harvest Mangos -Silvana Oliveira, MARIA FERNANDA CASTRO, Clara Tomikatu, Ana Penteado, Flavio Schmidt, Ana Carolina Rezende, Larry Beuchat, Institute of Food Technology, Campinas, Sao Paulo, Brazil
- P2-81 **Extruded Antimicrobial Film Targeting Gram-positive** Pathogens - ANGELA RICHARD, Kay Cooksey, Clemson University, Clemson, SC, USA
- Isolation and Characterization of Bacteriophage for the Control of Enterohemorrhagic Escherichia coli on Fresh Produce - ABIGAIL SNYDER, Jennifer Perry, Ahmed Yousef, The Ohio State University, Columbus, OH, USA
- P2-83 Synergistic Effects of Clove and Lemon Essential Oils against Listeria monocytogenes Strains - MARIA CRYSTINA IGARASHI, Bernadette Franco, Maria Teresa Destro, Mariza Landgraf, University of Sao Paulo, Sao Paulo, Brazil
- P2-84 Efficacy of a Novel Proteinaceous Antifungal Agent in Fruit Juices and Teas - DAVID MANNS, John Churey, Randy Worobo, Cornell University, Geneva, NY, USA
- Validation and Microbiological Performance of P2-85 Antimicrobial Agents within Poultry Processing Plants - JEREMY ADLER, Craig Ledbetter, James White III, Deborah Klein, Peter Bodnaruk, Ecolab Inc., Eagan, MN, **USA**
- P2-86 Combined Effects of Naturally Occurring Antimicrobial Agents in Inhibiting the Growth of Bacillus cereus in Infant Rice Cereal - HYEJUNG JUN, Jihyun Bang, Hoikyung Kim, Jee-Hoon Ryu, Korea University, Seoul, South Korea
- P2-87 Antibacterial Activities of Clitocybe nuda Mushroom Extract on Foodborne Pathogens - Liang Bo, TUNG-SHI HUANG, Jin Tong Chen, Jenn-Wen Huang, Jean Weese, Auburn University, Auburn, AL, USA
- P2-88 Inhibitory Effect of Xoconostle (*Opuntia matudae*) on the Growth of Salmonella and Escherichia coli 0157:H7 -SAEED HAYEK, Salam Ibrahim, North Carolina A&T State University, Greensboro, NC, USA
- P2-89 Identification of a Bacteriocinogenic Lactic Acid Bacteria Isolated from Raw Cow's Milk and Partial Characterization of its Antilisterial Bacteriocin - FABRICIO TULINI, Lizziane Winkelstroter, Elaine De Martinis, University of Sao Paulo, Ribeirao Preto, Brazil

- P2-90 Effect of Different Coating Treatments on Population of Salmonella spp. and Quality of Cherry Tomatoes - Juan Yun, Xihong Li, Tony Jin, XUETONG FAN, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- Inhibition Activity of Lactic Acid Bacteria against P2-91 Salmonella, Escherichia coli O157:H7 and non-O157 STECs in Ground Beef - DAVID CAMPOS, Qingli Zhang, Mindy Brashears, Texas Tech University, Lubbock, TX, USA
- P2-92 Biopreservation: Control of Listeria monocytogenes Growth in Hot and Cold Smoked Salmon by Carnobacterium maltaromaticum CB1 - DAVID SMITH, Wan Yien, Denise Carlson, Mariam Sai, Lynn McMullen, Michael Stiles, Griffith Laboratories Canada, Scarborough, ON, Canada
- P2-93 Antimicrobial Properties and Mutagenicity of Sappanwood (Caesalpinia sappan L.) Water Extract - Valeeratana Sinsawasdi, AMARAT SIMONNE, University of Florida, Gainesville, FL, USA
- P2-94 Antimicrobial Drug Resistance Patterns among Cattle and Human Associated Salmonella: Are Cattle a Reservoir for Multidrug-resistant Salmonella Linked to Human Disease? - YESIM SOYER, Jesse Richards, Karin Hoelzer, Lorin Dean Warnick, Esther Fortes, Patrick McDonough, Nellie Dumas, Yrjo Grohn, Martin Wiedmann, Middle East Technical University, Ankara, Turkey
- P2-95 Prevalence of Lactose Fermenting Coliforms Resistant to Third Generation Cephalosporins in a Cattle Feedlot Throughout a Production Cycle and Molecular Characterization of Resistant Isolates - JOHN SCHMIDT, Larry Kuehn, Dee Griffin, Dayna Brichta-Harhay, U.S. Department of Agriculture-ARS, Clay Center, NE, USA
- P2-96 Detection of Carbapenemase-producing Enterobacteriaceae from Dried Indian Spices - MORGAN WANG, Randhir Singh, Marion Shepherd, Chao Gong, Xiuping Jiang, Daniel High School, Clemson, SC, USA
- P2-97 Microscopy Study on the Effect of Essential Oils on Growth and Germination of Aspergillus ssp. in Peanuts -PREMILA ACHAR, MY Sreenivasa, Peris Mungai, Kennesaw State University, Kennesaw, GA, USA
- P2-98 Lactic Acid Decontamination of Beef Trimmings Inoculated with Escherichia coli 0157:H7, Non-0157 Shiga Toxin-producing Escherichia coli, and Multidrug Resistant and Susceptible Salmonella Serovars - ALIYAR FOULADKHAH, Ifigenia Geornaras, Hua Yang, Keith Belk, Dale Woerner, John Sofos, Colorado State University, Fort Collins, CO, USA
- P2-99 Effectiveness of Sustained Antimicrobial Packaging on Control of Escherichia coli O157:H7 on Iceberg Lettuce -Haixia Lu, Jianrong Li, JINRU CHEN, The University of Georgia, Griffin, GA, USA

- P2-100 Effect of Ethyl Alcohol, Propylene Glycol and Triacetin on the Survival of Vegetative Pathogens in Model Flavor Systems - Balasubrahmanyam Kottapalli, Ileana Marrero, Robert Diaz, Nancy Bontempo, AARON UESUGI, Elia Shehady, Kraft Foods, East Hanover, NJ, USA
- P2-101 Flow Cytometry Analysis and Transmission Electron Microscopic Examination of Listeria monocytogenes Treated with Sodium Metasilicate - CHANDER SHEKHAR SHARMA, Sally Williams, Gary Rodrick, Mississippi State University, Mississippi State, MS, USA
- P2-102 Controlling Aspergillus niger on Strawberries by Recombinant Tobacco Osmotin for Extending Shelf-life -Dong Chen, TUNG-SHI HUANG, Ywh-Min Tzou, Jean Weese, Auburn University, Auburn, AL, USA
- P2-103 Citric Extracts Inhibit Motility, Biofilm Formation and Quorum Sensing in Campylobacter jejuni - SANDRA CASTILLO, Norma Heredia, Santos Garcia, Universidade A. de Nuevo Leon, San Nicolas, Mexico
- P2-104 Inhibition of Growth, Biofilm Formation and Swarming of Salmonella by Commercial Antimicrobial Citric Formulations - NYDIA ORUE, Alam Garcia, Norma Heredia, Santos Garcia, Universidad Autonoma de Nuevo Leon, Guadalupe, Mexico
- P2-105 Survey of Antimicrobial Activity of Florida Honeys against Staphylococcus aureus - OLEKSANDR TOKARSKYY, Liwei Gu, Alina Balaguero, Keith Schneider, University of Florida, Gainesville, FL, USA
- P2-106 Influence of Extracts of Edible and Medicinal Plants on Membrane Damage and Expression of Enterotoxin of Vibrio cholerae - EDUARDO SANCHEZ, Norma Heredia, Santos Garcia, Universidad Autonoma de Nuevo Leon, San Nicolas, N.L., Mexico
- P2-107 Inhibitory Effect of Chitosan and Organic Acids on the Growth of Listeria monocytogenes in Ready-to-Eat Shrimp during Refrigerated Storage - MIN LI, Wen Wang, Yanbin Li, Zhejiang University, Hangzhou, China
- P2-108 Evaluation of Sanitizers to Inactivate Salmonella on In-shell Pecans and Pecan Nutmeats - Larry Beuchat, DAVID MANN, University of Georgia, Griffin, GA, USA

# **Novel Laboratory Methods**

- P2-109 Brucella Identification and Speciation by Luminex Bead-based Suspension Array - TINA LUSK, Julie Kase, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA Park, MD, USA
- P2-110 Validation of the MWY Medium for Enumeration of Legionella in Water from Cooling Towers and Sanitary Hot Water - Olivier Mathia, Francois Le Nestour, Abdelkader Boubetra, Jean-Marc Roche, JEAN-LOUIS PITTET, bioMérieux, Marcy L'Etoile, France

- P2-111 Polyphasic Approach for Quantitative Analysis of Obligately Heterofermentative Lactobacillus Species in Cheese - DANIELE SOHIER, Emmanuel Jamet, Anne-Sophie Le Dizes, Matthieu Dizin, Sonia Pavan, Florence Postollec, Emmanuel Coton, ADRIA, Quimper, France
- P2-112 An Improved Double Layer Plaque Assay for Male Specific Bacteriophage MS2 - JIEMIN CORMIER, Marlene Janes, Louisiana State University, Baton Rouge, LA, USA
- P2-113 Development of a Novel Polymerase Chain Reaction Electrospray Ionization Mass Spectrometer (PCR/ESI-MS) Assay for the Detection and Differentiation of Human Noroviruses - ROSALEE HELLBERG, Feng Li, Rangarajan Sampath, Kyson Chou, Donna Williams-Hill, William Martin, U.S. Food and Drug Administration, Irvine, CA, USA
- P2-114 Interpreting Marginally Positive RT-qPCR Results Derived from Naturally-contaminated Samples: What Does It all Mean? - REBECCA GOULTER-THORSEN, You Li, Jonathan Baugher, Xi Chen, Angela Fraser, Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, **USA**
- P2-115 Development of a New Strategy for Mapping Microbiomes of Food Manufacturing Facilities - BRAD ZIEBELL, Stefanie Gilbreth, Andrew Benson, Kelly Dawson, Joseph Nietfeldt, Ryan Legge, ConAgra Foods, Omaha, NE, USA
- P2-116 Performances Assessment of a New Method According to the ISO 16140 Standard for the Next Day Detection of Salmonella in Foods, Feeds and Environmental Samples - Melinda Maux, Alice Peplinski, Peggy Nomade, JEAN-LOUIS PITTET, bioMérieux, Marcy L'Etoile, France
- P2-117 Isolation and Detection of Pollen DNA in Honey -MARCIA ARMSTRONG, Sarah Fakih, Sabine Kahlau, Sabine Schuppe, Sandra Luley, Holger Engel, Qiagen GmbH, Hilden, Germany
- P2-118 Evaluation of Molecular Serotyping of Salmonella Using a New Multiplexing Technology - JEFF KOZICZKOWSKI, Gunjot Rana, Michele Bush, Michaela Hoffmeyer, Roy Radcliff, Marshfield Food Safety, Marshfield, WI, USA
- P2-119 Rapid Extraction and Analysis of Salmonella enterica from Fish and Kitchen Surfaces - JESSICA CHAPMAN, Torrey Parrish, Megan Duggan, Evogen, Inc., Lenexa, KS, USA
- P2-120 The Development and Validation of a Lateral Flow Device for the Rapid Detection of Total Milk Proteins in CIP and Environmental Samples - DAVID ALMY, Emily Slenk, Frank Klein, Jennifer Rice, Neogen Corporation, Lansing, MI, USA

- P2-121 Validation of a *Campylobacter* Real-time PCR Assay for the Detection of *Campylobacter* in Chicken Carcass Rinses, Turkey Carcass Sponges and Raw Ground Chicken after a 24 h Enrichment WENDY LAUER, Jean-Philippe Tourniaire, Sophie Pierre, Bio-Rad Laboratories, Hercules, CA, USA
- P2-122 Alternative Quick Method for the Microbial Evaluation of UHT Soy Milk and Low pH Soy Milk Products GUADALUPE MONDRAGON, Gilberto Carmona, Fabiana Guglielmone, Virginia Martinez, Kenneth Davenport, 3M, Mexico City, Mexico
- P2-123 Evaluation of a New Molecular Testing Method for Food Pathogens - JUAN CARLOS MOLOTLA, Nancy Osorio, Erik Rosales, Guadalupe Mondragon, Julie Yang, ALSEA, Mexico City, Mexico
- P2-124 Validation of a New Molecular Detection System for the Detection of *Listeria* in Meat, Seafood, Dairy and Retail Environments ESTHER FORTES, John David, Bob Koeritzer, Martin Wiedmann, Cornell University, Ithaca, NY, USA
- P2-125 Rapid Detection of Botulinum Neurotoxin Activity in Food Matrices - WARD TUCKER, BioSentinel, Inc., Madison, WI, USA
- P2-126 Molecular Detection of *Escherichia coli* and *Salmonella* spp. in Contaminated Ground Meat with Immuno-magnetic Beads and Loopamp Kit CHANDRA BAPANPALLY, Daliya Shawkat, Gayatri Maganty, Akif Kasra, SA Scientific, San Antonio, TX, USA
- P2-127 Performance Assessment of a Real-time PCR Method According to the ISO 16140 Standard for *Listeria monocytogenes* Detection in Food and Environmental Samples Justine Baguet, Muriel Bernard, Cecile Bernez, Claudie Le Doeuff, Sarah Peron, Maryse Rannou, DANIELE SOHIER, ADRIA, Quimper, France
- P2-128 Development of a Rapid Method for the Detection of Salmonella in Environmental Samples of the Primary Production Stage (PPS) - Celine Domingos, Peggy Nomade, JEAN-LOUIS PITTET, bioMérieux, Marcy L'Etoile, France
- P2-129 Thermal Inactivation of Shiga Toxin-producing O157:H7 (ECOH) and Non-O157:H7 Shiga Toxin-producing (STEC) *Escherichia coli* Cells in Wafers of Ground Beef JOHN LUCHANSKY, Anna Porto-Fett, Bradley Shoyer, John Phillips, Denise Eblen, Janell Kause, Peter Evans, Nathan Bauer, William Shaw, U.S. Department of Agriculture-ARS-ERRC, Wyndmoor, PA, USA
- P2-130 Terahertz Time-domain Spectroscopic Analysis of Zearalenone and Its Derivatives - Sung-Wook Choi, Gyeong-Sik Ok, Hyun Jung Kim, HYANG SOOK CHUN, Korea Food Research Institute, Sungnam, South Korea

- P2-131 Performance Assessment of a New Method for *Cronobacter* spp. Detection Justine Baguet, Muriel Bernard, Cecile Bernez, Claudie Le Doeuff, Sarah Peron, Maryse Rannou, DANIELE SOHIER, ADRIA, Quimper, France
- P2-132 Performance Assessment of New Real-Time PCR *Listeria* spp. Detection Kit According to the ISO 16140 Standard for *Listeria* spp. Detection in Food and Environmental Samples Justine Baguet, Muriel Bernard, Cecile Bernez, Claudie Le Doeuff, Sarah Peron, Maryse Rannou, DANIELE SOHIER, ADRIA, Quimper, France
- P2-133 Verification of Foodproof EHEC Screening by Real-Time PCR - CHRISTINA HARZMAN, Cordt Gronewald, Kornelia Berghof-Jager, BIOTECON Diagnostics, Potsdam, Germany
- P2-134 Development and Testing of a Rapid Protocol for Environmental Swabs Using an Oxygen-Depletion Technology - ALAN TRAYLOR, Alison Larsson, MOCON, Inc., Minneapolis, MN, USA

### P2-135 WITHDRAWN

# **Pathogens**

- P2-136 Development and Evaluation of a Real-Time PCR Assay for *Salmonella* Detection ANDREW FARNUM,
  Angeline Stoltzfus, Jacqueline Harris, Daniel DeMarco,
  Stephen Varkey, DuPont Qualicon, Wilmington, DE, USA
- P2-137 Effect of Habituation on Plastic or Metal Surfaces in the Presence of Various Food Residues on Survival and Growth of Salmonella STAVROS MANIOS, Aggelos Fitros, Panagiotis Skandamis, Colorado State University, Fort Collins, CO, USA
- P2-138 Heat Tolerance of Shiga-toxigenic *Escherichia coli* (STEC) in Laboratory Media ASHLEIGH WILLEMS, J. Chance Brooks, Amy Parks, Logan Jackson, Mindy Brashears, Texas Tech University, Lubbock, TX, USA
- P2-139 Prevalence and Characterization of Salmonella Serovars in Retail Ground Pork and Beef MAGALY TORO, Sherry Ayers, Wenting Ju, Yi Li, Shaohua Zhao, Jianghong Meng, University of Maryland, College Park, MD, USA
- P2-140 Superior Resuscitative Nature of Enrichment Broth for the Detection of Pathogenic Serotypes of *Escherichia coli* (namely O157) - MEREDITH SUTZKO, Francois Le Nestour, Abdelkader Boubetra, Mark Muldoon, SDIX, Newark, DE, USA
- P2-141 Spontaneous Excisions within the Sp11-Sp12 Prophage Region of *Escherichia coli* 0157:H7 Sakai - CHUN CHEN, Carrie Lewis, Kakolie Goswami, Edward Dudley, The Pennsylvania State University, University Park, PA, USA

## **Novel Laboratory Methods**

P2-142 Performance of a Molecular Detection System for the Detection of Salmonella and Escherichia coli O157 in Food and Carcass Samples - Julie Yang, Micki Rosauer, Cynthia Zook, JOHN DAVID, 3M, St. Paul, MN, USA

# **Pathogens**

- P2-143 Improving Post-harvest Safety and Shelf-life of Whole Mangos - BARAKAT MAHMOUD, Randy Coker, Mississippi State University, Pascagoula, MS, USA
- P2-144 Effect of X-Ray Treatments on the Safety and Shelf-life of Parsley Leaves - BARAKAT MAHMOUD, Randy Coker, Patricia Knight, Mississippi State University, Pascagoula, MS, USA
- P2-145 Growth Characteristics of *Listeria monocytogenes* Strains Serotype 1/2a and 4b Isolated from Food and Clinical Samples Submitted to Different Conditions -VINICIUS RIBEIRO, Mariza Landgraf, Bernadette Franco, Maria Teresa Destro, University of Sao Paulo, Sao Paulo, Brazil
- P2-146 Prior Exposure to High Fat Content and Low Water Activity Improves the Survival of Salmonella enterica Tennessee in a Simulated Gastrointestinal System -COURTNEY KLOTZ, Bryan Aviles, Monica Ponder, Virginia Tech, Blacksburg, VA, USA
- P2-147 Application of PCR/MS Methodology to the Detection of Enteric Bacterial Pathogens in Food Samples -SARAH PIERCE, Chorng-Ming Cheng, Donna Williams-Hill, William Martin, U.S. Food and Drug Administration, Irvine, CA, USA
- P2-148 Monitoring of O26, O103, O111, O145 and O157 Shiga Toxin-producing *Escherichia coli* in Slaughtered Cattle by a Real-time PCR-based System - CLAUDIO ZWEIFEL, Eveline Hofer, Roger Stephan, University of Zurich, Zurich, Switzerland
- P2-149 Prevalence of Escherichia coli O157:H7 in Small-scale Cow/Calf Operations - MYRIAM GUTIERREZ, Divya Jaroni, Marlene Janes, Miguel Gutierrez, Sarah Kerr, Morgan Maite, Denise Allen, Louisiana State University, Baton Rouge, LA, USA
- P2-150 Growth and Survival of Salmonella in Ground Black Pepper - SUSANNE KELLER, Elizabeth Grasso, Lindsay Halik, Jane Van Doren, U.S. Food and Drug Administration-NCFST, Bedford Park, IL, USA
- P2-151 Variation in Confirmation Rates of Samples Screenpositive for Escherichia coli O157 in Beef Trim by Using PCR to Screen for Virulence-associated and Serotype-

- specific Targets WALTER HILL, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P2-152 Survivability of MNV and MS2 on Either Wood or Stainless Steel Surfaces at Various Temperature and Relative Humidity - Su Jun Kim, JungEun Lee, GWANGPYO KO, Seoul National University, Seoul, South Korea
- P2-153 Expression of the Virulence Gene hilA in Salmonella enterica is Suppressed by Lactobacillus casei Secondary Metabolites - Audra Wallis, SEAN PENDLETON, Francisco Gonzalez-Gil, Nan Zhang, Irene Hanning, University of Tennessee, Knoxville, TN, USA
- P2-154 Comparative Expression Analysis of Two Thermostable Nuclease Genes in Staphylococcus aureus - Yu Hu, YanPing Xie, Juni Tang, XIANMING SHI, Shanghai Jiao Tong University, Shanghai, China
- P2-155 Evaluation of a Next-day Method for Detection of Listeria monocytogenes in Food - DENISE HUGHES, Jennifer Chen, Selina Begum, DH MICRO Consulting, Greenacre, Australia
- P2-156 A Comparative Evaluation of the GeneDisc® Plate Listeria Duo for the Detection of Listeria monocytogenes and Listeria species in a Variety of Foods and Environmental Surfaces - Erin Crowley, PATRICK BIRD, Kiel Fisher, M. Joseph Benzinger, Travis Huffman, James Agin, David Goins, Patrice Chablain, Sylvie Hallier-Soulier, Helene Beaupied, Q Laboratories, Inc., Cincinnati, OH, USA
- P2-157 A Comparative Evaluation of the GeneDisc® Plate Listeria Identification Kit for the Identification of Listeria Species -PATRICE CHABLAIN, Helene Beaupied, Sylvie Hallier-Soulier, Erin Crowley, Patrick Bird, Kiel Fisher, Travis Huffman, M. Joseph Benzinger, James Agin, David Goins, Pall GeneDisc Technologies, Bruz, France
- P2-158 Comparison of Different Preenrichment Broths: Preenrichment Broth Ratios and Surface Disinfection for the Detection of Salmonella Enteritidis in Shell Eggs -GUODONG ZHANG, Thomas Hammack, Eric Brown, U.S. Food and Drug Administration, College Park, MD, **USA**
- P2-159 Single Laboratory Validation of a Vibrio Assay for Identification of Vibrio Isolates - WILLIS FEDIO, Jessica Jones, Ruben Zapata, Paul Browning, Cecelia Garcia, Ruiging Pamboukian, Angelo DePaola, New Mexico State University, Las Cruces, NM, USA

- P2-160 Development of DNA Microarray Chip Containing Nonsequenced Genomic DNA Fragments for the Detection of *Listeria monocytogenes* in Milk - JIHYUN BANG, Hoikyung Kim, Larry Beuchat, Jee-Hoon Ryu, Korea University, Seoul, South Korea
- P2-161 Effects of Gamma Radiation on Shiga Toxin-producing Escherichia coli Inoculated in Spinach (Tetragonia expansa) and on Sensory Characteristics - ANA CAROLINA BORTOLOSSI REZENDE, Maria Teresa Destro, Bernadette Franco, Mariza Landgraf, University of Sao Paulo, Sao Paulo, Brazil
- P2-162 Thermal Inactivation Kinetics of Murine
  Norovirus and Feline Calicivirus HAYRIYE BOZKURT,
  Doris D'Souza, P. Michael Davidson, University of
  Tennessee, Knoxville, TN, USA
- P2-163 Pan-genomic Characterization of *Listeria monocytogenes*Strains Associated with the 2011 Cantaloupe Outbreak
   PONGPAN LAKSANALAMAI, Laurel Burall, Atin
  Datta, U.S. Food and Drug Administration-CFSAN,
  Laurel, MD, USA
- P2-164 Comparison of Growth Kinetics for *Bacillus cereus* and *Bacillus cereus* Spore and *Staphylococcus aureus* in Blanched Wild Vegetables HYEJIN JO, Lkhagvasarnai Enkhjargal, Kisun Yoon, Kyung Hee University, Seoul, South Korea
- P2-165 Thermal Inactivation of *Staphylococcus aureus* in Ready-to-Heat Sauces Ahreum Park, Jinhee Lee, Heeyoung Lee, SOOMIN LEE, Ingyun Hwang, SoonHo Lee, Joon Il Cho, Yohan Yoon, Sookmyung Women's University, Seoul, South Korea
- P2-166 Development of Models to Predict Growth/No Growth Interfaces and Kinetic Behavior of *Salmonella* on Cutting Board Surfaces HYUNJOO YOON, Ahreum Park, Joo-Yeon Lee, Hee-Jin Suk, Heeyoung Lee, Soomin Lee, Yohan Yoon, Sookmyung Women's University, Seoul, South Korea

- P2-167 Mechanisms of Resistance to High Pressures by *Vibrio* parahaemolyticus HAIXIA LU, Yu Tong, Jianrong Li, Jinru Chen, Zhejiang Gongshang University, Hangzhou, China
- P2-168 Pickled Egg Production: Inactivation Rate of Salmonella, Escherichia coli O157:H7, Listeria monocytogenes and Staphylococcus aureus during Acidification Step ELIZABETH SULLIVAN, David Manns, John Churey, Randy Worobo, Olga Padilla-Zakour, Cornell University, Geneva, NY, USA
- P2-169 Genes That are Affected in High Hydrostatic Pressure Treatments in a *Listeria monocytogenes* Scott A ctsR Deletion Mutant - YANHONG LIU, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P2-170 Effect of Fat Concentrations in Frankfurters on Survival of *Listeria monocytogenes* in the Gastric Fluid and Thermal Stress during Storage at 10°C KIM HACK-YOUN, Kim Cheon-Jei, Hyunjoo Yoon, Sunah Lee, Yohan Yoon, Konkuk University, Seoul, South Korea
- P2-171 Modeling the Combined Effect of Temperature and Relative Humidity on *Bacillus cereus* on Rice Cake (sirutteok) Jun Wang, Myoung-Su Park, S.M.E. Rahman, Tian Ding, Joong-Hyun Park, Fereidoun Forghani, Na-Jung Choi, Ha-Na Kim, Gwang-Hee Kim, Xi-Hong Zhao, Sang-Do Ha, Gyung-Jin Bahk, Myung Sub Chung, DEOG-HWAN OH, Kangwon National University, Chunchon, South Korea
- P2-172 Development of Dynamic Models to Predict the Fate of Staphylococcus aureus in Sauces and Salad Dressing during Storage at Different Temperatures - SOOMIN LEE, Panagiotis Skandamis, Jinhee Lee, Ingyun Hwang, SoonHo Lee, Joon II Cho, Yohan Yoon, Sookmyung Women's University, Seoul, South Korea

### WEDNESDAY POSTERS 9:00 AM - 3:00 PM

P3 Poster Session - Seafood, Meat and Poultry,
Produce, Beverages, Non-microbial Food Safety,
General Microbiology, Antimicrobials,
Pathogens and Novel Laboratory Methods
Rhode Island Convention Center, Exhibit Hall

P3–01 through P3–89 – Authors present 9:00 a.m. – 11:00 a.m. P3–90 through P3-173 – Authors present 1:00 p.m. – 3:00 p.m.

# Seafood

- P3-01 Incidence and Inactivation of *Listeria* spp. on Frozen Shrimp Christopher Sommers, Rachel Antenucci, Brittany Mills, O. Joseph Scullen, Jennifer Cassidy, Joseph Sites, KATHLEEN RAJKOWSKI, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P3-02 Inactivation of Foodborne Pathogen on Crawfish Tail Meat Using Cryogenic Freezing and Gamma Radiation Rachel Antenucci, O. Joseph Scullen, Jennifer Cassidy, KATHLEEN RAJKOWSKI, Eric Bender, Christopher Sommers, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P3-03 Heat Resistance of Histamine-producing Bacteria in Irradiated Tuna Loins - ELENA ENACHE, Ai Kataoka, Glenn Black, Grocery Manufacturers Association, Washington, D.C., USA
- P3-04 Extraction of Enteric Virus Indicator from Seawater
  Using Activated Carbon JIEMIN CORMIER, Miguel
  Gutierrez, Lawrence Goodridge, Marlene Janes,
  Louisiana State University, Baton Rouge, LA, USA
- P3-05 Effects of Antimicrobial Peptides on *In Vitro* and *In Vivo* Growth and Survival of *Vibrio* spp. MELISSA JONES, Mitchel Knutson, Anita Wright, University of Florida, Gainesville, FL, USA
- P3-06 WITHDRAWN

## **Meat and Poultry**

- P3-07 Prevalence, Characterization, and Antimicrobial Susceptibility of *Salmonella* Gallinarum in the Contents of Shell Eggs SOO-KYOUNG LEE, Ji-Yeon Hyeon, Jeong-Hwan Cheon, Jun-Ho Park, Kwang-Young Song, Kun-Ho Seo, Konkuk University, Seoul, South Korea
- P3-08 Comparison of Two Commercial Real-Time PCR Systems with Culture Methods for the Detection of *Salmonella* spp. in Environmental and Fecal Samples of Poultry -

- CHARLOTTE LINDHARDT, Dagmar Sommer, Michael Lierz, Joerg Slaghuis, Holger Schoenenbruecher, Merck Millipore, Darmstadt, Germany
- P3-09 A Novel Multiplex Real-Time PCR Method for Rapid Detection and Serotyping of *Salmonella* Enteritidis and Typhimurium Helene Frenkiel, Cecile Oger-Duroy, Jean-Philippe Tourniaire, Celine Mazure, Jean-Pierre Facon, SOPHIE PIERRE, Jean-Francois Mouscadet, Bio-Rad Laboratories, Marnes-La-Coquette, France
- P3-10 Comparison of Detection Methods for *Salmonella* in Egg: Individual Sampling vs. Pooling Sampling JUN-HO PARK, Ji-Yeon Hyeon, Jung-Whan Chon, Hong-Seok Kim, Dong-Hyeon Kim, Kwang-Young Song, Jin San Moon, Young Jo Kim, Kun-Ho Seo, Konkuk University, Seoul, South Korea
- P3-11 Statistical Distribution of Human Error in Positioning Temperature Probes in Meat Patties for Thermal Process Validation Juliana Henriques, Quincy Suehr, Bradley Marks, Sanghyup Jeong, PICHAMON LIMCHAROENCHAT, Michigan State University, East Lansing, MI, USA
- P3-12 Antibiotic Resistance and Virulence Potentials of Shiga Toxin-producing *Escherichia coli* Isolates from Retail Meat Products in Korea - HYUNJUNG PARK, Quarantine and Inspection Agency, Anyang, South Korea
- P3-13 Development and Model Testing of Anti-mortem
  Screening Methodology to Predict Prescribed Drug
  Withholds in Heifers ROBERT SALTER, Shuna Jones,
  Timothy Goldsmith, Julio Quintana, Paul Rapnicki,
  Karen Shuck, Jim Wells, Dee Griffin, Charm Sciences,
  Inc., Lawrence, MA, USA
- P3-14 Variation in the Microbiological Quality of Cooked Meat After Slicing in Retail Premises - RICHARD MELDRUM, John Garside, Philip Mannion, Deborah Charles, Paul Ellis, Ryerson University, Toronto, ON, Canada
- P3-15 Microbiological Performance of a High Pressure System in Comparison with Trimming to Control Salmonella, Campylobacter and Indicator Microorganisms in Poultry Carcasses AUDECIR GIOMBELLI, Dandara Hammerschmitt, Eb Chiarini, Mariza Landgraf, Bernadette Franco, Maria Teresa Destro, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
- P3-16 Presence of Shiga-toxin Producing Escherichia coli in Small and Very Small Beef Processing Plants and Resulting Beef Products Detected by a Multiplex Polymerase Chain Reaction Assay AMANDA SVOBODA, Chitrita DebRoy, Edward Dudley, Edward Mills, Catherine Cutter, The Pennsylvania State University, University Park, PA, USA

- P3-17 Use of High Hydrostatic Pressure to Extend the Shelflife of Vacuum-packaged Caiman Alligator (*Caiman yacare*) Meat during Chilling Storage Anna Canto, Bruno Costa Lima, ANDERSON SANT'ANA, Renata Torresan, Robson Maia Franco, Teofilo Silva, University of Sao Paulo, Sao Paulo, Brazil
- P3-18 Bactericidal Characteristics of Lactic Acid and Levulinic Acid Plus Sodium Dodecyl Sulfate in Pure Culture and Comparison of Different Intervention Approaches for Inactivation of Shiga Toxin-producing *Escherichia coli* on Beef Trim TONG ZHAO, Ping Zhao, Michael Doyle, Ravirajsinh Jadeja, Yen-Con Hung, University of Georgia, Griffin, GA, USA
- P3-19 Concentrations and PFGE Profiles of Salmonella
  Serovars on Poultry from Retail Markets in Seattle,
  Washington: 2011–2012 EYOB MAZENGIA, John
  Meschke, Mansour Samadpour, Integrated Public Health
  Services, Shoreline, WA, USA
- P3-20 Resistance of *Escherichia coli* 0157:H7 and Other Shiga Toxin-producing Non-0157 *Escherichia coli* to Ultraviolet Treatment SAILAJA CHINTAGARI, Daisuke Hamanaka, Yen-Con Hung, University of Georgia, Griffin, GA, USA
- P3-21 Reduction of "Big 6" Non-0157 STEC on Chilled Beef Sub-primals Using 5% Lactic Acid - WILLIAM CHANEY, Vamsi Krishna Sunkara, Mark Miller, Mindy Brashears, Texas Tech University, Lubbock, TX, USA
- P3-22 Classification of Ready-to-Eat (RTE) Meat and Poultry Products within the Public Health Information System (PHIS) STEPHEN MAMBER, Timothy Mohr, Sally Jones, Jennifer Webb, Mark Wheeler, U.S. Department of Agriculture-ODIFP-DAIG, Washington, D.C., USA
- P3-23 Association of *Campylobacter* spp. Levels between Chicken Grow-out Environmental Samples and Processed Carcasses MATTHEW SCHROEDER, Joseph Eifert, Monica Ponder, David Schmale, III, Virginia Tech, Blacksburg, VA, USA
- P3-24 Thermal Inactivation of *Listeria monocytogenes*, *Salmonella* and Shiga Toxin-producing *Escherichia coli* in Ready-to-Eat Roast Beef - RUSSELL MCMINN, Jeffrey Sindelar, Kathleen Glass, Food Research Institute, Madison, WI, USA
- P3-25 Rapid Quantitative and Qualitative Assessment of Minced Pork Meat Spoilage Using Fourier Transform Infrared (FTIR) Spectroscopy Data Olga Papadopoulou, Chrysoula Tassou, GEORGE-JOHN NYCHAS, Efstathios Panagou, Agricultural University of Athens, Athens, Greece
- P3-26 Determination of Transfer of Methicillin-resistant
  Staphylococcus aureus from Retail Pork Products onto Food

- Contact Surfaces and the Potential for Consumer Exposure HEATHER SNYDER, James Dickson, Steve Niebuhr, Iowa State University, Ames, IA, USA
- P3-27 First Isolation of Shiga Toxin-producing *Escherichia coli*O157:H7 in Ground Beef at Retail Market in Sao Paulo
  City, Brazil ADRIANA LUCATELLI, Tania Ibelli,
  Bernadette Franco, Maria Teresa Destro, Mariza Landgraf,
  University of Sao Paulo, Sao Paulo, Brazil
- P3-28 Through-chain Enumeration and Genotyping of Campylobacter spp. in Broiler Chicken Production -Jeremy Chenu, Anthony Pavic, JULIAN COX, The University of New South Wales, Sydney, Australia
- P3-29 Cross-laboratory Comparative Study of the Impact of Experimental and Regression Methodologies on Salmonella Thermal Inactivation Parameters IAN HILDEBRANDT, Bradley Marks, Vijay Juneja, Angie Osoria, Nicole Hall, Michigan State University, East Lansing, MI, USA
- P3-30 Inhibition of *Listeria monocytogenes* and *Leuconostoc mesenteroides* in an Uncured Deli-style Turkey Breast Using Clean Label Antimicrobials ROXANNE VONTAYSON, Robert Weyker, Kathleen Glass, Jeffrey Sindelar, University of Wisconsin-Madison, Madison, WI, USA
- P3-31 A Biotracing Model of *Salmonella* in the Pork Production Chain - JOOST SMID, Lourens Heres, Arie Havelaar, Annemarie Pielaat, Utrecht University, Utrecht, The Netherlands

## **Produce**

- P3-32 The Use of Zero-valent Iron Filtration to Reduce Escherichia coli and Listeria innocua in Irrigation Water - Rishi Banerjee, Ajay Singh, Mary Theresa Callahan, Cheryl Roberts, David Ingram, Jitu Patel, Dallas Hoover, Kalmia Kniel, MANAN SHARMA, U.S. Department of Agriculture-ARS, Beltsville, MD, USA
- P3-33 Microbiological Survey of Domestically-produced Sprouts Available at Retail in Canada - LILI MESAK, Jovana Kovacevic, Ana Cancarevic, Jieqing Xu, Wenqian Yuan, Kevin Allen, University of British Columbia, Vancouver, BC, Canada
- P3-34 Plant Defense Response to Escherichia coli 0157:H7 Cell Surface Structures Influences Survival of the Enteric Pathogen on Plant Surfaces - SEUNGWOOK SEO, Karl Matthews, Rutgers University, New Brunswick, NJ, USA
- P3-35 Comparison of Non-O157 Shiga Toxin-producing Escherichia coli (STEC) with O157:H7 for Chlorine Sensitivity and Transfer during Washing of Romaine Lettuce - KAIPING DENG, Li-Han Yen, Mary Lou Tortorello, U.S. Food and Drug Administration, Bedford Park, IL, USA

- P3-36 Microbial Survey of Surface Water Used for Fresh Produce Crop Irrigation in Pennsylvania - AUDREY DRAPER, Stephanie Doores, Hassan Gourama, Luke LaBorde, The Pennsylvania State University, University Park, PA, USA
- P3-37 Survival of Foodborne Pathogens on Cilantro Plants after Transfer via Wet- and Dry-Inoculation Methods - TYANN BLESSINGTON, Anne-laure Moyne, Linda Harris, University of California-Davis, Davis, CA, USA
- P3-38 Influence of Constituents of Water, Soil or Manure on Colonization of *Escherichia coli* O157:H7 on Plant by Differential Induction of Plant Defense SEUNGWOOK SEO, Karl Matthews, Rutgers University, New Brunswick, NJ, USA
- P3-39 Examination of Irrigation Water as an On-farm Bacterial Reservoir and Potential Contamination Route for In-field Leafy Greens - JAYDE WOOD, Kevin Allen, Elsie Friesen, University of British Columbia, Vancouver, BC, Canada
- P3-40 Fate of Protozoan Oocysts (*Eimeria papillata*) on Lettuce in Field Plots PASCAL DELAQUIS, Greg Bezanson, Robin McKellar, Alvin Gajadhar, Agriculture and AgriFood Canada, Summerland, BC, Canada
- P3-41 Influence of Mycorrhizal Fungi (*Glomus intraradices*) on Survival of *Salmonella* and *Escherichia coli* O157:H7 in Soil and Translocation into Romaine Lettuce Roots and Shoot JOSHUA GURTLER, April Nicholson, David Douds, Brendan Niemira, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P3-42 Effectiveness of UV Light as a Means to Reduce Salmonella Contamination on Tomatoes - WINNIE LIM, Mark Harrison, University of Georgia, Athens, GA, USA
- P3-43 Survival of Non-pathogenic *Escherichia coli* and *Escherichia coli* O157:H7 in Delmarva Field Plots Amended with Animal Manure CORRIE COTTON, Fawzy Hashem, Kelly Jones, Manan Sharma, Patricia Millner, University of Maryland Eastern Shore, Princess Anne, MD, USA
- P3-44 Internalization of *Salmonella* Typhimurium in Hydroponically Grown Mung Bean Sprouts with the Events of Water Contamination SUSAN RYMUT, The Ohio State University, Columbus, OH, USA
- P3-45 Microbiological Quality of Imported Produce Available at Retail Across Canada - LILI MESAK, Jovana Kovacevic, Jieqing Xu, Ana Cancarevic, Wenqian Yuan, Kevin Allen, University of British Columbia, Vancouver, BC, Canada
- P3-46 Levels of Microbial Contamination during the Production Chain of Tomatoes, Jalapeño Peppers and Melons in Northeast Mexico Cindy Caballero-Prado, Carmen Cardenas, Karina Molina, NORMA HEREDIA, Faith Bartz, Anna Fabiszewski-de-Aceituno, Juan Leon, Lee-Ann Jaykus, Santos Garcia, Universidad A. De Nuevo Leon, San Nicolas, Nuevo Leon, Mexico

- P3-47 Impact of Inoculation Time (Evening or Morning) on Escherichia coli O157:H7 Survival on Pre-harvest Cilantro - TYANN BLESSINGTON, Anne-laure Moyne, Linda Harris, University of California-Davis, Davis, CA, USA
- P3-48 Indicator Methods to Evaluate Process Controls for Fresh Produce - ANNEMARIE BUCHHOLZ, Emily Jackson, Ravinder Reddy, Mary Lou Tortorello, U.S. Food and Drug Administration, Bedford Park, IL, USA
- P3-49 Microbial Cross-contamination of Tomatoes during Washing with a Peroxyacetic Acid-based Sanitizer in a Commercial Packinghouse HAIQIANG WANG, Gordon Davidson, Elliot Ryser, Michigan State University, East Lansing, MI, USA
- P3-50 Survival of *Escherichia coli* O157:H7 on Raw Green
  Tomatoes during Transportation Temperature Abuse and
  Pathogen Transfer Efficacy between Tomatoes and
  Common Packaging Materials KEITH SCHNEIDER,
  Mark Harrison, Oleksandr Tokarskyy, University of
  Florida, Gainesville, FL, USA
- P3-51 The Effect of Pesticides on the Growth and Survival of Foodborne Human Pathogens SHEFALI DOBHAL, Guodong Zhang, Tom Royer, John Damicone, Li Ma, Oklahoma State University, Stillwater, OK, USA
- P3-52 Reduction of Escherichia coli 0157:H7, Salmonella spp. and Shigella spp. in Parsley after Washing with Extracts of Edible Vegetables LUISA SOLIS-SOTO, Alany Celestino-Puga, Brianda Jaime-Gonzalez, Ricardo Luevano de la Fuente, Santos Garcia, Norma Heredia, Universidad Autonoma de Nuevo Leon, San Nicolas, NL., Mexico
- P3-53 Inactivation of Microbes on Blueberries in Recycled Water Wash Systems - MICHAEL CASTEEL, Charles Schmidt, Gordon Clark, John Meschke, Microbial Intelligence Group, LLC, Fairfax, VA, USA
- P3-54 Kitchen Utensils as Tools to Remove or Transfer Bacterial Pathogens from Fresh-cut Produce - MARILYN ERICKSON, Jean Liao, Ynes Ortega, Jennifer Cannon, University of Georgia, Griffin, GA, USA
- P3-55 Low-energy X-ray Irradiation for Inactivating *Escherichia* coli O157:H7 in Date Paste SANGHYUP JEONG, Salah Aleid, Muhammad Siddiq, Bradley Marks, Kirk Dolan, Michigan State University, East Lansing, MI, USA
- P3-56 Pathogen Prevalence and Indicator Organism Levels in Three Open Surface Water Systems in Washington -KAREN KILLINGER, Craig Cogger, Andy Bary, Achyut Adhikari, Katherine Warren, Sean Beckman, Elaine Brouillard, Washington State University, Pullman, WA, USA

- Efficacy of Aerosolized Chlorine Dioxide in Reducing Salmonella Typhimurium on Food Surfaces - JEONGMOK KIM, Chong-Kyung Kim, Jong-Lak Cho, Mokpo National University, Muan-Gun, Jeonnam, South Korea
- Survival of Escherichia coli and Salmonella spp. in P3-58 Soil Treated by Biosolarization Method - ALEJANDRO SOTO-MARQUEZ, Salvador Villalobos-Reves, Heriberto Godoy-Hernandez, Ramiro Pacheco-Aguilar, Montserrat Iturriaga, Universidad Autonoma de Queretaro, Queretaro, Mexico

# **Beverages and Water**

- Rapid Detection of Yeast and Mold in Filterable Beverage Using PCR Assay - LINDA XUAN PENG, Lois Fleck, DuPont Qualicon, Wilmington, DE, USA
- Antimicrobial Efficacy of Clarity® (Peracetic Acid) with a Booster (Peradigm®) against Chaetomium globosum -ANGELA THOMPSON, Shibu Abraham, John Rovison, FMC Corporation, Tonawanda, NY, USA
- Why Do People Prefer Bottled Waters? OMER P3-61 TEKBAS, Gulhane Military Medical Academy, Ankara, Turkey
- P3-62 Efficient Reduction of Escherichia coli from Apple Cider by Combining Microfiltration with Ultraviolet Treatment - DONGJUN ZHAO, Jessie Usaga Barrientos, Olga Padilla-Zakour, Randy Worobo, Carmen Moraru, Cornell University, Ithaca, NY, USA

# Microbial Food Spoilage

WITHDRAWN P3-63

# **Non-Microbial Food Safety**

- Are Restaurant Employees Aware of Food Allergens? P3-64 - MICHAELA SUPKIS, Jack Neal, University of Houston, Houston, TX, USA
- P3-65 Food Safety Priorities for Retail Deli Managers - KUWAN KIM, Phil Crandall, Cheryl Murphy, Jack Neal, University of Houston, Houston, TX, USA
- Dietary Intake of Preservatives, Antioxidants by Korean P3-66 Population - SUNG HEE CHOI, Ae Young Kim, Korea Health Industry Development Institute, Chungcheonbukdo, South Korea
- P3-67 Economically Motivated Adulteration: Detection of Anomalies in the Supply Chain through Monitoring of Import Data - KAREN EVERSTINE, Timothy Boyer, Shaun Kennedy, University of Minnesota, Minneapolis, MN, USA

- The Association between Menu Labeling of Common P3-68 Allergens and Food Safety Knowledge and Attitudes: A Study of Independently-operated Restaurants - Lisa Zottarelli, Carolyn Bednar, Julie O'Donnell, Michelle Wofford, Glenn Hower, DOJIN RYU, Texas Woman's University, Denton, TX, USA
- P3-69 Food Safety Culture in Healthcare Foodservice Operations - MARGARET BINKLEY, Daniel Henroid, Jack Neal, The Ohio State University, Columbus, OH, USA
- Potential Use of DNA Barcodes in Regulatory Science: Identification of FDA's "The Dirty 22" - YOLANDA JONES, U.S. Food and Drug Administration, Laurel, MD, USA
- On the Implementation of a Food Safety System in a P3-71 Small Dairy Processing Factory in State of Sao Paulo, Brazil - Sueli Cusato, Augusto Gameiro, Carlos Corassin, ANDERSON SANT'ANA, Adriano Gomes da Cruz, Jose de Assis Fonseca Faria, Carlos Augusto F. Oliveira, University of Sao Paulo, Sao Paulo, Brazil
- Photodegradation of Aflatoxin B1 in Food Ruijie Liu, P3-72 YUANFA LIU, Fei Wang, Xingguo Wang, Jiangnan University, Wuxi, China

## **Pathogens**

Survival of Salmonella during Baking of Peanut Butter Cookies - TIFFANY TAYLOR, Amanda Lathrop, Cal Poly, San Luis Obispo, CA, USA

# **Non-Microbial Food Safety**

- Evaluation of Domestic Distribution and Safety of Fresh P3-74 Ginseng (Panax Ginseng C.A. Meyer) in Korea -Sun-Duk Cho, Min-Sun Chang, Dongman Kim, GUN-HEE KIM, DukSung Women's University, ToBong-Ku, Seoul, South Korea
- P3-75 Causes and Consequences of Restaurant Closures for Food Safety Violations - Margaret Binkley, ROBERT SCHARFF, Jack Neal, The Ohio State University, Columbus, OH, USA
- P3-76 What are Restaurant Managers' Priorities for Creating a Food Safety Culture? - BRIAN SAXENIAN, Margaret Binkley, Daniel Henroid, Jack Neal, University of Houston, Houston, TX, USA

# **General Microbiology**

P3-77 Purification and Partial Characterization of a Bacteriocin Produced by Leuconostoc mesenteroides A11 - LIZZIANE WINKELSTROTER, Fabricio Tulini, Elaine De Martinis, University of Sao Paulo, Ribeirao Preto, Brazil

- Adhesion and Dispersion of Listeria monocytogenes on Abiotic Surfaces - FERNANDA BARBOSA REIS, Eliane Pereira Silva, Elaine De Martinis, University of Sao Paulo, Ribeirao Preto, Brazil
- P3-79 Microbiological Characterization of Unprocessed, Processed and Retail Samples of Commercial Brazilian Bee Pollen for Human Consumption - Heloisa Hervatin, Matthew James Grossman, Neusely da Silva, Neliane de Arruda Silveirade Arruda Silveira, Maristela Nascimento, LUCIA REGINA DURRANT, University of Campinas, Campinas, Brazil
- P3-80 Probiotic Potential of Lactic Acid Bacteria Isolated from Fermented Greek Table Olives - Anthoula Argyri, Georgia Zoumpopoulou, Agapi Doulgeraki, Andreas Karatzas, Effie Tsakalidou, George-John Nychas, Efstathios Panagou, CHRYSOULA TASSOU, National Agricultural Research Foundation, Lycovrissi, Greece
- P3-81 The Effects of Aging Times and Temperatures on Bacillus cereus Spores Survival in Wet Noodles during Cooking - HAERIM JEONG, Myeongki Son, Yonggue Lee, Gyiae Yun, Mihee Park, Ki-Hwan Park, Chung-Ang University, Anseong, South Korea
- P3-82 Tracking of Antibiotic Resistant Gene Transfer from a Known Donor to Unknown Recipients in the Simulator of the Human Intestinal Microbial Ecosystem (SHIME) - TUMNOON CHARASLERTRANGSI, Veronique Delcenserie, Mitra Amiri-Jami, Mazin Matloob, Mansel Griffiths, University of Guelph, Guelph, ON, Canada
- Validation of the Use of Composite Sampling for the P3-83 Detection of Listeria monocytogenes in Frozen Vegetables - DENISE BECKER, Stefanie Gilbreth, Kari Sweeney, ConAgra Foods, Omaha, NE, USA
- Preservation of Industrially Important Microorganisms P3-84 - FERNANDA SANTOS, Marni Ramenzoni, Mateus Lazzarotti, Paulo Esteves, Clarissa Vaz, Jalusa Kich, Catia Klein, Janice Zanella, Liana Bretano, Daiane Voss-Rech, Luiza Biesus, Marisete Schiochet, Tania Klein, Brazilian Agricultural Research Corporation, Concordia, Brazil
- Listeria innocua Hinders Recovery of Listeria monocytogenes Serotype 4b during Selective Enrichment in Buffered Listeria Enrichment Broth - Ashley Keys, Rachel Dailey, RONALD SMILEY, U.S. Food and Drug Administration-ORA, Jefferson, AR, USA
- Endemic Salmonella Contamination of the Virginian P3-86 Eastern Shore Tomato Production Environment - Rebecca Bell, Jie Zheng, Sarah Allard, ERIK BURROWS, Charles Wang, Gabriela Arce, Tim Muruvanda, Christine Keys, David Melka, Marc Allard, Steven Rideout, Eric Brown, U.S. Food and Drug Administration, College Park, MD, **USA**

- Isolation of Bacillus cereus from Pineapple Pulp and Partial P3-87 Characterization of a Bacteriocin-like Substance - Juliana Abigail Leite, FABRICIO TULINI, Leon Rabinovitch, Jeane Quintanilha Chaves, Elaine De Martinis, University of Sao Paulo, Ribeirao Preto, Brazil
- P3-88 Safety of Bacteriocinogenic Strains Isolated from Traditional Smoked Meat Products from North Portugal - Svetoslav Todorov, Mariza Landgraf, MARIA TERESA DESTRO, Bernadette Franco, University of Sao Paulo, Sao Paulo, Brazil
- Efficacy of Sanitizers Approved for Organic Use against P3-89 Salmonella enterica on Organic Leafy Greens - Libin Zhu, SADHANA RAVISHANKAR, University of Arizona, Tucson, AZ, USA
- P3-90 Enhanced Plasmid Transformation of Campylobacter jejuni NCTC11168 through Cj1051c Mutagenesis -JEFFREY HOLT, Andrew Grant, Christopher Coward, Duncan Maskell, Jennifer Quinlan, Drexel University, Philadelphia, PA, USA

### **Antimicrobials**

- P3-91 Development of Antimicrobial Surface-modified Stainless Steel with N-halamines: Characterization and Effectiveness against Listeria monocytogenes - LUIS BAS-TARRACHEA, Lynne McLandsborough, Julie Goddard, University of Massachusetts, Amherst, MA, USA
- Impact of Post-inoculation Hold Time when Treating P3-92 Escherichia coli O157:H7- and Salmonella-inoculated Lettuce and Tomatoes with Chlorine Dioxide Gas -SIRIYUPA NETRAMAI, Maria Rubino, Rafael Auras, Elliot Ryser, Mahidol University, Kanchanaburi, Thailand
- P3-93 A Comparison of the in vitro Anti-microbial Effectiveness of Different Organic Acids and Salt Derivatives against Two Listeria monocytogenes Strains - RYK LUES, Central University of Technology, Bloemfontein, South Africa
- P3-94 **WITHDRAWN**
- P3-95 Fate of Listeria monocytogenes during the Maturation of Salami Containing Encapsulated Bacteriocin-producing Lactobacillus curvatus MBSa2 - MATHEUS SOUZA BARBOSA, Cynthia Jurkiewicz, Svetoslav Todorov, Bernadette Dora Gombossy de Melo Franco, University of Sao Paulo, Sao Paulo, Brazil
- P3-96 Vapor-phase Antimycotic Activity of Lippia berlandieri and Poliomintha longiflora Essential Oils - AIDA GOMEZ-SANCHEZ, Raul Avila-Sosa, G. Virginia Nevarez-Morillon, Enrique Palou, Aurelio Lopez-Malo, Universidad de las Americas Puebla, Cholula, Mexico

- P3-97 Determination of the Minimal Inhibitory Concentration of Lauric Arginate against Three Strains of Salmonella enterica CHANELLE ADAMS, Yuhua Chang, D. Julian McClements, Lynne McLandsborough, University of Massachusetts-Amherst, Amherst, MA, USA
- P3-98 Antiviral Effects of Cell-free Bacterial Supernatants -ADRIENNE SHEARER, Dallas Hoover, Kalmia Kniel, University of Delaware, Newark, DE, USA
- P3-99 Inhibition of Foodborne Pathogens and Spoilage Organisms in Dairy Dessert and Tomato Sauce Using Potassium Cinnamate - SAURABH KUMAR, Gijs Lommerse, Renee Boerefijn, Edwin Bontenbal, Purac Biochem, Gorinchem, The Netherlands
- P3-100 Antifungal Activity of Orange Peel Essential Oil Applied by Direct Addition or Vapor Exposure - MARIA JOSE VELAZQUEZ-NUNEZ, Raul Avila-Sosa, Enrique Palou, Aurelio Lopez-Malo, Universidad de las Americas Puebla, Cholula, Mexico
- P3-101 Antibacterial Effectiveness of Phenyllactic Acid against Gram-positive and Gram-negative Foodborne Pathogens at pH 6.0 and 7.2 - DAVID MANU, Aubrey Mendonca, Joseph Sebranek, Aura Daraba, Byron Brehm-Stecher, Iowa State University, Ames, IA, USA
- P3-102 Use of Natural Preservation Solutions for Bakery Products
   JANNEKE WIJMAN, Marielle Louvet-van Eijk, Ivo van
  der Linden, Anieke Wierenga, Edwin Bontenbal, PURAC,
  Gorinchem, The Netherlands
- P3-103 Growth Comparison of *Listeria monocytogenes* in Laboratory Media Using Equimolar Concentrations of NaCl and KCI MAX GOLDEN, Kathleen Glass, University of Wisconsin-Madison, Madison, WI, USA
- P3-104 Spiral Gradient Testing and the Mechanism of Resistance of Fluroroquinolone-resistant *Listeria monocytogenes*Isolated from Various Food Products LEONARD
  WILLIAMS, Shurrita Davis, Janak Khatiwada, North
  Carolina A&T State University, Kannapolis, NC, USA
- P3-105 Characterization of Antimicrobial Resistance in *Vibrio*parahaemolyticus Isolated from Canada between 1998 and
  2011 Jennifer Liu, Lili Mesak, KEVIN ALLEN,
  University of British Columbia, Vancouver, BC, Canada
- P3-106 Effect of Sodium Alginate Coatings Containing Cinnamon Essential Oil on Growth and Ochratoxin A Production by Aspergillus carbonarius on Fresh Apples and Pears ANASTASIA KAPETANAKOU, Sofia Nestora, Panagiotis Skandamis, Agricultural University of Athens, Athens, Greece

- P3-107 Antimicrobial Synergistic Effect of Selected Essential Oils/ Derivatives against *Salmonella* Typhimurium - KANIKA BHARGAVA, Muhamad Chbib, Yifan Zhang, Wayne State University, Detroit, MI, USA
- P3-108 A Longitudinal Study of Antimicrobial Resistance of Vibrio parahaemolyticus Strains Isolated from Two Statistical Areas in British Columbia, Canada - Jennifer Liu, Lili Mesak, KEVIN ALLEN, University of British Columbia, Vancouver, BC, Canada
- P3-109 Reduction of Salmonella Using Lactic Acid and Potassium Lactate on Non-federally Inspected Whole Muscle Beef Steaks Purchased in Meat Markets of Mexico SHANNA WARD, Mark Miller, Alejandro Echeverry, Lyda Garcia, Guy Loneragan, Ansen Pond, Tanya Jackson, Leslie Thompson, Sam Jackson, J. Chance Brooks, Rosa Gabriela Ramirez Porras, Gilberto Cervera, Mindy M. Brashears, Texas Tech University, Lubbock, TX, USA
- P3-110 Antibacterial Effect of ZnO Nanoparticles on Intestinal Bacteria - AMI YOO, Mengshi Lin, Azlin Mustapha, University of Missouri, Columbia, MO, USA
- P3-111 Influence of Nalidixic Acid Resistance on Sensitivity of Various Shiga Toxin-producing *Escherichia coli* to EO Water Treatment - RAVIRAJSINH JADEJA, Yen-Con Hung, Louisiana State University, Baton Rouge, LA, USA
- P3-112 Concentration- and Time-dependent Inactivation of *Escherichia coli* O157:H7 by Plant Extracts Javier Reyna-Granados, Lynn Joens, Mendel Friedman, SADHANA RAVISHANKAR, University of Arizona, Tucson, AZ, USA

## **Pathogens**

- P3-113 Isolation and Characterization of a Unique Phage Carrying Strain of *Clostridium botulinum* from Carrot Juice KRISTIN MARSHALL, Louis Nowaczyk, II, Brian Raphael, Guy Skinner, Rukma Reddy, John Larkin, U.S. Food and Drug Administration, Bedford Park, IL, USA
- P3-114 Expression of Stress and Virulence Genes in *Escherichia coli* O157:H7 in Fresh Dairy Compost Randhir Singh, XIUPING JIANG, Clemson University, Clemson, SC, USA
- P3-115 Enterococcus faecium NRRL-B2354 as a Surrogate for Salmonella spp. for the Validation of Extrusion Andreia Bianchini, Jayne Stratton, Steven Weier, Brian Plattner, Galen Rokey, Gerry Hertzel, Tim Hartter, Lakshmi Gompa, BISMARCK MARTINEZ, University of Nebraska-Lincoln, Lincoln, NE, USA
- P3-116 Colonization and Internalization of *Salmonella enterica* in Tomato Plants JIE ZHENG, Sarah Allard, Sara Reynolds, Patricia Millner, Gabriela Arce, Robert Blodgett, Eric Brown, U.S. Food and Drug Administration, College Park, MD, USA

- P3-117 Influence of Lipoteichoic Acid (LTA) on *Listeria*monocytogenes Biofilm Formation IMELDA TIRTAJAYA,
  Yuhua Chang, Lynne McLandsborough, University of
  Massachusetts-Amherst, Amherst, MA, US
- P3-118 Frequency of Bacterial Foodborne Pathogens on the Surface and Guts of Individual Filth Flies - MONICA PAVA-RIPOLL, Rachel Pearson, Amy Miller, George Ziobro, U.S. Food and Drug Administration-CFSAN, College Park, MD, USA
- P3-119 Assessing the Formation and Removal of Biofilms of Listeria spp. Isolated on Equipment and Utensils of Dairy Industries in Brazil and Italy - LUIZA PIETA, John David, Eduardo Cesar Tondo, UFRGS, Porto Alegre, Brazil
- P3-120 Comparative Survival Patterns of Non-0157:H7 Shiga Toxin-producing Escherichia coli (STEC) Strains and Acid-resistant 0157:H7 STEC during Incubation in pH 2.0 Synthetic Gastric Fluid WAN MEI LEONG, Kyriaki Chatzikyriakidou, Steve Ingham, Barbara Ingham, Cecile Ane, University of Wisconsin-Madison, Madison, WI, USA
- P3-121 Regulation of the csgD Promoter by Global Regulators H-NS, IHF, and RpoS in *Escherichia coli* O157:H7 Isolates - CHIN-YI CHEN, Gaylen Uhlich, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P3-122 Fate of *Salmonella* Exposed to Dry Heat Treatments in Low and Intermediate Moisture Food Products Kristen Hunt, STEVEN GOODFELLOW, Brian Farina, Deibel Laboratories, Gainesville, FL, USA
- P3-123 A Comparison of Escherichia coli Persistence on Basil Plants and Soil Using Drip and Overhead Irrigation -SARAH MARKLAND, Krystal Shortlidge, Lindsey Cook, Kyle LeStrange, Manan Sharma, Kalmia Kniel, University of Delaware, Newark, DE, USA
- P3-124 Differentiating Non-O157:H7 STEC Serogroups from Ground Beef Plated on Agar Media by Hyperspectral Imaging - BOB WINDHAM, Seung-Chul Yoon, Scott Ladely, Kurt Lawrence, Bosson Park, William Cray, Neelam Narang, U.S. Department of Agriculture-ARS, Athens, GA, USA
- P3-125 Longitudinal Study of Salmonella enterica, Escherichia coli
  O157:H7, and Listeria monocytogenes in Fresh Meat Processing
  Plant Environments EVA BORJAS, Alex Brandt, John Sofos,
  Marisa Bunning, Martin Wiedmann, Kendra Nightingale,
  Colorado State University, Fort Collins, CO, USA

### **Antimicrobials**

P3-126 Comparison of Antimicrobial Properties of Zanthoxylum armatum and Hibiscus sabdariffa on Selected Foodborne Pathogens - SHURRITA DAVIS, Leonard Williams, Janak Khatiwada, North Carolina A&T State University, Kannapolis, NC, USA

### **Pathogens**

- P3-127 Validation of a 24-hour Immunochromatographic Test Strip-based Method for the Detection of *Listeria* spp. on Environmental Surfaces - MARK MULDOON, Ann-Christine Allen, Verapaz Gonzalez, Larissa Goldman, Meredith Sutzko, SDIX, Newark, DE, USA
- P3-128 Comparative Evaluation of the VIDAS® Campylobacter
  (CAM) Method for the Detection of Campylobacter from
  Selected Foods: AOAC Performance Tested Method<sup>SM</sup>
  Validation Study MELINDA HAYMAN, Sergio Montez,
  Ron Johnson, Food Safety Net Services, San Antonio, TX,
  USA
- P3-129 Factors Contributing to the Transfer of *Escherichia coli* O157:H7 and *Listeria monocytogenes* between Cutting Surfaces and Fresh Produce; Cross-contamination Scenarios SOFIA POIMENIDOU, Anneza Loukou, Panagiotis Skandamis, Agricultural University of Athens, Athens, Greece
- P3-130 Comparative Evaluation of the CampyFood Agar (CFA)
  Method for the Selective Isolation and Enumeration of
  Campylobacter from Selected Foods: AOAC Performance
  Tested Method<sup>SM</sup> Validation Study SERGIO MONTEZ,
  Melinda Hayman, Ron Johnson, Food Safety Net Services,
  San Antonio, TX, USA
- P3-131 Growth Characteristics and Development of a Predictive Model for *Escherichia coli* in Rice Cakes SONG-YI CHOI, Se-Hee Jeong, Sang-Do Ha, Chung-Ang University, Ansung, South Korea
- P3-132 Toxigenic *Clostridium difficile* in Retail Meats in Brazil -Ana Claudia Tsuchiya, Arnaldo Yoshiteru Kuaye, DIRCE YORIKA KABUKI, Universidade Estadual de Campinas, Campinas, Brazil
- P3-133 Disinfection of Shigatoxigenic *Escherichia coli* O157:H7 in Apple Cider and Skim Milk by Bacteriophages and Pulsed Electric Fields MARKUS WALKLING-RIBEIRO, Hany Anany, Mansel Griffiths, University of Guelph, Guelph, ON, Canada
- P3-134 Growth Kinetics and Predictive Model of *Aeromonas hydro-phila* in a Broth-based System MYUNG-SUB CHUNG, Bo-Yeon Kim, Shin Young Park, Sang-Do Ha, Chung-Ang University, Ansung, South Korea
- P3-135 Growth Kinetics and Predictive Growth Model of Aeromonas hydrophila in a Squid-based System - SHIN YOUNG PARK, Bo-Yeon Kim, Sang-Do Ha, Chung-Ang University, Ansung, South Korea

- P3-136 Thermal Inactivation of *Escherichia coli* O157:H7 and *Salmonella* Agona in Wheat Flour Elisabeth Greene, ROBERT WILLIAMS, Joseph Marcy, Sean O'Keefe, Virginia Tech, Blacksburg, VA, USA
- P3-137 Genetic Diversity of *Listeria monocytogenes* Strains Recovered from the Food Sector in British Columbia, Canada JOVANA KOVACEVIC, Lorraine McIntyre, Ana Paccagnella, Linda Hoang, Judy Isaac-Renton, Kevin Allen, University of British Columbia, Vancouver, BC, Canada
- P3-138 Detection of Seven Top STEC *Escherichia coli* Serotypes by the Assurance GDS Top STEC MPX Assay - Philip Feldsine, DAVID KERR, Markus Jucker, Andrew Lienau, BioControl Systems, Inc., Bellevue, WA, USA
- P3-139 Validation Study of Assurance GDS MPX for Top STEC in Raw Beef Products Philip Feldsine, DAVID KERR, Markus Jucker, Andrew Lienau, BioControl Systems, Inc., Bellevue, WA, USA
- P3-140 Influence of Vacuum Cooling on Microbe Infiltration in Fresh Leafy Greens - ERICA VONASEK, University of California-Davis, Davis, CA, USA
- P3-141 Evaluation of Virulence Profiles of Environmental Avian Pathogenic *Escherichia coli* 0157 Isolates KYLE LESTRANGE, Sarah Markland, Krystal Shortlidge, Dallas Hoover, Kalmia Kniel, University of Delaware, Newark, DE, USA
- P3-142 Influence of Vitamin Exposure on the Expression of Selected Escherichia coli O157:H7 Stress Response Genes ANA CANCAREVIC, Lili Mesak, Brett Finlay, Wei Zhang, Kevin Allen, University of British Columbia, Vancouver, BC, Canada
- P3-143 Influence of Vitamins on *Escherichia coli* 0157:H7 Adherence to HeLa Cells ANA CANCAREVIC, Brett Finlay, Wei Zhang, Kevin Allen, University of British Columbia, Vancouver, BC, Canada
- P3-144 Surface Survival and Internalization of Salmonella through Natural Cracks on Developing Cantaloupe Fruit, Alone or in the Presence of the Plant Pathogen Erwinia tracheiphila DHIRAJ GAUTAM, Mark Payton, Jacqueline Fletcher, Li Ma, National Institute for Microbial Forensics & Food and Agricultural Biosecurity, Stillwater, OK, USA
- P3-145 Prevalence and Levels of *Listeria monocytogenes* in Ready-to-Eat Foods at Retail JOHN LUCHANSKY, Anna Porto-Fett, Sherri Dennis, Yuhuan Chen, Regis Pouillot, Karin Hoelzer, Laura Gathercole, Lori Papadakis, Laurie Williams, Bradley Shoyer, Jeehyun Lee, James Lindsay, Janell Kause, Evelyne Mbandi, Denise Eblen, William Shaw, Daniel Gallagher, L. Victor Cook, Nathan

- Bauer, Rachel Johnson, John King, Melissa Murphy, James Nasella, Holland Starks, Sheeri Khokhar, Christopher Spurlino, Trang Nguyen, Katrina Berry, Alisa Kanjanakorn, Sarah Wadsworth, Elizabeth Baker, Caitlin Harvey, China Reed, Karina Martino, Lisa Benjamin, U.S. Department of Agriculture-ARS-ERRC, Wyndmoor, PA, USA
- P3-146 Understanding the Role of the Catalase/Peroxide Genes in H<sub>2</sub>O<sub>2</sub> Resistance of *Escherichia coli* Serotype O157:H7 Biofilms GAYLEN UHLICH, Chin-Yi Chen, Peter Irwin, U.S. Department of Agriculture-ARS, Wyndmoor, PA, USA
- P3-147 Laboratory Performance on the Recovery of *Listeria*monocytogenes in Queso Fresco Cheese and Alfalfa Sprouts
   MICHAEL URBANCZYK, Shannon Dugan, Lacey
  Guillen, Ravinder Reddy, Christopher Conway, Vishnu
  Patel, Qian Wang, Illinois Institute of Technology, Bedford
  Park, IL, USA

# **Novel Laboratory Methods**

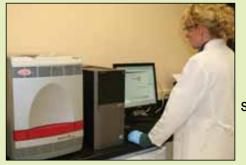
- P3-148 Performance Assessment of a New *Cronobacter* spp.

  Detection Method in Infant Formula and Environmental Samples Justine Baguet, Muriel Bernard, Cecile Bernez, Claudie Le Doeuff, Sarah Peron, Maryse Rannou, DANIELE SOHIER, ADRIA, Quimper, France
- P3-149 Development of a New Device for the Rapid Detection of Aciduric Microorganisms CAROLYN MONTEI, Joe Heinzelmann, Susan McDougal, Ronald Sarver, Brent Steiner, Mark Mozola, Jennifer Rice, Neogen Corporation, Lansing, MI, USA
- P3-150 Novel Automated Workflow Reducing Time to Result for Detecting O157:H7 and Non-O157 STEC Strains from 375 g Beef Samples NIKOLAY SERGEEV, Maxim Brevnov, Catherine O'Connell, Robert Tebbs, Wayne Ge, Sharon Matheny, Daniel Kephart, Life Technologies, Austin, TX, USA
- P3-151 An Effective Real-Time Quantitative PCR Protocol for Quantification of Pathogens in Foodstuffs YSABELLE ADOLPHE, Sebastien Crevecoeur, Perrine Duval, Georges Daube, Antoine Clinquart, University of Liege, Liege, Belgium
- P3-152 Design and Evaluation of a Real-Time PCR Method for Detecting O157:H7 and Non-O157 STEC Strains from Beef Samples ROBERT TEBBS, Aisha Abdul-Wakeel, Sharon Matheny, Craig Cummings, Rixun Fang, Lily Wong, Lavorka Degoricija, Pius Brzoska, Manohar Furtado, Catherine O'Connell, Pina Fratamico, Life Technologies, Austin, TX, USA

- P3-153 Validation of a New Method According to the ISO 16140 Standard for the Next-day Detection of *Listeria* spp. in Food Products and Environmental Samples - Melinda Maux, Valerie Bulcourt, Jean-Michel Pradel, JEAN-LOUIS PITTET, bioMérieux, Marcy L'Etoile, France
- P3-154 Selection of Aptamers against Salmonella enterica Serovar Typhimurium - Nuo Duan, Shijia Wu, CHANGQING ZHU, Jingdong Shao, Yuan Jiang, Zhouping Wang, I nspection and Quarantine Bureau, Nanjing, China
- Serotyping of Non-0157 Shiga Toxin-producing Escherichia coli by Single Nucleotide Polymorphisms in gnd - JACOB ELDER, Kendra Nightingale, Texas Tech University, Lubbock, TX, USA
- P3-156 Evaluation of Commercially Available Loop Mediated Isothermal Amplification (LAMP) Kits for Detection of Foodborne Pathogens - PAUL PARK, State of California, Richmond, CA, USA
- P3-157 Rapid Detection of Brucella by Loop-mediated Isothermal Amplification - Shouyi Chen, Liuyan Song, XUNDE LI, Shuiping Hou, Edward Atwill, University of California-Davis, Davis, CA, USA
- P3-158 Rapid Confirmation of Listeria monocytogenes from Artificially Inoculated Food Matrices Using Partial 16S rDNA Sequence Analysis - Keely Martin, Ashley Keys, Christopher Haney, RONALD SMILEY, U.S. Food and Drug Administration-ORA, Jefferson, AR, USA
- P3-159 A Buffer Capacity Model to Determine pH Changes in Acid and Acidified Vegetables Due to Microbial Activity - FRED BREIDT, Kathryn Kay, U.S. Department of Agriculture-ARS, Raleigh, NC, USA
- P3-160 Rapid Molecular Pathotyping of Major Salmonella enterica Serotypes Based on Single-nucleotide Polymorphisms (SNPs) in the Adenylate Cyclase (cyaA) Gene -MICHAEL ROTHROCK, Jean Guard, U.S. Department of Agriculture-ARS, Athens, GA, USA
- P3-161 WITHDRAWN
- P3-162 Selection of DNA Aptamers with Binding Affinity to Human Norovirus - BLANCA ESCUDERO-ABARCA, Helen Rawsthorne, Matthew Moore, Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, USA
- Investigating the Viability and Culturability of Escherichia coli in a Novel Model Orange Juice Using Flow Cytometric Techniques - AMIR ANVARIAN, Madeleine Smith, Tim Overton, University of Birmingham, Birmingham, United Kingdom

- P3-164 Selection and Characterization of DNA Aptamers with Binding Specificity for Listeria spp. and the Use of DNA Aptamers for Capture of Listeria spp. Prior to the Application of qPCR for Detection - SOOHWAN SUH, Lee-Ann Jaykus, North Carolina State University, Raleigh, NC, USA
- P3-165 Development and Validation of a Test System to Detect Brucella abortus in Whole Milk, Soft Cheese and Leafy Greens - JASON CANTERA, Elena Linardopoulou, Ali Goudarzi, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P3-166 Dye-incorporated Chitosan-based CO<sub>2</sub> Indicator to Monitor Food Freshness - KYUHO LEE, Junho Jung, Pradeep Puligundla, Sanghoon Ko, Sejong University, Seoul, South Korea
- P3-167 Growth and Repair of Escherichia coli Non-O157:H7 STEC Strains in Selective Enrichment Broths -LAWRENCE RESTAINO, R & F Laboratories, Inc., Downers Grove, IL, USA
- P3-168 Development of an Extraction and Concentration Procedure for the Detection of Enteric Viruses in Soil -JULIE BRASSARD, Marie-Josee Gagne, Agriculture and Agri-Food Canada, Saint-Hyacinthe, QC, Canada
- P3-169 Gluten Detection with a New Generation of Monoclonal Antibody - MICHAEL PRINSTER, Donna Houchins, Erica Welker, Jacqueline Coutts, Adrian Rogers, Richard Fielder, Elisabeth Hammer, Romer Labs, Inc., Union, MO, USA
- P3-170 Production of Monoclonal Antibodies against Intimin-γ and Intimin-α- JASON CANTERA, Asa Bergdahl, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- Development and Validation of a Semi-quantitative Lateral Flow Device for Aflatoxin Detection in Corn and Nuts -VALENTINA VORONKOVA, Asa Bergdahl, Angelita Talens, Cesar Nadala, Mansour Samadpour, IEH Laboratories and Consulting Group, Lake Forest Park, WA, USA
- P3-172 Efficacy of Interventions for Reducing Salmonella on Raw Turkey Parts Used in Ground Turkey Production - JUDY LEE, Foster Farms Poultry, Livingston, CA, USA
- P3-173 Foam/Vacuum Extraction, Hollow Fiber Concentration and Quantitative PCR for Detection of Salmonella on Model Food Processing Surfaces - Hyun Joong Kim, BYRON BREHM-STECHER, Iowa State University, Ames, IA, USA

# Over 20 years of excellence at rtech laboratories



MICROBIOLOGY AND CHEMISTRY TESTING\* NUTRITION LABELING\* | SHELF LIFE STUDIES PILOT-SCALE PRODUCTION CAPABILITIES SENSORY EVALUATION INFORMATION RESEARCH CHALLENGE STUDIES\*

\*ISO 17025-accredited





COMPREHENSIVE

RECALL DATA

# Information Is The Key To Your Success



ANALYSIS REPORT

3 years of vital food recall statistics

- Graphic analysis of FDA, USDA/FSIS and Canadian
- A guick and concise view of important recall trends
- Written summary of current recall issues

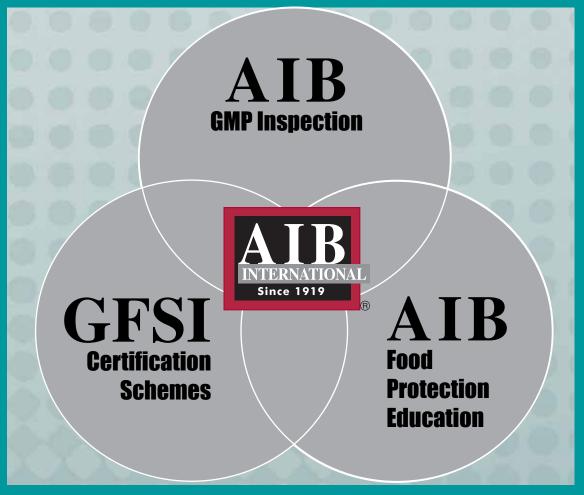
New for 2012! Our report includes data from the Canadian Food Inspection Agency

Order today at: www.SAGEFoodSafety.com



Providing guidance and solutions for your food safety needs

# The AIB Food Protection Advantage



Visit us at Booth # 322

Let AIB provide the INTEGRATED single-source solution to your Food Protection needs.

AIB International is a Certification Body for BRC, SQF and FSSC 22000

Leverage the synergies of the best global Food Protection products and services to lower your risk and protect your company's brands

800-633-5137

www.aibonline.org

# **Local Arrangements**

# **Local Arrangements Committee**

Cathy Payne-Feeny, Chair, Rhode Island Department of Health

Ernest Julian, Rhode Island Department of Health Susan Wallace, Johnson and Wales

# **Affiliate Council**

# **Affiliate Council Officers**

Chair......Gloria Swick-Brown, Somerset, OH Secretary......Tori Stivers, Peachtree City, GA

# **Affiliate Council Delegates**

Africa	Courage Saba
Alabama	Thomas McCaskey
Alberta	Lynn McMullen
Arizona	
Arkansas	Hillary Hagan
Australia	Ian Jenson
Brazil	Maria Teresa Destro
British Columbia	Terry Peters
California	John Bruhn
California/Southern	Turonda Crumpler
Capital Area	Jenny Scott
Carolinas	Angie Fraser
Chinese AFPNA	Tong-Jen Fu
Colombia	Jairo Romero
Connecticut	
Florida	Peter Hibbard
Georgia	Tori Stivers
Hungary	Laszlo Varga
Idaho	Jami Delmore
Illinois	Pat Welch
Indiana	Haley Oliver
lowa	
Kansas	Kathrine Robnett

Kentucky	
Korea	Jeeyoun Chong
Lebanon	Zeina Kassaify
Metropolitan	
Mexico	Montserrat Hernandez Iturriaga
Michigan	
Missouri	Paul Gregory
North Dakota	Elizabeth Otto
Nebraska	Jill Kuzo
New York	Steven Murphy
New Zealand	David Lowry
Ohio	Gloria Swick-Brown
Ontario	Marc Charlton
Pennsylvania	Gene Frey
Portugal	
Quebec	Julie Jean
South Dakota	
Spain	
Taiwan	Tsung-Yu Tsai
Texas	Brian Miller
Turkey	Samim Saner
United Arab Emirates	Bobby Krishna
United Kingdom	David Lloyd
	Lisa Hensel
Washington	Karen Killinger
_	Michael Schoenherr
Wyoming	

# **Affiliate Officers**

AFRICA ASSOCIATION FOR FOOD PROTECTION	Mail all correspondence to:
Pres., Charles MuyanjaKampala, Uganda	Veronica Oros
Vice Pres., Nenge NjongmetaGlenview, IL	Arizona State University
Sec'y., Eyob MazengiaSeattle, WA	P.O. Box 872104
Treas., Mawuli Sablah Burkina, Faso	Tempe, AZ 85287
Delegate, Courage Kosi Setsoafia Saba Madrid, Spain	480.965.6853
	E-mail: veronica.oros@asu.edu
Mail all correspondence to:	
Courage Kosi Setsoafia Saba	ARKANSAS ASSOCIATION FOR FOOD PROTECTION
Complutense University of Madrid	Pres., Hillary HaganSpringdale
Faculty of Veterinary Science	Pres. Elect, Jerri Lynn PickettSpringdale
Dept. of Animal Health	Past Pres., Steven RickeFayetteville
Avda. Puerta de Hierro s/n	Vice Pres., Brian Umberson
28040, Ciudad Universitaria	Sec'y., David EdmarkFayetteville
Madrid, Spain	Treas., Jennifer Ford
346.52445105	Delegate, Hillary HaganSpringdale
E-mail. courageousgh@yahoo.com	Mattall accommon dance to
ALADAMA ACCOCIATION FOR FOOD PROTECTION	Mail all correspondence to:
ALABAMA ASSOCIATION FOR FOOD PROTECTION	David Edmark
Pres., Britton Ashmore	University of Arkansas
Pres. Elect, Jacqueline Summer Beard	110 Agriculture Bldg.
Vice Pres., Tom Lunsford	Fayetteville, AR 72701
Past Pres., Bill Kelly	479.575.6940
Sec'y,/Treas., Karen CrawfordTuscaloosa	E-mail: dedmark@uark.edu
<b>Delegate,</b> Tom McCaskey Auburn	AUSTRALIAN ASSOCIATION FOR FOOD PROTECTION
Mail all correspondence to:	Pres., Scott CrerarCanberra
G. M. Gallaspy	Pres. Elect, Sandy Hume
P.O. Box 303017, Suite 1250	Sec'y., Edward JanssonNSW
	Delegate, Ian Jenson
Montgomery, AL 36130-3017 334.206.5375	Delegate, fall delisoitNorth Sydney
E-mail: ggallaspy@adph.state.al.us	Mail all correspondence to:
	Edward Jansson
ALBERTA ASSOCIATION FOR FOOD PROTECTION	Director, Science and Technical Services
Pres., open	NSW Food Authority
Past Pres., Kevin WebsterEdmonton	6 Avenue of the Americas Newington
Sec'y., Barb TomikEdmonton	NSW 2127 Australia
Treas., Gary GenslerEdmonton	61.2.94714718
Delegate, Lynn M. McMullenEdmonton	E-mail: Edward.jansson@foodauthority.nsw.gov.au
Mail all correspondence to:	BRAZIL ASSOCIATION FOR FOOD PROTECTION
Lynn M. McMullen	Pres., Maria Teresa Destro
University of Alberta	Vice Pres., Mario Killner
Dept. of Ag., Food and Nutritional Science	Past Pres., Mariza Landgraf
4-10 Ag. For. Center	Sac y, Eb Chiarini
Edmonton, Alberta T6G 2P5 Canada	Treas., Bernadette D.G.M. Franco
780.492.6015	Delegate, Maria Teresa Destro
E-mail: lynn.mcmullen@ualberta.ca	Delegate, Maria Teresa Destro
E-inali. Tyrin.incinunen@ualberta.ca	Mail all correspondence to:
ARIZONA ENVIRONMENTAL HEALTH ASSOCIATION	Maria Teresa Destro
Pres., Veronica OrosTempe	Av. Prof. Lineu Prestes, 580 B14
Pres. Elect, Shikha GuptaPhoenix	São Paulo, SP 05508-000 Brazil
Past Pres., Tom Dominick	55.11.3091.2494
Sec'y., Ben DiSalvoGlendale	E-mail: mtdestro@usp.br
Treas., Norman Barnett	L main madodi 0@ dop.bi

BRITISH COLUMBIA FOOD PROTECTION ASSOCIATION	Mail all correspondence to:
Pres., Alex Montgomery Burnaby	Zhinong Yan
Vice Pres., Ken HallBurnaby	301 Plantation Road
Past Pres., Terry PetersRichmond	Harahan, LA 70123
Sec'y., Lorraine McIntyreVancouver	800.344.5106 x7737
Treas., Peter Taylor Burnaby	E-mail: zhinong.yan@intralox.com
<b>Delegate,</b> Terry PetersRichmond	COLOMBIA ASSOCIATION OF FOOD SCIENCE AND TECHNOLOGY
Mail all correspondence to:	Pres., Jairo RomeroBogota
Terry Peters	Vice Pres., Camilo Rozo-Bernal
5500 Woodpecker Drive	Sec'y., Edna Liliana PeraltaBogota
Richmond, British Columbia V7E 5A8 Canada	Delegate, Jairo RomeroBogota
604.666.1080	
E-mail: terry_peters@telus.net	Mail all correspondence to:
, .	Jairo Romero
CALIFORNIA ASSOCIATION OF DAIRY AND MILK SANITARIANS	CI 61 No.4 Ap702
Exec. Sec'y./Treas., John BruhnDavis	Bogota, Colombia
Asst. Exec. Sec'y, Anne Quilter GoldsteinSacramento	571.348.3625
Delegate, John BruhnDavis	E-mail: jairoeromero@hotmail.com
Mail all correspondence to:	CONNECTICUT ASSOCIATION FOR FOOD PROTECTION
John C. Bruhn	Pres., Dave Pantalone Ansonia
University of California-Davis	Vice Pres., Barbara BucknamNorwalk
Dairy Research and Information Center	Sec'y., Frank GreeneThomaston
101B Cruess Hall	Treas., Karen RotellaWaterbury
Davis, CA 95616-8598	Delegate, Frank GreeneThomaston
530.752.2192	
E-mail: jcbruhn@ucdavis.edu	Mail all correspondence to:
CADITAL ADDA FOOD PROTECTION ACCOUNTION	Frank Greene
CAPITAL AREA FOOD PROTECTION ASSOCIATION	Division of Food & Standards
Pres., Keith Lampel	165 Capitol Ave., Rm. 165
Past Pres., Manan SharmaBeltsville, MD	Hartford, CT 06106 860.713.6160
Sec'y., David IngramBeltsville, MD	600.713.6100 E-mail: frank.greene@ct.gov
Treas., Alan ParkerAnnapolis, MD	L-man. mank.greene@ct.gov
Delegate, Jenny Scott	FLORIDA ASSOCIATION FOR FOOD PROTECTION
Delegate, Jenny Scott College I ark, MD	Pres., Jennifer LahnoudiLake Buena Vista
Mail all correspondence to:	Pres. Elect, Tim Westbrook
Emily Mathusa	Vice Pres., Ken TyrrellLithia Springs, GA
Grocery Manufacturers Association	Past Pres., Michelle DanylukLake Alfred
1350 I St. NW, Suite 300	Sec'y., David Calabrase
Washington, D.C. 20005	Treas., Rick BarneyTampa
202.637.4807	Delegate, Peter Hibbard Oviedo
E-mail: emathusa@gmaonline.org	
•	Mail all correspondence to:
CAROLINAS ASSOCIATION FOR FOOD PROTECTION	Jennifer Lahnoudi
Pres., Angela FraserClemson, SC	Walt Disney World Resort
Pres. Elect., open	P0 Box 10000
Past Pres., Steve TraceySalisbury, SC	Lake Buena Vista, FL 32830-1000
Sec'y./Treas., Mark Van OstenbridgeMauldin, SC	863.688.7407 x33883
Delegate, Angela FraserClemson, SC	E-mail: Jennifer.lahnoudi@disney.com
Mail all correspondence to:	
	GEORGIA ASSOCIATION FOR FOOD PROTECTION
Angela M. Fraser	
Angela M. Fraser Clemson University	GEORGIA ASSOCIATION FOR FOOD PROTECTION  Pres., Jennifer Thomas
	Pres., Jennifer Thomas Maryland
Clemson University	Pres., Jennifer Thomas
Clemson University 206 Poole	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA Pres., Zhinong Yan	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA Pres., Zhinong Yan	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA Pres., Zhinong Yan	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA Pres., Zhinong Yan	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA Pres., Zhinong Yan	Pres., Jennifer Thomas
Clemson University 206 Poole Clemson, SC 29678 864.656.3652 E-mail: afraser@clemson.edu  CHINESE ASSOCIATION FOR FOOD PROTECTION IN NORTH AMERICA Pres., Zhinong Yan	Pres., Jennifer Thomas

### **HUNGARIAN ASSOCIATION FOR FOOD PROTECTION**

Pres., Csilla Mohácsi-Farkas	Budapest
Vice Pres., Gabriella Kiskó	•
Sec'y./Treas., Júlia Cseh	Budapest
Delegate, László Varga	Mosonmagyarovar

Mail all correspondence to: Csilla Mohácsi-Farkas Corvinus University of Budapest Ady Endre Ut 19. Budapest H-1221 Hungary 36.1.482.6010

E-mail: csilla.farkas@uni-corvinus.hu

## **IDAHO ENVIRONMENTAL HEALTH ASSOCIATION**

Pres., Jami Delmore	Boise
Pres. Elect, Patrick Guzzle	
Past Pres., Bob Erickson	Twin Falls
Sec'y./Treas., Ken Keller	
Delegate, Jami Delmore	

Mail all correspondence to: Ken Keller

4915 Yakima St. Pocatello, ID 83204 208.239.5276

E-mail: kkeller@phd6.idaho.gov

# ASSOCIATED ILLINOIS MILK, FOOD AND ENVIRONMENTAL SANITARIANS

Pres., Pat Welch	Springfield
Pres. Elect, Thomas Jacobs	
1st Vice Pres., Guy Sprouls	
2nd Vice Pres., Dan Brown	Ashton
Past Pres., Stephanie Roe Quinton	Ashton
Sec'y., Steve DiVincenzo	Springfield
Treas., Rich Schmitt	
Delegate, Pat Welch	Springfield

Mail all correspondence to: Stephen L. DiVincenzo Illinois Dept. of Public Health 525 W. Jefferson Springfield, IL 62761 217.785.2439

E-mail: Steve.DiVincenzo@illinois.gov

## INDIANA ENVIRONMENTAL HEALTH ASSOCIATION, INC.

Pres., Joshua Williams	Muncie
Pres. Elect, Christine Stinson	Muncie
Vice Pres., Mike Mettler	Indianapolis
Past Pres., Adam Rickert	Indianapolis
Treas., Debra Gardner	
Sec'y., Kelli Whiting	
Delegate, Haley Oliver	

Mail all correspondence to: Tami Barrett Indiana State Dept. of Health 2 North Meridian St. Indianapolis, IN 46204 317.233.7400

E-mail: tbarrett@isdh.in.gov

### **IOWA ASSOCIATION FOR FOOD PROTECTION**

Pres., Merle Bontrager	Wellman
Past Pres., Tom Tegeler	Dyersville
Vice-President Pro Tem, Dave Brown	
First Vice President, John Feldmann	Independence
Second Vice President, Lisa Wiley	Ankeny
Sec'y./Treas., Lynne Melchert	

Mail all correspondence to: Lynne Melchert 117 Culver Road NE Hopkinton, IA 52237 563.926.2363

E-mail: lynne.melchert@swissvalley.com

## KANSAS ENVIRONMENTAL HEALTH ASSOCIATION

Pres., Levi Beaver	Lyons
1st Vice Pres., Ed Kalas	Topeka
2nd Vice Pres., Kathrine Robnett	Topeka
Past Pres., LuAnn Watson	Elkhart
Sec'y., Lisa Davies	Junction City
Treas., Nicole Hamm	Topeka
Delegate, Kathrine Robnett	Lawrence

Mail all correspondence to: Kathrine Robnett Kansas Department of Agriculture 109 SW 9th St., 3rd Floor Topeka, KS 66612 785.296.5600

E-mail: kathrine.robnett@kda.ks.gov

# KENTUCKY ASSOCIATION OF MILK, FOOD AND ENVIRONMENTAL SANITARIANS

Pres., Kenny Cole	Irvine
Pres. Elect, Stacy Roof	Louisville
Past Pres., Jeff Edelen	
Sec'y., Brenda Haydon	Waddy
Treas., Laura Strevels	Edgewood
Delegate, Kenny Cole	Irvine

Mail all correspondence to: Jeff Edelen Kroger Co. 1600 Ormsby Station Road Louisville, KY 40223 502.423.4105

E-mail: jeff.edelen@kroger.com

### KOREA ASSOCIATION OF FOOD PROTECTION

Pres., Deog-Hwan Oh	Kangwondo
Past Pres., Duck-Hwa Chung	Gyeongnam
Sec'y., Sang-Do Ha	Gyunggi
Delegate, Jeeyoun Chong	

Mail all correspondence to:
Deog-Hwan Oh
Kangwon National University
Div. of Food & Biotechnology
192-1, Hyoja 2 Dong
Chunchon, Kangwondo 200-701 South Korea
82.33.250.6457
E-mail: food411@hanmail.net

#### **LEBANESE ASSOCIATION FOR FOOD SAFETY** NEBRASKA ASSOCIATION FOR FOOD PROTECTION Pres., Zeina Kassaify.....Beirut Pres., Beth Burmester......Omaha Vice Pres., Nadera Hamdar ......Beirut Sec'y., Maya El Mokdad ......Beirut Treas., Reem Hamzeh......Beirut Sec'y., Amy Kerby......Omaha **Delegate**, Zeina Kassaify......Beirut Treas., Penny Mack......Omaha Mail all correspondence to: Mail all correspondence to: Zeina Kassaify Beth Burmester Faculty of Agricultural & Food Sciences Airlite Plastics Company Dept. of Nutrition & Food Science 6110 Abbott Drive American University of Beirut Omaha, NE 68110 Bliss Street 402.408.5118 Beirut, Lebanon E-mail: eburmester@airliteplastics.com 961.1.340460/350000 x.4456 E-mail: zk18@aub.edu.lb **NEW JERSEY ASSOCIATION FOR FOOD PROTECTION** Pres., David Reyda......Bedminister, NJ **MEXICO ASSOCIATION FOR FOOD PROTECTION** 1st Vice Pres., Jessica Albrecht ...... Montvale, NJ Pres., Norma Heredia ......San Nicolas 2nd Vice Pres., Tony Simas.....New York, NY Vice Pres., Elisa Cabrera-Diaz......Zapopan Past Pres., Alan Talarsky.....Trenton, NJ Past Pres., Javier Castro-Rosas......Hidalgo Sec'y./Treas., Carol Schwar......Oxford, NJ Treas., Fausto Tejeda-Trujillo .......Puebla Mail all correspondence to: Mail all correspondence to: Carol Schwar Norma Heredia Warren County Health Dept. Universidad A. De Nuevo Leon 700 Oxford Rd. Apdo. Postal 124-F Oxford, NJ 07863 San Nicolas 908.475.7960 Nuevo Leon 66451Mexico E-mail: cschwar@co.warren.nj.us 52.81.8376.3044 E-mail: norma@microbiosymas.com **NEW YORK STATE ASSOCIATION FOR FOOD PROTECTION** Pres., Marsha Koerner.....Akron MICHIGAN ENVIRONMENTAL HEALTH ASSOCIATION Pres., Darren Bowling ......Lansing Past Pres., Leslie Ball.....Syracuse Pres. Elect, Adeline Hambley......Holland Past Pres., Lynne Madison......Hancock Sec'y., Jamice Landrum.....Saginaw Mail all correspondence to: Delegate, Adeline Hambley......Holland Janene Lucia **Cornell University** Mail all correspondence to: Stocking Hall Jamice Landrum Ithaca, NY 14853 Saginaw County Dept. of Public Health 607.255.2892 1600 N. Michigan Avenue E-mail: jgg3@cornell.edu Ste. 101 Saginaw, MI 48602 NEW ZEALAND ASSOCIATION FOR FOOD PROTECTION 989.758.3711 Pres., David Lowry......Hamilton E-mail: jlandrum@saginawcounty.com Past Pres., Lynn McIntyre ......UK Sec'y., David Lowry......Hamilton MISSOURI MILK, FOOD AND ENVIRONMENTAL HEALTH ASSOCIATION Delegate, David Lowry......Hamilton Pres., Cathy Sullivan......Marshall Mail all correspondence to: David P. Lowry **Ecolab** P.O. Box 10061 Treas., Nancy Beyer.....Jefferson City Hamilton 3241 New Zealand Delegate, Paul Gregory......Springfield 64.7.958.2306 E-mail: david.lowry@ecolab.com Mail all correspondence to: Paul Gregory NORTH DAKOTA ENVIRONMENTAL HEALTH ASSOCIATION **Prairie Farms** 1133 East Kearney Street 1st Vice Pres., Jane Kangas ...... Fargo Springfield, MO 65803-3435 417.862.9311 Past Pres., Colleen Peterson......Bismarck E-mail: pgregory@hilanddairy.com Sec'y., Debra Larson ......Bismarck Treas., Jayme Calavera ...... Minot

QUEBEC FOOD PROTECTION ASSOCIATION Mail all correspondence to: Debra Larson Pres., Julie Jean.....Quebec North Dakota Dept. of Health/Food & Lodging 600 East Blvd. Ave. Vice Pres., Louise Blanchet......Saint-Foy Dept. 301 Sec'y., Gisele LaPointe ......Quebec Bismarck, ND 58505-0200 Treas., Ismail Fliss......Quebec 701.328.1291 Delegate, Julie Jean ......Quebec E-mail: dilarson@nd.gov Mail all correspondence to: **OHIO ASSOCIATION FOR FOOD PROTECTION** Julie Jean Pres., Cindy Ewing ......Columbus Universite Laval Dept. of Food Science & Nutrition 2nd Vice Pres., Sarah Badenhop.......Columbus Comtois Bldg, Rm 1401 Past Pres., Shauna Boggs ...... Kettering Quebec, QC G1K 7P4 Canada 418.656.2131 E-mail: julie.jean@fsaa.ulaval.ca Mail all correspondence to: SOUTH DAKOTA ENVIRONMENTAL HEALTH ASSOCIATION Gloria I. Swick-Brown Pres., Roger Puthoff......Huron 424 Fancy Ct. Pres. Elect, Cindy Koopman-Viergets ......Pierre P.O. Box 554 Past Pres., Mark Schuttloffel...... Sioux Falls Somerset, OH 43783 Sec'y. Treas., Mike Fillaus......Pierre 614.466.7760 Delegate, Roger Puthoff .......Huron E-mail: swick-brown@columbus.rr.com Mail all correspondence to: **ONTARIO FOOD PROTECTION ASSOCIATION** Mike Fillaus Pres., Marc Charlton ...... Milton 615 E. 4th St. Vice Pres., Jeff Hall.....Etobicoke Pierre, SD 57501 Past Pres., Paul Baxter ......Toronto 605.773.6327 Sec'y./Treas., Keith Warriner......Guelph E-mail: mike.fillaus@state.sd.us Delegate, Marc Charlton.......Milton **SOUTHERN CALIFORNIA ASSOCIATION FOR FOOD PROTECTION** Mail all correspondence to: Victoria Rosa Vice Pres., (vacant) 375 Eramosa Rd. Past Pres., Thilde Peterson.....Laguna Beach P.O. Box 24007 Sec'y., Craig Overlock......Irvine Guelph, ON N1E 6V8 Treas., Sherman Mah.....Buena Park 519.265.4119 Delegate, Turonda Crumpler......LaPalma E-mail: info@ofpa.on.ca Mail all correspondence to: PENNSYLVANIA ASSOCIATION OF MILK, FOOD AND Craig Overlock **ENVIRONMENTAL SANITARIANS** SCAFP Secretary Pres., Paul Dix......Hagerstown 322 Rhythm Pres. Elect, Robin Breeding ......Greenwood Irvine CA 92603 Vice Pres., Ralph Kerr.....Titusville 949.737.5133 Past Pres., Annie Piepenhagen..... craig\_overlock@camesweeney.com Sec'y., Eugene Frey ......Lancaster Treas., Connie Oshop-Keith......New Galilee SPAIN ASSOCIATION FOR FOOD PROTECTION Delegate, Eugene Frey.....Lancaster Pres., Emiliano Quinto ......Valladolid Pres. Elect., David Rodriguez-Lazaro ......Valladolid Mail all correspondence to: **Eugene Frey** Vice Pres., Marta Hernandez-Perez.....Valladolid Land O'Lakes, Inc. Sec'y./Treas., Rosa Capita......Ponferrada Delegate, David Rodriguez-Lazaro ......Valladolid 307 Pin Oak Place Lancaster, PA 17602-3469 Mail all correspondence to: 717.397.0719 Emiliano J. Quinto E-mail: erfrey@landolakes.com University of Valladolid-School of Medicine and Health Sciences PORTUGAL ASSOCIATION FOR FOOD PROTECTION Dept. of Nutrition and Food Science Avda Ramon Y Caial 7 Valladolid, Valladolid 47005 Spain 34.983184943 E-mail: ejquinto@gmail.com Mail all correspondence to: Laurentina M.R. Pedroso Universidade Lusofona De Humanidades E Tecnologias

Av. Do Campo Grande, 376 Lisboa 1749-024 Portugal

E-mail: mveterinaria@ulusofona.pt

351.21.7515527

TAIWAN ASSOCIATION FOR FOOD PROTECTION	Mail all correspondence to:
Pres., Lee-Yan SheenTaipei	David Lloyd
Vice Pres., Chorng-Liang PanKeelung	University of Wales Institute, Cardiff
Sec'y., Chia-Yang ChenTaipei City	CF5 2YB
Treas., Tsui-Ping HuangTaipei	Cardiff, South Wales
Delegate, Tsung-Yu TsaiXingzhuang City	United Kingdom
	44.0.292041.6306
Mail all correspondence to:	E-mail: dclloyd@uwic.ac.uk
Lee-Yan Sheen	
Institute of Food Science and Technology	UPPER MIDWEST DAIRY INDUSTRY ASSOCIATION
National Taiwan University	Pres., Pat HansenFarmington
No. 1, Sec. 4, Roosevelt Rd.	Vice Pres., Christa Schlosser
Taipei, Taiwan	Past Pres., Leo JacquesNew Ulm
Republic of China	Sec'y/Treas., Elaine Santi
886.2.336641.29	Delegate, Lisa HenselLitchfield
E-mail: lysheen@ntu.edu.tw	Mail all assurance dance to
TEXAS ASSOCIATION FOR FOOD PROTECTION	Mail all correspondence to: Doris Mold
Pres., Damon MillerGrapevine	
Past Pres., Thomas PritchardHouston	233 State Road 48
Sec'y./Treas., Alejandro Castillo	Cumberland, WI 54829
Delegate, Brian MillerTyler	715.822.6347
	E-mail: manager@umdia.org
Mail all correspondence to:	WASHINGTON ASSOCIATION FOR FOOD PROTECTION
Alejandro Castillo	Pres., Shane Erickson Bellevue
Texas A&M University	Pres. Elect, Kurt Larson
2471 TAMU	Past Pres., Robert Brooke
Kleberg Center Room 314A	Sec'y/Treas., Stephanie Olmsted
College Station, TX 77843-2471	Delegate, Karen KillingerPullman
979.845.3565	Delegate, Karen KillingerFullitan
E-mail: a-castillo@emau.edu	Mail all correspondence to:
TURKISH FOOD SAFETY ASSOCIATION	Stephanie Olmsted
Pres., Samim Saner	Safeway Inc.
Vice Pres., Nerma GokceIstanbul	32727 193rd Ave. SE
Sec'y., Muhteber ErsinIstanbul	Kent, WA 98042
Treas., Nerma GokceIstanbul	206.660.4594
Delegate, Samim SanerIstanbul	E-mail: stephanie.olmsted@safeway.com
Mail all assurance dance to	L-mail: Stephanie.omistea@saleway.com
Mail all correspondence to: Muhteber Ersin	WISCONSIN ASSOCIATION FOR FOOD PROTECTION
Gida Guvenligi Dernegi (TFSA)	Pres., Steve StonerMadison
Hasan Amir Sok.Dursoy Is Mrk.	Pres. Elect, Fritz Buss
•	1st Vice Pres., Franco Milani
No. 4 K:4 D:10, Kiziltoprak	2nd Vice Pres., Michael SchoenherrMadison
Istanbul, Turkey 0216.550.02.73	Past Pres., Les Lamb
	Sec'y., Les LambMiddleton
E-mail: muhteber.ersin@ggd.org.tr	Treas., Neil VassauVerona
UNITED ARAB EMIRATES ASSOCIATION FOR FOOD PROTECTION	Delegate, Michael SchoenherrMadison
Pres., Khalid Mohammed SharifDubai	<b>3</b> ,
Pres. Elect, Aisha AbushelaibiSharjah	Mail all correspondence to:
Vice Pres., Mariam ShenasiDubai	Les Lamb
Sec'y., Bashir Hassan YousifDubai	P.O. Box 620705
Delegate, Bobby KrishnaDubai	Middleton, WI 53562
Mail all correspondence to:	608.469.3290
Bobby Krishna	E-mail: leslamb@charter.net
Dubai Municipality	
P.O. Box 67	WYOMING ENVIRONMENTAL HEALTH ASSOCIATION
Food Control Dept.	Pres., Neal BloomenraderCasper
Dubai, United Arab Emirates	Pres. Elect, Theresa Leichtweis
971.50.3971157	Past Pres., Joe MartinezThermopolis
E-mail: bobbykrishna@gmail.com	Sec'y., Todd DennyBasin
L-man. มบมมyknamawyman.cum	Treas., Tiffany GaertnerCheyenne
UNITED KINGDOM ASSOCIATION FOR FOOD PROTECTION	Delegate, Neal BloomenraderCasper
Pres., Stephen WhyteFileby	·
Pres. Elect, Nigel CookYork	Mail all correspondence to:
Past Pres., Gordon HayburnToronto, ON	Todd Denny
Sec'y./Treas., Derrick BlundenEast Yorkshire	P.O. Box 965
Delegate, David LloydCardiff, Wales	Basin, WY 82410
	207 000 0007
	307.899.0987
	E-mail: tdenny@state.wy.us



If Food Safety is the Question,

# Eurofins can provide the Answer.

At Eurofins, our goal is to make sure your individual testing profile meets both regulatory compliance and your overall program objectives in the most accurate and timely manner possible. Our technical and customer service staff will partner with you to choose the appropriate tests, methods and frequencies best suited to your specific needs.

- Multiple US and International Sites for Microbiology
- Expert Microbiologists to provide Food Safety Solutions
- Detection of Drug Residues and Contaminants
- FDA Detention Related Testing
- GFSI Certification and Auditing Services
- On-line Sample Result Reporting

To obtain additional information, please contact us at (800) 875-6532, visit eurofinsus.com, or email us at info@eurofinsus.com.



# **Affiliate Awards**

# C.B. SHOGREN MEMORIAL Florida Association for Food Protection



# **BEST AFFILIATE OVERALL MEETING**

Florida Association for Food Protection



# **AFFILIATE MEMBER EDUCATION**

**British Columbia Food Protection Association** 



# **AFFILIATE COMMUNICATION MATERIALS**

**British Columbia Food Protection Association** 



# **AFFILIATE MEMBERSHIP ACHIEVEMENT**

**Wisconsin Association for Food Protection** 

# **Award Recipients**

## **BLACK PEARL**

Sponsored by Wilbur Feagan and F & H Food Equipment Company

The Kroger Co. Cincinnati, Ohio

## **FELLOW**

Christine M. Bruhn Ann Marie McNamara

# PRESIDENT'S LIFETIME ACHIEVEMENT

Robert Buchanan

### HONORARY LIFE MEMBERSHIP

Charles (Bert) Bartleson Harold Bengsch Tom Schwarz Purnendu C. Vasavada

# HARRY HAVERLAND CITATION

Sponsored by ConAgra Foods, Inc.

Judy D. Greig

# INTERNATIONAL LEADERSHIP

Sponsored by Cargill, Inc.

Bernadette Dora Gombossy de Melo Franco

# **GMA FOOD SAFETY**

Sponsored by Grocery Manufacturers Association

Kansas State University Daniel Y. C. Fung

University of Wisconsin-River Falls
Purnendu C. Vasavada

# FROZEN FOOD FOUNDATION FREEZING RESEARCH

Sponsored by the Frozen Food Foundation

David S. Reid

# **MAURICE WEBER LABORATORIAN**

Sponsored by Weber Scientific

Joseph Frank

## LARRY BEUCHAT YOUNG RESEARCHER

Sponsored by bioMérieux

Siddhartha Thakur

# **SANITARIAN**

Sponsored by Ecolab Inc.

**Robert Hennes** 

## **ELMER MARTH EDUCATOR**

Sponsored by Nelson-Jameson, Inc.

Mark Harrison

### HAROLD BARNUM INDUSTRY

Sponsored by Roka Bioscience, Inc.

Gordon Hayburn

# TRAVEL AWARD FOR STATE OR LOCAL HEALTH OR STATE AGRICULTURAL DEPARTMENT EMPLOYEES

Sponsored by Marler Clark, LLP, PS

Jeanne Garbarino Tim Jenkins Chris Malota Amie Minor Brian Sauders

# STUDENT TRAVEL SCHOLARSHIP

Sponsored by IAFP and the IAFP Foundation

Frederick Adzitey

Sharon Bagaaya Eva Danira Borjas Orellana Wai Chan

Wei Chen

Chawalit Kocharunchitt

Min Hwa Lee Laura Strawn

Fabrício Luiz Tulini Qionggiong Yan

## **DEVELOPING SCIENTISTS**

Sponsored by the IAFP Foundation

To be determined

## **SAMUEL J. CRUMBINE AWARD**

Sponsored by the Conference for Food Protection, in cooperation with American Academy of Sanitarians, American Public Health Association, Association of Food & Drug Officials, Foodservice and Packaging Institute, Inc., International Association for Food Protection, International Food Safety Council, National Association of County and City Health Officials, National Environmental Health Association, National Restaurant Association Solutions, NSF International, and Underwriters Laboratories, Inc.

Salt Lake Valley Health Department

# About the Award Recipients

# **Black Pearl Award**

The Kroger Co. Cincinnati, Ohio





roger, the nation's largest traditional grocery retailer, employs more than 339,000 associates who serve customers in 2,435 supermarkets and multidepartment stores in 31 states under two dozen local banner names including Kroger, City Market, Dillons, Jay C, Food 4 Less, Fred Meyer, Fry's, King Soopers, QFC, Ralphs and Smith's. The company also operates 791 convenience stores, 348 fine jewelry stores, 1,090 supermarket fuel centers and 39 food processing plants in the U.S.

Recognized by Forbes as the most generous company in America, Kroger supports hunger relief, breast cancer awareness, the military and their families and more than 30,000 schools and grassroots organizations in the communities it serves. Kroger contributes food and funds equal to 125 million meals a year through more than 80 Feeding America food bank partners.

For more information, please visit www.kroger.com.



Sponsored by Wilbur Feagan and



# **FELLOW AWARD**



Christine M. Bruhn Davis, California

r. Christine Bruhn is a recipient of the 2012 IAFP Fellow Award, which recognizes professionals who have contributed to IAFP and its Affiliates with distinction over an extended period of time. Dr. Bruhn is being recognized nationally and internationally for her programs in consumer behavior, food science and food safety.

As Director of the Center for Consumer Research and Consumer Food Marketing Specialist in the Department of Food Science and Technology, University of California— Davis, Dr. Bruhn's research focuses on consumer attitudes, knowledge and practices related to food safety and quality and new food processing technologies. She has authored over 150 professional papers on consumer attitudes toward food.

Dr. Bruhn was the first recipient of the IAFP Developing Scientist Award in 1986, presented the Ivan Parkin Lecture at the Association's 1998 Annual Meeting and received the IAFP Elmer Marth Educator Award in 2005. She has chaired the editorial committee for Dairy, Food and Environmental Sanitation (now Food Protection Trends) and currently serves on the editorial board for FPT. She has also been published in both journals.

Dr. Bruhn is a Fellow of the Institute of Food Technologists in the U.S. and the Institute of Food Science and Technology in the U.K. She has provided consultations to the FAO and WHO on food safety and food irradiation. As a member of the inaugural FDA Risk Communication Advisory Committee, Dr. Bruhn provided expertise in food safety. In 2011, she was recognized by the Institute of Food Technologists with the Carl R. Fellers Award for service to the profession of food science and technology.

# **FELLOW AWARD**



**Ann Marie McNamara** San Diego, California

r. Ann Marie McNamara is a recipient of the 2012 IAFP Fellow Award, which recognizes professionals who have contributed to IAFP and its Affiliates with distinction over an extended period of time. Dr. McNamara is a 19-year member of IAFP. As Division Vice President of Product Safety and Quality Excellence for Jack in the Box, Dr. McNamara works to ensure the safety of more than a million customers a day by developing and managing industry leading food safety programs. She previously served as V.P. of Food Safety at Silliker; V.P. of Food Safety and Technology at Sara Lee; and Director of Microbiology at USDA Food Safety and Inspection Service where she was a five-time recipient of the Secretary of Agriculture's Superior Service Award. Dr. McNamara completed a post-doctoral fellowship at the Centers for Disease Control and Prevention and earned her Sc.D. from the University of Pittsburgh, her M.S. from the University of Minnesota and her B.S. from Quinnipiac University. She has authored more than 100 publications and given more than 100 scientific presentations.

Dr. McNamara has developed corporate food safety programs that are widely recognized for their excellence. She has provided expert food safety advice to more than 100 businesses as a consultant. As a regulator, Dr. McNamara has played an influential role in developing food safety policies, including co-authoring the landmark Pathogen Reduction and HACCP Rule; President Clinton's Food Safety Initiative; the FDA's Healthy People 2010; and acted as a representative on the National Advisory Committee for Microbial Criteria in Foods, CODEX and the Conference for Food Protection.

# PRESIDENT'S LIFETIME ACHIEVEMENT AWARD



Robert L. Buchanan College Park, Maryland

r. Robert L. Buchanan is the recipient of the 2012 IAFP President's Lifetime Achievement Award. This award is given at the discretion of the Association President to recognize an individual who has made a lasting impact on "Advancing Food Safety Worldwide" through a lifetime of professional achievements in food protection. Throughout his professional career, Dr. Buchanan has distinguished himself as a leader of public service through his contributions to the food and dairy industries.

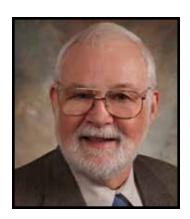
Dr. Buchanan is currently Director of the University of Maryland's Center for Food Safety and Security Systems. He received his B.S., M.S., Masters of Philosophy and Ph.D. in Food Science from Rutgers University and conducted post-doctoral training in mycotoxicology at the University of Georgia. He has over 35 years of teaching experience, conducting research in food safety and working at the interface between science and public health policy, first in academia, then in government service at both the USDA and the FDA and most recently at the University of Maryland's College of Agriculture and Natural Resources.

Dr. Buchanan's scientific interests are diverse and include extensive experience in predictive microbiology, quantitative microbial risk assessment, microbial physiology, mycotoxicology and food safety systems. He has published on a wide range of subjects related to food safety and is one of the co-developers of the widely-used USDA Pathogen Modeling Program.

Dr. Buchanan has served on numerous national and international advisory bodies, including 20 years as a member of the International Commission on Microbiological Specification for Foods; as a six-term member of the National Advisory Committee for Microbiological Criteria for Foods; a decade as the U.S. Delegate to the Codex Alimentarius Committee on Food Hygiene; and on multiple committees and expert consultations for the NAS/IOM and FAO/WHO.

Having served on many IAFP Committees, including several Professional Development Group committees, Dr. Buchanan currently serves on the Journal of Food Protection Editorial Committee. In 2010, Dr. Buchanan delivered the John H. Silliker Lecture at the IAFP Annual Meeting.

# HONORARY LIFE MEMBERSHIP AWARD



Charles A. (Bert) Bartleson Olympia, Washington

harles A. (Bert) Bartleson is a recipient of the 2012 IAFP Honorary Life Membership Award, which recognizes his dedication and service to the high objectives of the Association. Mr. Bartleson is retired from Bartleson Food Safety Consultants, which he formed upon retiring from a long career in government.

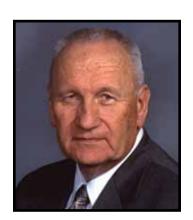
Mr. Bartleson graduated from Washington State University in 1970. His first job was as an Environmental Health Specialist with the Thurston-Mason Health District in Olympia, Washington. While there, he investigated two large outbreaks of foodborne illness – C. perfringens and Norovirus – which ignited a life's work of studying the cause and prevention of foodborne illnesses. He eventually returned to school, graduating from the University of Hawaii with an MPH degree.

Mr. Bartleson joined the Washington State Department of Health for the last 25 years of his government service. Throughout this time, he was a Public Health Advisor and the Technical Expert for the State Food Program. During these years, Mr. Bartleson audited local health department food programs, trained hundreds of food sanitarians, coordinated emergency response, developed and rewrote the food service rules and regulations and investigated the factors linked to foodborne diseases.

As a long-time IAFP Member, Mr. Bartleson has been a part of the IAFP Committee on the Control of Foodborne Illness and has written four manuals and more than a dozen papers. In 2007, he was presented with the IAFP Sanitarian Award. Mr. Bartleson has also been a member of the Conference for Food Protection, chairing the Science and Technology Council, and served on the National Advisory Committee on Microbiological Criteria for Foods.

Mr. Bartleson retired from Bartleson Food Safety Consultants in 2009. His interests include bicycling, collecting seashells and traveling.

# HONORARY LIFE MEMBERSHIP AWARD



Harold K. Bengsch Springfield, Missouri

r. Harold K. Bengsch is a recipient of the 2012 IAFP Honorary Life Membership Award, which recognizes his dedication and service to the high ideals and objectives of the Association. After 45 years of continuous service in Public Health, Mr. Bengsch retired in 2004 from the Springfield/Greene County (Missouri) Department of Public Health and Welfare, serving his last 20 years as Director. Two days after retiring, he was elected to the office of Greene County Commissioner and is now serving his second

Born and raised on a mixed grain and dairy farm in western Christian County, Missouri, Mr. Bengsch started his education in a one-room country schoolhouse set on a portion of the family farm. He received his undergraduate degree from Missouri State University, with a double major in Agriculture Sciences, and his master's degree in Public Health Science from the University of Missouri's School of Medicine. He taught in the Masters of Public Health program at Missouri State University, where he currently serves on the University Institutional Biological Safety Committee and the College of Health and Human Services Dean's Ambassador Committee. In 2004, Mr. Bengsch received an honorary Doctorate of Public Affairs from Missouri State University, the second such honorary doctorate in the school's history.

As a strong advocate for collaboration to achieve outcomes, Mr. Bengsch currently serves on no less than 26 state and community boards and committees. He has acted as Chair of the Missouri State Board of Health and President of the Missouri Public Health Association. He is a current member of the State and National Association of County Commissioners and serves on both the Governor's Advisory Council on Homeland Security and the State Juvenile Justice Task Force. He also co-chairs the State Child Death Review Panel. He has authored 17 publications addressing various topics on health and public health.

During his 49 years as an IAFP Member, Mr. Bengsch has also served on numerous Association committees and work groups. He was elected IAFP President in 1994 and received the IAFP Sanitarian Award in 1977 and the IAFP Harry Haverland Citation Award in 2005. He also served as the Missouri Milk, Food and Environmental Health Association's (MMFEHA) President and received the Affiliate's Lifetime Achievement Award in 2000. He is also the recipient of the 2001 Missourian Award.

Married for 54 years, Mr. Bengsch and his wife, Darlene, have two daughters, Meschiel and Kena, four grandchildren and eight great-grandchildren. Mr. Bengsch's motto is: "There is no limit to what can be accomplished when it doesn't matter who gets the credit."

# **HONORARY LIFE MEMBERSHIP AWARD**



Thomas L. Schwarz Burke, Virginia

homas L. Schwarz is a recipient of the 2012 IAFP Honorary Life Membership Award, which recognizes his dedication and service to the high ideals and objectives of the Association. Mr. Schwarz is a Midwesterner with degrees in chemistry and entomology. He retired from the Food and Drug Administration (FDA) as Director, Division of Cooperative Programs, in 2001.

In 1970, Mr. Schwarz joined the United States Department of Agriculture (USDA) as a plant quarantine inspector. After a year at the port of New York, he transferred to the FDA as a laboratory entomologist. Starting in 1976, he held a succession of positions at FDA headquarters. Throughout the next 25 years, he accumulated 14 FDA awards for performance or special service.

Mr. Schwarz was involved in a wide variety of the FDA's high-profile issues, such as Good Laboratory Practices; ethnic foods; sulfites; reduced oxygen packaging; Salmonella in eggs; E. wli O157:H7 in hamburgers; and EMS from L-tryptophan. He is best known for his work on the first Food Code.

An active IAFP Member for 30 years, Mr. Schwarz has made many presentations at the Association's Annual Meetings, contributed an article to Dairy and Food Sanitation, and served on various PDGs and on the Program Committee. He has also been a member of CFP, AFDO, NCIMS, ISSC and the Alliance for Food Security.

Since his federal retirement, Mr. Schwarz has represented the International Flight Services Association as its Food Safety Consultant and has done scientific consulting for private firms, including Marler Clark, LLP, PS.

#### HONORARY LIFE MEMBERSHIP AWARD



Purnendu C. Vasavada River Falls, Wisconsin

r. Purnendu C. Vasavada is a recipient of the 2012 IAFP Honorary Life Membership Award, which recognizes his dedication and service to the high ideals and objectives of the Association. Dr. Vasavada is Professor Emeritus of Food Science at the University of Wisconsin-River Falls and Food Safety and Microbiology Extension Specialist.

Dr. Vasavada is recognized internationally for his teaching, applied research, innovative training programs and active consultations in Food Science and Technology, especially Food Safety and Microbiology, Rapid Methods and Automation in Food Microbiology, Food Quality Assurance, Milk Quality and Mastitis, Food Nutrition and Consumer Issues, and Food Science Education. As the principal and managing member of PCV & Associates, LLC, Dr. Vasavada provides consulting and assistance to the food industry in planning, development and management of special projects involving food safety and microbiology, GMP, HACCP and food quality assurance. He is also involved in developing and presenting seminars and conferences on contemporary topics of interest to food industry and consumers.

Dr. Vasavada is active in several scientific and professional organizations, including the International Association for Food Protection (IAFP) for 27 years and the Institute of Food Technologists (IFT). He is the author or co-author of over 100 publications, including peerreviewed papers, technical abstracts and book chapters. His list of awards include the Joseph Mityas Laboratorian of the Year Award from WLA (1987); the Educator Award from IAMFES (1997); the Sanitarian of the Year Award from WAMFS (1998); the UW Extension's Program Innovation Award (2010); and the IAFP Harry Haverland Citation Award (2011). He is a Fellow of the American Academy of Microbiology (1991), IFT (2009) and IAFP (2010).

#### HARRY HAVERLAND CITATION AWARD



Judy D.
Greig
Guelph, Ontario, Canada

s the recipient of the 2012 IAFP Harry Haverland Citation Award, Judy D. Greig is recognized for her years of dedication and devotion to the Association's ideals and objectives.

Ms. Greig is currently an epidemiologist with the Public Health Agency of Canada, Laboratory for Foodborne Zoonoses in Guelph, Ontario, where her projects include attribution of foodborne disease, systematic and scoping reviews of public health issues, and knowledge translation.

Ms. Greig is a registered nurse and has practiced in three Canadian provinces throughout the past 19 years. She received her B.Sc., specializing in microbiology, from the University of Waterloo and M.Sc. in epidemiology from the University of Guelph.

An IAFP Member since 2000, Ms. Greig has served on various Association Committees, including two terms on the Black Pearl Selection Committee; Food Protection Trends Management Committee; Journal of Food Protection Management Committee; and the Foundation Committee. She is currently serving her second term on the Food Protection Trends Editorial Board. She joined the Committee on Control of Foodborne Illness in 2000 and has served as its Vice Chair since 2007, during which the Committee has authored eleven papers describing the role of the infected food handler, updated the Procedures to Investigate Foodborne Illness manual and organized multiple symposia. Her professional peer and friend, Ewen Todd, states, "Judy Greig has demonstrated her commitment and dedication to the reduction of foodborne disease by faithfully serving as Vice Chair of the Committee on Control of Foodborne Illness and by co-authoring many papers on hygiene of food and healthcare workers."

A member of the Ontario Food Protection Association (OFPA) since 2000, Ms. Greig has served on the Student Awards Committee, acted as co-editor of the OFPA award-winning newsletter from 2001–2006, organized numerous technical sessions and served as the Affiliate's President in 2010.

Ms. Greig has presented over 60 oral or poster presentations and has numerous peer-reviewed publications. She has guest lectured at the University of Guelph (Masters in Food Safety and Quality Assurance Program) and at Ryerson University (School of Occupational and Public Health) in Toronto.



#### INTERNATIONAL LEADERSHIP AWARD



Bernadette DGM Franco São Paulo, Brazil

he 2012 IAFP International Leadership Award goes to Dr. Bernadette DGM Franco for her dedication to the high ideals and objectives of IAFP and her promotion of the mission of the Association in countries outside of the U.S. and Canada. Dr. Franco is a professor at the University of São Paulo (USP), São Paulo, Brazil, in the Department of Food and Experimental Nutrition of the Faculty of Pharmaceutical Sciences. She received her degree in Pharmaceutical Sciences and holds a Ph.D. in Food Science from USP.

Dr. Franco's research interests and teaching tasks are related to food safety and new strategies for control of microbial growth in foods. She acts as Director of the USP Food Science Post-Graduation Program, where she has advised 50 M.Sc. and Ph.D. students. Dr. Franco is a principal investigator in several ongoing national and international collaborative research projects. She has authored more than 100 peer-reviewed scientific papers, as well as several books and book chapters.

Dr. Franco and her research group at USP have made significant contributions to the advancement of food science in Brazil and abroad, especially in Latin America. In recognition of her work, the National Council for Scientific and Technological Development (CNPq) presented her with a 1A Research Productivity Scholarship, the highest distinction for scientists in the country.

Dr. Franco has numerous administrative assignments at USP and at Brazilian funding agencies. She is presently a member of the Engineering Area Panel at FAPESP, the São Paulo State Research Foundation and has worked for many years on the Advisory Committees of the National Council for Scientific and Technological Development (CNPq) and the Coordination of Higher Level Education (CAPES).

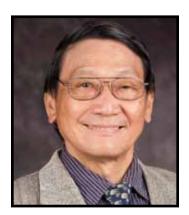
From 2002–2005, Dr. Franco was President of the Brazilian Society of Microbiology. She also served as Chief Editor of the *Brazilian Journal of Microbiology* for 15 years. She is a member of the International Commission of Microbiological Specifications for Foods (ICMSF) and represents Brazil in the Latin American Sub-Commission of ICMSF. She was recently elected as an Executive Board Member of the International Commission of Food Microbiology and Hygiene (ICFMH) and the International Life Sciences Institute (ILSI-Brazil).

An active IAFP Member since 1994, Dr. Franco helped initiate the Brazil Association for Food Protection (BAFP) in 2002 and currently serves as the Affiliate's treasurer.



#### **GMA FOOD SAFETY AWARD**

The joint recipients of the 2012 IAFP GMA Food Safety Award are Kansas State University, Manhattan, and the University of Wisconsin-River Falls for their "Rapid Methods Workshops," conducted by Dr. Daniel Y.C. Fung and Dr. Purnendu C. Vasavada, respectively. This year's award honors a group or organization for a highly significant food safety development or in recognition of a long history of outstanding contributions to food safety. KSU and Dr. Fung and the U of W-River Falls and Dr. Vasavada are recognized for making a difference for over 30 years in conducting their respective workshops.



Kansas State University Daniel Y.C. Fung Manhattan, Kansas

native of Hong Kong, Dr. Fung is Professor of the Departments of Food Science and Animal Science and Industry at Kansas State University. He received his bachelor's degree in Biology from the International Christian University in Japan, his M.S. in Public Health from the University of North Carolina in Chapel Hill and his Ph.D. in Food Technology from Iowa State University in Ames. Dr. Fung previously served as Assistant Professor of Microbiology and Assistant Director for Administration at Pennsylvania State University and has been at Kansas State University since 1978, serving in his current position since 1985. During this time, he also spent nine years as KSU's Chair of the Food Science Graduate Program. He considers his most outstanding contribution in technology transfer and education as conducting the annual KSU International Workshops on Rapid Methods and Automation in Microbiology where, for more than three decades, over 4,500 participants worldwide attended these hands-on workshops.

Dr. Fung is a 40-year IAFP Member and has served on several Association committees. Throughout his career, he has received many professional awards, including the 1976 IFT International Award and the Society for Industrial Microbiology's 2001 Waksman Outstanding Educator Award. Dr. Fung is a Fellow of IFT, AAM and IAFoST. Over the past 45 years, he has authored approximately 800 published works in books, scientific journals, meeting proceedings and abstracts and has traveled worldwide to give speeches, lectures and presentations. Above all, Dr. Fung considers himself an educator deeply involved in food safety and microbiology research and teaching. His life is enriched by his wife, Dr. Catherine Fung, his son and daughter-in-law, Drs. Francis and Maria Fung, and four grandchildren.



University of Wisconsin-River Falls Purnendu C. Vasavada River Falls, Wisconsin

r. Vasavada is Professor Emeritus of Food Science at the University of Wisconsin-River Falls (UWRF), as well as a Food Safety and Microbiology Extension Specialist. He is recognized internationally for his teaching, applied research and innovative training programs in food safety and microbiology.

From the humble beginning at a regional dinner meeting and mini-workshop organized in response to concerns about emerging pathogens in foods, the University of Wisconsin-River Falls' Food Microbiology Symposium, Current Concepts in Foodborne Pathogens and Rapid Methods in Food Microbiology, grew in its scope and stature as evidenced by international audiences of over 110 attendees representing large and small food companies, regulatory agencies and academia. The UWRF Food Microbiology Symposium formed a unique and sustained collaboration with Kansas State University's International Rapid Methods in Microbiology Workshop, providing a venue for discussions of contemporary issues, exchange of ideas and supported involvement of Developing Scientists, while fostering several 'mini-Rapid Methods' seminars and conferences around the world.



#### FROZEN FOOD FOUNDATION FREEZING RESEARCH AWARD



David S. Reid Davis, California

rofessor David S. Reid is the 2012 IAFP Frozen Food Foundation Freezing Research Award recipient. Now in its third year, this award honors an individual, group or organization for preeminence and outstanding contributions to research that impacts food safety attributes of freezing.

Professor Reid holds his B.Sc. and Ph.D. in Chemistry from the University of Glasgow, Scotland. His primary emphasis has been in Physical Chemistry. After a postdoctoral year at SUNY Buffalo with Professor George Nancollas, he joined Unilever Research Laboratory, Colworth, in 1967 where his emphasis was in the physico-chemical characterization of the influence of water in foods. One area of focus was the physical chemistry of ice formation in tissues and mechanisms of freezing damage.

In 1981, Professor Reid joined the Department of Food Science and Technology at the University of California-Davis to continue his studies in the role of water in foods. Once again, a primary focus was on the physical chemistry of the freezing process in tissues. In addition to phase and state diagrams, the ice nucleation process and the ice propagation process have been characterized to better understand the factors underlying frozen product quality and stability.

Professor Reid has maintained strong interactions with the industry throughout his tenure at the University of California-Davis and serves on the scientific advisory committees for both AFFI and GCCA. He is a Fellow of IFT (2003) and of IAFoST (2006), and was presented with a Career Leadership Award by AFFI in 2007. Professor Reid has served as Editor-in-Chief of the Journal of the Science of Food and Agriculture since 1999.



#### MAURICE WEBER LABORATORIAN AWARD



Joseph F. Frank Athens, Georgia

r. Joseph F. Frank is the recipient of the 2012 IAFP Maurice Weber Laboratorian Award. This award recognizes an IAFP Member for dedicated and exceptional contributions in the laboratory and commitment to the development and/or application of innovative and practical analytical approaches in support of food safety.

Dr. Frank is a professor in the Department of Food Science and Technology at the University of Georgia in Athens. He gained an appreciation of good sanitation practices throughout high school and college by working in his father's cheese and butter manufacturing business and in local restaurants. He earned a B.S. in bacteriology from the University of Wisconsin-Madison and went on to receive his master's and doctoral degrees in food science with specialization in food microbiology. Both of his advanced degrees were obtained under the direction of Elmer Marth. His postdoctoral study was conducted at the Eastern Regional Research Center.

Dr. Frank was a pioneer in research that demonstrated the importance of biofilms in the survival of L. monocytogenes in food processing facilities. He also developed laser scanning confocal microscopy for direct observation and viability determination of bacterial pathogens on intact food tissues.

An IAFP Member since 1975, Dr. Frank received both the IAFP Fellow Award and the President's Recognition Award in 2005, and the Elmer Marth Educator Award in 2008. He is currently a scientific editor for the Journal of Food Protection. He is a Charter Member of the Georgia Association for Food Protection. Throughout his extensive career, Dr. Frank has co-authored 143 peer-reviewed research papers.



#### LARRY BEUCHAT YOUNG RESEARCHER AWARD



Siddhartha Thakur Raleigh, North Carolina

r. Siddhartha Thakur is the recipient of the 2012 IAFP Larry Beuchat Young Researcher Award, which recognizes a young researcher who has shown outstanding ability and professional promise in the early years of their career.

Dr. Thakur is an Assistant Professor in the College of Veterinary Medicine at North Carolina State University (NCSU) in Raleigh. He received his Bachelor of Veterinary Science and Animal Husbandry from G.B. Pant University of Agriculture and Technology in India, and his Masters in Veterinary Public Health from the Indian Veterinary Research Institute in India. He earned his Ph.D. in Population Medicine at the College of Veterinary Medicine at NCSU, where his research focus was on studying the dynamics of multi-drug resistant *Campylobacter* isolated from swine raised in commercial and antimicrobial-free production systems. Prior to joining the faculty at NCSU, Dr. Thakur was an Oakridge Research Associated Universities Postdoctoral Fellow at the Center for Veterinary Medicine, Food and Drug Administration in Laurel, Maryland. While there, he was involved in developing a DNA Microarray for the analysis of multi-drug resistant enteric pathogens isolated from retail meat.

Dr. Thakur's research at NCSU focuses on the molecular epidemiology of multi-drug resistant bacterial *Salmonella* and *Campylobacter* in the realms of pre-harvest food safety in food animal production. His recent research emphasis has been on studying the transmission of bacterial foodborne pathogens from food animals to fresh produce farms.

Dr. Thakur has authored or co-authored 26 peer-reviewed publications and is currently editing a book on pre-harvest food safety for the American Society for Microbiology. He is the incoming chair of the IAFP Pre Harvest Food Safety Professional Development Group (PDG) and currently serves on the *Journal of Food Protection Management Committee*.

#### SANITARIAN AWARD



Robert Hennes College Park, Maryland

he 2012 IAFP Sanitarian Award goes to Captain (O-6) Robert Hennes. The Sanitarian Award honors an IAFP Member for dedication and exceptional service to the profession of sanitarian, serving the public and the food industry.

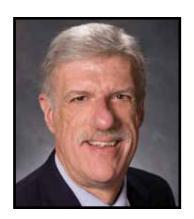
Captain Hennes has over 24 years of active duty service as an Environmental Health Officer within the U.S. Public Health Service (USPHS). During this time, he has been detailed to the U.S. Food and Drug Administration (FDA) as an Environmental Health Specialist. He has also been assigned to duty stations in Kansas City, Missouri; Bothell, Washington; and Seattle, Washington, where he was a Regional Milk Specialist within the field component of the FDA's Office of Regulatory Affairs (ORA). Captain Hennes is currently assigned to the FDA's Center for Food Safety and Applied Nutrition (CFSAN) headquarters, located in College Park, Maryland, where he is the Team Leader of the FDA's Grade "A" Milk Safety Team and oversees the Grade "A" Interstate Milk Shippers Program. He is also the National Dairy Expert, providing technical assistance, program guidance and direction.

Prior to his career at the USPHS, Captain Hennes spent 10 years at the North Dakota State Department of Health in Bismarck as an FDA-certified Milk Sanitation Rating Officer, a Retail Food Service Survey Officer and the Director of the Division of Food and Lodging.

Captain Hennes holds a B.S. in Biology and Chemistry and a master's in Public Health, with an Environmental Health emphasis, from the University of Minnesota. He is also a Registered Environmental Health Practitioner (REHP) with the National Environmental Health Association (NEHA). Captain Hennes has been an IAFP Member since 1996 and serves on the Dairy Quality and Safety PDG Committee.



#### **ELMER MARTH EDUCATOR AWARD**



Mark A. Harrison Athens, Georgia

r. Mark A. Harrison is the recipient of the 2012 IAFP Elmer Marth Educator Award, which recognizes an IAFP Member for dedicated and exceptional contributions to the profession of educator.

Dr. Harrison is a Professor and Graduate Coordinator in the Department of Food Science and Technology at the University of Georgia in Athens, where he has been since 1983. He obtained his B.S. in Biology from Tennessee Technological University in Cookeville and his M.S in Microbiology and Ph.D. in Food Science and Technology from the University of Tennessee in Knoxville. From 1996–2005, he was a Science Advisor in Microbiology at the U.S. Food and Drug Administration's (FDA) Southeast Regional Laboratory in Atlanta. Prior to joining the University of Georgia, Dr. Harrison was a Microbiologist with the U.S. Army at Dugway Proving Grounds in Utah. His teaching responsibilities include courses in Food Microbiology, Foodborne Pathogens and Toxins, Governmental Regulations of Food Safety and Quality, Advanced Food Microbiology, and Microbial Hazards in Foods. Throughout his career, he has been recognized repeatedly for his teaching activities.

Dr. Harrison's research interests include the detection, occurrence and survival of bacterial pathogens in processed food, shelf-life extension of processed food and food defense. His research projects have produced over 90 scientific publications and have typically involved the foodborne pathogens Salmonella, Listeria monocytogenes, E. coli O157:H7 and Campylobacter. Dr. Harrison has served as a Major Professor to 17 Ph.D. and 30 M.S. graduates and is currently directing two doctoral and three master's candidates.

Dr. Harrison has been an IAFP Member since 1978 and has served on several committees during this time. He currently serves on the Editorial Board for the Journal of Food Protection. He is also a member of the Institute of Food Technologists and the American Society for Microbiologists.



#### HAROLD BARNUM INDUSTRY AWARD



Gordon W. Hayburn Toronto, Ontario, Canada

s the recipient of the 2012 IAFP Harold Barnum Industry Award, Gordon W. Hayburn is being honored for his dedication and exceptional service to IAFP, the public and the food industry. Mr. Hayburn is Technical Director (Agri-Food) for SAI Global Certification in Toronto, where, among other duties, he heads the Technical Group in the delivery of Food Scheme Certification activities for all GFSI-Benchmarked Standards, including Certification Decision Authority.

Mr. Hayburn has over 25 years of experience in various aspects of the food industry, including serving as the Director of Compliance/VP Food Safety and Quality at Tata Global Beverages and as Senior Lecturer in the School of Applied Sciences at the University of Wales Institute, Cardiff (UWIC). He has also worked as an Independent Food Safety Consultant and has held senior roles in a variety of food companies. And his employment with a UK Local Authority provided him with valuable experience in the food industry, academia and enforcement.

In addition to being a graduate Food Technologist, Mr. Hayburn holds an M.Sc. in Food Safety and Control and LLM (Master of Laws) in Food Law. He has also published and presented his Ph.D. research both in the UK and internationally.

Mr. Hayburn is a 12-year IAFP Member and has attended all but one Annual Meeting since joining. He has been a member of several committees during this time and currently serves on the Journal for Food Protection Management Committee. He is a founding Member of the IAFP Affiliate, the United Kingdom Association for Food Protection, serving as their first President. Mr. Hayburn is also a Fellow of the Higher Education Agency (FHEA); a Fellow and Chartered Scientist of the Institute of Food Science and Technology (FIFST/ CSci.); a member of the Royal Environmental Health Institute of Scotland (MREHIS); and a member of both the Food and Drugs Law Institute and the European Food Law Association.

Mr. Hayburn considers it a great honor to be the recipient of the prestigious Harold Barnum Industry Award and thanks all of his colleagues and friends who have helped him throughout his career in the food industry.



## TRAVEL AWARD FOR STATE OR LOCAL HEALTH OR STATE AGRICULTURAL DEPARTMENT EMPLOYEES



Jeanne C.
Garbarino
Vineland, New Jersey

eanne Garbarino is a recipient of the 2012 IAFP Travel Award. This award honors a state or local health or state agricultural department employee working in the U.S. Ms. Garbarino is a Principal Registered Environmental Health Specialist for the City of Vineland Health Department in New Jersey. She earned her B.S. in Public Health, Environmental Tract, from Stockton State College in New Jersey with distinguished honors.

Retail food safety is Ms. Garbarino's passion. In 2003, she accepted her boss's challenge to complete the Food and Drug Administration's National Standard's Program. In 2011, the Vineland Health Department reported that they finished all nine standards, possibly the first in the country for this achievement. Ms. Garbarino strongly believes in the standardization of inspectors in the retail food safety program.

Ms. Garbarino has participated with the NJ Department of Health on many projects. She has served on their Best Practices Committee for many years where she was directly involved in creating the state's inspection check sheet and their code reference document. Along with the State, she also taught training courses for inspectors on use of the check sheet and risk-based inspections. Most recently, she was asked to serve on the Rule Revision Committee with the State Department of Health.

Ms. Garbarino was awarded the 2011 Certificate of Merit from the National Environmental Health Association in appreciation for her service to the State of New Jersey. She is very excited about attending her first IAFP Annual Meeting this year.



Timothy J.

Jenkins

Minneapolis, Minnesota

im Jenkins is a recipient of the 2012 IAFP Travel Award. This award honors a state or local health or state agricultural department employee working in the U.S. Mr. Jenkins is the Environmental Health District Supervisor for the City of Minneapolis, Regulatory Services Department in Minnesota.

Mr. Jenkins began his career in the environmental health field in 1997, working for the University of Minnesota to address food safety and water access in migrant farm worker camps in southeastern Minnesota. In 1999, he worked for the City of Bloomington (Minnesota) in the Environmental Health Program and was hired in 2000 by the City of Minneapolis as an Environmental Health Specialist.

Mr. Jenkins holds his Masters in Public Health in Community Health Education and is a Registered Sanitarian, Certified Food Manager (CFM) instructor/proctor. He is also trained in emergency preparedness. Mr. Jenkins is a member of the Homegrown Minneapolis Food Council, working with the local food and urban agriculture communities. He strives to build teams and partnerships to engage the communities in developing strategies to solve environmental health challenges. He collaborates with partners to provide resources, training and tools to the front line of public health, from farm to fork.

Mr. Jenkins is grateful to have the opportunity to participate in IAFP 2012 and hopes to work internationally in the future.

Sponsored by

IAFP
FOUNDATION

through a generous contribution by
Marler Clark, LLP, PS

#### TRAVEL AWARD FOR STATE OR LOCAL HEALTH OR STATE AGRICULTURAL DEPARTMENT EMPLOYEES



Chris W. Malota Austin, Texas

hris Malota is a recipient of the 2012 IAFP Travel Award. This award honors a state or local health or state agricultural department employee working in the U.S. Mr. Malota is the Senior Microbiologist for the Consumer Microbiology Lab of the Texas Department of State Health Services in Austin. He works in conjunction with the regulatory agencies and the state epidemiologists within Texas to coordinate sample receipt, sample results and potential responses to positive food and environmental samples identified in the lab.

Mr. Malota is a graduate of Texas State University with a B.S. in Microbiology. He has nine years of experience in working with food, shellfish, milk and water microbiology. In his numerous years within the lab, Mr. Malota has been part of several national and local foodborne outbreak investigations, some involving the recall of food products distributed across the state or nationally. He also facilitated the development of numerous protocols for food testing which his lab currently follows.

Mr. Malota was instrumental in pushing for his lab to apply and accept the Food and Drug Administration's Food Emergency Response Network (FERN) Microbiological Cooperative Agreement grant in 2009. In addition to coordinating all the testing related to this grant, Mr. Malota also served on the Standardized Worksheet Subcommittee of the Partnership for Food Protection Laboratory Task Group, which was tasked with providing uniform standards for recording raw analytical food testing data onto standardized worksheets. He has also assisted the FDA Milk Program with the annual FDA Milk Laboratory Evaluation of Dairy Products Training Program in 2005 and 2009.



Amie J. Minor Charleston, West Virginia

mie Minor is a recipient of the 2012 IAFP Travel Award. This award honors a state or local health or state agricultural department employee working in the U.S. Mrs. Minor is currently an Infectious Research Scientist working for the West Virginia Department of Agriculture (WVDA) in Charleston. She also serves as the Biosafety/Biosecurity Officer for the WVDA Guthrie Center Laboratories. She earned her B.S. in Biology from West Virginia State University in Institute.

Mrs. Minor is the principal investigator for multiple food safety grants involving method development, validation and surveillance. She has more than 13 years of experience in the food protection field involving research, surveillance and outbreak analysis. After joining FERN in 2005, she became actively involved with coordinating foodborne outbreak response in West Virginia and was an integral part of the WVDA's efforts to be one of the first laboratories to set up a direct data exchange between an in-house LIMS and the FERN's eLEXNET databank.

Mrs. Minor's current efforts include the implementation of analysis for multiple select agents in foods at the WVDA laboratories, as well as training laboratory staff in the detection of these agents. A strong advocate for food bioterrorism response, she currently serves on several course advisory groups which develop online and hands-on laboratory courses for federal, state and local food safety scientists.



## TRAVEL AWARD FOR STATE OR LOCAL HEALTH OR STATE AGRICULTURAL DEPARTMENT EMPLOYEES



Brian Sauders Albany, New York

r. Brian Sauders is a recipient of the 2012 IAFP Travel Award. This award honors a state or local health or state agricultural department employee working in the U.S. Dr. Sauders is a Senior Bacteriologist with the New York State Department of Agriculture & Markets in Albany, working in the Food Laboratory Microbiology Section, where he is responsible for the department's Centers for Disease Control and Prevention (CDC) PulseNet program activities. Dr. Sauders works closely with inspection staff in the agency, along with the New York State Department of Health and other agencies regarding outbreak investigations. He helps develop, validate and implement molecular methods for the detection of foodborne pathogens and other hazards in foods and animal feeds.

Dr. Sauders obtained his Ph.D. from Cornell University in Ithaca, NY, with an emphasis on the molecular epidemiology of foodborne pathogens and a specific focus on *Listeria monocytogenes*. He has more than 20 years of experience in food microbiology and food safety, working in many areas from farm to fork. Dr. Sauders served as an Emerging Infectious Disease (EID) Fellow in the CDC/APHL EID Fellowship Program at the New York State Department of Health. He then joined the CDC-funded NYS Emerging Infections Program, working on several projects, including the implementation of PulseNet at the Wadsworth Center and the development of screening tools for *E. coli* O157:H7 and *L. monocytogenes*.

Dr. Sauders is actively involved in the Food Safety Committee of the Association of Public Health Laboratories, the Public Health Division of the American Society for Microbiology and several workgroups of the FDA Partnership for Food Protection. Dr. Sauders has published numerous articles related to food safety and has received the CDC's PulseNet Pulse Star Award, the USDA's Secretary's Award and the New York State Department of Health Commissioner's Recognition Award.





**Frederick** Adzitey University Science of Malaysia Penang, Malaysia

rederick Adzitey is currently a Ph.D. candidate in Food Safety at University Science of Malaysia (USM) and an Assistant Lecturer at the University for Development Studies (UDS). He holds a B.Sc. in Agriculture Technology from UDS (2005) and an M.Sc. in Meat Science and Technology from the University of Bristol (UoB) (2008).

Mr. Adzitey's interest in food safety gained fresh impetus during his postgraduate studies at UoB, particularly when he read courses such as Animal Welfare; Refrigeration and Heat Processing of Foods; Meat Processing and Quality; and Meat Hygiene and Public Health. The need to promote food safety in his country propelled him to choose a topic related to food safety for his M.Sc. dissertation. He also volunteered as a Microbiology Research Technician with UoB after completing his M.Sc. purposely to gain more knowledge and experience in food safety.

Mr. Adzitey is currently working on the prevalence, antibiotic resistance and genetic diversity of Campylobacter species, Salmonella serovars, and Listeria monocytogenes isolated from ducks and their environmental samples in Penang for his doctorate degree. As a Ph.D. student, he serves as a laboratory assistant where he shares his experiences and instructs undergraduate and postgraduate students in the areas of food safety.

Mr. Adzitey always wants to be part of a scientific community where current global issues on food safety and environmental sustainability are discussed for a better future.



Sharon Bagaaya Makerere University Kampala, Uganda

haron Bagaaya received her B.Sc. in Food Science and Technology in 2010 at Makerere University, Kampala, Uganda, and is currently working as a research assistant in the university's Department of Food Technology and Nutrition.

Ms. Bagaaya's interest in food safety stems from the first project that she carried out during her undergraduate studies. Her project dealt with the use of plant source antimicrobials in the preservation of meat. The essence of the project assessed the possibility of substituting chemical preservatives with natural antimicrobials. The nitrates used in meats possess carcinogenic effects to humans whereas the natural preservative compounds offer both preservative effect and additional health benefits. The study covered five plants: garlic, cloves, cinnamon, oregano and ginger.

Ms. Bagaaya conducted her internship at Century Bottling Company, during which she gained valuable experience of Food Safety Management Systems such as HACCP and GMP. Her current work involves food product development using locally available staples while ensuring the production of high quality, safe and wholesome food products.





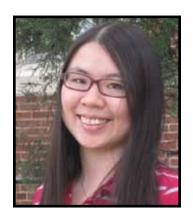
Eva Danira Borjas O. Colorado State University Fort Collins, Colorado

native of Honduras, Eva Borjas is an M.Sc. student in Food Science/Food Safety at Colorado State University (CSU) in Fort Collins. Ms. Borjas gained interest in food safety while attending Zamorano University for her B.Sc. in Agro-industry. The learning-by-doing program offered academic and hands-on experience in every stage of the production and processing chain of dairy, meat and produce.

Ms. Borjas interned at the Costa Rican National Centre of Food Science and Technology (CITA) and collaborated with the dairy auditing team. Upon completion of her B.Sc., she was employed with a private manufacturing company for several years, working in process analysis and production planning.

In 2010, Ms. Borjas enrolled in the M.Sc. program at CSU. In January 2011, she joined Dr. Kendra Nightingale's lab to take part in a study to monitor E. coli O157:H7, S. enterica, and L. monocytogenes in the environment of small meat processing plants.

Upon completion of her M.Sc. degree, Ms. Borjas will join Dr. Wei Zhang's laboratory in the National Center of Food Safety and Technology at the Illinois Institute of Technology (IIT) as a research intern. She looks forward to attending IAFP 2012 to meet professionals and scientists working in food safety around the world, to exchange experiences and explore future collaboration opportunities.



Wei Chen University of Tennessee Knoxville, Tennessee

riginally from southeast China, Wei Chen is a Ph.D. student in the Department of Food Science and Technology at the University of Tennessee (UT), Knoxville, with a concentration in Food Safety and Microbiology.

Ms. Chen completed her master's degree in 2011 at UT with the project, "Inactivation of Alicyclobacillus acidoterristris Using Non-thermal Processing Methods." She is currently working towards her Ph.D. under the supervision of Dr. David Golden and Dr. Faith Critzer. Her Ph.D. project is "Evaluating the Behavior and Adaptation Mechanism of Salmonella in Low-Water Activity Foods and Possible Inactivation Methods."

In addition to research, Ms. Chen serves as a teaching assistant and is responsible for lesson planning and class instruction for the senior level class, Food Microbiology Laboratory. She also monitors research conducted by undergraduate students. In addition, Ms. Chen is currently enrolled at the University of Tennessee Culinary Institute studying food from a culinary standpoint.

Upon completion of her Ph.D., Ms. Chen plans to pursue a career in academia, where she hopes to continue her research and teaching to increase awareness of the necessity of food safety and to contribute to the protection of our food system.

During IAFP 2012, Ms. Chen hopes to learn more about current issues and research associated with food protection from around the world and to communicate with food safety professionals.





Chawalit Kocharunchitt University of Tasmania Australia

hawalit Kocharunchitt is currently a doctorate student at the Food Safety Centre, University of Tasmania in Australia. Originally from Thailand, Mr. Kocharunchitt received his undergraduate degree in Biotechnology at the University of Tasmania. During his final year, his interest in food safety and quality grew, and he joined the Food Safety Centre to study for an Honours degree in Food Microbiology. Mr. Kocharunchitt's first project was to explore the potential of bacteriophages as biocontrol agents to control salmonellae on sprouts. He developed the techniques and provided an insight toward understanding the factors that complicate the use of bacteriophages for biocontrol.

Upon completion of his Honours degree in December 2007, Mr. Kocharunchitt continued his higher degree studies with research in food microbiology at the Centre. Currently finishing his Ph.D., his doctorate project is funded by Meat and Livestock Australia and examines the physiological changes in Escherichia coli on carcasses during air chilling. With colleagues and peers, he pioneered the technology and used bioinformatics tools to translate the extensive results into useful insights that could lead to new interventions against enteric pathogens on carcasses.

During IAFP 2012, Mr. Kocharunchitt hopes to learn the latest scientific developments in the field of food safety and quality. He is excited to share information and meet with other international professionals and students in this field.



Min Hwa Lee Chung-Ang University Ansung, Republic of Korea

in Hwa Lee is a Ph.D. student in the Department of Food and Nutrition at Chung-Ang University in Ansung, Republic of Korea. She is currently participating in collaborative research projects with the Korean Food and Drug Administration (KFDA) and the Korea Centers for Disease Control and Prevention (KCDC). Ms. Lee is also participating in a climate change and food safety research project where she found that climate change especially affects the microbial food safety and food security in the

To reduce the risk of microbial pathogens in food, Ms. Lee is working on the development of the rapid detection technique and hurdle technologies for emerging foodborne pathogens in food. As norovirus outbreaks have been increasing in Korea, her recent research focuses on the development of a cell culture system to cultivate human norovirus instead of norovirus surrogates. She is also studying the antiviral activity of Korean traditional fermented foods and herbal extracts, including Korean red ginseng.

In 2009, Ms. Lee reported on the prevalence of Arwbacter species in retail meats in Korea. Among Arcobacter-related research, she will also present "Survival of Arcobacter butzleri in Apple and Pear Purees" at IAFP 2012. She looks forward to discussing the many food safety issues with food scientists and learning new food safety technologies during this year's Annual Meeting.





Laura K. Strawn Cornell University Ithaca, New York

aura K. Strawn is a doctoral candidate at Cornell University in Ithaca, New York, studying food microbiology and epidemiology. Her research focuses on produce pre-harvest food safety, specifically on three main aims: 1) to understand the ecology of *Listeria monocytogenes*, *Salmonella* and shiga toxin-producing *E. coli* in the pre-harvest environment; 2) to identify land-scape features, meteorological events and managerial practices that may increase the likelihood of pre-harvest contamination; and 3) to develop models that predict spatial locations in the produce pre-harvest environment that have a greater risk for pathogen contamination and validate those models for their prediction power. Overall, by modeling foodborne pathogen contamination in the pre-harvest environment as an ecological process, Ms. Strawn hopes to supply farmers with science-based recommendations to minimize the risk of pre-harvest contamination.

Prior to her studies at Cornell, Ms. Strawn completed her B.S. in Food Science with a microbiology emphasis at the University of California-Davis (2007) and her M.S. at the University of Florida (2009). Her master's research focused on the microbiological safety of fresh and frozen cut tropical fruits.

Ms. Strawn has published three first author peer-reviewed papers, co-authored a book chapter and has presented over ten abstracts at various local and national meetings. One highlight from presenting her research was receiving first place for the 2009 Developing Scientist Award in the poster competition.

Along with her research, Ms. Strawn has been active in professional associations. She served as Chair of the Student Professional Development Group for IAFP in 2010–2011 and has successfully submitted and chaired three symposia for IAFP's Annual Meetings. In 2011, she received one of several IAFP President's Recognition Awards presented to the Sub-Committee Chairs of the 100-Year Planning Committee. Ms. Strawn is honored to receive one of IAFP's Student Travel Scholarships to attend IAFP 2012, where she plans to give a technical presentation on her current research and attend the many food safety presentations IAFP has to offer.



Fabrício Luiz Tulini University of São Paulo São Paulo, Brazil

orn in Ribeirão Preto, Brazil, Fabrício Luiz Tulini received his undergraduate degree in Pharmacy and Biochemistry (2008) from the School of Pharmaceutical Sciences of Ribeirão Preto, University of São Paulo (FCFRP-USP, Brazil). In 2011, Mr. Tulini pursued a master's degree in Sciences. He is currently a Ph.D. candidate at FCFRP-USP where he has been engaged in research projects in the area of Food Microbiology since 2006.

Mr. Tulini's interest in food safety and quality comes from his undergraduate courses when he took part in an internship in food microbiology at USP, working with biopreservation with an emphasis on purification and characterization of bacteriocins produced by lactic acid bacteria. For his master's degree, he worked on purification and characterization of bacteriocins produced by *Carnobacterium maltaromaticum*, isolated from Brazilian-smoked fish, which is important for the inhibition of *Listeria monocytogenes* in ready-to-eat fish. He is now developing his Ph.D. studies on isolation and characterization of lactic acid bacteria with antimicrobial and proteolytic activities on milk proteins, aiming to improve safety and shelf-life of dairy products as well as reducing lactoserum allergenicity.

Mr. Tulini believes that IAFP 2012 will represent an important event for the exchange of knowledge and experiences among students, professors and other professionals in the food safety field from all over the world.





Qionggiong Yan University College Dublin Dublin, Ireland

ionggiong Yan is a second-year Ph.D. candidate in the Centre for Food Safety (WHO Collaborating Centre for Research, Reference and Training on Cronobacter), at the University College Dublin (UCD) in Ireland.

Originally from China, Ms. Yan completed her master's degree in Food Safety at Jinan University, Guangzhou, China in July 2010, which gave her the knowledge and vision for doing further research on pathogen bacteria, such as Cronobacter, a pathogen most frequently isolated from powdered infant formula (PIF). Upon graduation, she received a scholarship from the Chinese Scholarship Council to continue her research at UCD, studying the biology of Cronobacter.

Since September 2010, Ms. Yan has worked in close collaboration with one of the global PIF producers located in Ireland. She has applied both conventional and molecular techniques in the research of *Cronobacter*. Ms. Yan is currently working on a project to develop a quick and reliable detection platform for Cronobacter in PIF and other related food. She is also sequencing the whole genomes of two Cronobacter sakazakii isolates from the PIF environment which have adapted the dry environment. These principles will be derived from detailed studies associated with transcriptomes in each case and are considered fundamental in the near future.

By attending IAFP 2012, Ms. Yan would like to share her knowledge with those who work in the same area, as well as those associated with the infant formula industry and the broader food supply chain.



# **EXHIBITORS**

### **Now Available from QMI**

# A Faster, Safer & More Accurate Way of Sampling Your Tanker Truck

The QMI ASEPTIC SAMPLING SYSTEM Is Now FDA & NCIMS Approved for Tanker Truck Sampling

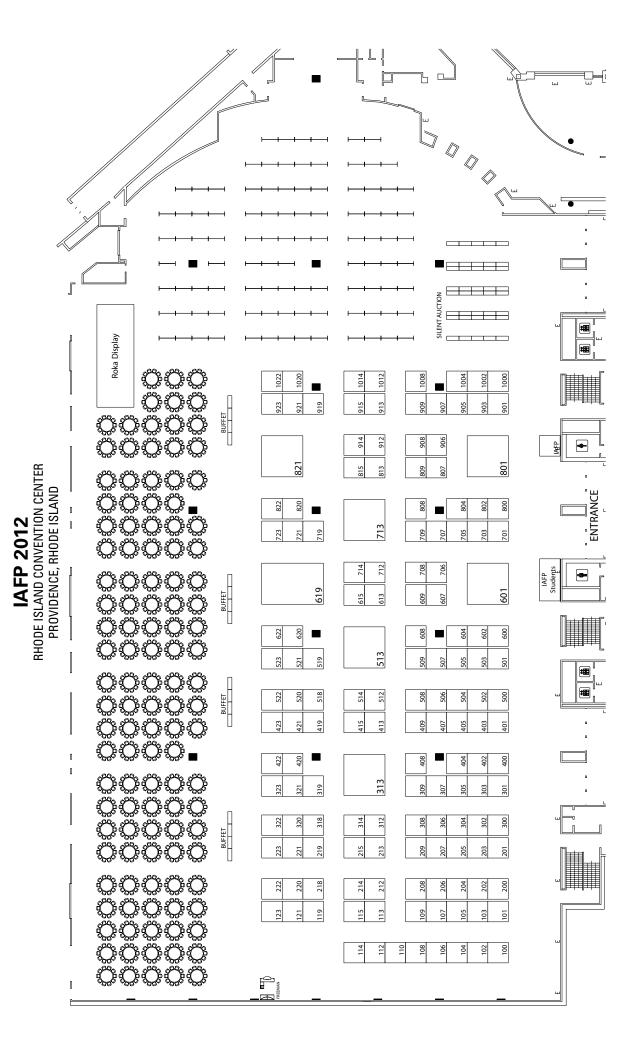


## Quality Management, Inc. (QMI)



426 Hayward Avenue North Oakdale, Minnesota 55128 651-501-2337 (phone) 651-501-5797 (fax)

E-mail: info@qmisystems.com Web Address: www.qmisystems.com



## Exhibitors

3-A Sanitary Standards, Inc.	405	Eurofins	308	Q Laboratories, Inc.	1002
3M Food Safety	713	FDA/Center for Food Safety and	404	QIAGEN	513
A2LA-American Association for	000	Applied Nutrition	121	Quality Assurance & Food Safety	419
Laboratory Accreditation	306	Fisher Scientific	519	R & F Laboratories	813
ABC Research Laboratories	1004	FoodChek Systems Inc.	114	Rentokil North America Pest Control	
Advanced Instruments, Inc.	208	Food Quality Magazine	506	Rochester Midland Corporation-Food	
AdvisorCare Research Services	215	Food Safety Magazine	613	Safety Division	423
AEGIS Food Testing Laboratories	407	Food Safety Net Services	923	Roka Bioscience	821
AEMTEK, Inc.	709	Food Safety Summit	305	Romer Labs, Inc.	800
AIB International	322	FoodQuestTQ	200	rtech laboratories	620
AiroCide/KES Science &		Growth Curves USA	919	SA Scientific	312
Technology, Inc.	401	Hanna Instruments	507	Safe Quality Food Institute	707
Alpha Biosciences, Inc.	220	Hardy Diagnostics	808	SafetyChain Software	304
American Proficiency Institute	319	Hygiena	503	SAI Global	307
Applied Maths, Inc.	1020	IEH Laboratories and Consulting	913	SDIX	907
AquaLab by Decagon	509	IFC- The Industrial Fumigant Comp		Sensitech Inc.	921
ASI Food Safety Consultants	809	IFS	514	Seward Laboratory Systems, Inc.	222
Association of Food and Drug Offic		InstantLabs	115	Silliker	608
ATCC	822	International Association for		Society for Applied Microbiology	113
BD Diagnostics	107	Food Protection	Foyer	Springer	110
Bia Diagnostics	201	International Association for		STOP Foodborne Illness	504
BioControl Systems, Inc.	815	Food Protection-Student PDG	Foyer	Synbiosis	207
BioLumix, Inc.	906	International Food Hygiene	320	TandD US, LLC.	218
bioMérieux	619	Interscience Laboratories Inc.	512	Thermo Scientific	402
Bioquell, Inc.	400	LifeSign LLC	300	TraceGains, Inc.	214
Bio-Rad Laboratories	801	Life Technologies	903	United States Pharmacopeia	219
BIOTECON Diagnostics	321	LOG5 Corporation	1000	University of Central Lancashire	213
British Retail Consortium	313	Merrick/Certek	123	US Army Natick Research Developm	ent
Bruker Daltonics	413	Michelson Laboratories, Inc.	206	and Engineering Center	221
Ceeram	209	Michigan State University Master		USDA Food Safety and Inspection	
Charm Sciences	602	of Science in Food Safety	409	Service	622
Chemstar Corporation	522	Microbac Laboratories, Inc.	203	Weber Scientific	708
Cherney Microbiological Services,	Ltd.520	Microbiologics	523	Wiley Blackwell	508
Chestnut Labs	721	Microbiology International	420	WTI Inc.	119
Chihon Biotechnology	212	Micro Imaging Technology, Inc.	204		
ClorDiSys Solutions, Inc.	500	MOCON Inc.	800		
ConAgra Mills	820	N2N Global	223		
Corning Incorporated	309	Nasco Whirl-Pak	518		
Covance Laboratories	807	National Center for Food			
CRC Press/Taylor & Francis Group	LLC714	Protection and Defense	1022		
The Dairy Practices Council	323	The National Food Lab, LLC	604		
Deibel Laboratories	609	National Registry of Food Safety			
DeltaTRAK	1008	Professionals	501		
Diversey Inc.	701	Nelson Jameson	901		
DNV Business Assurance	505	Neogen Corporation	802		
Donaldson Co. Compressed Air &		Neutec Group, Inc.	408		
Process	719	Northeast Laboratory Services, Inc			
DuPont Qualicon	601	Northland Laboratories	712		
Ecolab	600	NuAire, Inc.	205		
ELISA Systems	421	Orkin Commercial Services	908		
EMD Millipore	1012	Pall Corporation	912		
EMNS, Inc Global Supplier Quality		Partnership for Food Safety Educa			
Assurance	9 607	PathSensors	705		
EmsL Analytical, Inc.	403	Puritan Medical Products Company I			

## Exhibitor by Booth

BD Diagnostics 107 EmsL Analytical, Inc. 403 CRC Press/Taylor & Francis Springer 110 3-A Sanitary Standards, Inc. 405 Society for Applied Microbiology 113 AEGIS Food Testing Laboratories 407 FoodChek Systems Inc. 114 Partnership for Food Safety Education 407 InstantLabs 115 Neutec Group, Inc. 408 WTI Inc. 119 Michigan State University Master FDA/ Center for Food Safety 409 Romer Labs, Inc. 800	19 21 00
Society for Applied Microbiology FoodChek Systems Inc. InstantLabs WTI Inc.  AEGIS Food Testing Laboratories 407 Partnership for Food Safety Education 407 Neutec Group, Inc. Wichigan State University Master  Donaldson Co. Compressed Air & Process Chestnut Labs 72 MOCON Inc. 800	19 21 00
FoodChek Systems Inc. 114 Partnership for Food Safety Education 407 & Process 719 InstantLabs 115 Neutec Group, Inc. 408 Chestnut Labs 720 WTI Inc. 119 Michigan State University Master MOCON Inc. 800	21 00 00
InstantLabs115Neutec Group, Inc.408Chestnut Labs72WTI Inc.119Michigan State University MasterMOCON Inc.800	21 00 00
WTI Inc. 119 Michigan State University Master MOCON Inc. 800	)0 )0
· · · · · · · · · · · · · · · · · · ·	00
TDAY Content for Food Curety   Concentration Contents of Contents	
and Applied Nutrition 121 Bruker Daltonics 413 Bio-Rad Laboratories 80	
Merrick/Certek 123 Quality Assurance & Food Safety 419 Neogen Corporation 803	
FoodQuestTQ 200 Microbiology International 420 Covance Laboratories 80	
Bia Diagnostics 201 ELISA Systems 421 Hardy Diagnostics 806	
Microbac Laboratories, Inc. 203 Rochester Midland Corporation- ASI Food Safety Consultants 809	
Micro Imaging Technology, Inc. 204 Food Safety Division 423 R & F Laboratories 813	
NuAire, Inc. 205 ClorDiSys Solutions, Inc. 500 BioControl Systems, Inc. 819	
Michelson Laboratories, Inc. 206 National Registry of Food Safety ConAgra Mills 820	
Synbiosis 207 Professionals 501 Roka Bioscience 82	
Advanced Instruments, Inc. 208 Hygiena 503 ATCC 823	
Ceeram 209 STOP Foodborne Illness 504 Nelson Jameson 90	
Chihon Biotechnology 212 DNV Business Assurance 505 Life Technologies 903	
University of Central Lancashire 213 Food Quality Magazine 506 BioLumix, Inc. 900	
TraceGains, Inc. 214 Hanna Instruments 507 SDIX 90	
AdvisorCare Research Services 215 Wiley Blackwell 508 Orkin Commercial Services 908	
TandD US, LLC. 218 AquaLab by Decagon 509 Pall Corporation 912	
United States Pharmacopeia 219 Interscience Laboratories Inc. 512 IEH Laboratories and Consulting 913	
Alpha Biosciences, Inc. 220 QIAGEN 513 Growth Curves USA 919	
US Army Natick Research Development IFS 514 Sensitech Inc. 92	
and Engineering Center 221 Nasco Whirl-Pak 518 Food Safety Net Services 923	
Seward Laboratory Systems, Inc. 222 Fisher Scientific 519 LOG5 Corporation 1000	
N2N Global 223 Cherney Microbiological Q Laboratories, Inc. 1003	
LifeSign LLC 300 Services, Ltd. 520 ABC Research Laboratories 1004	
Northeast Laboratory Services, Inc. 301 Chemstar Corporation 522 DeltaTRAK 1008	
Puritan Medical Products Microbiologics 523 EMD Millipore 1013	
Company LLC 302 Ecolab 600 Applied Maths, Inc. 1020	
Association of Food and Drug DuPont Qualicon 601 National Center for Food	
Officials 303 Charm Sciences 602 Protection and Defense 1023	22
SafetyChain Software 304 The National Food Lab, LLC. 604 International Association for	
Food Safety Summit 305 EMNS, Inc Global Supplier Food Protection Foye	er
A2LA-American Association for Quality Assurance 607 International Association for	
Laboratory Accreditation 306 Silliker 608 Food Protection-Student PDG Foye	er
SAI Global 307 Deibel Laboratories 609	
Eurofins 308 Food Safety Magazine 613	
Corning Incorporated 309   IFC- The Industrial Fumigant	
SA Scientific 312 Company 615	
British Retail Consortium 313 bioMérieux 619	
Rentokil North America Pest Control 318 rtech laboratories 620	
American Proficiency Institute 319 USDA Food Safety and Inspection	
International Food Hygiene 320 Service 622	
BIOTECON Diagnostics 321 Diversey Inc. 701	
AIB International 322 PathSensors 705	
The Dairy Practices Council 323 Safe Quality Food Institute 707	
Bioquell, Inc. 400 Weber Scientific 708	
AiroCide/KES Science & AEMTEK, Inc. 709	
Technology, Inc. 401 Northland Laboratories 712	
Thermo Scientific 402 3M Food Safety 713	

### IAFP 2012 Exhibitors

405

3-A Sanitary Standards, Inc. 6888 Elm St., Suite D McLean, VA 22101-3829, USA Phone: 703.790.0295 Fax: 703.761.6284 www.3-a.org

3-A Standards and Accepted Practices have a long history of use and recognition for equipment and systems used to produce, process and package milk, milk products, perishable foods and comestible products. 3-A Sanitary Standards, Inc. was organized in 2003 to implement a new Third Party Verification inspection requirement for 3-A Symbol authorization, modernize the standards development process, expand the use and recognition of 3-A Sanitary Standards and Accepted Practices and educate audiences on hygienic equipment design.

3M Food Safety 713
3M Center
Bldg. 275-05-W-05
St. Paul, MN 55144-1000, USA
Phone: 800.328.6553 Fax: 651.737.1994
www.3m.com/foodsafety

3M is the leading global manufacturer of innovative solutions that help the food industry optimize the quality and safety of their products to enable consumer protection. At every step, 3M provides products that help mitigate risk, improve operational efficiencies and impact the bottom line. Every day, 3M solutions are helping global food industry professionals succeed in achieving the highest food safety standards possible. We develop, manufacture and market products that cover a broad spectrum of sample preparation, identification, testing and monitoring needs. Our dedicated team of professionals offers unmatched technical service and support around the world. Visit us at: www.3M.com/foodsafety.

A2LA-American Association for Laboratory Accreditation 306 5301 Buckeystown Pike, Suite 350 Frederick, MD 21704, USA Phone: 301.644.3248 Fax: 240.454.9449 www.a2la.org

Established in 1978 as a non-profit, public service, membership society, A2LA is dedicated to the formal recognition of competent laboratories. As the United States' foremost independent laboratory accreditation organization, we offer accreditation programs to every type of testing and calibration laboratory — including manufacturer and supplier inhouse facilities and government and university research laboratories — in nearly every field, as well as to inspection bodies, proficiency testing providers, producers of laboratory reference materials and product certification bodies.

ABC Research Laboratories 3437 SW 24th Ave. Gainesville, FL 32607, USA Phone: 352.372.0436 Fax: 352.378.6483 www.abcr.com

ABC Research Laboratories, an ISO 17025 accredited food testing facility, provides consultations and analytical results across the entire

spectrum of the food industry. Building on a record of excellence since 1967, ABC Research Laboratories features one of the largest full-service testing laboratories in the United States. Dedication to personalized service, coupled with superior scientific practices, is the foundation of ABC Research Laboratories' success. Food testing experts ensuring food safety, quality and nutritional value.

208

215

314

Advanced Instruments, Inc. Two Technology Way Norwood, MA 02062, USA Phone: 781.320.9000 Fax: 781.320.8181 www.aicompanies.com

Advanced Instruments, Inc. products can help your company improve productivity and product quality with automated test systems. The advanced technology of our diagnostic instruments combined with our knowledge of laboratory requirements makes us a valuable partner for companies designing HACCP plans or upgrading quality control or process monitoring programs. Advanced Instruments is recognized worldwide for precision instrumentation and the knowledge of our support organization. Featured products: Autoplate® Spiral Plating System — automated spiral plater with easy-to-use touchscreen interface, and The Fluorophos® ALP Test System — the most sensitive pasteurization confirmation instrument on the market today.

AdvisorCare Research Services
P.O. Box 2020
Banner Elk, NC 28604, USA
Phone: 828.833.6800 Fax: 877.919.0298
www.advisorcare.com

Like to share your food, raw materials and environmental safety knowledge? Do you like gifts? If you answered yes to one or both of these questions, please proceed to the AdvisorCare Research Services booth. We're conducting an online survey regarding food and environmental safety, and for 10 minutes of your time, you receive a fun mystery gift. Come by! Share your knowledge! Receive a Reward!

AEGIS Food Testing Laboratories 224 N Derby Lane North Sioux City, SD 57049, USA Phone: 605.232.0157 Fax: 605.232.7085 www.aegisfoodlabs.com

AEGIS Food Testing Laboratories operates two state of the science analytical food testing laboratories. We are the industry leader in delivering the highest quality science and service to our customers. Our services include:

- Microbiological Examinations
- Research and Applications
- AOAC Studies

1004

- Microbial and Chemical Shelf-life Studies
- Microbial Intervention Validation Studies
- Microbial Test Validation/Verification Studies
- Microbial Challenge Studies
- Sanitation Program Efficacy Validation/Verification
   We look forward to showing you how the AEGIS Team can help you

Blue Text - IAFP Sustaining Member

stay ahead in today's complex business environment with our approach of Balancing Science with Business.

AEMTEK, Inc.
46309 Warm Springs Blvd.
Fremont, CA 94539, USA
Phone: 510.797.1979 Fax: 510.668.1980
www.aemtek.com

AEMTEK is an accredited laboratory that specializes in food, water, environmental and pharmaceutical microbiology and chemistry. Our lab offers a variety of analytical testing for food and beverages, and bacterial detection and fungal identification are core competencies. We help clients obtain accurate, fast and reliable results, and our quality system is accredited to ISO 17025 standards. The staff includes Ph.D. microbiologists and mycologists with many years of experience. AEMTEK is your complete food safety solution, as we also offer affordable training courses, an online store for sampling supplies, and expert consulting services to help you solve complex product safety challenges.

AIB International
P.O. Box 3999
1213 Bakers Way
Manhattan, KS 66505-3999, USA
Phone: 785.537.4750 Fax: 785.537.1493
www.aibonline.org

AIB International provides Food Safety Audit and Education Services worldwide to broad segments of the food manufacturing industry, including food, ingredients, fresh produce and beverage manufacturing, packaging production and distribution facilities. Audit Services include AIB's GMP inspection and conducts audits for GFSI, HACCP, OSHA, AIB Gold Standard, Customer Audits and Quality System Audits. Food Safety Education is offered through public seminars, consulting, training audits and distance learning. Additional related safety services include the Food Defense Resource Center. Visit our web site at www. aibonline.org for more information.

AiroCide/KES Science & Technology, Inc. 401
3625 Kennesaw North Ind. Pkwy.
Kennesaw, GA 30144, USA
Phone: 770.427.6500 Fax: 770.425.0837
www.kesair.com

NASA-developed AiroCide destroys airborne mold/fungi, bacteria, viruses, allergens and VOCs.

Alpha Biosciences, Inc. 3651 Clipper Mill Road Baltimore, MD 21211-1935, USA Phone: 410.467.9983 Fax: 410.467.5088 www.alphabiosciences.com

American Proficiency Institute 1159 Business Park Drive Traverse City, MI 49686, USA Phone: 800.333.0958 Fax: 231.941.7287 www.foodpt.com

American Proficiency Institute (API) offers independent, third-party proficiency testing programs for food microbiology and food chemistry laboratories. Laboratories can monitor their test performance and compare their results to others performing the same test. The use of

lyophilized organism matrix provides superior sample stability. API offers features that allow the laboratory to submit and review reports online. Free Educational Samples and Management Reports are also available. API is accredited by A2LA to provide proficiency testing according to the requirements of ISO/IEC 17043:2010.

1020

Applied Maths, Inc. 13809 Research Blvd., Suite 645 Austin, TX 78750, USA Phone: 512.482.9700 Fax: 512.482.9708 www.applied-maths.com

709

322

Applied Maths develops innovative software and data management solutions for the biosciences, with BioNumerics and GelCompar II. BioNumerics combines a powerful, multi-user database environment specifically designed for biological data with the most advanced tools for the analysis of patterns and fingerprints, character arrays, sequences, and trend curves. Areas of specialization are algorithm development for pattern matching, clustering, identification and classification, and integration of virtually all types of biological data. Applied Maths is a leader in bioinformatics running thousands of licenses in over 90 countries.

AquaLab by Decagon 509
2365 NE Hopkins Court
Pullman, WA 99163, USA
Phone: 509.332.2756 Fax: 509.332.5158
www.aqualab.com

Decagon's AquaLab Water Activity Meters aid in food safety, microbial growth prediction, and shelf life. The Series 4 is a research-grade water activity meter using a chilled-mirror dew point sensor. This technology measures water activity with  $a_w + /-0.003$  accuracy in less than 5 minutes. The Series 4 DUO allows you to measure water activity and moisture content simultaneously. Stop by to see Decagon Devices' instruments for your food safety needs.

Association of Food and Drug Officials
2550 Kingston Road, Suite 311
York, PA 17402, USA
Phone: 717.757.2888 Fax: 717.650.3650
www.afdo.org

The Association of Food and Drug Officials (AFDO), established in 1896, successfully fosters uniformity in the adoption and enforcement of food, drug, medical devices, cosmetics and product safety laws, rules, and regulations. AFDO is a non-profit professional organization consisting of state, federal and local regulatory officials as members, with industry representatives participating as associate members. AFDO membership provides many benefits including accessibility to up-to-date information on emerging food safety and consumer protections issues and access to a wealth of training resources for enriching professional development.

319 ASI Food Safety Consultants
7625 Page Ave.
St. Louis, MO 63133, USA
Phone: 314.880.8880 Fax: 314.727.2563
www.asifood.com

ASI Food Safety Consultants customized solutions include: Third party food safety GMP audits, GFSI Benchmarked Standard Auditing, HACCP set-ups, Training and Verification, GMP Consulting, and Supplier Audits. We can even manage your facility's supplier programs.

906

ASI has been providing audits since 1948. As the leader in Food Safety, we are dedicated to providing the highest level of technical knowledge. As a full-service provider, ASI provides HACCP plan development and verification, training, seminars, and international audits. Please take a look around our web site at asifood.com and feel free to call for immediate/personal assistance at 800.477.0778!

**ATCC** 822 10801 University Blvd. Manassas, VA 20110-2209, USA Phone: 703.365.2700 Fax: 703.365.2750 www.atcc.org

Since 1925, ATCC has been the trusted source for over 70,000 topquality microbial strains that deliver reliable, consistent results in laboratories worldwide. Among the thousands of bacteria and fungi in our collection are several classes of organisms important to food protection: Quality Control and Reference strains; hundreds of foodborne pathogens; antimicrobial-resistant strains; genomic DNA from bacteria, fungi, and protozoa; and ready-to-use freeze medium for cryopreservation of nonfastidious bacteria. We now offer custom services including nucleic acid production, inactivated pathogens, and custom bacterial preparations. A comprehensive catalog is searchable at www.atcc.org.

**BD** Diagnostics **107** 7 Loveton Circle MC364 Sparks, MD 21152-9212, USA Phone: 410.316.4024 Fax: 410.316.4794 www.bd.com/ds

**Bia Diagnostics** 294 N Winooski Ave., Suite 116A Burlington, VT 05401, USA Phone: 802.540.0148 Fax: 802.540.0147 www.biadiagnostics.com

Bia Diagnostics leads the field in food allergen safety bringing our lab to you through same day routine analysis, the development of testing technologies (including our new Rapid LFD Kits) and HACCP validation. Our mission is to provide our customers with the most reliable and highest standards in food allergen analysis. We continue to develop innovative tools so that food manufacturers can produce the safest products for the most allergen sensitive consumer. Customer service is the keystone of our corporate mission. To that end, we develop personal relationships with all customers, big and small.

BioControl Systems, Inc. 815 12822 SE 32nd St. Bellevue, WA 98005, USA Phone: 800.245.0113 Fax: 425.603.0070 www.biocontrolsys.com

Control your world with BioControl's food safety solutions. As a recognized worldwide leader in rapid microbiology test kits for the food industry, we offer the most extensive line of proprietary, rapid tests for pathogen detection, quality control and hygiene monitoring. Products featured at IAFP 2012: Assurance GDS for Top STEC-a genetic solution for the detection of the Top 7 non-O157 STEC that is unparalleled in the industry. The Assurance GDS (Genetic Detection System) combines the latest advancements in molecular technology and food microbiology to provide faster results with the increased accuracy required to meet today's food and environmental testing challenges.

BioLumix, Inc. 107 Aprill Drive Ann Arbor, MI 48103, USA Phone: 734.984.3100 Fax: 734.222.1830 www.mybiolumix.com

The versatile, automated BioLumix System offers paperless, simplified, rapid microbiology. The system offers scalability and versatility to meet any lab's microbiological requirements; with a comprehensive range of microbiological tests for raw materials, in process and finished products as well as environmental testing. Expedite product release: Most assay results are completed either the same day or overnight with Yeast & Mold results in only 48 hours.

Receive early warning of microbial problems: With real-time communication the operator is alerted as soon as detections occur. The BioLumix System is the most versatile alternative method for the detection of yeast and molds, Total aerobic count, coliform, E. coli, S. aureus, B. cereus, and many more. By providing faster results, labor savings, automation, and information connectivity the BioLumix will streamline your testing, increasing your laboratory efficiencies while reducing costs.

bioMérieux 619 595 Anglum Road Hazelwood, MO 63042, USA Phone: 314.731.8658 Fax: 314.731.8678 www.biomerieux-usa.com

The bioMérieux-AES/Chemunex Industry team offers a full-range of microbiology solutions for companies worldwide. Come visit us at booth 619 and learn about the latest products in the areas of (a) media/sample preparation using Masterclave<sup>®</sup>, Dilumat<sup>™</sup>, and Smasher<sup>™</sup>, (b)pathogen screening on VIDAS®, (c) prepared culture media, (d) quality indicator screening on TEMPO®, (e) in-process control and release testing using BactiFlow<sup>®</sup>,D\Count<sup>®</sup>, and BacTALERT<sup>®</sup>, and (f) pathogen confirmation using VITEK® and chromogenic media. Be sure to inquire about our services in the area of laboratory workflow optimization. bioMérieux-AES/Chemunex can meet all your microbial analysis needs, from sample collection to final results.

400 Bioquell, Inc. 101 Witman Road, Suite 400 Horsham, PA 19044, USA Phone: 215.682.0225 Fax: 215.682.0395 www.bioquellus.com

Bioquell offers a unique range of Hydrogen Peroxide Vapor room and equipment bio-decontamination systems and services used to deactivate various microorganisms such as bacteria and viruses and take plant cleaning to the highest possible level.

The process leaves behind no residue or byproducts and can be fully, validated using the same challenge organism used to verify steam sterilization. Materials, compatibility and safety are well-documented across many industry sectors. In emergency situations the technology can be scaled up to be applied as an effective remedial action following a widespread contamination problem or recall.

**Bio-Rad Laboratories** 2000 Alfred Nobel Drive Hercules, CA 94547, USA Phone: 510.741.1000 Fax: 510.741.5630 www.foodscience.bio-rad.com

Bio-Rad manufactures products for food safety testing. Our iQ-Check line of validated real-time PCR test kits for detection of pathogens utilize shortened enrichment times, with all kits less than 24hr, including Listeria spp. and Listeria monocytogenes. Our newest kit is STEC Solution, which meets all USDA testing requirements. The iQ-Check range also includes kits for Salmonella, Campylobacter, Cronobacter and E. coli O157:H7. We offer two open instrument platforms for high and low volume users. With our patented real-time technology working on the inside, the result is superior sensitivity and specificity with less false positive or negative results than other methods.

**BIOTECON Diagnostics** Hermannswerder 17 Potsdam, 14473, Germany Phone: 49.331.2300.282 Fax: 49.331.2300.299 www.bc-diagnostics.com

BIOTECON Diagnostics has superior experience in microbiological testing of food, beverage, cosmetic and pharmaceutical products. We focus on the development, production and marketing of rapid, innovative and validated real-time PCR detection kits for pathogenic, spoilage and genetically modified organisms (GMOs). Our wide-range of kits operate on most any open platform real-time PCR instrument (e.g., able to set time and temperature) providing increased flexibility to our customers.

Due to strong industry partnerships, BIOTECON Diagnostics responds quickly and efficiently to industry needs and concerns while providing economically interesting solutions, such as custom kit development and new technology, including automated robotic sample preparation. As a conscientious company, we are involved and leaders in international PCR method standardization in foods.

**British Retail Consortium** 21 Dartmouth St. London, SWIH 9BP, United Kingdom Phone: 44.0.20.7854.8901 Fax: 44.0.20.7854.8901 www.brcglobalstands.com

The BRC Global Standards are a suite of four industry-leading Technical Standards that specify requirements to be met by an organisation to enable the production, packaging, storage and distribution of safe food and consumer products. Certification to a BRC Global Standard, which is achieved through audit by a third party Certification Bodies, reassures retailers and branded manufacturers of the capability and competence of the supplier, and reduces the need for retailers and manufacturers to carry out their own audits, thereby reducing the administrative burden on both the supplier and the customer. For further information please visit: www.brcglobalstandards.com

**Bruker Daltonics** 40 Manning Road Billerica, MA 01821, USA Phone: 978.663.3660 Fax: 978.667.5993 www.bdal.com

Bruker's MALDI Biotyper identifies microorganisms using MALDI-TOF Mass Spectrometry to measure the unique, characteristic molecular fingerprint of the proteins that are found in all microorganisms. The resulting patterns of these proteins are used to reliably and accurately identify a broad range of microorganism down to the species level. Very accurate, highly reproducible, extremely cost effective, fast and easy-to-use, the MALDI Biotyper is designed especially to meet the demands of the microbiology laboratory. This new technology has changed and modernized the way microbial identification is done in clinical laboratories around the world.

209

**602** 

522

Ceeram 1 Allee de la Filee La Chapelle sur Erdre, 44240, France Phone: 33.2.40.84.25.39 Fax: 33.2.40.89.45.62 www.ceeram.com

801

321

313

Ceeram, French-based biotechnology company, develops, manufactures and markets molecular diagnostics RT-PCR real-time test kits for the detection and identification of food and waterborne microbial agents, such as viruses and parasites, as well as typing MLVA assays. Specifically designed for all matrices (food, environmental, health) and most thermocyclers, Ceeramtools test kits are specific, robust and sensitive and target enteric viruses (Norovirus, Hepatitis A,...), parasites (Giardia, Crypto,...) and bacteria (Vibrio,...). Ceeram provides expertise, R&D, training and support in the areas of food safety, food processes, food supply, food production, cleaning and decontamination.

**Charm Sciences** 659 Andover St. Lawrence, MA 01843-1032, USA Phone: 978.687.9200 Fax: 978.687.9216 www.charm.com

Charm Sciences is a science-based company that has been dedicated for 33 years to improving food safety worldwide. Charm's ROSA® (Rapid One Step Assay) tests are the leading diagnostic lateral flow tests delivering fast, accurate detection of antibiotics and mycotoxins in convenient, single use strips. Charm has developed advanced chemistry and sensitivity for the PocketSwab®Plus and related novaLUM® tests for sanitation, allergen control and pasteurization verification. The novaLUM's Swab Site Location Re-check option, random sampling, and a variety of other customizable features comply with HACCP and GFSI documentation. Rounding out the Charm menu are rapid pathogen and coliphage indicator tests.

**Chemstar Corporation** 20900 NE 30th Ave., Suite 508 Aventura, FL 33180, USA Phone: 800.327.0777 Fax: 770.732.8745 www.chemstarcorp.com

Chemstar Corporation is an industry-leading provider of innovative food safety and sanitation products and world-class services to retail grocery stores, convenience stores, quick service restaurants, and food plants across North America. We compete principally by providing superior customer support and differentiated products that help our customers protect their brand, associates, and customers. This is made possible by our on-going investments in research, training, technology, and dedication to cost-saving processes that mitigate food safety and sanitation risks.

**Blue Text - IAFP Sustaining Member** 

Cherney Microbiological Services, Ltd. 1110 S Huron Road Green Bay, WI 54311-8024, USA Phone: 920.406.8300 Fax: 920.406.0070

www.cherneymicro.com

Cherney Microbiological Services, Ltd. is a woman-owned contract laboratory specializing in microbiological testing, consulting and technical support for companies across multiple industries. We utilize our knowledge to culture solutions by mitigating risk for our customer and consumers of their products. ISO/IEC 17025:2005 accredited by A2LA, Cherney is the only science-based, woman-owned business in Wisconsin to achieve this respected benchmark. Cherney also holds WBENC (Women Business Enterprise) certification and recently completed a 15,000 sq. ft., multi-million dollar expansion to its Green Bay facility. A dedication to precision, accuracy and customer service is our benchmark.

**Chestnut Labs** 3233 E Chestnut Expressway Springfield, MO 65802, USA Phone: 417.829.3724 Fax: 417.829.3787 www.chestnutlabs.com

Chestnut Labs is a full-service contract testing facility offering a variety of analytical and proximate Chemistry, Microbiology, including bacterial identifications, Research Services including shelf life and challenge studies, Auditing (Food Safety, GMP, Pathogen Environmental Monitoring and Laboratory) Food Safety Consulting, Training, and Educational Services. Chestnut Labs is an ISO 17025 and USDA-EU accredited lab offering flexible solutions for companies. Our experienced staff is focused on superior customer service and a continuous commitment to quality. We are ready to meet your testing needs, 365 days a year, in our state-of-the-art facility.

Chihon Biotechnology 2220 Glouceston Lane Naperville, IL 60564, USA Phone: 630.670.5701 www.chihonbio.com

Established in 2003, Chihon Biotechnology is a leading manufacturer of natamycin and nisin in the world. Natapro is a natural highly effective antimycotic for the inhibition of yeasts, molds and fungi at low-cost. It contains 50% natamycin as the active ingredient and can be custom-blended and packed. USP grade of natamycin is also available. NisinPro is a natural, antibacterial food preservative. Nisin is effective against a wide range of Gram-positive bacteria and is particularly effective against spores.

ClorDiSys Solutions, Inc. P.O. Box 549 Lebanon, NJ 08833, USA Phone: 908.236.4100 www.clordisys.com

ClorDiSys Solutions, Inc. offers microbial decontamination services for rooms, tanks, chambers, and entire facilities. Our quick and effective fumigation service is EPA registered as a sterilant, capable of eliminating all bacteria, fungi, viruses, molds, and their spores. Entire facilities can be safely and completely decontaminated in as little as one day. Portable and fixed equipment is also available for sale for routine decontaminaConAgra Mills Eleven ConAgra Drive Omaha, NE 68102, USA Phone: 800.851.9618 www.conagramills.com

520

721

212

500

ConAgra Mills®, America's milling innovator, offers the most comprehensive selection of premium multi-use flours and whole grains - including Ultragrain® whole wheat flour, ultra-high fiber Sustagrain® and ConAgra Mills Ancient Grains, which are helping to meet consumer demand for healthier and better-tasting whole grain products. Our SafeGuard™ Treatment and Delivery System focuses on superior food safety and full gluten functionality for a variety of applications from frozen dough products such as cookie and pizza doughs to brownie, cake and soup mixes. From bag to bulk, ConAgra Mills' SafeGuard™ Ready-to-Eat Flours are ideal when flour in applications is not fully cooked.

**Corning Incorporated** 836 North St. Building 300, Suite 3401 Tewksbury, MA 01876, USA Phone: 978.442.2200 Fax: 978.442.2476 www.corning.com/lifesciences

GOSSELIN is Corning's brand of high quality disposable labware specifically for microbiology environments. Optimized for the food and beverage industry, the GOSSELIN line offers a complete portfolio of products to address all your quality control steps from sampling through to disposal. The products are designed and manufactured to high quality specifications compliant with international food and beverage industry standards.

**Covance Laboratories** 3301 Kinsman Blvd. Madison, WI 53704, USA Phone: 888.COVANCE www.covance.com

Covance has expanded our laboratory services to include microbiology consulting, training and crisis response. In addition to our highthroughput microbiology testing services, we now offer you GFSI pre-audit consultations, third-party audits, expert witness services, 24/7 harborage point investigations, regulatory notice response assistance and HACCP training. Covance is committed to helping you deliver safe products. Contact us today to see how we can help you keep your brand protected and your products safe: 855.83MICRO or visit www. nutri.covance.com.

CRC Press/Taylor & Francis Group LLC 6000 Broken Sound Pkwy. NW, Suite 300 Boca Raton, FL 33487, USA Phone: 561.994.0555 Fax: 561.361.6018 www.crcpress.com

CRC Press is a premier publisher of scientific and technical work, publishing information in a variety of accessible formats. Our authors and editors span the world researching and writing essential reference material including the latest advances. With a bestselling backlist of key food quality and safety books and new ones publishing every year, CRC Press is your one-stop shop for the latest scientific research in this field. Visit our booth and get limited-time convention discounts of 20% on all titles.

807

714

309

The Dairy Practices Council 19 Titus Court Richboro, PA 18954, USA

Phone: 215.355.5133 Fax: 215.355.5133

www.dairypc.org

Guidelines for the Dairy Industry!

The Dairy Practices Council is a nonprofit organization of education, industry, and regulatory personnel concerned with milk quality, sanitation, and regulatory uniformity. Visit our web site (www.dairypc.org) for more information.

**Deibel Laboratories** 7120 N Ridgeway Lincolnwood, IL 60712, USA Phone: 941.925.1579 Fax: 941.483.1984 www.deibellabs.com

Deibel Labs is one of the oldest and largest food testing labs with 11 locations (9 in the USA, 1 in Canada and 1 in Europe). We are growing and have plans for 1 additional lab in the USA and that will bring the total to 12 worldwide. Deibel is a full service lab and performs Micro, Chemistry and Pharma testing plus supplies consulting services such as Auditing, Validating, Training and Special Projects. The Deibel philosophy is to provide exceptional service while controlling prices to create value for the client.

DeltaTRAK, Inc. 1008 P.O. Box 398 Pleasanton, CA 94566, USA Phone: 925.249.2250 Fax: 925.249.2251 www.deltatrak.com

DeltaTRAK, Inc. is a leading innovator of Cold Chain Management and Food Safety, and Shelf-Life Solutions. Our product line includes a wide range of temperature, humidity, and pH monitoring and recording devices, data loggers, wireless systems, professional thermometers, and ethylene absorption products. Our food safety solutions include realtime bacterial enzyme detection technology for field testing of liquids, produce, food, equipment and other surfaces in food processing and handling environments. DeltaTRAK develops and manufactures high quality, portable test instruments and products designed with a focus on quality assurance and traceability. More information can be found at www.deltatrak.com.

Diversey Inc. **Sealed Air Corporation** 200 Riverfront Blvd. Elmwood Park, NJ 07407, USA Phone: 207.791.7600 www.sealedair.com

Sealer Air is the new global leader in food safety and security, facility hygiene and product protection. With widely recognized and inventive brands such as Bubble Wrap® brand cushioning, Cryovac® Brand food packaging solutions and Diversey® brand cleaning and hygiene solutions, Sealed Air offers efficient and sustainable solutions that create business value and enhance the quality of life for customers and provide a cleaner and healthier environment for future generations.

**DNV Business Assurance** 10760 W 143rd St., Suite 65 Orland Park, IL 60462, USA

Phone: 708.590.6289 Fax: 708.590.6303

www.dnvcert.com

323

609

DNV Business Assurance is one of the few certification bodies that can certify along the entire food production chain, from the primary sector to processing and packaging, from distribution to retail. We are a certification body and training resource for several of the GFSI benchmarked schemes, including SQF, BRC, IFS, FSSC 22000 and GlobalG.A.P. Our services include ISO 9001:2008 Quality MS, ISO 14001, ISO 18001, ISO 22000, ISO 22006, HACCP and customized training.

505

719

Donaldson Co. P.O. Box 1299 Minneapolis, MN 55440-1299, USA Phone: 800.543.3634 Fax: 952.885.4791 www.donaldson.com

Donaldson is a leading worldwide provider of compressed air purification equipment and process filtration. We provide filtration for sterile air, liquids and steam used in food & beverage processing and packaging. We are committed to advancing filtration technology, providing quality products and prompt customer service. Think Purity. Think Donaldson.

**DuPont Qualicon** 601 ESL 400, P.O. Box 80400 Rt. 141 and Henry Clay Road Wilmington, DE 19880, USA Phone: 302.695.5244 Fax: 302.695.5281 www.qualicon.com

The DuPont Qualicon diagnostics business knows that fast, accurate results are critical for delivering safer food products to consumers and more profitable growth for food companies. That's why our food safety science is focused on continually developing state-of-the-art systems to provide the next breakthrough in technological advances and new assays that make food testing faster, more accurate and more convenient. Please visit us at booth #601 to learn how our testing innovations, along with natural food protection solutions from the DuPont<sup>™</sup> Danisco® ingredient range, can help to reduce risk, react to issues quickly and ultimately deliver the safest food possible.

**Ecolab** 600 370 Wabasha St. N St. Paul, MN 55102, USA Phone: 651.293.2549 Fax: 651.293.2260 www.ecolab.com

Ecolab is the global leader in the development, manufacture and sales and service of products that clean, sanitize and promote food safety and infection prevention. Ecolab delivers comprehensive cleaning and sanitizing programs and services to meet the needs of customers in the foodservice, food and beverage processing, hospitality, healthcare, government and education, retail, textile care commercial facilities management and vehicle wash sectors. Ecolab is committed to supporting customers worldwide, with over 21,500 direct sales and service associates consistently delivering professional, personalized service, total impact solutions and unsurpassed industry expertise.

**ELISA Systems** Unit 10 121 Newmarket Road Windsor, Queensland 4030, Australia Phone: +61.7.3625.9000 Fax: +61.7.3625.9099 www.elisasystems.net

ELISA Systems produces one of the most extensive ranges of Food Allergen detection kits available today. We are at the forefront of assay development in keeping with current trends for Food Allergen analysis. This is our Specialized Field. We have a large range of NEW Rapid Food Allergen test formats available. Come visit us at Booth # 421 to see these Exciting products.

421

1012

**EMD Millipore** 290 Concord Road Billerica, MA 01821, USA Phone: 978.715.1483 Fax: 978.715.1393 www.emdmillipore.com

EMD Millipore BioMonitoring - Safety beyond the visible Since Merck and Millipore joined forces in 2010 and acquired heipha and Hycon in 2011, Merck Millipore BioMonitoring has become a top player in the field of industrial microbiology and process monitoring. This business field provides state-of-the-art testing methods, regulatory expertise and outstanding service to provide that one invaluable result: maintaining the safety of your products. Focus markets include Pharmaceutical, BioPharma, Food and Beverage, Environmental and Cosmetics.

EMNS, Inc.- Global Supplier Quality Assurance (GSQA) 607 2815 Centre Circle Drive Downers Grove, IL 60515, USA Phone: 630.620.2740 Fax: 630.572.6357 www.gsqa.com

GSQA® provides food manufacturers quality and compliance control previously unobtainable through conventional methods. GSQA's highly automated SaaS solution simplifies your quality assurance and compliance activities with customers, suppliers, co-manufacturers, and internal production facilities. GSQA® produces the unique e-COA® with ASN by electronically collecting COA test results 12 different ways from suppliers, and immediately validating the COA against your specs. GSQA® provides automatic SPC analysis, supplier regulatory document compliance, web-based nonconformance management and forward/backward/where-used traceability. Real-time analysis and alerts help reduce plant disruptions, improve yields, and reduce manufacturing variability. Deployed for finished products, GSQA® provides full product genealogy with a click.

EMSL Analytical, Inc. 403 200 Route 130 North Cinnaminson, NJ 08077, USA Phone: 800.220.3675 www.emsl.com

As the nation's 4th largest environmental, food, and consumer products testing firm, EMSL Analytical's network of over 31 laboratories and three service centers have been providing quality analytical services since 1981. Our laboratory capabilities include: microbiology analysis, nutritional analysis, various food chemistry analysis, allergens, toxins, and adulteration analysis. Additionally, EMSL offers a full array of analytical options for environmental pollutants, asbestos, lead paint,

metals, and chemicals. We also provide laboratory services related to Pharmaceutical and Cosmetics testing, indoor air quality, industrial hygiene, materials testing and characterization, forensic analysis, mechanical testing and environmental chamber studies for a wide range of commercial, industrial, regulatory, and governmental clients. EMSL's Food Testing Division laboratories are located in over 13 of our labs conveniently located across North America. Our Food Chemistry and Nutritional Analysis testing is done at our National Headquarters in Cinnaminson, NJ.

**Eurofins Scientific** 2200 Rittenhouse St. Des Moines, IA 50321, USA Phone: 515.280.8378 Fax: 515.280.7068 www.eurofinsus.com

Eurofins Scientific is an international group of laboratories operating in 32 countries and providing a comprehensive range of analytical testing services drawing on the latest developments in biotechnology. The Group specializes in delivering analytical testing and advisory services to clients from a wide range of industries including the pharmaceutical, food and environmental sectors. With a portfolio of over 100,000 reliable analytical methods and performing more than 80 million assays per year to establish the safety, composition, authenticity, origin, traceability, identity and purity of biological substances, the Eurofins Group is now the leading global provider of bioanalytical services.

FDA/Center for Food Safety and Applied Nutrition 121 5100 Paint Brush Pkwy. College Park, MD 20740, USA Phone: 888.723.3366 Fax: 301.436.2605 www.fda.gov

519 Fisher Scientific **300 Industry Drive** Pittsburgh, PA 15275, USA Phone: 724.517.1500 www.fishersci.com

There is always something new at Fisher Scientific. As the leading provider of products and services to worldwide scientific community, we recognize that results count - especially for food testing and safety. From the lab to the production floor, you can count on Fisher Scientific for the latest instrumentation, consumables, chemicals and equipment to assure accurate, reliable results every time. Stop by our booth to see how we can help!

FoodChek Systems Inc. 450, 1414 8 St. SW Calgary, AB T2R 1J6, Canada Phone: 403.263.9424 Fax: 403.263.6357 www.foodcheksystems.com

FoodChek Systems Inc. (Calgary, Canada) specializes in the fastest, most accurate, cost effective and easiest-to-use food pathogen testing system available. The FoodChek™ System provides the fastest timeto-results on the market today in both the sample enrichment growth phase, with its Actero™ Enrichment Media, and in the testing phase, with its MICT Reader and Assay Cassettes. Utilizing the FoodChek™ System will help to eliminates expensive "test/hold" practices and allows for a same-day product release and shipment, thus providing its clients with a cost benefit and competitive food safety marketing edge.

114

Food Quality Magazine 111 River St. Hoboken, NJ 07030-5774, USA Phone: 515.292.0140 Fax: 515.292.3348 www.foodquality.com

Food Quality is the science-based journal of quality assurance, safety and security from farm to fork in the food and beverage industry. It examines current products, technologies and philosophies; tracks the deployment of tools that processors and the food service industry use to ensure safe and consistent products; reviews regulatory and sanitation issues, including current good manufacturing practices (cGMPs), contamination control and training; and provides industry news and commentaries.

Food Quality is published bimonthly and is complimentary to industry decision makers. To subscribe as well as link to industry content and back issues of the magazine, go to www.foodquality.com.

FoodQuestTQ 7420 Hayward Rd., Suite 104 Frederick, MD 21702, USA Phone: 540.645.1050 Fax: 540.301.0713 www.foodquesttq.com

FoodQuestTQ: Where the TQ stands for "Threat Quotient," is a software company deeply committed to keeping the global food supply safe and abundant. Our company operates within a unique business model in which quantitative risk management tools are used to unite diverse stakeholder interests within a one-of-a-kind collaborative public-private partnership. Our suite of six computer tools provides real solutions to food protection challenges in this very chaotic world in which we all

Food Safety Magazine 1945 W Mountain St. Glendale, CA 91201, USA Phone: 818.842.4777 Fax: 818.955.9504 www.foodsafetymagazine.com

Food Safety Magazine is a bimonthly publication that serves the informational needs of food safety/quality professionals worldwide. Issues feature contributions from food and beverage industry leaders who discuss the regulatory environment, technologies, trends and management strategies essential when applying science-based solutions to assure food safety and quality. Food Safety Magazine has launched a new website, Food Safety Connect, an online marketplace for food safety solutions (www.foodsafetyconnect.com). Food Safety Connect presents reliable, useful information in an easy-to-use interactive format that helps users find products and services. Visit our booth to begin your free subscription and check out Food Safety Connect.

**Food Safety Net Services** 199 W Rhapsody San Antonio, TX 78216, USA Phone: 888.525.9788 Fax: 210.525.1702 www.fsns.com

FSNS is a national network of ISO17025 Laboratories accredited by A2LA. FSNS operates 24/7/365, utilizing official analytical methods including AOAC, USDA, AOCS, FDA, USP, CTFA and ASTA. Approvals include FSIS, AMS, VASP and USDA. Our laboratory experts can help you develop an effective testing program meeting your needs. FSNS-CAS offers a comprehensive array of 2nd Party auditing

services; GFSI recognized BRC audits via ISACert & Animal Welfare PAACO Certifications.

FSNS is a customer driven organization providing intervention and challenge studies, expert consultation services and crisis response support. For more information or to register, please go to www.fsns.com for a schedule of Educational Courses and updates on FSMA implementation.

305

919

507

808

**Food Safety Summit** 155 N Pfingsten Road, Suite 205 Deerfield, IL 60015, USA Phone: 847.405.4053 Fax: 248.283.6599 www.foodsafetysummit.com

506

200

613

923

The Food Safety Summit is a solution based conference and expo. The Food Safety Summit is designed to meet the educational and information needs of the food industry which includes growers, processors, retailers, distributors, foodservice operators, regulators and academia. The Summit provides a 4-day comprehensive education program with speakers and trainers and hands on solutions. The exhibition hall is an expansive hall with vendors demonstrating their latest products and services and networking to exchange valuable ideas and make meaningful connections. Mark your calendars for the 15th Annual Food Safety Summit April 30 – May 2, 2013 at the Baltimore Convention Center in Baltimore, MD.

**Growth Curves USA** 11 Blueberry Court Piscataway, NJ 08854, USA Phone: 732.457.9070 Fax: 432.457.0908 www.growthcurvesusa.com

Growth Curves USA is the exclusive North American distributor for Bioscreen C automated growth curve analysis system. It enables you to do growth curves faster, easier, better. Go from 200 samples to 200 results in 2 hours. Used by hundreds of researchers worldwide, this reliable workhorse provides highly accurate, reproducible results. New software with enhanced capabilities is now available.

Hanna Instruments 270 George Washington Hwy. Smithfield, RI 02917, USA Phone: 800.426.6287 Fax: 401.762.5064 www.hannainst.com

Hanna Instruments, for over 30 years, is a world leader in the development and manufacturing of quality analytical instrumentation. We offer portability in our HI99161 pH and HI 98166 dissolved oxygen meter. For your laboratory, Hanna offers HI84429 for titratable acids. HI901, which is a multi-parameter food titration system that measures pH, titratable acidity, NaCI, calcium, SO, Vitamin C and more. Our HI255 combo meter measures 5 different parameters, logs up to 200 samples and has GLP features.

**Hardy Diagnostics** 1430 W McCoy Lane Santa Maria, CA 93455, USA Phone: 805.346.2766 Fax: 805.928.2950 www.hardydiagnostics.com

Hardy Diagnostics specializes in providing microbiology products for the food microbiologist. Since our beginning in 1980, Hardy Diagnostics has grown to service over 6,000 microbiology laboratories within

**Blue Text - IAFP Sustaining Member** 

the USA and abroad. Ask us about our new products: PDX-LIB and PDX-SIB, rapid environmental tests for *Listeria* and *Salmonella*. The very popular SystemSURE Plus Luminometer and Ultra-Snap Swabs. Contact Plates and EnviroTrans swabs for environmental monitoring, CRITERION Dehydrated Culture Media, Dilu-Lok Dilution Vials, plus a huge selection Prepared Culture Media! Stop by our booth to receive your free full-color catalog.

Hygiena 941 Avenida Acaso Camarillo, CA 93035, USA Phone: 805.388.8007 Fax: 805.388.5531 www.hygiena.net

Hygiena is a microbiology and life science company with over 30 years' experience in developing rapid food safety solutions for the food and beverage industry. Featured at the IAFP Annual Meeting will be the SystemSURE Plus ATP hygiene monitoring system, Microsnap – 7-hour rapid coliform and *E. coli* test, Allersnap – 10-minute color metric allergen test and InSite – a rapid, easy-to-use, low-cost environmental *Listeria* test.

IEH Laboratories and Consulting 15300 Bothell Way NE Lake Forest Park, WA 98155, USA Phone: 206.522.5432 Fax: 206.306.8883 www.iehinc.com

#### FOOD SAFETY SOLUTIONS PROVIDER

IEH Laboratories and Consulting Group offers full-service analytical testing in microbiology, chemistry, nutritional labeling, pesticide analysis and export testing. IEH operates under strict adherence to and is accredited to ISO/IEC 17025 standards. We support our clients with access to extensive analytical expertise and services in the following areas: food-safety consulting, testing laboratory services, installation and staffing of on-site modular laboratories, and advanced molecular technologies for bacteriological identification. As regulatory requirements and scientific analysis become increasingly more sophisticated, IEH is consistently a leader in the industry. IEH Laboratories and Consulting Group has grown to 70+ locations by working as a partner with our clients and consistently adopting cutting-edge technology and instrumentation. We welcome you to talk with us about your FOOD SAFETY needs and explore how IEH capabilities can contribute to your efficiency and success.

IFC- The Industrial Fumigant Company 13420 W 99th St. Lenexa, KS 66215-1365, USA Phone: 913.782.7600 Fax: 913.782.6299 www.indfumco.com

IFC (The Industrial Fumigant Company) is a national company with over 75 years' experience providing pest management and sanitation solutions to the food and commodity industries. IFC has developed a market leading reputation by focusing on the highest standards of quality coupled with the latest proven technology and tools. Our services include integrated pest management (IPM), fumigation (general, tarp, railcars, bins, barges and ships), routine service, rodent control, bird control, monitoring and inspection. IFC is a full-line distributor for IGRs, residuals, fogging materials, fumigants, traps, rodent baits, insect baits, safety equipment, respirators, gas detection, pheromones, insect light traps and application equipment.

1610 Des Peres Road, Suite 150 St. Louis, MO 63131, USA Phone: 314.686.4610 Fax: 314.686.4602 www.ifs-certification.us

503

913

615

IFS is a family of Food Safety and Quality Supply Chain Standards. IFS Food, and soon IFS PACsecure and IFS Logistics, is GFSI benchmarked and accepted by retailers around the world. The Standard is clearly written and provides a practical way for suppliers to manage their processes while reducing cost with one globally accepted certification. The standard is growing in use rapidly in North America and is used by nearly 13,000 facilities worldwide. More information about IFS can be found at www.ifs-certification.com.

514

115

Foyer

InstantLabs
800 W Baltimore St.
University of Maryland BioPark, Suite 407
Baltimore, MD 21201, USA
Phone: 855.800.7086 Fax: 703.577.8063
www.instantlabs.com

Rapid and powerful pathogen detection, at your fingertips. With the Hunter Accelerated-PCR® system you have the power of real-time polymerase chain reaction (qRT-PCR) technology in your hands. Simply, affordably and reliably.

Valuable time is wasted by waiting, either for cultures to grow or for shipping and verification by an external lab. We're changing that. Experience the speed and independence of point-of-need pathogen testing. Visit us at: www.instantlabs.com, or call: 855.800.7086.

International Association for Food Protection 6200 Aurora Ave., Suite 200W Des Moines, IA 50322-2864, USA Phone: 800.369.6337 Fax: 515.276.8655 www.foodprotection.org

IAFP provides food safety professionals worldwide with a forum to exchange information on protecting the food supply. This is achieved through two monthly journals; the *Journal of Food Protection* and *Food Protection Trends*, an online newsletter titled the *LAFP Report* and through an Annual Meeting in North America where research topics on food safety issues are presented. IAFP also holds a three-day symposium in Europe each year and a separate, annual international symposium in addition to supporting food safety events in Dubai and China. Membership information can be obtained at our booth or visit our Web site at www.foodprotection.org.

International Association for Food Protection, Student PDG Foyer 6200 Aurora Ave., Suite 200W

Des Moines, IA 50322-2864, USA
Phone: 800.369.6337 Fax: 515.276.8655

www.foodprotection.org

Welcome, students, to IAFP 2012! If you wish to take control of your career and enrich your IAFP experience by interacting with other students and networking with professionals, get involved with the IAFP Student Group. We are an organization of undergraduate and graduate students who wish to enhance food safety through active participation in IAFP. Stop by our booth to meet your colleagues, exchange ideas, and become involved in future student group activities.

**International Food Hygiene** P.O. Box 4 Driffield, East Yorkshire Y025 9DJ, United Kingdom Phone: 44.137.253640 Fax: 44.1377.241724 www.positiveaction.co.uk

Eight conferences a year for only \$96! Each issue of International Food Hygiene is like a mini conference. Discover the latest findings, products and concepts in food microbiology. Find international information about broad food safety related sectors that will help you to do a better job. This easy-to-access source of information is yours when you visit our booth for a special deal subscription of two years for the price of one. Or you can add another technical magazine for Meat Processors or Dairy, Pig or Poultry Farmers. Visit booth 320 and swap your business card for a free sample.

Interscience Laboratories Inc. 199 Weymouth St. Rockland, MA 02370, USA Phone: 781.792.2133 Fax: 781.792.2134 www.intersciencelab.com

Interscience has been a global designer, manufacturer and supplier of solutions for quick and safe microbiological analyses for more than 30 years. This year we are introducing our NEW FlexiPump® precision filling system and the NEW easySpiral® Dilute. We will also have many products from our innovative and high quality product line including the new generation easySpiral® plater, BagPage® and BagFilter® filter bags, a complete range of BagMixer® lab blenders, Gravimat® dilutors and Scan® manual and automatic colony counters.

Life Technologies 5791 Van Allen Way Carlsbad, CA 92008, USA Phone: 760.603.7200 Fax: 760.602.6500 www.lifetechnologies.com

Life Technologies Corporation (NASDAQ: LIFE) is a global biotechnology company dedicated to moving science forward to improve life in meaningful ways for everyone. Our premier brands are the most cited, most trusted in the life sciences industry: Invitrogen<sup>™</sup>, Applied Biosystems®, Gibco®, Molecular Probes®, Novex®, TaqMan®, Ambion<sup>®</sup>, and Ion Torrent<sup>™</sup>.

LifeSign LLC 85 Orchard Road Skillman, NJ 08558, USA Phone: 732.246.3366 Fax: 732.246.0570 www.lifesignmed.com

LifeSign is a medical diagnostic company delivering high quality rapid testing solutions. LifeSign will be highlighting our all new surface hygiene testing products; Clean Card PRO and Hygicult. Both products deliver rapid and accurate results to determine the cleanliness of various surfaces to ensure absolute safety is acquired. Clean Card PRO detects protein residues on surfaces and provides qualitative results in only 30 seconds. Using a two-sided media paddle, Hygicult detects the presence of bacteria, yeast or molds and provides semi-quantitative results within 24 hours. Learn more online at www.lifesignmed.com.

**Log5** Corporation **4 Glenberry Court** Phoenix, MD 21131, USA Phone: 240.544.2050 Fax: 443.705.0223 www.log5.com

320

512

903

300

Log5 Corporation offers turnkey pasteurization, sterilization and roasting systems for the nut, spice, seed, herb, grain, flour, tobacco and related food industries. Our pasteurization and sterilization technology is non-chemical and maintains the original qualities of the products. We guarantee a 5-log reduction or a specific low plate count in raw and/or roasted low water activity foods. Our fully automated systems can be placed in line with an existing process flow. Capacities range from 500 to 40,000 lbs/hr. Our technology is backed by over 100 years of experience in design and manufacture of advanced food processing systems.

1000

123

206

Merrick/Certek 1001 Morehead Square Drive, Suite 530 Charlotte, NC 28203, USA Phone: 704.612.0672 Fax: 704.522.0882 www.merrick.com

Merrick & Company is an international A/E design firm, providing a single-source for professional services in architecture, engineering, planning, construction administration, commissioning/validation and O&M services. Focus areas include Government, Institutional, University and Private Laboratory facilities, where diagnostics, research and testing are required. Containment environments as well as sustainable MEP design are of high priority. In addition to our professional services, Certek provides uncompromised self-sustainable modular lab systems, including custom laboratories within shipping containers that can be delivered internationally and efficiently located at your existing facilities or remotely.

Michelson Laboratories, Inc. 6280 Chalet Drive Commerce, CA 90040, USA Phone: 562.928.0553 Fax: 562.927.6625 www.michelsonlab.com

Since 1970, Michelson Laboratories has provided complete chemical and microbiological analyses to the food and environmental industries throughout the country. We are an ISO/IEC 17025 Accredited Laboratory offering rapid turnaround time, accurate, reliable results and excellent customer service. We specialize in a number of methodologies for indicator organism and pathogen analysis (including PCR) as well as shelf-life and challenge studies. Our chemistry lab offers antibiotic residue and melamine testing by LC/MS/MS in addition to nutritional labeling, pesticide analysis and more.

Michigan State University Master of Science in Food Safety 409 1129 Farm Lane, Room B-51 East Lansing, MI 48824, USA Phone: 517.884.2080 Fax: 517.432.2310 www.online.foodsafety.msu.edu

Michigan State University's Online Master of Science in Food Safety meets the educational demands of food safety leaders in industry, government, and public health by providing an environment that allows professionals to pursue their educational goals while maintaining personal and professional lives. Visit us at www.online.foodsafety.msu.edu.

Microbac Laboratories, Inc. 101 Bellevue Road, Suite 301 Pittsburgh, PA 15229, USA Phone: 412.459.1060 Fax: 866.515.4668 www.microbac.com

Microbac Laboratories, Inc. is one of the world's most diversified commercial testing and analytical laboratory groups. Microbac performs a wide variety of microbiological and food chemistry analyses for the food industry. Complemented by a national network of laboratories, Microbac is also capable of supporting a wide range of specialized testing needs. For over 40 years, Microbac has provided a vast array of industries with numerous comprehensive certified analytical and sampling services, including: food chemistry, food microbiology, nutritional labeling, environmental, pharmaceuticals, nutraceuticals/vitamins, antimicrobial efficacy, cosmetics, agrochemical, mechanical, biofuel, and physical/failure testing.

Microbiologics
217 Osseo Ave. N
St. Cloud, MN 56303, USA
Phone: 320.253.1640 Fax: 320.253.6250
www.microbiologics.com

When you need to meet expanding regulatory, liability, and quality assurance challenges, put your trust in Microbiologics. We offer a wide variety of QC microorganism preparations specifically designed to meet your needs. Our easy-to-use microorganism preparations are authentic and traceable to an original reference strain. Products such as EZ-FPC™ and EZ-SPORE™ quantitative microorganisms are commonly used as daily process controls for presence/absence testing, quantitative test methods and spoilage detection methods. Also, Lab-Elite™ Certified Reference Materials are now available to meet ISO 17025 requirements. For more information, visit: www.microbiologics.com or email: info@microbiologics.com. Find us at booth #523.

Microbiology International
5111 Pegasus Court, Suite H
Frederick, MD 21704, USA
Phone: 301.662.6835 Fax: 301.662.8096
www.800ezmicro.com

Microbiology International will be demonstrating our "Total Lab Solution" for automation of the modern food microbiology laboratory. We will be exhibiting the R.A.P.I.D. LT real-time PCR system for rapid identification of *Salmonella*, *Listeria* and *E. coli* O157:H7. Also on display will be our spiral plater, media preparators/plate pourers, laboratory autoclaves, innovative sample preparation instruments and a comprehensive line of rapid bacterial screening and identification kits for common food pathogens.

Micro Imaging Technology, Inc. 204
970 Calle Amanecer, Suite F
San Clemente, CA 92673, USA
Phone: 949.388.4546 Fax: 949.388.4547
www.micro-imaging.com

Micro Imaging Technology, Inc. ("MIT") objectives are to become a global leader in developing, supporting and marketing rapid systems and processes that detect and identify microbial organisms. MIT has developed and patented a technology for rapid microbe identification. The technology is a non-biological identification process that is extremely fast, easy to use and does not rely on conventional chemical or biological processing, fluorescent tags, gas chromatography or DNA analysis.

The MIT advantages are the system's low cost, ease of use and accompanying significant reduction in the time and expense for testing procedures and the ability to test for multiple bacteria.

800

MOCON Inc. 7500 Mendelssohn Ave. N Minneapolis, MN 55428, USA Phone: 763.493.6370 Fax: 763.492.6358 www.mocon.com

203

523

420

MOCON is leading the way in screening for the early detection of food pathogens. MOCON's GreenLight® series offers food producers the ability to screen incoming ingredients and/or outgoing processed product for live bacteria and obtain results 10 times faster than the traditional plating at a screening cost much lower than current methods. The GreenLight® systems are safe, fast, easy to use, and enable producers to gain control over processes, reduce preparation costs, track trends and gain flexibility. MOCON's instruments and testing services provide food producers with the ability to ensure product integrity and increase shelf life.

N2N Global 223
585 E SR 434
Longwood, FL 32750, USA
Phone: 888.783.5088 Fax: 407.331.5158
www.n2nglobal.com

N2N Global is the leading innovator in agri-business software including traceability, quality and food safety compliance software, and best-of-breed solutions from the farm all the way through to store shelves and restaurant tables. N2N Global is known for its leading edge agri-ERP solution known as Knowledge integrated Software Suite (KiSS) and Quality & Food Safety Manager (QFSM) compliance solution that has the ability to improve and streamline your compliance program. Our vision is to continue to identify and bring business value to the food industry through innovative technologies and to simplify the overall operation through an open and integrated approach.

Nasco Whirl-Pak 518
901 Janesville Ave.
Fort Atkinson, WI 53538, USA
Phone: 920.563.2446 Fax: 920.568.5736
www.enasco.com

Manufacturer of WHIRL-PAK® sterile laboratory sample bags for transporting samples for QA testing, product analysis, and other laboratory applications. +1 Sterilization using ethylene oxide gas is completed after manufacturing to insure sterility with documentation available at www.whirl-pak.com. All bags contain Puncture Proof Tabs made by a patented process that covers the wire ends with PVC tape to minimize puncture and damage to skin and gloves. New bags include a 15" x 15" write-on and a 15" x 15" stand-up. WHIRL-PAK® bags (with a few exceptions) are manufactured under a quality management system certified to ISO 9001.

National Center for Food Protection and Defense
1954 Buford Ave.
120 LES Bldg.
St. Paul, MN 55108, USA
Phone: 612.624.2458 Fax: 612.624.3229
www.ncfpd.umn.edu

The National Center for Food Protection and Defense (NCFPD) is a Homeland Security Center of Excellence located at the University

802

408

301

712

of Minnesota, a multidisciplinary research consortium addressing the vulnerability of the nation's food system to attack through intentional contamination with biological or chemical agents.

NCFPD's research and education program is aimed at reducing the potential for contamination at any point along the food supply chain and mitigating the potentially catastrophic public health and economic effects of such attacks. The program incorporates cutting-edge research across a wide range of disciplines, taking a comprehensive, farm-totable view of the food system.

The National Food Lab, LLC. **602** 365 N Canyons Pkwy., Suite 201 Livermore, CA 94551, USA Phone: 925.828.1440 Fax: 925.243.0117 www.thenfl.com

The National Food Lab (The NFL) delivers an unparalleled menu of scientific and product design services to the food industry. Our services span the entire product life cycle and include: Food Safety, Food Contaminants, Chemistry and Microbiology, Product and Process Development, Ideation and Concept Development, Consumer Insights, Sensory Evaluation, Culinary Services, Commercialization and Shelf-Life Studies. Using a collaborative partnership approach, The NFL helps many of America's most recognized brands achieve competitive and commercial success. Our professionals will work with you to launch your new ideas quickly and successfully as well as protect your brands in the market place.

National Registry of Food Safety Professionals 7680 Universal Blvd. Orlando, FL 32819, USA Phone: 800.446.0257 Fax: 407.352.3603 www.nrfsp.com

National Registry of Food Safety Professionals (NRFSP), the flagship food safety program of Environmental Heath Testing, is a full-service certification program for food safety managers. Nationally accredited through CFP/ANSI, and globally accredited in ISO 17024 through ANSI, we provide many options for the training and assessment of managers and food handlers, including paper and pencil and proctored online exams in multiple languages, and diagnostic reporting and tracking of data. Learn more at www.nrfsp.com or call 1.800.446.0257.

Nelson-Jameson 2400 E 5th St. P.O. Box 647 Marshfield, WI 54449, USA Phone: 715.387.1151 Fax: 800.842.0540 www.nelsonjameson.com

Nelson-Jameson has been a trusted source of food processing supplies since 1947. Our Buyers Guide for the Food Industry features thousands of items used daily in food plants and includes hard-to-find specialty items. Products include safety and personnel, production and material handling, sanitation and janitorial, processing and flow control, laboratory and QA/QC, bulk packaging and ingredients. The catalog also features a wide assortment of color-coded and metal detectable items to keep your product safe. Headquarters in Marshfield, Wisconsin, warehouses in California, Idaho, Pennsylvania, and Texas. Call 800.826.8302 or visit: www.nelsonjameson.com to request your FREE copy of our Buyers Guide today!

**Neogen Corporation** 620 Lesher Place Lansing, MI 48912, USA Phone: 800.234.5333 www.neogen.com

Neogen's comprehensive line of rapid food safety products includes new ANSR<sup>™</sup> for Salmonella, a novel pathogen detection methodology that provides DNA-definitive results after only 10 minutes of reaction time, and requires less hands-on time and a lower cost to implement than older molecular amplification methodologies; simple and accurate tests for food allergens, including milk, egg and peanut; dairy antibiotics, including the BetaStar® receptor-based lateral flow assay for the rapid detection of beta-lactam residuals in milk; spoilage organisms (e.g., yeast and mold), including the Soleris® optical microbial system; mycotoxins; and sanitation, including the AccuPoint® 2 ATP system.

Neutec Group, Inc. 200 Central Ave. Farmingdale, NY 11735-6918, USA Phone: 516.870.0877 Fax: 516.977.3774 www.neutecgroup.com

Neutec Group provides a comprehensive line of microbiology product solutions replacing tedious, repetitive, time-consuming activities with standardized, automated processes, which enhance the efficiency and productivity of the food microbiology lab. At the IAFP Annual Meeting, we will exhibit our newest line of Economy Automated Colony Counters, Bag Dilutors, aw-WaterMeters, Spiral Platers, Bag Mixers, Block Digestors and Distillators, AgarFillers, Media Preparators and

Northeast Laboratory Services, Inc. 999 Forest Ave. Portland, ME 04103, USA Phone: 207.878.6481 Fax: 207.878.2265 www.nelabservices.com

A Maine-based company for over forty years NEL provides food testing and safety on a daily basis. Offering high quality analytical services and process control programs designed to meet your individual needs. Working and exceeding the expectations of all of our customers. We are A2LA accredited and hold valid certificates through AIHA and NELAC as well as being an FDA registered manufacturing facility, and hold approximately 30 state certificates for drinking water analysis. Our services are always backed by our team's commitment to superior quality, rapid results, delivered with affordable pricing and unparalled excellence in customer service.

Northland Laboratories 1818 Skokie Blvd. Northbrook, IL 60062, USA Phone: 847.272.8700 Fax: 847.272.2348 www.northlandlabs.com

See how Northland Laboratories helps your company with "Moving Food Safety Forward" in preparing your organization with new requirements for industry including the Food Safety Modernization Act. Our knowledgeable, approachable and friendly scientists will work with you and your partners to best prepare your company.

501

Since 1949 Northland Laboratories has provided a comprehensive portfolio for your organization in food safety/microbiology testing, food chemistry testing, food safety programs, training, shelf life and challenge studies, sensory research and consulting, validation studies, contract research, consumer complaints, nutrition labeling, auditing services and regulatory support. ISO/IEC17025:2005 Accredited

PathSensors

800 West Baltimore St., Suite 405

Baltimore, MD 21201, USA

Phone: 443.557.6150 Fax: Fax@pathsensors.com

www.pathsensors.com

Orkin Commercial Services 908
2170 Piedmont Road NE
Atlanta, GA 30324, USA
Phone: 800.ORKIN.NOW
Fax: 404.888.2760
www.orkin.com/commercial

Orkin's Gold Medal Protection is a comprehensive Integrated Pest Management program specifically designed for the highly regulated food processing and packaging industries. Customers benefit from a heavy emphasis on quality assurance and a comprehensive reporting system that meets or exceeds HACCP regulations and the requirements of external audits. To learn more or to request a free consultation, call 1.800.ORKIN.NOW or visit us at http://www.orkin.com/commercial/.

Pall Corporation 912
25 Harbor Park Drive
Port Washington, NY 11050, USA
Phone: 774.276.5854 Fax: 516.801.9548
www.pall.com/foodandbev

Pall GeneDisc Technologies, part of Pall Corporation, a New York-based company is the provider of a unique qPCR based platform. GeneDisc® System offers an easy-to-use and cost-effective multi-parametric molecular diagnostic solution, allowing the user to obtain up to twelve different results from a single-sample drop, in under an hour. Pall GeneDisc Technologies aims to provide you with the right tools for real-time detection of pathogens in food safety, environment control and pharmaceutical process monitoring. GeneDisc method is now AOAC approved for non O157 STEC.

Easy, Fast, Reliable: no need to compromise. For more information, visit www.pall.com/genedisc.

Partnership for Food Safety Education 2345 Crystal Drive, Suite 800 Arlington, VA 22202, USA Phone: 202.220.0651 Fax: 202.220.0873 www.fightbac.org

The mission of the non-profit Partnership for Food Safety Education is to end illness and death from foodborne infections in the United States. The Partnership delivers trusted, science-based behavioral health messaging. Partnership materials are distributed to hundreds of thousands of consumers each year through our partners, web site, and directly through more than 12,000 educators ("BAC! Fighters"). The Partnership unites representatives from the food industry, professional societies in food science, nutrition and health consumer groups, the U.S. Department of Agriculture, the Department of Health and Human Services, the Centers for Disease Control and Prevention, and the Food and Drug Administration to educate the public about preventing foodborne illness.

PathSensors is a manufacturer of rapid pathogen detection systems employing a novel, biosensor based technology (CANARY®) licensed from MIT Lincoln Laboratories. CANARY® technology and the Bio-Flash® biological identifier have validated for its use in building security for aerosol collection and detection of biological agents in 3 (three) minutes. Incorporating CANARY® technology, PathSensors is introducing the BioFlash-AF® and Zephyr™ systems for the detection of foodborne pathogens from aerosol or liquid samples with results within minutes. PathSensors is committed to partner with industry to provide rapid, same day solutions for the detection of foodborne pathogens under HACCP and for the testing of agri-food products.

705

302

1002

Puritan Medical Products Company LLC 31 School St. Guilford, ME 04443, USA Phone: 207.876.3311 Fax: 207.876.3130 www.puritanmedproducts.com

Puritan Medical Products is the leading U.S. manufacturer of quality single-use medical diagnostic devices, specializing in specimen collection. We offer an extensive line of tipped applicators including PurFlock® Ultra and HydraFlock® for superior specimen collection and release. Now offering media filled transport systems for clinical, diagnostic and environmental testing.

Q Laboratories, Inc. 1400 Harrison Ave. Cincinnati, OH 45214-1606, USA Phone: 513.471.1300 Fax: 513.471.5600 www.qlaboratories.com

Q Laboratories, Inc. has served the food and dietary supplement industries since 1966, offering comprehensive microbiology and chemistry laboratory and research and development services. An ISO/IEC 17025 Accredited, GMP/GLP compliant laboratory, Q Laboratories, Inc. can provide services to meet all of your testing and quality assurance needs. Capabilities include: Pathogen Detection, Microbial Identification, Nutritional Analysis, Allergen Screening, Challenge/Shelf Life Studies, Environmental Monitoring Programs, and Method Validation/Verification studies to help test kit manufacturers demonstrate proficiency of proprietary methods. Please visit IAFP Booth # 1002 to discover how Q Laboratories can help you continue to produce safe, high quality products.

QIAGEN 513
19300 Germantown Road
Germantown, MD 20874, USA
Phone: 800.426.8157 Fax: 800.718.2056
www.qiagen.com

Building on our expertise in molecular testing for various fields of public safety and quality control, QIAGEN is the leading global provider of sample and assay technologies that offers innovative, high-quality solutions for food safety testing. Our suite of testing kits covers all segments of food testing, including DNA purification, pathogen and genetically modified organism detection, and ingredient authentication. Streamline your work by choosing QIAGEN solutions that cover the whole workflow and emphasize modern technologies with straightforward and rapid protocols. Learn more at www.qiagen.com.

**Quality Assurance & Food Safety** 4020 Kinross Lakes Pkwy., Suite 201 Richfield, OH 44286, USA Phone: 330.523.5400 Fax: 330.659.0823 www.qualityassurancemag.com

QA Magazine, a bi-monthly publication from GIE Media, is written for managers and professionals in the food and beverage processing industry with a specific focus on food safety, quality and defense. Filled with practical insights and analysis of plant processes, practices and current issues, the QA media family—including our print publication, web site and e-newsletters-addresses the growing market need for targeted information in these key areas. For more information, visit www. qualityassurancemag.com.

R & F Laboratories 2725 Curtiss St. Downers Grove, IL 60515, USA Phone: 630.969.5300 Fax: 630.969.5303 www.rf-labs.com

R & F Laboratories is a full-service Microbiology Laboratory involving research, testing and consulting for the food, cosmetic, environmental and industrial arenas. We are committed to providing quality information through precise, accurate, and dependable testing. Research varies from routine challenge or shelf-life studies to more complex analyses. Consulting includes HACCP services, audits, microbial problem solving, QC/QA training and Food Microbiology teaching. R & F Products has 13 media patent/patent applications and R & F Laboratories is the distributor of these chromogenic plating media for more specific identification of pathogens: Escherichia coli O157:H7, Listeria monocytogenes, Salmonella, Bacillus cereus/Bacillus thuringiensis, Enterobacter sakazakii, Bacillus anthracis, Listeria sp., Listeria monocytogenes, Listeria sp., Shigella sp., Campylobacter jejuni/coli and Yersinia pestis.

Rentokil North America Pest Control 500 Spring Ridge Drive Wyomissing, PA 19612, USA Phone: 610.372.9700 www.rentokil.com

Rentokil North America Pest Control is a full service company and operates as Ehrlich, Presto-X, Rentokil and Tetengo. As the world's largest commercial pest management company, Rentokil is the leading provider of integrated pest management services. In addition to Rodent and Insect Management, we also provide Bed Bug, Termite, Bird and Vegetation Management, Fumigation and Bioremediation Services. We strive for early detection, accurate monitoring and precise product application to eradicate your pest problems. There's no pest problem too large or small for our team of pest experts - our operations in North America specialize in multi-site facilities across the U.S., Mexico, and Canada.

**Rochester Midland Corporation-Food Safety Division** 155 Paragon Drive Rochester, NY 14624, USA Phone: 585.336.2200 Fax: 585.336.2410 www.rochestermidland.com

Rochester Midland Corporation provides a HACCP-based food safety program that offers sanitation solutions to food and beverage manufacturers. Our BrandGuard Program® is made up of 7-steps which are all critical components of a consultative and effective food safety program. Built into each step are the environmental, social and financial legs of sustainability. With our 120+ years of experience, we have formed long-term partnerships with our customers to provide them with the integrated solutions that will protect their business financially.

821

800

**620** 

Roka Bioscience 20 Independence Ave., Suite 400 Warren, NJ 07059, USA Phone: 908.605.4635 Fax: 908.604.2008 www.rokabio.com

419

813

318

423

Roka Bioscience is an innovative food safety solutions company dedicated to bringing advanced technology to the food industry. The newly released Roka Automated Molecular Platform represents a new tier of molecular rapid pathogen testing, offering automation and technology that bring true walkaway convenience and workflow advantages to the laboratory. Roka is dedicated to partnering with the industry on solutions that ensure highly accurate and rapid results that meet the increasing testing demands now and for years to come.

Romer Labs, Inc. 1301 Stylemaster Drive Union, MO 63084, USA Phone: 636.583.8600 Fax: 636.583.6553 www.romerlabs.com

Romer Labs® is a leading provider of diagnostic test solutions for the Food Safety Industry. We specialize in Analytical Services and Rapid Test Kits for the detection of Food Allergens, Drug Residues, Mycotoxins, Melamine and GMO. Our broad range of innovative tests and services play a pivotal role in integrated food safety solutions. Our fundamental objective at Romer Labs® is to provide scientifically sound, high quality products and services to make the world's food safer.

rtech laboratories P.O. Box 64101 St. Paul, MN 55164-0101, USA Phone: 800.328.9687 Fax: 651.375.2002 www.rtechlabs.com

rtech laboratories, a division of Land O'Lakes, is a comprehensive food safety and technology research facility providing clients with Chemistry, Microbiology, Sensory, Consumer Research, Pilot Plant, Nutrition Labeling and Information Research Services. Our laboratory is ISO 17025 accredited. Although we are experts in dairy analysis, the lab performs a broad range of routine testing as well as specialty assays. Our sensory/ consumer research group is experienced at difference testing, acceptance testing, descriptive analysis, and consumer guidance testing. Our pilot plant is capable of producing flexible batch runs in many product categories across a broad range of processing conditions.

**SA Scientific** 312 4919 Golden Quail San Antonio, TX 78240, USA Phone: 210.699.8800 Fax: 210.699.6545 www.sascientific.com

SA Scientific provides real-time molecular tests for the identification of common food pathogens such as Salmonella, E. coli O157, Listeria and Campylobacter. Tests utilize Loop-mediated Isothermal Amplification (LAMP), which is a single temperature, strand displacement amplification using four different primers recognizing six distinct regions of the target, making it highly specific. The test results can be read in real-time using a simple, economical turbidimeter with touch screen control.

Safe Quality Food Institute 2345 Crystal Drive, Suite 800 Arlington, VA 22202, USA Phone: 202.220.0635 Fax: 202.220.0894 www.sqfi.com

The Safe Quality Food (SQF) program is recognized by retailers and foodservice providers around the world as a rigorous, credible food safety management system. It is the only certification system recognized by the Global Food Safety Initiative (GFSI) that offers certificates for primary production, food manufacturing, distribution and agent/broker management. This enables suppliers to assure their customers that food has been produced, processed, prepared and handled according to the highest possible standards, at all levels of the supply chain. Additionally as a division of the Food Marketing Institute (FMI), the SQF program incorporates continual retailer feedback about consumer concerns. This information is passed on to SQF certified suppliers, keeping them a step ahead of their competitors.

SafetyChain Software 750 Lindaro St., Suite 330 San Rafael, CA 94901, USA Phone: 415.233.9474 Fax: 415.294.7588 www.safetychain.com

SafetyChain Software specializes in realtime safety and quality compliance management for providers of consumable goods. Its innovative SafetyChain for Food™ enforces food safety and quality at every point in a company's food supply chain — inbound, during production and outbound. SafetyChain for Food is a global, Software-as-a-Service solution, designed for fast deployment and even faster ROI. www. safetychain.com

SAI Global 2 Summit Park Drive, Suite 425 Independence, OH 44131, USA Phone: 800.247.0802 www.saiglobal.com/foodsafety/

SAI Global helps you to keep pace with the global trends in food safety, whether they are government mandated, voluntary/industry schemes, purchasing requirements of supermarkets or based on International Standards. SAI Global can train, audit and verify to a number of recognized GFSI Programs including BRC, SQF, FSSC 22000, IFS-PAC secure, Canada GAP and Global GAP plus additional programs like GMA-SAFE. With more than 800 auditors and 24,000 registrations worldwide, SAI Global is a global leader committed to exceptional customer service and advancing business excellence.

SDIX 907
111 Pencader Drive
Newark, DE 19702, USA
Phone: 302.456.6789 Fax: 302.456.6770
www.sdix.com

SDIX is a leader in developing accurate, simple and rapid tests for food pathogens. Our RapidChek® and RapidChek® SELECT™ test systems for *E. coli* O157, non-O157 STEC, *Listeria, Salmonella* and *Salmonella Enteritidis* give you confidence in test results, shortened product hold times and lower overall testing costs while at the same time protecting your brand, your business and your bottom line against these dangerous foodborne pathogens. The RapidScan™ Data management System combines the ease-of-use and cost-effectiveness of RapidChek methods with the objective test result interpretation and data connectivity of

automated systems. Choose RapidChek for superior accuracy, easy-to-use technology, cost-effective testing programs and AOAC-Certified, AFNOR and NPIP Approved, FDA Equivalent methods. RapidChek. Simply Accurate.

Visit us at this year IAFP Booth #907 to learn more.

707

304

307

Sensitech Inc. 921
800 Cummings Center, Suite 258X
Beverly, MA 01915-6197, USA
Phone: 978.927.7033 Fax: 978.921.2112
www.sensitech.com

As the world's leading provider of cold chain visibility solutions, Sensitech Inc. enables global leaders in the food, life sciences, and industrial markets to track and monitor assets across the supply chain in order to protect the integrity of temperature-sensitive products. Sensitech is an ISO 9001:2008 company based in Beverly, MA, with more than 30 sales, service and distribution locations around the world. Sensitech and Carrier Transicold are a part of UTC Climate, Controls & Security, a unit of United Technologies Corp., a leading provider to the aerospace and building systems industries worldwide. Visit www.sensitech. com for additional information.

Seward Laboratory Systems, Inc. 222
574 NW Mercantile Place, Suite 107
Port Saint Lucie, FL 34986, USA
Phone: 772.621.8220 Fax: 772.621.8257
www.sewardusa.com

Seward manufactures the world's leading range of Stomacher® paddle blenders used in sample preparation for microbiological analysis. For accurate results, choose the best in sample preparation.

Silliker 608
111 E Wacker Drive, Suite 2300
Chicago, IL 60601, USA
Phone: 312.938.5151
www.silliker.com

Silliker, Inc. provides consulting, testing, auditing, sensory evaluation, research and education services that help assure food safety, quality and nutrition worldwide. With over 40 locations meeting and exceeding ISO 17025 requirements, Silliker is the leading international network of accredited food testing and consulting laboratories and part of the Mérieux NutriSciences Corporation. Working together, we'll help your company assess product safety, assure quality, guard against contamination and spoilage, verify products and processes, keep your costs under control and empower employees through education programs. Stop by the Silliker booth (# 608) to learn more about our total solutions approach to food safety, quality and nutrition.

Society for Applied Microbiology
Bedford Heights
Brickhill Drive
Bedford, MK41 7PH United Kingdom
Phone: 44.1933.382191
www.sfam.org.uk

The Society for Applied Microbiology was founded in 1931. It is based in the United Kingdom but has members in over 80 countries. There are many categories of members and numerous benefits of membership. Membership offers very good value for money. Please stop by the stand to receive further information.

113

Springer 233 Spring St. New York, NY 10013, USA Phone: 201.460.1500 Fax: 212.460.1575 www.springer.com

Take your research and skills to the next level with Springer Food Sciences products. Stop by our booth to discover an authoritative range of journals, books, and major reference works in the field of food protection. Learn more about our eBooks and Open Access publishing models. Get Read. Publish with Springer.

110

207

218

**STOP Foodborne Illness** 504 3759 N Ravenswood Ave. Chicago, IL 60613, USA Phone: 773.269.6555 Fax: 773.883.3098 www.stopfoodborneillness.org

STOP Foodborne Illness is a national non-profit, public health organization, dedicated to the prevention of illness and death from foodborne pathogens by advocating for sound public policy, building public awareness, and assisting those impacted by foodborne illnesses. Very simply, STOP is "America's Voice for Safe Food."

**Synbiosis** 5108 Pegasus Court, Suite M Frederick, MD 21704, USA Phone: 301.662.2863 Fax: 301.631.3977 www.synbiosis.com

Synbiosis is a world leading supplier of manual, semi-automated and automated colony counters and zone measurement systems that are guaranteed to improve the productivity and accuracy of microbiological applications, such as food monitoring, pharmaceutical manufacturing, environmental monitoring, clinical microbiology and molecular microbiology.

TandD US, LLC P.O. Box 321 Saratoga Springs, NY 12866, USA Phone: 518.669.9227 www.tandd.com

T&D Corporation manufactures a comprehensive line of wireless and stand-alone Data Loggers with innovative web based data collection, remote monitoring and notification features. Included in the line are models for recording and remotely monitoring temperature, humidity, voltage, current, pressure, CO2, illuminance, ultra-violet, pulses, etc. Data collection options include an innovative hand-held portable unit with graphical display and a network connected data collector with built in Ethernet interface or integrated 802.11g Wi-Fi, and a new GSM Cellular connected model. T&D Corporation, the world's leading supplier of wireless data loggers, is headquartered in Matsumoto Japan, and has been engaged in the design, development and manufacture of high reliability, high quality electronic measurement systems since 1986.

Thermo Scientific 12076 Santa Fe Trail Drive Lenexa, KS 66215, USA Phone: 800.255.6730 Fax: 800.864.4739 www.remel.com

Thermo Scientific is a customer-focused manufacturer and distributor of an extensive line of the highest quality microbiology products used by industrial and clinical laboratories. From sample collection to enrichment, isolation and identification media and kits, we provide a complete line of products routinely available for next-day delivery from local distribution centers across the U.S. We provide Prepared and Dehydrated Culture Media, Quality Control Organisms, Custom Products, and Identification Kits. Stop by our booth to check out these solutions: AOAC-ri approved Salmonella Rapid Culture Method and new Dry-Bag formulations to simplify media preparation and testing for food labs. For more information, contact us at 800.255.6730 or go to www.remel.

214

219

TraceGains, Inc. 1333 West 120th Ave., Suite 209 Westminster, CO 80234, USA Phone: 303.450.9009 Fax: 866.571.4562 www.tracegains.com

TraceGains is for quality, purchasing, sourcing, and compliance managers who are dissatisfied with the high cost and high risk of manual tracking and control of ingredients and suppliers. TraceGains is a complete compliance and risk management solution that automates data from paper or electronic filing cabinets and makes it actionable. TraceGains' system continuously controls, illuminates, and predicts risk for each ingredient shipment and supplier certification. TraceGains has customers in baking mixes, snack foods, dairy, salad dressings, herbs and seasonings, nutraceuticals, beverages, cheese processing and manufacturing, frozen foods, flavor manufacturing, large restaurant chains, breakfast cereals, Meals Ready to Eat (MREs), and convenience foods.

United States Pharmacopeia 12601 Twinbrook Pkwy. Rockville, MD 20852-1790, USA Phone: 301.881.0666 www.usp.org

The United States Pharmacopeial Convention (USP) is a nonprofit standards-setting organization that offers quality standards and programs to support the manufacture and testing of food ingredients and dietary supplements. Our products and services include:

- · Documentary standards in the Food Chemicals Codex, Eighth Edition, and the 2012 Dietary Supplements Compendium
- More than 150 reference materials for food ingredients and over 200 for dietary supplements
- · Free access to information on adulterated foods in the new USP Food Fraud Database
- · USP Verification Programs for dietary supplement ingredients and finished products

Learn more at www.usp.org

University of Central Lancashire 213 International Institute of Nutritional Sciences & Applied Food **Safety Studies** University of Central Lancashire Preston, PR1 2HE England, United Kingdom Phone: 44.1772.894902 Fax: 44.1772.892927 www.uclan.ac.uk/iinsafss

Voted "2012 Top Modern University in the North West"\*, UCLan is a world class modern university with over 32,000 students on campus; 500 undergraduate and 200 postgraduate courses. UCLan is proud to be the home of 2000 international students from over 100 different nationalities.

402

622

508

119

The International Institute of Nutritional Sciences & Applied Food Safety Studies was established to promote teaching and research within food safety and nutrition. Our internationally renowned faculty are currently active in research and commercial activities, ensuring an innovative yet focused approach with practical application in our teaching delivery. \*Times Good University guide 2012 (North West England).

US Army Natick Research Development and Engineering Center 15 Kansas St., Bldg. 45
Natick, MA 01760, USA
Phone: 508.233.6406 Fax: 508.233.4726
www.nsrdec.natick.army.mil

This exhibit will demonstrate the dedication of the Department of Defense has to protecting the Warfighter to the community. It will also allow CFD Food Safety SME's the opportunity to interact with peers, sharing their knowledge and gaining a broader understanding of opportunities available to protect Warfighters from foodborne illness. As foodborne illness still remains the #1 non-battlefield injury that impacts readiness of Warfighters, it's imperative our experts can learn as much as possible to continue maintaining a high level of operational readiness.

Weber Scientific 2732 Kuser Road Hamilton, NJ 08691, USA Phone: 609.584.7677 Fax: 609.584.8388 www.weberscientific.com

Pick up a copy of our brand new 2012–2013 lab sourcebook focused on products for food and dairy testing. On display are simple and rapid methods, including Colilert® a rapid test for total coliform and *E. coli* in water (the most popular test on the planet and for good reason), our popular buffered pre-filled dilution bottle (DB™), PDX-LIB & PDX-SIB Environmental *Listeria* & *Salmonella* Rapid Food Contact Surface tests and several innovative products for environmental and hygiene monitoring such as EnSURE multiparameter luminometer™, PRO-Clean™ and Solar Cult® Sponge Handle Sampling System Serving QC professionals since 1959.

USDA Food Safety and Inspection Service 355 E St. SW Patriots Plaza Washington, D.C. 20250, USA Phone: 202.690.6531Fax: 202.690.6519 www.fsis.usda.gov

The Food Safety and Inspection Service (FSIS) is the public health agency responsible for ensuring that the Nation's commercial supply of meat, poultry, and processed egg products is safe, wholesome, and correctly labeled and packaged. FSIS also manages the USDA Meat and Poultry Hotline, which provides consumers with answers to their food safety questions. FSIS Information: www.fsis.usda.gov Telephone: 202.720.9113 or the Small Plant Help Desk 1.877.374.7435, infosource@fsis.usda.gov

Wiley-Blackwell
111 River St.
Hoboken, NJ 07030-5774, USA
Phone: 877.762.2974 Fax: 800.597.3299
www.wiley.com

Wiley-Blackwell is one of the world's foremost academic and professional publishers and the largest society publisher. We publish books and journals in the Food Science and Technology sectors including *Journal of Food Science; International Journal of Food Science and Technology* and the book series: *IFT Press; Society of Dairy Technologists* and more!

WTI Inc. 281 Martin Luther King Jr. Ave. Jefferson, GA 30549, USA Phone: 706.387.5150 Fax: 706.387.5159 www.wtiinc.com

708

# IAFP Workshops

# **WORKSHOP 1**

Characterization and Identification of Spoilage-causing Fungi: A Hands-on Workshop Friday and Saturday July 20-21 8:00 a.m. - 5:00 p.m.

# **WORKSHOP 2**

Validation to Improve Meat and Poultry Safety Saturday, July 21 8:00 a.m. - 5:00 p.m.

# **WORKSHOP 3**

Search and Destroy! Finding and Eliminating **Environmental Pathogens** Saturday, July 21 8:00 a.m. - 5:30 p.m.

# WORKSHOP 1 – Characterization and Identification of Spoilage-causing Fungi: A Hands-on Workshop

# **Description:**

Mitigating the risks of yeasts and mold contamination remains a constant battle within certain segments of the food and beverage industry. Molds and yeasts cause significant food spoilage losses and mycotoxigenic molds pose significant food safety/regulatory hazards. Fungal identification is a scientific challenge requiring both art and technical expertise. There are a limited number of scientists who understand and have developed the art of fungal identification to a sound science. This workshop provides attendees a unique opportunity to interact first-hand with a group of experts, learning the best practices for isolating different fungi as well as the basics of classical identification methods. This workshop will also cover current molecular methods that are used to identify yeast and mold.

# **Topics:**

- Overview of Yeast and Mold Spoilage Challenges in Food and Beverages
- Basic Identification Techniques in Food and Beverage Mycology
- Identification of Penicillium and Aspergillus
- Using DNA to Identify Your Fungi: Why and How
- Overview on Mycotoxins

## Instructors:

Frank Burns, DuPont Qualicon Shawn Johnson, Universal Sanitizers and Supplies, Inc. Dave Pincus, bioMérieux

## **Organizers:**

Frank Burns, DuPont Qualicon Melissa Gwinn, The Coca-Cola Company

# **Laboratory Host:**

Katherine Patenaude, Brown University

# **Faculty Sponsor:**

Marguerite Neill, Brown University

# **Transportation:**

Participants will be transported to Brown University via bus.

- Cultural Methods for Identifying Heat-resistant Mold and Other Ascomycetes
- Simplicity in Yeast Identification: Classical and Commercial Methods
- Cultural Methods for Identifying Zygomycetes
- Identification of Fusarium and Other Deuteromycetes

John Pitt, CSIRO Emilia Rico-Munoz, BCN Research Laboratories

Emilia Rico-Munoz, BCN Research Laboratories Pat Rule, bioMérieux

# **Intended Audience:**

Food and beverage QA personnel, QC technicians, corporate personnel, safety personnel, etc.

# WORKSHOP 2 – VALIDATION TO IMPROVE MEAT AND POULTRY SAFETY DESCRIPTION:

Although its value is increasingly recognized, there is currently a degree of uncertainty about validation and how it should be used to promote food safety. According to the FSIS, inadequate validation of the control mechanisms has resulted in HACCP programs which are ineffective at controlling the hazards they are designed to address. Validation is the process of demonstrating that HACCP systems as designed can adequately control identified hazards to produce a safe and unadulterated product. The two main elements of validation are: (1) Scientific or technical support for the HACCP system and (2) Practical in-plant demonstration proving the HACCP system can perform as expected. Likewise, verification is the key to the ongoing assurance that the system is being implemented, as designed, to consistently reduce or eliminate pathogens, foreign materials and chemical contaminants that are inherent or likely to occur in the product or process. This workshop will provide an in depth guide to the methodologies to be employed in HACCP validation and key steps to meet verification requirements.

The purpose of conducting this workshop is to disseminate the theory and practice of process validation in food safety enhancement activities. This workshop will provide a practical interpretation of the existing science, guidelines and policies regarding validation, as well as developments in science and policies relative to recovery, characterization and control of pathogens directly from foods. Given the uncertainty regarding validation and the upcoming new guidelines and policies on validation along with new scientific developments, it is crucial for IAFP to address changing policies on meat and poultry validation guidelines at the 2012 Annual Meeting. This one-day pre-conference workshop will provide an update on the newest USDA-FSIS compliance guidelines on HACCP systems validations and be conducted by a group of experienced scientists who support stakeholders in the promotion and application of scientifically sound approaches and protocols for food process validation. The workshop will be of specific interest and conducting it at IAFP will provide a platform to facilitate a dialog among researchers, processors, regulatory personnel and technology providers on proper validation implementation.

# **Topics:**

- What are You Trying to Validate?
- Basic Science in Food Processing
- Mechanics of Experimentation

- Statistics
- Interpretation

# **Instructors:**

Gary Acuff, Texas A&M University Catherine Cutter, Pennsylvania State University Mindy Brashears, Texas Tech University James Dickson, Iowa State University

# **Organizer:**

Manpreet Singh, Auburn University

John Luchansky, U.S. Department of Agriculture-ARS Randall Phebus, Kansas State University Harshavardhan Thippareddi, University of Nebraska-Lincoln

# **Intended Audience:**

Food safety individuals involved in validations and food safety audits.

# WORKSHOP 3 – SEARCH AND DESTROY! FINDING AND ELIMINATING ENVIRONMENTAL PATHOGENS

# **DESCRIPTION:**

An effective Environmental Monitoring Program (EMP) is a critical component of any Food Safety plan to identify and minimize the potential for microbial contamination in a food processing environment and the products produced in that environment. An effective EMP program can serve as an early warning system to identify and eliminate ("search & destroy") sources of potential contamination that can persist over time and eventually impact product safety. This workshop will review the potential microbial risks in food processing for low moisture foods, raw, partially cooked and ready-to-eat type products. Risk management strategies, including the effective implementation of preventive controls as well as wet and dry sanitation options, will be presented. Additional topics include the development and implementation of an effective sampling plan, the management of data through tracking and trending and explore investigative scenarios. Workshop attendees will have an opportunity to develop an environmental monitoring program for various product types based on both wet and dry sanitation environments.

## **Topics:**

- Risk Assessments by Product Categories
- Role of Preventive Controls
- Sanitation for Multiple Environments
- Investigations, Regulatory Sampling and Root Cause Analysis

- Sampling Plans: How What Where When
- Data Interpretation and Management Tracking and Trending Data

## Instructors:

Tim Freier, Cargill Margaret Hardin, IEH Laboratories and Consulting Group

# **Organizers:**

Margaret Hardin, IEH Laboratories and Consulting Group Patricia Wester, Food Safety Net Services Ken Kenyon, Keystone Foods Patricia Wester, Food Safety Net Services

## **Intended Audience:**

All industry sector, Q&A personnel.

# Policy on Commercialism

for Annual Meeting Presentations

# **INTRODUCTION**

No printed media, technical sessions, symposia, posters, seminars, short courses, and/or other related types of forums and discussions offered under the auspices of the International Association for Food Protection (hereafter referred to as to Association forums) are to be used as platforms for commercial sales or presentations by authors and/or presenters (hereafter referred to as authors) without the express permission of the staff or Executive Board. The Association enforces this policy in order to restrict commercialism in technical manuscripts, graphics, oral presentations, poster presentations, panel discussions, symposia papers, and all other type submissions and presentations (here-after referred to as submissions and presentations), so that scientific merit is not diluted by proprietary secrecy.

Excessive use of brand names, product names or logos, failure to substantiate performance claims, and failure to objectively discuss alternative methods, processes, and equipment are indicators of sales pitches. Restricting commercialism benefits both the authors and recipients of submissions and presentations.

This policy has been written to serve as the basis for identifying commercialism in submissions and presentations prepared for the Association forums.

# **TECHNICAL CONTENT OF SUBMIS-**SIONS AND PRESENTATIONS

# 2.1 Original Work

The presentation of new technical information is to be encouraged. In addition to the commercialism evaluation, all submissions and presentations will be individually evaluated by the Program Committee chairperson, technical reviewers selected by the Program Committee chairperson, session convenor, and/or staff on the basis of originality before inclusion in the program.

## 2.2 Substantiating Data

Submissions and presentations should present technical conclusions derived from technical data. If products or services are described, all reported capabilities, features or benefits, and performance parameters must be substantiated by data or by an acceptable explanation as to why the data are unavailable (e.g., incomplete, not collected, etc.) and, if it will become available, when. The explanation for unavailable data will be considered by the Program Committee chairperson and/or technical

reviewers selected by the Program Committee chairperson to ascertain if the presentation is acceptable without the data. Serious consideration should be given to withholding submissions and presentations until the data are available, as only those conclusions that might be reasonably drawn from the data may be presented. Claims of benefit and/or technical conclusions not supported by the presented data are prohibited.

## 2.3 Trade Names

Excessive use of brand names, product names, trade names, and/or trademarks is forbidden. A general guideline is to use proprietary names once and thereafter to use generic descriptors or neutral designations. Where this would make the submission or presentation significantly more difficult to understand, the Program Committee chairperson, technical reviewers selected by the Program Committee chairperson, session convenor, and/or staff, will judge whether the use of trade names, etc., is necessary and acceptable.

# 2.4 "Industry Practice" Statements

It may be useful to report the extent of application of technologies, products, or services; however, such statements should review the extent of application of all generically similar technologies, products, or services in the field. Specific commercial installations may be cited to the extent that their data are discussed in the submission or presentation.

# 2.5 Ranking

Although general comparisons of products and services are prohibited, specific generic comparisons that are substantiated by the reported data are allowed.

# 2.6 Proprietary Information (See also 2.2.)

Some information about products or services may not be publishable because it is proprietary to the author's agency or company or to the user. However, the scientific principles and validation of performance parameters must be described for such products or services. Conclusions and/or comparisons may be made only on the basis of reported data.

# 2.7 Capabilities

Discussion of corporate capabilities or experiences are prohibited unless they pertain to the specific presented

# **GRAPHICS**

#### 3. I Purpose

Slides, photographs, videos, illustrations, art work, and any other type visual aids appearing with the printed text in submissions or used in presentations (hereafter referred to as graphics) should be included only to clarify technical points. Graphics which primarily promote a product or service will not be allowed. (See also 4.6.)

## 3.2 Source

Graphics should relate specifically to the technical presentation. General graphics regularly shown in, or intended for, sales presentations cannot be used.

# 3.3 Company Identification

Names or logos of agencies or companies supplying goods or services must not be the focal point of the slide. Names or logos may be shown on each slide so long as they are not distracting from the overall presentation.

## 3.4 Copies

Graphics that are not included in the preprint may be shown during the presentation only if they have been reviewed in advance by the Program Committee chairperson, session convenor, and/or staff, and have been determined to comply with this policy. Copies of these additional graphics must be available from the author on request by individual attendees. It is the responsibility of the session convenor to verify that all graphics to be shown have been cleared by Program Committee chairperson, session convenor, staff, or other reviewers designated by the Program Committee chairperson.

#### INTERPRETATION AND ENFORCEMENT 4.

#### **4.** I **Distribution**

This policy will be sent to all authors of submissions and presentations in the Association forums.

## 4.2 Assessment Process

Reviewers of submissions and presentations will accept only those that comply with this policy. Drafts of submissions and presentations will be reviewed for commercialism concurrently by both staff and technical reviewers selected by the Program Committee chairperson. All reviewer comments shall be sent to and coordinated by either the Program Committee chairperson or the designated staff. If any submissions are found to violate this policy, authors will be informed and invited to resubmit their materials in revised form before the designated deadline.

## 4.3 Author Awareness

In addition to receiving a printed copy of this policy, all authors presenting in a forum will be reminded of this policy by the Program Committee chairperson, their session convenor, or the staff, whichever is appropriate.

## 4.4 Monitoring

Session convenors are responsible for ensuring that presentations comply with this policy. If it is determined by the session convenor that a violation or violations have occurred or are occurring, he or she will publicly request that the author immediately discontinue any and all presentations (oral, visual, audio, etc.) and will notify the Program Committee chairperson and staff of the action taken.

## 4.5 Enforcement

While technical reviewers, session convenors, and/or staff may all check submissions and presentations for commercialism, ultimately it is the responsibility of the Program Committee chairperson to enforce this policy through the session convenors and staff.

## 4.6 Penalties

If the author of a submission or presentation violates this policy, the Program Committee chairperson will notify the author and the author's agency or company of the violation in writing. If an additional violation or violations occur after a written warning has been issued to an author and his agency or company, the Association reserves the right to ban the author and the author's agency or company from making presentations in the Association forums for a period of up to two (2) years following the violation or violations.

# **30-Year Members**

Gary R. Acuff

Hamad A. Alkanhal

S. R. Amin

Kenneth Anderson

Henry V. Atherton

**David Barbano** 

Susan F. Barefoot

Sidney E. Barnard

John R. Bartell

Daniel J. Belsito

Harold Bengsch

Dane Bernard

Larry R. Beuchat

Darrell Bigalke

Elizabeth A. Bihn

Lyle Boucher

Robert E. Brackett

A. Richard Brazis

William Brewer

Michael H. Brodsky

David Brookman

Daniel G. Brown

John C. Bruhn

Frank L. Bryan

Lloyd B. Bullerman

Alfred Burns

Francis F. Busta

John N. Butts

Ron Case

John Cerveny

Warren S. Clark, Jr.

Frederick K. Cook

Maribeth A. Cousin

P. Michael Davidson

Mario P. De Figueiredo

Pascal Delaguis

Joseph Disch

Michael P. Doyle

F. Ann Draughon

Brian P. Emanuel

**Phyllis Entis** 

Eduardo F. Escartin

Wilbur S. Feagan

Russell S. Flowers

Joseph Frank

David D. Fry

Daniel Y. C. Fung

Constantin Genigeorgis

Roy E. Ginn

Andrew M. Gould

Thomas R. Graumlich

Robert B. Gravani

**Richard Groves** 

John J. Guzewich

Cameron R. Hackney

**Ed Hansberry** 

Randy Hanson

Mark A. Harrison

Robert J. Hasiak

Archie C. Holliday

Yaowen Huang

Kevin Hulbert

Kim W. Hutchinson

Kenji Isshiki

Michael G. Johnson

Loren Johnson

Frank T. Jones

James E. Kennedy

Ellen Koenig

Jeffrey L. Kornacki

William S. LaGrange

Frank P. Leonardo

L. O. Luedecke

Alan R. Lundin

Robert T. Marshall

Thomas A. McCaskey

Shannon McCoy

Lucy M. McProud

David Z. McSwane

John R. Miller

Martin W. Mitchell

Barbara A. Munce

John Nason

Debby L. Newslow

Orlowe M. Osten

Irving J. Pflug

Charles Price

Gale Prince

Kailash S. Purohit

Joseph M. Reed

Karen Reinhardt

Elliot T. Ryser

Robert L. Sanders

Mary L. Sandford

A. J. Scheidenhelm

Ronald Schnitzer

F. Tracy Schonrock

Jenny Scott

John Silliker

James L. Smith

Joseph M. Smucker

Oscar Peter Snyder

John N. Sofos

D. Wayne Sprung

Grace E. Steinke

**Thomas Stubbs** 

Katherine M.J. Swanson

Richard C. Swanson

Agnes G. Tan

Sita R. Tatini

Leon Townsend

Tom Valitchka

Allan Ver Voort

Stanley E. Wallen

Marleen M. Wekell

Edmund A. Zottola

# **Past Presidents**

1012 Charles I Stoffen	1044 Charles A Abala	1076 U.F. Thompson Jr
1912 — Charles J. Steffen	1944 — Charles A. Abele	1976 — H. E. Thompson, Jr.
1913 — Charles J. Steffen	1945 — Russell R. Palmer	1977 — Henry V. Atherton
1914 — Charles J. Steffen	1946 — Russell R. Palmer	1978 — David D. Fry
1915 — A. N. Henderson	1947 — R. G. Ross	1979 — Howard Hutchings
1916 — Claude F. Bessio	1948 — Walter D. Tiedeman	1980 — Bill Kempa
1917 — Wm. H. Price	1949 — Abraham W. Fuchs	1981 — William Arledge
1918 — Alfred W. Lombard	1950 — Milton R. Fisher	1982 — Harry Haverland
1919 — James O. Jordan	1951 — Ken G. Weckel	1983 — Robert Marshall
1920 — Ernest Kelly	1952 — H. L. "Red" Thomasson	1984 — A. Richard Brazis 1985 — Archie Holliday
1921 — C. L. Roadhouse	1953 — Harold J. Barnum	1986 — Sid Barnard
1922 — Herbert E. Bowman	1954 — John D. Faulkner	1987 — Roy Ginn
1923 — George E. Bolling	1955 — Ivan E. Parkin	1988 — Leon Townsend
1924 — J. B. Hollingsworth	1956 — Harold S. Adams	1989 — Robert Gravani
1925 — Thomas J. Strauch	1957 — Paul Corash	1990 — Ronald Case
1926 — George C. Supplee	1958 — Harold Robinson	1991 — Bob Sanders
1927 — W. A. Shoults	1959 — Franklin Barber	1992 — Damien A. Gabis
1928 — Ira V. Hiscock	1960 — William V. Hickey	1993 — Michael P. Doyle
1929 — Howard R. Estes	,	1994 — Harold Bengsch
	1961 — John Sheuring	1995 — C. Dee Clingman
1930 — Ralph E. Irwin	1962 — Charles E. Walton	1996 — F. Ann Draughon
1931 — A. R. B. Richmond	1963 — Ray Belknap	1997 — Michael H. Brodsky
1932 — William B. Palmer	1964 — John H. Fritz	1998 — Gale Prince
1933 — Horato N. Parker	1965 — Wallace C. Lawton	1999 — Robert E. Brackett
1934 — Paul F. Krueger	1966 — Fred E. Uetz	2000 — Jack Guzewich
1935 — C. K. Johns	1967 — Paul R. Elliker	2001 — Jenny Scott 2002 — James S. Dickson
1936 — George W. Grim	1968 — Al N. Myhr	2003 — Anna M. Lammerding
1937 — John C. Hardenbergh	1969 — Samuel O. Noles	2004 — Paul A. Hall
1938 — Alexander R. Tolland	1970 — Milton E. Held	2005 — Kathleen A. Glass
1939 — Victor M. Ehlers	1971 — Dick B. Whitehead	2006 — Jeffrey M. Farber
1940 — Paul D. Brooks	1972 — Orlowe M. Osten	2007 — Frank Yiannas
1941 — Leslie C. Frank	1973 — Walter F. Wilson	2008 — Gary R. Acuff 2009 — J. Stan Bailey
1942 — Frederick W. Fabian	1974 — Earl O. Wright	2010 — Vickie Lewandowski
1943 — Charles A. Abele	1975 — P. J. Skulborstad	2011 — Lee-Ann Jaykus
		•

# Past Annual Meetings and Locations

1912	Milwaukee, WI	1947	Milwaukee, WI	1982	Louisville, KY
1913	Chicago, IL	1948	Philadelphia, PA	1983	St. Louis, MO
1914	Chicago, IL	1949	Columbus, OH	1984	Edmonton, Alberta
1915	Washington, D.C.	1950	Atlantic City, NJ	1985	Nashville, TN
1916	Springfield, MA	1951	Glenwood Springs, CO	1986	Minneapolis, MN
1917	Washington, D.C.	1952	Milwaukee, WI	1987	Anaheim, CA
1918	Chicago, IL	1953	East Lansing, MI	1988	Tampa, FL
1919	New York, NY	1954	Atlantic City, NJ	1989	Kansas City, MO
1920	Chicago, IL	1955	Augusta, GA	1990	Arlington Heights, IL
1921	New York, NY	1956	Seattle, WA	1991	Louisville, KY
1922	St. Paul, MN	1957	Louisville, KY	1992	Toronto, Ontario
1923	Washington, D.C.	1958	New York, NY	1993	Atlanta, GA
1924	Detroit, MI	1959	Glenwood Springs, CO	1994	San Antonio, TX
1925	Indianapolis, IN	1960	Chicago, IL	1995	Pittsburgh, PA
1926	Philadelphia, PA	1961	Des Moines, IA	1996	Seattle, WA
1927	Toronto, Ontario	1962	Philadelphia, PA	1997	Orlando, FL
1928	Chicago, IL	1963	Toronto, Ontario	1998	Nashville, TN
1929	Memphis, TN	1964	Portland, OR	1999	Dearborn, MI
1930	Cleveland, OH	1965	Hartford, CT	2000	Atlanta, GA
1931	Montreal, Quebec	1966	Minneapolis, MN	2001	Minneapolis, MN
1932	Detroit, MI	1967	Miami Beach, FL	2002	San Diego, CA
1933	Indianapolis, IN	1968	St. Louis, MO	2003	New Orleans, LA
1934	Boston, MA	1969	Louisville, KY	2004	Phoenix, AZ
1935	Milwaukee, WI	1970	Cedar Rapids, IA	2005	Baltimore, MD
1936	Atlantic City, NJ	1971	San Diego, CA	2006	Calgary, Alberta
1937	Louisville, KY	1972	Milwaukee, WI	2007	Lake Buena Vista, FL
1938	Cleveland, OH	1973	Rochester, NY	2008	Columbus, OH
1939	Jacksonville, FL	1974	St. Petersburg, FL	2009	Grapevine, TX
1940	New York, NY	1975	Toronto, Ontario	2010	Anaheim, CA
1941	Tulsa, OK	1976	Arlington Heights, IL	2011	Milwaukee, WI
1942	St. Louis, MO	1977	Sioux City, IA		
1943	Cancelled	1978	Kansas City, MO		
1944	Chicago, IL	1979	Orlando, FL		
1945	Cancelled	1980	Milwaukee, WI		
1946	Atlantic City, NJ	1981	Spokane, WA		

# **Future Annual Meetings**

July 28-31, 2013 Charlotte Convention Center Charlotte, North Carolina

August 3-6, 2014 Indiana Convention Center Indianapolis, Indiana

July 26-29, 2015 Oregon Convention Center Portland, Oregon







# Helping to deliver safer food, from farm to fork.

Diversey and the International Association of Food Protection have a long standing partnership of working together, something that will remain now we are a part of Sealed Air. We will continue to work together to meet challenges head on and ensure we are always at the leading edge of global food safety solutions.

Sealed Air is the new global leader in food safety and security, facility hygiene and product protection, offering efficient and sustainable solutions that create business value for customers, enhance the quality of life for consumers and provide a cleaner and healthier environment for future generations.

Come and visit our booth or go to www.sealedair.com





# 2012 Journal of Food Protection Most Cited Publication Awards

The Journal of Food Protection® Most Cited Research and Review Publication Awards recognize top researchers and high-quality research publications and reviews that contribute to the impact of JFP and the field of food safety. The awards will be presented by the JFP Scientific Co-Editors during the Editorial Board Reception at IAFP 2012.

# Most Cited Research Publication Award

1 ST

# Hepatitis E Virus RNA in Commercial Porcine Livers in The Netherlands

Authors: Martijn Bouwknegt\*, Froukje Lodder-Verschoor, Wim H. M. Van Der Poel, Saskia A. Rutjes and Ana Maria De Roda Husman

Volume: 70, No. 12, Pages 2889-2895, Published: Dec. 2007

**2**<sup>ND</sup>

Transportation and Lairage Environment Effects on Prevalence, Numbers, and Diversity of *Escherichia coli* O157:H7 on Hides and Carcasses of Beef Cattle at Processing

Authors: Terrance M. Arthur\*, Joseph M. Bosilevac, Dayna M. Brichta-Harhay, Michael N. Guerini, Norasak Kalchayanand, Steven D. Shackelford, Tommy L. Wheeler and Mohammad Koohmaraie

Volume: 70, No. 2, Pages 280-286, Published: Feb. 2007

3<sup>RD</sup>

# Prevalence, Numbers, and Subtypes of *Campylobacter jejuni* and *Campylobacter coli* in Uncooked Retail Meat Samples

Authors: Teck Lok Wong\*, Lauren Hollis, Angela Cornelius, Carolyn Nicol, Roger Cook and John Andrew Hudson

Volume: 70, No. 3, Pages 566-573, Published: March 2007

# and

Rapid and Simultaneous Quantitation of *Escherichia coli* O157:H7, *Salmonella*, and *Shigella* in Ground Beef by Multiplex Real-Time PCR and Immunomagnetic Separation

Authors: Luxin Wang, Yong Li and Azlin Mustapha\*

Volume: 70, Number 6, pages 1366-1372, Published: June 2007

# Most Cited Review Publication Award

**1** ST

A Review of the Incidence and Transmission of *Listeria monocytogenes* in Ready-to-Eat Products in Retail and Food Service Environments

Authors: Alexandra Lianou and John N. Sofos\*

Volume: 70, No. 9, Pages 2172-2198, Published: Sept. 2007

# **Authors and Presenters**

\*Presenter

Abdul-Wakeel, Aisha, U.S. Department of Agriculture (P3-152)
Abeyta, Carlos, U.S. Food and Drug Administration (P1-16)
Abraham, Shibu, FMC Corporation (P3-60)
Achar, Premila, Kennesaw State University (P2-97\*)
Achen, Maya, Ohio Department of Agriculture (T4-05\*)
Acheson, David, Leavitt Partners (RT1\*)
Acosta, Oscar, Cornell University (P2-67\*)
Adachi, Reiko, National Institute of Health Sciences (S20\*)
Adam, Elizabeth, Emory University (T4-06)
Adams, Chanelle, University of Massachusetts-Amherst (P3-97\*)
Adams, Mary, University of Georgia (T8-04)
Adhikari, Achyut, Washington State University (P3-56)
Adkins, Alani, NCA&T State University (P2-79)
Adkins, Jaclyn, Colorado State University (T10-06)
Adler, Jeremy, Ecolab Inc. (P2-08, P2-85)

Adolphe, Ysabelle, University of Liege (P3-151, P1-70)

Adzitey, Frederick, University for Development Studies (T8-07\*) Agin, James, Q Laboratories, Inc. (P1-103, P1-23, P2-156, P2-157)

Al-Mohaithef, Mohammed, University of Birmingham (P1-139\*)

Al-Sakkaf, Ali, Massey University (T3-12\*)

Alali, Walid, University of Georgia (P2-06, P1-75, T5-05)

Aleid, Salah, King Faisal University (P3-55)

Allard, Marc, U.S. Food and Drug Administration (P3-86)

Allard, Sarah, U.S. Food and Drug Administration (P3-116, P3-86)

Allen, Ann-Christine, SDIX (P3-127)

Allen, Denise, Louisiana State University (P2-149)

Allen, Kevin, University of British Columbia (P3-105, P3-45, P3-108,

P3-137, P3-143, P3-142, T4-03, P3-33, P3-39)

Allen, Vanessa, Ontario Public Health (T10-02)

Alles, Susan, Neogen Corporation (T10-10)

Almy, David, Neogen Corporation (P2-120\*)

Altermann, Eric, AgResearch Limited Grasslands Research Centre (P1-83)

Amiri-Jami, Mitra, University of Guelph (P3-82)

Anany, Hany, University of Guelph (P3-133)

Anciso, Juan, Texas AgriLife Extension Service (T3-05)

Andaloro, Bridget, DuPont (P1-35, P1-94)

Andersen, Jens Kirk, Technical University of Denmark (RT1\*)

Anderson, Jeffrey, Procter and Gamble Professional (\$38\*)

Anderson, Nathan, U.S. Food and Drug Administration (S2\*, RT2\*, P1-47)

Andritsos, Nikolaos, Colorado State University (P2-10)

Ane, Cecile, University of Wisconsin (P3-120)

Antenucci, Rachel, Delaware Valley College (P3-02, P3-01)

Antolinez, Carlos Alvarez, European Union (S1\*)

Anvarian, Amir H.P., University of Birmingham (P3-163\*)

Apelagunta, Vinil, Illinois Institute of Technology (P1-47\*)

Araud, Elbashir, The Ohio State University (T6-09\*)

Araujo, Joao Paulo Andrade, Universidade Estadual de Londrina (P2-05)

Arbault, Patrice, BioAdvantage Consulting (S29\*)

Arce, Gabriela, U.S. Food and Drug Administration (P3-86, P3-116)

Argyri, Anthoula, National Agricultural Research Foundation (P3-80, P1-91, P2-64, P1-81, P1-73)

Arias, Maria Laura, Universidad de Costa Rica (P1-164\*)

Armstrong, Marcia, Qiagen Inc. (P2-117\*)

Armstrong, Wylie, Baiada Poultry (P1-05)

Arritt, Fletcher, North Carolina State University (P1-62)

Arvizu-Medrano, Sofia, Universidad Autonoma de Queretaro (P2-30, P2-55)

Aslam, Mueen, Agriculture & Agri-Food Canada (P1-101, P2-19, P2-17)

Aston, Christopher, U.S. Department of Agriculture-FSIS-ODIFP (P2-24)

Atallah, Nemah, Bajada (P1-05)

Atwill, Edward, University of California-Davis (P3-157)

Augustin, Jean Christophe, ENVA (P1-169)

Auras, Rafael, Michigan State University (P3-92, T2-01)

Autio, Wesley, University of Massachusetts-Amherst (T1-04)

Avila, Karina, Rutgers University (P2-43)

Avila-Sosa, Raul, Benemerita Universidad, Autonoma De Puebla (P2-77\*, P3-100, P3-96)

Avila-Vega, Dulce E., Universidad Autonoma de Queretaro (P2-55)

Aviles, Bryan, Virginia Tech (P2-146, P1-100)

Avers, Sherry, U.S. Food and Drug Administration (P2-139)

Bach, Susan, Agriculture and Agri-Food Canada (P1-101)

Baek, Seung-Hee, Korea Livestock Products HACCP

Accreditation Service (P1-60\*)

Baguet, Justine, ADRIA (P2-131, P2-132, P2-127, P3-148)

Bahk, Gyung-Jin, Kunsan National University (P2-171, P1-165)

Bailey, Allan, U.S. Food and Drug Administration (S9\*)

Bailey, Rebecca, U.S. Department of Agriculture-ARS (T1-11)

Baker, David, David Baker & Associates/Chilton Consulting Group (P2-18)

Baker, Elizabeth, Drexel University (P3-145)

Balaquero, Alina, University of Florida (P2-105)

Ballet, Nathalie, Lesaffre (T2-04)

Banerjee, Pratik, Alabama A&M University (P2-46)

Banerjee, Rishi, U.S. Department of Agriculture-ARS (P3-32)

Bang, Jihyun, Korea University (P2-160, P2-86)

Bapanpally, Chandra, SA Scientific (P2-126\*)

Barak, Jeri, University of Wisconsin-Madison (S35\*)

Barcellos, Vinicius Cunha, Federal University of Parana (P1-57)

Baril, Eugenie, ADRIA (P1-46)

Bark, Don, U.S. Food and Drug Administration (P1-16)

Barlow, Kristina, U.S. Department of Agriculture-FSIS (S18\*, P1-17, T8-09, T8-01)

Barlow, Robert, CSIRO (P2-74, P2-07)

Barnett, Charles, NanoDetection Technology (P1-24)

Barninka, Dory, JBS (S15\*)

Bartholomay, Tom, University of Minnesota (P1-148)

Bartz, Faith, Emory University School of Public Health (P3-46, T4-06, T10-05)

Bary, Andy, WSU (P3-56)

Bassani, Milena Tomasi, Universidade Federal de Pelotas (P1-117)

Bastarrachea, Luis, University of Massachusetts (P3-91\*)

Batz, Michael, University of Florida (T2-11, P1-155)

Bauchan, Gary, U.S. Department of Agriculture (T4-09)

Bauer, Nathan, U.S. Department of Agriculture-FSIS (P2-129, P3-145)

Bauermeister, Laura, Auburn University (T5-07)

Baugher, Jonathan, North Carolina State University (P2-114)

Baumert, Joseph, University of Nebraska-Lincoln (S20\*, S21\*) Bland, Beth, Georgia Fruit and Vegetable Growers Association (RT5\*) Bausch, Daniel, Tulane University (S5\*) Blessington, Tyann, University of California-Davis (P3-47, P2-51, Baxa, Cheryl, United States Army Natick Soldier Research, P3-37) Development and Engineering Center (P1-171) Blodgett, Robert, U.S. Food and Drug Administration (P3-116) Baysal-Gurel, Fulya, The Ohio State University (P2-50) Bo, Liang, Auburn University (P2-87) Beaulieu, Stephen, RTI International (T3-07) Boateng, Akwasi, U.S. Department of Agriculture-ARS (T1-06) Beaupied, Helene, Pall GeneDisc Technologies (P2-156, P2-157) Bodnaruk, Peter W., Ecolab Inc. (P2-85, P1-63, P2-16, P2-08) Becker, Denise, ConAgra Foods (P3-83\*) Boerefijn, Renee, Purac Biochem (P3-99) Beckman, Sean, Washington State University (P3-56) Boleij, Peter, Check-Points B.V. (P1-42) Bednar, Carolyn, Texas Woman's University (P3-68) Bonhote, Pierre, Service of Consumption and Veterinary Business (SCAV) (P1-124) Begum, Mumtaz, National Veterinary Institute (T3-06) Begum, Selina, Silliker Australia (P1-04, P2-155) Bont, Roger, Cargill, Inc. (\$9\*) Belk, Keith, Colorado State University (P2-98, P2-11, P2-10) Bontempo, Nancy, Kraft Foods (P2-100) Bontenbal, Edwin, PURAC (P3-102, P3-99) Bell, Rebecca, U.S. Food and Drug Administration (P3-86) Booren, Betsy, American Meat Institute Foundation (RT1\*) Bello-Sanchez, Maria de Lourdes, Benemerita Universidad Bor, Tarik, North cCrolina A&T State University (P2-40) Autonoma de Puebla (P2-77) Ben Embarek, Peter, World Health Organization Office in China Borjas, Eva, Colorado State University (P1-105, P3-125\*) Bosilevac, Joseph, U.S. Department of Agriculture-ARS (S29\*) Bena, Dan, Senior Director of Sustainable Development (S12\*) Boubetra, Abdelkader, Institut Scientifique d'Hygiene et d'Analyse Bender, Eric, Air Products & Chemicals, Inc. (P3-02) (P2-140, P2-110) Bender, Jeff, University of Minnesota (T4-02) Bourguin, Leslie, Michigan State University (S22\*) Benjamin, Lisa, Western Institute of Food Safety and Security (P3-145) Bowers, John, U.S. Food and Drug Administration (P2-38, T2-07) Benner, Jr., Ronald, U.S. Food and Drug Administration (P1-74) Boyer, Renee, Virginia Tech (T1-03) Bennett, Reginald, U.S. Food and Drug Administration (S42, P2-65) Boyer, Timothy, National Center for Food Protection and Defense Benoit, Amanda, Michigan State University (P1-174\*) (P3-67) Benoit, Lora, IEH Laboratories and Consulting Group (P1-129\*) Boyle, Megan, Q Laboratories, Inc. (P1-103) Benson, Andrew, University of Nebraska-Lincoln (P2-115) Bozkurt, Hayriye, University of Tennessee (P2-162\*) Benzinger, M. Joseph, Q Laboratories, Inc. (P1-103, P2-157, Brackett, Robert, Institute for Food Safety and Health (S36\*) Brandt, Alex, Texas Tech University (P1-105, P3-125) Brashears, Mindy, Texas Tech University (S33\*, P1-92, P1-104, Bergdahl, Asa, IEH Laboratories and Consulting Group (P3-171, P3-21, P2-15, P2-138, P2-91, P1-120, P1-168, P1-146, P3-109) P3-170, P1-39, P1-129) Berghof-Jager, Kornelia, BIOTECON Diagnostics (P2-133) Brashears, Todd, Texas Tech University (P1-146, S10, P1-168) Bergholz, Peter, Cornell University (T8-06, T3-01) Brassard, Julie, Agriculture and Agri-Food Canada (P3-168\*) Bernard, Dane, Keystone Foods L.L.C. (S27\*) Brehm-Stecher, Byron, Iowa State University (P3-101, P3-173\*) Bernard, Muriel, ADRIA (P2-131, P2-132, P2-127, P3-148) Breidt, Fred, U.S. Department of Agriculture-ARS (RT2\*, P3-159\*) Bernez, Cecile, ADRIA (P2-132, P2-127, P3-148, P2-131) Bretano, Liana, Brazilian Agricultural Research Corporation Bernstein, Adam, Iowa State University (P1-142) (P3-84) Berrang, Mark, U.S. Department of Agriculture-ARS-RRC (P2-06) Brevnov, Maxim, Life Technologies (P3-150) Berry, Katrina, Drexel University (P3-145) Brichta-Harhay, Dayna, U.S. Department of Agriculture-ARS (P2-95) Bersot, Luciano dos Santos, UFPR (P1-57\*) Bridger, Kathryn, Symbio Alliance (P2-07) Bessant, Conrad, Cranfield University (P1-81, P1-73) Brinsmade, Doug, Sea-Delight (Special Session\*) Betts, Gail, Campden BRI (P1-13, P1-14) Bronstein, Philip, U.S. Department of Agriculture (T8-09, T8-01) Brooks, J. Chance, Texas Tech University (P1-92, P2-138, P3-109) Betts, Roy, Campden BRI (P1-13, P1-14) Beuchat, Larry, University of Georgia (P2-108, P2-80, P2-160, P1-75) Brouillard, Elaine, RSBOJC (P3-56) Bezanson, Greg, Agriculture and Agri-Food Canada (P3-40) Brown, Eric, U.S. Food and Drug Administration (P3-86, P1-109, Bhargava, Kanika, Wayne State University (T2-12, P3-107) P3-116, P2-158) Brown, Wyatt, California Polytechnic State University (T4-12) Bhaskara, Anuhya Goutham, Illinois Institute of Technology (NCFST) (P1-172) Browning, Paul, New Mexico State University (P2-159) Bianchini, Andreia, University of Nebraska (P3-115, P1-115) Bryan, Daniel, University of Florida (T5-09) Biesus, Luiza, Brazilian Agricultural Research Corporation (P3-84) Brzoska, Pius, Life Technologies (P3-152, P1-23) Bihn, Elizabeth, Cornell University (RT5\*, T7-09, T7-02, T7-07, S36\*) Buchanan, Robert, University of Maryland (S8\*, S28\*, RT4\*, Binet, Rachel, U.S. Food and Drug Administration (P1-06) P1-153, P2-27) Binkley, Margaret, The Ohio State University (P3-69, P3-76, P3-75) Buchholz, Annemarie, U.S. Food and Drug Administration (P1-36, Bird, Patrick, Q Laboratories, Inc. (P2-156, P1-23, P1-103, P2-157) P3-48) Bisha, Bledar, Colorado State University (P1-30, P1-37, T10-04, Buchta, David, Battelle (T3-08) Bulcourt, Valerie, Eurofins IPL Nord (P3-153) T10-06) Black, Elaine, Ecolab Inc. (P2-16\*) Bunning, Marisa, Colorado State University (P3-125) Black, Glenn, Grocery Manufacturers Association (RT2\*, P3-03) Burall, Laurel, U.S. Food and Drug Administration (P2-163) Blackall, Patrick J., The University of Queensland (P2-20) Bureau, Cathy, Buffalo Wild Wings (S3\*) Blackstone, George, BioGX (T10-12) Burin, Raquel Cristina Konrad, Universidade Federal de Viçosa Blais, Burton, Canadian Food Inspection Agency (T10-02) (P2-05)

Chambliss-Bush, Sherre, University of Georgia (P1-55\*)

Chang, Hyun-Joo, Korea Food Research Institute (P1-134)

Chang, Min-Sun, Duksung Women's University (P3-74)

Chaney, William, Texas Tech University (P3-21\*)

T10-04)

Chandler, Jeffrey, Colorado State University (T10-06, P1-37, P1-30,

\*Presenter Burnett, Scott, Malt-O-Meal Company (T9-06\*) Chang, Yuhua, University of Massachusetts (P3-117, P3-97) Burnham, Greg, (P1-171) Chapin, Travis, Cornell University (T8-06\*) Burrows, Erik, U.S. Food and Drug Administration (P3-86\*) Chapman, Benjamin, North Carolina State University (T7-01, S33, Busby, Jean, U.S. Department of Agriculture-ERS (\$15\*) P1-64, T7-04) Bush, Michele, Luminex(r) Corporation (P2-118) Chapman, Jessica, Evogen, Inc. (P2-119\*) Butler, Kristin, U.S Food and Drug Administration (P1-74) Charalambous, Marianna, University of Birmingham (P1-178\*) Bülte, Michael, Justus-Liebig-University Giessen (T5-02) Charastertrangsi, Tumnoon, University of Guelph (P3-82\*) Caballero-Prado, Cindy, Universidad Autonoma de Nuevo Leon Charles, Deborah, Public Health Wales (P3-14) Chaturongakul, Soraya, Mahidol University (P1-110\*) Cadot, Celine, Bio-Rad (P1-22) Chatzikyriakidou, Kyriaki, University of Wisconsin-Madison Callahan, Mary Theresa, U.S. Department of Agriculture-ARS (P1-119, P3-120) (P3-32) Chaves, Evelyn Carolina, Universidad de Costa Rica (P1-164) Calle, Alexandra, Texas Tech University (P1-104\*) Chaves, Jeane Quintanilha, Fundação Oswaldo Cruz (P3-87) Chbib, Muhamad, Wayne State University (P3-107) Calzada, Javier, INIA (P2-62) Camacho, Alex, University of California (T3-03, T4-07) Chen, Chin-Yi, U.S. Department of Agriculture-ARS (P3-146, P3-121) Camargo, Anderson Carlos, Universidade Federal de Vicosa Chen, Chun, The Pennsylvania State University (P2-141, P1-121) (P2-02, P2-04) Chen, Dong, Auburn University (P2-102) Campos, David, Texas Tech University (P2-91\*) Chen, Fur-Chi, Tennessee State University (P1-90) Cancarevic, Ana, University of British Columbia (P3-33, P3-143, Chen, Haigiang, University of Delaware (T6-07, T6-09, P2-32) P3-45, P3-142) Chen, Jennifer, Silliker Australia (P2-155, P1-04) Cannon, Jennifer, University of Georgia (P3-54) Chen, Jessica, Texas Tech University (T8-08\*) Cantera, Jason, IEH Laboratories and Consulting Group (P1-28, Chen, Jin Tong, National Chung Hsing University (P2-87) P3-170, P1-29, P3-165, P1-31) Chen, Jinru, The University of Georgia (P2-99, P2-167, P2-48) Cantera, Ruth, IEH Laboratories and Consulting Group (P1-29, Chen, Kai-Shun, U.S. Food and Drug Administration (P1-26) P1-31, P1-28) Chen, Shouyi, University of California-Davis (P3-157) Canto, Anna, Fluminense Federal University (P3-17) Chen, Shu, University of Guelph (T10-02\*) Cao, Cong, University of Tennessee-Knoxville (T6-05, T9-10) Chen, Wei, University of Tennessee-Knoxville (T8-02\*) Cao, Guojie, University of Maryland (P1-93\*) Chen, Xi, Clemson University (P2-114) Cardenas, Carmen, Universidad Autonoma de Nuevo Leon (P3-46) Chen, Yuhuan, U.S. Food and Drug Administration-CFSAN Carlin, Frederic, Inra-UMR (P1-68, S42, T9-07) (P3-145, S8\*) Carlson, Denise, CanBiocin Inc. (P2-92) Cheng, Chorng-Ming, U.S. Food and Drug Administration Carmona, Gilberto, Unilever (P2-122) (P2-147, P1-26) Carson, Charles, University of Missouri-Columbia (P1-21) Cheng, Zhongyang, Auburn University (P1-09) Carter, Mark, QC Laboratories (S33\*) Chenu, Jeremy, Baiada Poultry (P1-05, P3-28\*) Casarin, Leticia, UFRGS (P1-52) Cheon, Jeong-Hwan, Konkuk University (P3-07) Cassard, Sylvanie, bioMerieux (P1-20\*) Cheon-Jei, Kim, Konkuk University (P2-170) Cassens, Barbara, U.S. Food and Drug Administration (RT4\*) Chiarini, Eb. University of Sao Paulo (P3-15, P2-03) Cassidy, Jennifer, U.S. Department of Agriculture-ARS (P3-01, P3-02) Chin, Bryan, Auburn University (P1-113) Chintagari, Sailaja, University of Georgia (P3-20\*) Cassini, Alessandro, European Centre for Disease Prevention and Control (S28\*) Cho, Jae-Jin, Korea Livestock Products HACCP Accreditation Casteel, Michael, Microbial Intelligence Group, LLC (P3-53\*) Service (P1-60) Castillo, Sandra, Universidade A. de Nuevo Leon (P2-103\*) Cho, Jong-Lak, Mokpo National University (P3-57) Castro, Maria Fernanda, Institute of Food Technology (P2-80\*) Cho, Joon II, Korea Food & Drug Administration (P1-157, P2-172, Catella, Caitlin, Center for Science in the Public Interest (P1-126) P2-165) Cates, Sheri, RTI International (P1-138) Cho, Sun-Duk, Duksung Women's University (P3-74) Cavicchioli, Valeria Quintana, Universidade Federal do Parana Choi, Jeong-Ae, Kunsan National University (P1-165) Choi, Ju Won, Kansas State University (T7-11) (P2-05) Celestino-Puga, Alany, Universidad Autonoma de Nuevo Leon (P3-52) Choi, Kyoung-Hee, Wonkwang University (T9-05) Cerqueira, Monica, Universidade Federal de Minas Gerais (P2-56, Choi, Moon-Sil, Kunsan National University (P1-165) P2-57) Choi, Na-Jung, Kangwon National University (P2-171) Cervera, Gilberto, Universidad Autonoma de Yucatan (P3-109) Choi, Song-Yi, Chung-Ang University (P3-131\*) Cevallos-Cevallos, Juan, University of Florida (T8-03, T8-04) Choi, Sung Hee, Korea Health Industry Development Institute Ceylan, Erdogan, Silliker, Inc. (P1-49\*) Chablain, Patrice, Pall GeneSystems (P2-156, P2-157) Choi, Sung-Wook, Korea Food Research Institute (P1-134, P2-130) Chai, Yating, Auburn University (P1-113, P1-09) Chon, Jung-Whan, Konkuk University (P3-10, T10-03, P1-10, P1-07,

> Chorianopoulos, Nikolaos, Nagref (P1-51, P2-22) Chou, Kyson, U.S. Food and Drug Administration (P2-113) Chui, Linda, Provincial Laboratory for Public Health Alberta (P1-27) Chun, Hyang Sook, Korea Food Research Institute (P1-134, S4\*, P1-130, P2-130)

\*Presenter Chung, Duck-Hwa, Gyeongsang National University (P1-161, Cusato, Sueli, University of Sao Paulo (P3-71) P1-53) Cutter, Catherine, The Pennsylvania State University (T5-06, P3-16, Chung, Myung Sub, Chung-Ang University (P2-171, P3-134\*) S25\*) Chung, Soo Hyun, Korea University (P1-130) Czuprynski, Charles, University of Wisconsin-Madison (P1-154, P1-96) Churey, John, Cornell University (P2-84, P2-168) D'Amico, Dennis, University of Vermont (P2-58, T10-01) Clark, Gordon, Gordon Clark & Associates, Inc. (P3-53) D'Souza, Doris, University of Tennessee-Knoxville (T9-10, T8-02, Clark, Sherri, Hussmann Corporation (T4-11) P1-24, T6-02, T9-01, P2-162, T6-05, T9-04) Clinch, Nelson, U.S. Department of Agriculture (T8-01) da Silva, Neuselv, ITAL (P3-79) Clinguart, Antoine, University of Liege (P3-151, P1-70) Dailey, Rachel, U.S. Food and Drug Administration-ORA (P3-85) Cobbold, Rowland, The University of Queensland (P2-20) Damicone, John, Oklahoma State University (P3-51) Cogan, Tristan, University of Bristol (T8-07) Daneshvar Alavi, Hessam Edin, Dalhousie University (T8-11\*) Cogger, Craig, WSU (P3-56) Daniels, Will, Earthbound Farm (S36\*, S8) Coimbra, Jane, Federal University of Vicosa (T9-03) Danyluk, Michelle, University of Florida (P1-156, T6-01, T8-03, Coker, Randy, Mississippi State University (P2-143, P2-144) T8-04, T9-11, P2-36, P2-34, P2-49) Coleman, Shannon, Colorado State University (T10-04, P1-30, Daraba, Aura, University Dunarea de Jos of Galati (P3-101) T10-06, P1-37) Datta, Atin, U.S. Food and Drug Administration-CFSAN Collin, Roger, Fonterra Co-Operative Group Ltd. (P2-69) (P2-163, P1-12) Constantino, Cristina, 3M Brasil (P1-52\*) Daube, Georges, University of Liege (P1-70, P3-151) Conway, Christopher, National Center for Food Safety and Dauda, Akingbove, Embhuleni Hospital (T2-06) Technology (P3-147) Davenport, Kenneth, 3M (S39\*, P1-52, P2-122) Cook, Frederick, Malt-O-Meal Company (S18\*) David, John, 3M (P1-102, P2-142, P1-103, P2-124, P3-119) Cook, L. Victor, U.S. Department of Agriculture-FSIS (P3-145) Davidson, Gordon, Michigan State University (P3-49, T1-08) Cook, Lindsey, University of Delaware (P3-123) Davidson, P. Michael, University of Tennessee (P2-162) Cook, Nigel, The Food and Environment Research Agency (S6\*) Davies, Briar, Fonterra Cooperative (P1-61) Cooksey, Kay, Clemson University (S9\*, P2-81) Davis, Eugene, DuPont (P1-35) Coppings, Richard, Jackson State Community College (P1-138) Davis, Shurrita, North Carolina A&T State University (P3-104, Corassin, Carlos, University of Sao Paulo (P3-71) P3-126) Corder, Victor, 3M Brasil (P1-52) Davis, Tracie, North Carolina A&T State University (P2-40) Cormier, Jiemin, Louisiana State University (P2-112, P3-04) Dawson, Kelly, ConAgra Foods (P2-115) Coroller, Louis, LUBEM-UMT 08.3 PHYSI'Opt (P1-46, P1-68) de Arruda Silveirade Arruda Silveira, Neliane, ITAL (P3-79) Corry, Janet, University of Bristol (T8-07) de Jonge, Rob, National Institute for Public Health and the Cossi, Marcus Vinicius Coutinho, Universidade Federal De Vicosa Environment (P1-163) De Martinis, Elaine, University of Sao Paulo (P3-77, P3-78, P3-87, (P2-04, P2-02) Costa Lima, Bruno, Fluminense Federal University (P3-17) P2-89) Costello, Meghan, Purdue University (P2-76) DebRoy, Chitrita, Penn State University (T10-07, P3-16, P1-88) Cote, Caroline, Research and Development Institute for the Deen, Bronwyn, University of Minnesota (P1-137\*) Agri-Environment (T4-08, P2-42) Defibaugh-Chavez, Stephanie, U.S. Food and Drug Cote, Kevin, Agriculture and Agri-Food Canada (T3-02) Administration-CFSAN (S19\*, P2-24) Coton, Emmanuel, Universite de Bretagne Occidentale (P2-111) Degoricija, Lavorka, Life Technologies (P3-152) Cotter, John, University of Massachusetts-Amherst (T1-04\*) Del Olmo, Ana, INIA (P2-62) Cotton, Corrie, University of Maryland Eastern Shore (T1-05, Delage, Axelle, CEERAM S.A.S (P1-41) P3-43) Delaquis, Pascal, Agriculture and Agri-Food Canada (P3-40, T3-02, Cottyn, Bart, Institute for Agricultural and Fisheries Research P1-101) (ILVO) (T6-03) Delcenserie, Veronique, University of Guelph (P3-82) Coutts, Jacqueline, Romer Labs UK Ltd (P3-169) Delduco, Dan, DuPont Qualicon (P1-112, P1-111) Couvert, Olivier, LUBEM - UMT 08.3 (P1-68) DeMarco, Daniel, DuPont (P2-136, P1-94, P1-35) Coward, Christopher, University of Cambridge (P3-90) den Bakker, Henk C, Cornell University (P1-89) Deng, Kaiping, U.S. Food and Drug Administration (P3-35\*) Cox, Jessica, Department of Homeland Security (T3-08) Cox, Julian, The University of New South Wales (T5-08, P3-28) Denis, Catherine, ADRIA Normandie (P1-169) Cozien, Emeline, ADR (P1-68) Dennis, Sherri, U.S. Food and Drug Administration (P3-145) Craig, Duncan, Food Standards Australia New Zealand (S8\*) DePaola, Angelo, U.S. Food and Drug Administration Crandall, Phil, University of Arkansas (P3-65) (P2-159, T2-07) Cray, William, U.S. Department of Agriculture-FSIS (T10-07, de Paula, Cheila, UFRGS (P1-52) P3-124) Desriac, Noemie, ADRIA (P1-46) Crespo, Maria, North Carolina State University (P1-83\*) Destro, Maria Teresa, University of Sao Paulo (P2-161, P3-27, Crevecoeur, Sebastien, University of Liege (P3-151) P2-03, P3-88, P2-145, P3-15, P2-83)

Dev Kumar, Govindaraj, University of Arizona (T1-03\*)

Dewaal, Caroline Smith, Center for Science in the Public Interest

Diarra, Moussa, Agriculture and Agri-Food Canada (P2-19, P2-17,

Devulder, Gregory, bioMerieux (P1-01, P1-11)

P1-101)

Critzer, Faith, (T8-02)

Cristianini, Marcelo, University of Campinas (P2-71)

Cruz, Adriano, University of Campinas (P1-78) Cummings, Craig, Life Technologies (P3-152, P1-23)

Cummings, Kevin, Texas A&M University (P1-89)

Crowley, Erin, Q Laboratories, Inc. (P2-157, P2-156, P1-103, P1-23)

Dias, Mariane Rezende, Universidade Federal de Vicosa (P2-04, P2-02) Dias, Ryan, Uwic (T2-03)

Diaz, Robert, Kraft Foods (P2-100)

DiCaprio, Erin, The Ohio State University (T6-06\*) Dickson, James, Iowa State University (P3-26)

Diez, Claudia, University of Minnesota (P1-148)

Diez-Gonzalez, Francisco, University of Minnesota (P1-50\*, P1-137, P1-148, T4-02)

Ding, Tian, Kangwon National University (P2-171)

Diribsa, Dawit, University of California (P2-28)

Dirks, Brian, Drexel University (T6-10\*) Dizin, Matthieu, ACTILAIT (P2-111)

Dobhal, Shefali, Oklahoma State University (P3-51\*)

Dolan, Kirk, Michigan State University (P3-55)

Domingos, Celine, bioMerieux (P2-128)

Donnelly, Catherine, University of Vermont (P2-58, T10-01)

Doona, Christopher, U.S. Army - Natick Soldier RDEC (P2-33\*)

Doores, Stephanie, Penn State University (P3-36, T5-06)

Dora Gombossy de Melo Franco, Bernadette, University of Sao Paulo (P3-95)

Doran, Tara, U.S. Food and Drug Administration (P1-26)

Doucette, Craig, Agriculture and Agri-Food Canada (P3-94)

Douds, David, U.S. Department of Agriculture-ARS (P3-41, T1-06)

Doulgeraki, Agapi, Agricultural University of Athens (P3-80, P1-72)

Downing, Gavin, Ontario Ministry of Agriculture, Food & Rural Affairs (T10-02)

Doyle, Michael, University of Georgia (P3-18, T5-05)

Draper, Audrey, The Pennsylvania State University (P3-36\*)

Druart, Marc, University of Vermont (P2-58)

Duan, Nuo, Jiangnan University (P3-154, T10-11)

Dubuc, Jocelyn, Universite de Montreal (P1-87)

Ducharme, Diane, North Carolina State University (RT5\*, T7-04)

Dudley, Edward, Penn State University (P3-16, P1-88, P1-121, P2-141)

Duffy, Lesley, CSIRO (P1-84, P2-20)

Dugan, Shannon, National Center for Food Safety and Technology (P3-147)

Duggan, Megan, Evogen, Inc. (P2-26, P2-119)

Dumas, Nellie, Wadsworth Center (P2-94)

Durrant, Lucia Regina, University of Campinas (P3-79\*)

Duval, Perrine, University of Liege (P3-151)

Dwivedi, Hari Prakash, bioMerieux, Inc. (P1-11, P1-01)

Dworkin, Mark, University of Illinois-Chicago (P1-124, T7-03)

Dyenson, Natalie, Walmart (S15\*)

Duker, Felicitas, Justus-Liebig-University (T5-02\*)

Dykes, Gary, Monash University (P1-84)

Eaker, Shannon, NanoDetection Technologies (P1-24)

Eblen, Denise, U.S. Department of Agriculture-FSIS (P2-129, P3-145)

Ebner, Paul, Purdue University (T6-04, P2-76)

Echeverry, Alejandro, Texas Tech University (P2-15, P3-109, P1-146, P1-92)

Egan, Jessica, New York State Department of Health (P1-128)

Eifert, Joseph, Virginia Tech (T1-03, P3-23)

Eisenberg, Miriam, EcoSure, a Division of Ecolab (S7\*)

El Jabri, Mohammed, ADRIA (P1-169)

Elboudwarej, Albert, Belkin International (RT2\*)

Elder, Jacob, Texas Tech University (P2-15, P3-155)

Elkin, Ted, U.S. Food and Drug Administration-CFSAN (S27\*)

Ellis, Paul, Public Health Wales (P3-14)

Ellouze, Mariem, IFIP (P1-169)

Embarek, Peter, World Health Organization (RT3\*)

Enache, Elena, Grocery Manufacturer's Association (S11\*, P3-03\*)

Engel, Holger, Qiagen GmbH (P2-117)

Engemann, Jurgen, JE PlasmaConsult Gmb (P2-35)

Engstrom, Sarah, University of Wisconsin-Madison (P2-54\*)

Enkhjargal, Lkhagvasarnai, Kyung Hee University (P2-164)

Erickson, Marilyn, University of Georgia (P3-54\*)

Esbelin, Julia, INRA (T9-07)

Escobar-Ramirez, Meyli, Instituto Nacional de Investigaciones

Forestales Agricolas y Pecuarias (P2-55)

Escudero-Abarca, Blanca, North Carolina State University (P3-162\*)

Espitia, Paula, Federal University of Vicosa (T9-03\*)

Esteban, Emilio, U.S. Department of Agriculture-FSIS-OPHS-EALS (T10-07)

Esteves, Paulo, Brazilian Agricultural Research Corporation (P3-84)

Ettinger, Matthew, Virginia Department of Agriculture and Consumer Services (P1-128)

Evans, Ellen, Cardiff Metropolitan University (P1-145, P1-147)

Evans, Peter, U.S. Department of Agriculture-FSIS (P2-129)

Everstine, Karen, Minnesota Department of Health (P3-67\*)

Fabiszewski, Anna, Emory University (T10-05, T4-06)

Fabiszewski-de-Aceituno, Anna, Emory University (P3-46)

Facon, Jean-Pierre, Bio-Rad (P3-09)

Fairbrother, John, Universite de Montreal (P2-42)

Faith, Nan, University of Wisconsin-Madison (P1-96, P1-154)

Fakih, Sarah, Qiagen GmbH (P2-117)

Fallon, Dawn, DuPont (P1-94, P1-35)

Faltys, Gary, Vytol BioSystems (T5-05)

Fan, Lihua, Agriculture and Agri-Food Canada (P3-94\*)

Fan, Xuetong, U.S. Department of Agriculture-ARS (P2-35, P2-90)

Fanaselle, Wendy, U.S. Food and Drug Administration-CFSAN (S16\*, S8\*)

Fang, Rixun, Life Technologies (P3-152)

Farina, Brian, Deibel Laboratories, Inc. (P3-122)

Farnum, Andrew, DuPont Qualicon (P1-35, P1-111, P2-136\*)

Fatemi, Peyman, Life Technologies (P1-23)

Fatica, Marianne, University of Florida (T1-01\*)

Fayer, Ronald, U.S. Department of Agriculture-ARS (T10-09)

Fazil, Aamir, Public Health Agency of Canada (T3-02)

Fedio, Willis, New Mexico State University (P1-34, P2-159)

Feeherry, Florence, United States Army Natick Soldier Research (P1-171\*)

Fegan, Narelle, CSIRO (P2-20)

Feirtag, Joellen, University of Minnesota (P1-50)

Feldpausch, Jill, Neogen Corp. (T10-10)

Feldsine, Philip T., BioControl Systems, Inc. (P3-138, P3-139)

Fernandes, Meg, University of Campinas (P2-71)

Ferrato, Christina, Provincial Laboratory for Public Health, Alberta (P1-27\*)

Ferreira, Marcia de Aguiar, Universidade de Brasília (P2-03)

Ferstl, Carrie, The National Food Lab (RT2\*)

Fielder, Richard, Romer Labs UK Ltd (P3-169)

Fielding, Louise, University of Wales Institute- Cardiff (P1-147, P1-145)

Fillmore, Sherry, Agriculture and Agri-Food Canada (P3-94)

Fink-Gremmels, Joahnna, University Utrecht (T2-04)

Finlay, Brett, University of British Columbia (P3-142, P3-143)

Fish, Allan, Parker Hannifin Corporation (P1-18)

\*Presenter Fisher, Kiel, Q Laboratories, Inc. (P2-156, P1-23, P2-157, P1-103) Fitros, Aggelos, Agricultural University of Athens (P2-137) Fleck, Lois, DuPont Qualicon (P3-59, P1-111) Fleischman, Gregory, U.S. Food and Drug Administration (P1-172, S37\*) Fletcher, Jacqueline, Oklahoma State University (P3-144) Flowers, Russell, Silliker Group Corp. (S31\*) Fonseca Faria, Jose de Assis, University of Campinas (P1-78, P2-71, P3-71) Forghani, Fereidoun, Kangwon National University (P2-171) Fortes, Esther, Cornell University (P2-94, P2-124) Fortis, Laurie, U.S. Department of Agriculture (T10-07) Fouladkhah, Aliyar, Colorado State University (P1-98, P2-98) Franco, Bernadette, University of Sao Paulo (P2-83, P2-59, P3-88, P1-159, P3-15, P3-27, P2-161, S40\*, P2-145) Frank, Joseph, University of Georgia (S11\*, P2-48, P1-118) Fraser, Angela, Clemson University (P2-114) Fratamico, Pina, U.S. Department of Agriculture-ARS-ERRC (P3-152, T10-07, P1-22) Frelka, John, University of California - Davis (P2-51\*) Frenkiel, Helene, Bio-Rad (P3-09) Friedman, Mendel, U.S. Department of Agriculture (P2-37, P3-112) Friedrich, Loretta, University of Florida (P2-34\*) Friesen, Elsie, BC MAL (T4-03, P3-39) Fryer, Peter, University of Birmingham (P1-178, P1-139) Fu, Tong-Jen, U.S. Food and Drug Administration (\$34\*, P2-47) Furtado, Manohar, Applied Biosystems (P1-23, P3-152) Gagne, Marie-Josee, Agriculture and Agri-Food Canada (P3-168) Gajadhar, Alvin, Canadian Food Inspection Agency (P3-40) Gallagher, Daniel, Virginia Tech (P3-145) Galvao, Newton Nascentes, Universidade Federal de Vicosa (P2-03)Gameiro, Augusto, University of Sao Paulo (P3-71) Gao, Anli, University of Guelph (T10-02) Gao, Xiaofan, Cornell University (P2-67) Garcia, Alam, Universidad Autonoma de Nuevo Leon (P2-104) Garcia, Cecelia, New Mexico State University (P2-159) Garcia, Lyda, Texas Tech University (P1-146, P3-109) Garcia, Santos, University de Nuevo Leon (T10-05, P2-106, P3-52, T4-06, P2-103, P3-46, P2-104) Garcia-Gimeno, Rosa Maria, University of Cordoba (T3-09) Garmyn, Andrea, Texas Tech University (P1-120) Garside, John, Blaenau Gwent County Borough Council (P3-14) Gast, Richard, U.S. Department of Agriculture-ARS-ESQRU (T8-05\*)Gastelum, Gabriela, Universidad Iberoamericana (P2-77) Gathercole, Laura, U.S. Food and Drug Administration-HHS (P3-145) Gautam, Dhiraj, National Institute for Microbial Forensics & Food and Agricultural Biosecurity (P3-144\*) Gautam, Raju, Texas A&M University (T3-05) Gaya, Pilar, INIA (P2-62) Ge, Beilei, U.S. Food and Drug Administration (P1-15, P1-08) Ge, Chongtao, The Ohio State University (P1-48\*) Ge, Wayne, Life Technologies (P3-150) Gehring, Andrew, U.S. Department of Agriculture-ARS (P1-24) Gendel, Steven, U.S. Food and Drug Administration-CFSAN (S20\*) Genereux, Mylene, IRDA (P2-42, T4-08) Geornaras, Ifigenia, Colorado State University (P2-10, P1-98, P2-98, P2-11)

Gerner-Smidt, Peter, Centers for Disease Control and Prevention

Geveke, David, U.S. Department of Agriculture-ARS (S37\*, T4-10) Gharst, Greg, U.S. Food and Drug Administration (P1-16) Giannuzzi, Leda, Universidad Nacional de La Plata (P1-133, Giaouris, Efstathios, University of Aegean (P1-51) Gilbreth, Stefanie, ConAgra Foods (P3-83, P2-115) Gillespie, Barbara, University of Tennessee-Knoxville (P1-24) Giombelli, Audecir, Universidade Federal de Minas Gerais (P3-15, Gkana, Eleni, Agricultural University Athens (P2-22) Glass, Kathleen, University of Wisconsin (P2-61, P3-103, P2-13, P3-24, P3-30, P2-60) Glatzer, Marc, U.S. Food and Drug Administration (T2-07) Gloria, M. Beatriz, Universidade Federal De Minas Gerais (P2-21) Gobius, Kari, CSIRO (P2-74) Goddard, Julie, University of Massachusetts-Amherst (T1-04. P3-91) Godov-Hernandez, Heriberto, Instituto Nacional de Investigaciones Forestales Agrícolas y Pecuarias (P3-58) Godwin, Sandria, Tennessee State University (P1-90, P1-138) Goins, David, Q Laboratories, Inc. (P2-157, P2-156, P1-23, P1-103) Goktepe, Ipek, North Carolina A&T State University (P2-40\*) Golden, David, University of Tennessee (T8-02) Golden, Max, University of Wisconsin-Madison (P3-103\*) Goldman, Larissa, SDIX (P3-127) Goldsmith, Timothy, University of Minnesota (P3-13) Gombas, Kathy, U.S. Food and Drug Administration-CFSAN (S14\*, S23\*, S30\*) Gomes da Cruz, Adriano, University of Campinas (P2-71, P3-71) Gomez-Sanchez, Aida, Universidad de las Americas Puebla Gompa, Lakshmi, University of Nebraska-Lincoln (P1-115, P3-115) Gong, Chao, Clemson University (P2-96) Gonzalez, Verapaz, Strategic Diagnostics, Inc. (P3-127) Gonzalez Lopez, M. Carmen, Universidad Autonoma de Queretaro (P2-30\*)Gonzalez-Gil, Francisco, University of Tennessee (P2-153) Goodfellow, Steven, Deibel Laboratories (P3-122) Goodridge, Lawrence, Colorado State University (P3-04, T10-06, P1-156, P2-49, T10-04, P1-37, P1-30) Gorny, James, U.S. Food and Drug Administration-CFSAN (S36\*, S25\*, RT5\*) Gorris, Leon, Unilever (S22\*, RT3\*) Goswami, Kakolie, The Pennsylvania State University (P1-121, P2-141) Goudarzi, Ali, IEH Laboratories and Consulting Group (P3-165) Gould, L. Hannah, Centers for Disease Control & Prevention (T2-10\*)Goulter-Thorsen, Rebecca, University of Queensland (P2-114\*) Gourama, Hassan, Penn State Berks (P3-36) Gourmelon, Gaelle, Emory University (T4-06) Grace, Thomas, Bia Diagnostics (S21\*) Gragg, Sara, Texas Tech University (P2-15\*) Grant, Andrew, University of Cambridge (P3-90) Grasso, Elizabeth, U.S. Food and Drug Administration-ISFH (P2-150, P1-62) Gravani, Robert, Cornell University (T7-07) Gray, R. Lucas, Neogen Corp. (T10-10) Green, Rebecca, Campden BRI (P1-13, P1-14) Greene, Elisabeth, Virginia Tech (P3-136) Gregg, Michelle, Ohio Ecological Food and Farm Association (S25\*)

(S5\*)

Greig, Judy, Public Health Agency of Canada (P1-123, P1-125) Harrison, Mark, University of Georgia (P3-50, P1-55, P3-42) Griffin, Dee, University of Nebraska-Lincoln (P3-13, P2-95) Harte, Federico, University of Tennessee-Knoxville (T6-02) Griffiths, Mansel, University of Guelph (P3-133, P3-82) Hartter, Tim, Wenger Manufacturer (P3-115, P1-115) Grigoraki, Joanna, Agricultural University of Athens (P2-78) Hartzog, Ashley, Texas Tech University (P1-146) Grohn, Yrjo, Cornell University (P2-94, T3-01) Hartzog-Hawkins, Ashley, Texas Tech University (P1-144\*) Grooters, Susan Vaughn, STOP Foodborne Illness (T2-09\*) Harvey, Caitlin, Drexel University (P3-145) Grossman, Matthew James, Campinas University-UNIAMP Harzman, Christina, BIOTECON Diagnostics (P2-133\*) Hashem, Fawzy, University of Maryland Eastern Shore (P3-43, Grounta, Athena, Agricultural University Athens (P1-91, P2-22) T1-05, P2-38) Grove, Stephen, Institute for Food Safety and Health (P1-107, S7, Hashemi Beni, Leila, Agriculture and Agri-Food Canada (T3-02) P1-62, P1-108) Hattet, Sandrine, CEERAM S.A.S (P1-41) Groves, Peter, University of Sydney (T5-08) Havelaar, Arie, National Institute for Public Health and the Gronewald, Cordt, BIOTECON Diagnostics (P2-133) Environment (S28\*, P3-31, P1-163) Gu, Ganyu, University of Florida (T8-04, T8-03) Hawkins, Brian, Battelle (T3-08) Gu. Liwei, University of Florida (P2-105) Havek, Saeed, North Carolina A&T State University (P2-88\*) Guard, Jean, U.S. Department of Agriculture-ARS-ESQRU (P1-45, Hayman, Melinda, Food Safety Net Services (P1-102\*, P3-128, T8-05, P3-160) P3-130) Guevremont, Evelyne, Agriculture and Agri-Food Canada (P1-87\*) He, Lili, University of Minnesota (P1-137) Guglielmone, Fabiana, Unilever Beverages LATAM (P2-122) He, Yiping, U.S. Department of Agriculture-ARS-ERRC (P1-12) Guillen, Lacey, Illinois Institute of Technology (P1-16, P3-147) Heard, Preciaus, Silliker, Inc. (P1-42\*) Guillier, Laurent, ANSES (P1-169) Heidi, Rempel, Agriculture and Agri-Food Canad (P2-19) Gunter, Christopher, North Carolina State University (T7-04) Heinzelmann, Joe, Neogen Corporation (P3-149) Guraya, Rupa, U.S. Department of Agriculture-ARS-ESQRU (T8-05) Hellberg, Rosalee, U.S. Food and Drug Administration (P2-113\*) Gurtler, Joshua, U.S. Department of Agriculture-ARS (T1-06, Hendriksen, Rene, National Food Institute and Technical P3-41, T6-07, T1-11, P2-35) University of Denmark (S5\*) Gutierrez, Miguel, Louisiana State University (P2-149, P3-04) Henley, Shauna, Drexel University (T7-05\*) Gutierrez, Myriam, Louisiana State University (P2-149\*) Henriques, Juliana, Michigan State University (P3-11) Gutierrez-Rodriguez, Eduardo, University of California-Davis Henroid, Daniel, University of California, San Francisco Medical T1-02, T3-04, T4-04) Center (P3-76, P3-69) Gwinn, Christine, Covance (P1-43\*, P1-44) Henry, Charles, Colorado State University (T10-06) Gyawali, Rabin, NC A&T State University (P2-79\*) Heo, Eun Jeong, Quarantine & Inspection Agency (P2-01) Ha, Jihyoung, Chung-Ang Univ (P1-67) Heredia, Norma, Universidad A. De Nuevo Leon (P2-103, P2-104, Ha, Sang-Do, Chung-Ang University (S4\*, P3-134, P1-67, P3-135, P3-52, T4-06, P3-46, T10-05, P2-106) Heres, Lourens, VION Fresh Meat West (P3-31) P3-131, P2-171) Hack-Youn, Kim, Konkuk Uni. (P2-170\*) Hernandez Iturriaga, Montserrat, Universidad Autonoma de Hadad, Robert, Cornell Cooperative Extension (T7-09) Queretaro (P2-30) Hadieba-Medidoub, Kheira, Lab Chem Engineering (T2-04) Herring, Josh, Alabama A&M University (P2-46) Hait, Jennifer, U.S. Food and Drug Administration (P2-65\*) Hertzel, Gerry, Wenger Manufacturer (P3-115, P1-115) Halik, Lindsay, U.S. Food and Drug Administration (P2-150, P1-62) Hervatin, Heloisa, DCA/FEA-UNICAMP (P3-79) Hall, Nicole, Michigan State University (P3-29) Heyndrickx, Marc, Institute for Agricultural and Fisheries Hall, Paul, AIV Microbiology & Food Safety Consultants, Inc. (\$33\*) Research (ILVO) (T6-03) Hallier-Soulier, Sylvie, GeneDisc Technologies (P2-156, P2-157) Hildebrandt, Ian, Michigan State University (P3-29\*) Hamanaka, Daisuke, Kyushu University (P3-20) Hilgren, John, Ecolab Inc. (P2-16) Hamilton, Karin, University of Minnesota (T4-02) Hill, Dolores, U.S. Department of Agriculture-ARS (\$17\*) Hammack, Thomas, U.S. Food and Drug Administration (P2-158, Hill, Walter, Institute for Environmental Health (P2-151\*) P1-06, P1-34) Hinrichs, Gerard, Ecolab Inc. (P2-16) Hirneisen, Kirsten, University of Delaware (P1-114, T4-01, P2-44) Hammer, Elisabeth, Romer Labs Division Holding GmbH (P3-169) Hammerschmitt, Dandara, Bolsista ITI CNPg (P3-15) Hoang, Linda, BC Centre for Disease Control (P3-137) Hammons, Susan, Purdue University (P1-140) Hocking, Ailsa, CSIRO (S43\*) Han, Sukkyun, IEH Laboratories and Consulting Group (P1-31) Hoelzer, Karin, Cornell University (P2-94, P3-145) Hancock, Thane, Centers for Disease Control and Prevention Hoelzer, Steven, DuPont (P1-35) (Special Session\*) Hoepfner, Tharon, U.S. Department of Agriculture-FSIS (P1-17) Haney, Christopher, U.S. Food and Drug Administration (P3-158) Hofacre, Charles, University of Georgia (T5-05) Hanning, Irene, University of Tennessee (P2-153) Hofer, Eveline, University of Zurich (P2-148) Hardin, Margaret, IEH Laboratories & Consulting (S2\*) Hoffmann, Sandra, U.S. Department of Agriculture-ERS (P1-155, Hari, Kumar, CBio Inc. (T2-07) Harlton, Colleen, Agriculture and Agri-Food Canada (P1-101) Hoffmeyer, Michaela, Luminex(r) Corporation (P2-118) Holah, John, Campden BRI (S18\*, S13\*) Harris, Jacqueline, DuPont Qualicon (P1-111, P2-136) Harris, Kerri, Texas A&M University (S29\*) Holt, Jeffrey, Drexel University (P3-90\*) Harris, Linda, University of California-Davis (P2-31, T9-11, P2-51, Holt, Peter, Holt Consulting (T8-05) P3-37, P3-47) Hooi, Roger, Morningstar Foods/Dean Foods (\$16\*)

Jaroni, Divya, Southern University Agricultural Research & Hoover, Dallas, University of Delaware (P3-141, P3-98, P3-32) Horchner, Peter, Symbio Alliance (P2-07) Extension Center (P1-168, P2-149) Horikawa, Shin, Auburn University (P1-113) Jarosh, John, U.S. Department of Agriculture-FSIS, Midwestern Horm, Katie, University of Tennessee-Knoxville (T6-02\*) Laboratory (P1-17) Hou, Shuiping, Guangzhou Center for Disease Control and Jaykus, Lee-Ann, North Carolina State University (T4-06, P3-46, P1-82, P2-114, P3-162, T10-05, P3-164, T3-07) Prevention (P3-157) Hou, Zhe, University of Minnesota (T4-02) Jensen, Dane, Rutgers University (T9-11\*) Houchins, Donna, Romer Labs Inc. (P3-169) Jensen, Jean, Purdue University (\$37\*) Howe, Kristyn, Purdue University (P2-76) Jenson, Ian, Meat & Livestock Australia (S15\*, S29\*, P2-09, P2-07) Howell, Amy, Rutgers University (T9-01) Jeong, Haerim, Chung-Ang University (P3-81\*) Hower, Glenn, Texas Woman's University (P3-68) Jeong, Sanghyup, Michigan State University (P3-55, P3-11, Hu, Yu, Shanghai Jiao Tong University (P2-154) P1-170, S11\*) Huang, En, The Ohio State University (T9-02\*) Jeong, Se-Hee, Chung-Ang University (P3-131, P1-67) Huang, Jenn-Wen, National Chung Hsing University (P2-87) Jiang, Xi, Cincinnati Children's Hospital Medical Center (T6-07) Huang, Pengwei, Cincinnati Children's Hospital Medical Center Jiang, Xiuping, Clemson University (P3-114, P2-96) Jiang, Yuan, Jiangsu Entry-Exit Inspection and Quarantine Bureau Huang, Tung-Shi, Auburn University (P2-102, P2-87, P1-09) of P.R. China (P1-112, P3-154) Hubbard, Michael, University of Florida (T5-09) Jiang, Yueming, Chinese Academy of Sciences (P3-94) Huda, Nurul, Universiti Sains Malaysia (T8-07) Jin, Tony, U.S. Department of Agriculture-ARS (T1-11, P2-90) Huffman, Travis, Q Laboratories, Inc. (P2-157, P1-103, P2-156) Jinneman, Karen, U.S. Food and Drug Administration (P1-32) Hughes, Denise, DH MICRO Consulting (P2-155, P1-04) Jo, Hyejin, Kyung Hee University (P2-164\*) Hung, Yen-Con, University of Georgia (P3-20, P3-111, P3-18) Jo, Junil, Korea Food and Drug Administration (P1-152, P1-85) Hunt, Kristen, Deibel Laboratories, Inc. (P3-122\*) Joens, Lynn, The University of Arizona (P3-112) Huoy, Laingshun, Mahidol University (P1-110) Johannessen, Gro, National Veterinary Institute (T3-06) Hwang, Ingyun, Korea Food and Drug Administration (P1-85, John, Lisa, Merck Millipore (P2-25\*) P2-165, P2-172, P1-152) Johns, Glenn, Ionian Technologies (T10-10) Hyeon, Ji-Yeon, Konkuk University (P1-07, P3-07, P3-10, T10-03, Johnson, Rachel, U.S. Department of Agriculture-FSIS (S8\*, P1-10, P1-158) P3-145) Ibelli, Tania, Adolfo Lutz Institute (P3-27) Johnson, Rita, Florida Department of Agriculture and Consumer Ibrahim, Salam, North Carolina A&T State University (P2-79, Services (S24\*) Johnson, Ron, bioMerieux, Inc. (P3-130, P3-128) Igarashi, Maria Crystina, University of Sao Paulo (P2-83\*) Jokerst, Jana, Colorado State University (T10-06) Jones, Geoff, Massey University (T3-12) Ijabadeniyi, Oluwatosin Ademola, Durban University of Technology (T2-06\*) Jones, Jessica, U.S. Food and Drug Administration (P2-159, T2-07) Ilic, Sanja, The Ohio State University (P2-50\*) Jones, Kelly, University of Maryland Eastern Shore (P3-43, T1-05) in 't Veld, Paul, Food and Consumer Product Safety Authority Jones, Kevin, NanoDetection Technology (P1-24) Jones, Melissa, University of Florida (P3-05\*) (S42\*) Jones, Sally, U.S. Department of Agriculture (P3-22) Ingham, Barbara, University of Wisconsin-Madison (T5-01, P2-54, P3-120, P1-119) Jones, Shuna, U. S. Meat Animal Research Center (P3-13) Ingham, Steve, Wisconsin Department of Agriculture (P2-54, Jones, Yolanda, U.S. Food and Drug Administration (P3-70\*) P3-120, T5-01, P1-119) Jordan, David, NSW Department of Primary Industries (P2-07) Ingram, David, U.S. Department of Agriculture-ARS (P3-32, P1-19, Ju, Wenting, University of Maryland (P2-139, P1-109, P1-86) T4-11) Jucker, Markus, BioControl Systems, Inc. (P3-138, P3-139) Irvin, Kari, U.S. Food and Drug Administration (Special Session, Juenger, Marc, Q Laboratories, Inc. (P1-103) S19, P1-128\*) Jun, Hyejung, Korea University (P2-86\*) Juneja, Vijay, U.S. Department of Agriculture-ARS-ERRC (P3-29, Irwin, Peter, U.S. Department of Agriculture-ARS (P3-146) Isaac-Renton, Judy, BC Centre for Disease Control (P3-137) P2-18) Iturriaga, Montserrat, Universidad Autonoma de Queretaro (P2-55, Jung, Hyang-Mi, Microbial Safety Division (P1-162) Jung, Junho, Sejong University (P3-166) Ivanek, Renata, Texas A&M University (T3-05) Jurkiewicz, Cynthia, Institute Maua of Tecnologia (P3-95) Jackson, Emily, U.S. Food and Drug Administration (P3-48, P1-36) Kabuki, Dirce Yorika, Universidade Estadual de Campinas (P3-132\*) Jackson, Logan, Texas Tech University (P2-138) Jackson, Sam, Texas Tech University (P3-109) Kahlau, Sabine, Qiagen GmbH (P2-117) Jackson, Tanya, Texas Tech University (P3-109) Kahlke, Craig, Cornell Cooperative Extension (T7-09) Jacksens, Liesbeth, Ghent University (T3-11) Kalscheuer, Rebecca, University of Wisconsin-Madison (P2-60\*) Jadeja, Ravirajsinh, Louisiana State University (P3-111, P3-18) Kamanzi, Jean, The World Bank (S30\*) Kaminski, Chelsea, Michigan State University (T1-08) Jaime-Gonzalez, Brianda, Universidad Autonoma de Nuevo Leon Kane, Deborah, Campbell Soup Company (P1-58\*) Kanjanakorn, Alisa, Drexel University (P3-145) James, Michael, Michigan State University (P1-170\*) Jamet, Emmanuel, ACTILAIT (P2-111) Kapetanakou, Anastasia, Agricultural University of Athens Janes, Marlene, Louisiana State University (P2-149, P3-04, P2-112) (P3-106\*)

\*Presenter Kaplan, Shannon, Roka Bioscience, Inc. (P1-44\*) Karatzas, Andreas, National University of Ireland (P3-80) Karim, Guity, University of Tehran (P1-135\*) Kase, Julie, U.S. Food and Drug Administration-CFSAN (P1-06. P2-109, P1-34) Kaspar, Charles, University of Wisconsin (P1-96) Kasra, Akif, SA Scientific (P2-126) Kassaify, Zeina, American University of Beirut (P2-70\*) Kassim, Neema, Gyeongsang National University (P1-53) Kataoka, Ai, Grocery Manufacturer's Association (P3-03) Kathariou, Sophia, North Carolina State University (P1-83) Kaufman, Greer, BioGX (T10-12) Kauppi, Kendra, University of Minnesota (P1-148\*) Kause, Janell, U.S. Department of Agriculture-FSIS (P3-145, P2-129) Kay, Kathryn, North Carolina State University (P3-159) Keener, Larry, International Product Safety Consultants (S31\*) Keller, Susanne, U.S. Food and Drug Administration-NCFST (P1-62, P2-150) Kennedy, Katherine, University of Wisconsin-Madison (P2-13\*) Kennedy, Nicole, Alabama A&M University (P2-46\*) Kennedy, Shaun, University of Minnesota (P3-67, S27\*) Kephart, Daniel, Life Technologies (P3-150) Kerr, David, BioControl Systems, Inc. (P3-138, P3-139) Kerr, Sarah, Louisiana State University (P2-149) Keys, Ashley, U.S. Food and Drug Administration-ORA (P3-85. P3-158) Keys, Christine, U.S. Food and Drug Administration (P3-86, P2-65) Khatiwada, Janak, North Carolina A&T State University (P3-126, P3-104) Khokhar, Sheeri, Drexel University (P3-145) Kich, Jalusa, Brazilian Agricultural Research Corporation (P3-84) Killinger, Karen, Washington State University (P3-56\*) Kilonzo-Nthenge, Agnes, Tennessee State University (P1-90\*) Kim, Ae Young, Korea Health Industry Development Institute (P3-66) Kim, Bo-Yeon, Chung-Ang University (P3-134, P3-135) Kim, Byung Seok, Rural Development Administration (P1-162) Kim, Cheong-tae, Nongshim Co., Ltd. (P1-77) Kim, Chong-Kyung, Mokpo National University (P3-57) Kim, Dong Min, Korea Food Research Institute (P1-130) Kim, Dong-Hyeon, Konkuk University (P3-10, P1-158, P1-07, P1-10) Kim, Dongman, Korea Food Research Institute (P3-74) Kim, Eun-Gyeong, Wonkwang University (P2-45\*) Kim, Gun-Hee, DukSung Women's University (P3-74\*) Kim, Gwang-Hee, Kangwon National University (P2-171) Kim, Ha-Na, Kangwon National University (P2-171) Kim, Hoikyung, Wonkwang University (P2-160, P2-45, P2-86) Kim, Hong-Seok, Konkuk University (P1-10, P1-07, P3-10, P1-158) Kim, Hyun Joong, Iowa State University (P3-173) Kim, Hyun Jung, Quarantine and Inspection Agency (P2-01) Kim, Hyun Jung, Korea Food Research Institute (P2-130) Kim, Hyun-Su, Korea Livestock Products HACCP Accreditation Service (P1-60) Kim, Jae-wook, Nongshim CO., Ltd. (P1-77) Kim, Jeong-Sook, Gyeongsang National University (P1-161, P1-53) Kim, Jeongmok, Mokpo National University (P3-57\*) Kim, Jin-Young, Gachon University (P1-54\*) Kim, Jinyoung, Gachon University (P1-56)

Kim, Kuwan, University of Houston (P3-65\*)

Kim, Sang-Kyu, Kunsan National University (P1-165)

Kim, Su Jun, Seoul National University (P2-152) Kim, Won-II, Microbial Safety Division (P1-162\*) Kim, Yong-Soo, Korea Health Industry Development Institute (P1-122\*) Kim. Young Jo. Quarantine and Inspection Agency (P2-01, P3-10) Kim, Yun-Gyeong, Konkuk University (P1-158, P1-07) King, John, Drexel University (P3-145) Kissel, John, University of Washington (P1-175) Kissler, Bonnie, U.S. Department of Agriculture-FSIS-OPHS (P2-24)Klein, Catia, Brazilian Agricultural Research Corporation (P3-84) Klein, Deborah W., Ecolab Inc. (P2-85, P2-08) Klein, Frank, Neogen Corp. (P2-120) Klein, Tania, Brazilian Agricultural Research Corporation (P3-84) Klotz, Courtney, Virginia Tech (P2-146\*) Kniel, Kalmia, University of Delaware (P2-44, T4-01, P3-141, P3-32, P3-98, P1-114, P3-123) Knight, Patricia, Mississippi State University (P2-144) Knutson, Mitchel, University of Florida (P3-05) Ko, GwangPyo, Seoul National University (P2-152\*) Ko, Sanghoon, Sejong University (P3-166) Koeritzer, Bob, 3M Food Safety (P2-124, T10-01) Kohl, Larry, Food Lion Family - Delhaize America (S39\*, S3\*) Koo, Minseon, Korea Food Research Institute (P2-75) Koontz, John, U.S. Food and Drug Administration (P1-172) Korir, Robert, University of Maryland Eastern Shore (P2-38) Koseki, Shige, National Food Research Institute (P1-167\*) Kottapalli, Balasubrahmanyam, Kraft Foods (P2-100\*) Kouklada, Theodora, Agricultural University Athens (P1-51) Koutsoumanis, Kostas, Aristotle University of Thessaloniki (P2-22) Kovacevic, Jovana, University of British Columbia (P3-45, P3-33, P3-137) Kowalcyk, Barbara, Center for Foodborne Illness (S28\*) Koziczkowski, Jeff, Marshfield Food Safety (P2-118\*) Kravnack, Bryan, Ionian Technologies (T10-10) Kraynak, Julie, DuPont Qualicon (P1-111, P1-35, P1-112) Krebs, Richard, IEH Laboratories and Consulting Group (P1-39) Kreil, Katherine, George Washington University (P1-126) Kreske, Audrey, North Carolina State University (T7-04\*) Krishna, Bobby, Dubai Municipality (S40\*) Krishnamurthy, Kathiravan, Institute for Food Safety and Health (P1-47) Kuaye, Arnaldo Yoshiteru, Universidade Estadula de Campinas (P3-132) Kuehn, Larry, U.S. Department of Agriculture-ARS (P2-95) Kumar, Saurabh, Purac Biochem (P3-99\*) Kupski, Brian, Silliker Inc. (P1-01) Kustin, Kenneth, Brandeis University (P2-33) Kwon, Junehee, Kansas State University (T7-11, P1-149, T7-10) Kwon, Woo-Hyun, Gyeongsang National University (P1-161\*) Kwong, William, Roka Bioscience (P1-02\*) LaBorde, Luke, Penn State University (P3-36) Labuza, Theodore, University of Minnesota (P1-137) Ladely, Scott, U.S. Department of Agriculture-FSIS (P3-124) Lahou, Evy, Ghent University (T3-11\*) Lai, Vita, Agriculture and Agri-Food Canada (P2-19) Laird, David, U.S. Food and Drug Administration-USPHS (P2-39) Laksanalamai, Pongpan, U.S. Food and Drug Administration-CFSAN (P2-163\*)

Kim, Se-Ri, Rural Development Administration (P1-162)

Kim, Seok-Won, Chung-Ang University (P1-67)

Lambea, Maria, The Ohio State University (T7-08)

Lamoureux, Lisyanne, Agriculture and Agri-Food Canada (P1-87)

Landgraf, Mariza, Universidade de Sao Paulo (P2-145, P3-27, P3-15, P2-161, P2-83, P3-88)

Lanna, Frederico Germano. P. Alvarenga, Universidade Federal de Vicosa (P2-04, P2-02)

Larkin, John, U.S. Food and Drug Administration (S31\*, P3-113)

Larsson, Alison, MarketFresh Food Testing Laboratory (P2-134)

Lascano, Victor, Wageningen University (P2-63\*)

Lathrop, Amanda, California Polytechnic State University (P3-73)

Lauer, Wendy, Bio-Rad Laboratories (P2-121, P1-22)

Laury, Angela, Texas Tech University (T7-12\*)

Law, S. Edward, University of Georgia (P1-55)

Lawrence, Kurt, U.S. Department of Agriculture-ARS (P3-124)

Lazzarotti, Mateus, Brazilian Agricultural Research Corporation (P3-84)

Le, Alison, Baiada Poultry (P1-05)

Le Dizes, Anne-Sophie, ADRIA (P2-111)

Le Doeuff, Claudie, ADRIA (P2-132, P2-127, P3-148, P2-131)

Le Nestour, François, Institut Scientifique d'Hygiene et d'Analyse (P2-140, P2-110)

Leaman, Susan, Intertox, Inc. (P2-53\*)

Leathers, Carrie, U.S. Department of Agriculture (T8-01)

Lebeau, Benoit, CEERAM S.A.S (P1-41)

LeBlanc, Denyse, Agriculture and Agri-Food Canada (T3-02)

Ledbetter, Craig, Ecolab Inc. (P2-08, P2-85)

Ledenbach, Loralyn, Kraft Foods (P2-72\*)

Lee, Alvin, Institute for Food Safety and Health (P1-108, P1-107)

Lee, Chae-Won, Gyeongsang National University (P1-161)

Lee, Chi-Ching, University of Georgia (P2-48\*)

Lee, Chi-Yeop, Gyeonsang National University (P1-161)

Lee, Chloe, U.S. Food and Drug Administration (P1-12)

Lee, David, Centers for Disease Control and Prevention (P1-33)

Lee, Heeyoung, Sookmyung Women's University (P2-75, P2-166, P1-150, P2-165)

Lee, Jeehyun, Drexel University (P3-145)

Lee, Jinhee, Sookmyung Women's University (P2-172, P2-165)

Lee, Jiyoung, The Ohio State University (P1-48)

Lee, Jong-Ik, Konkuk University (P1-158)

Lee, Joo-Yeon, Korea Livestock Products HACCP Accreditation Service (P1-60, P2-166, P1-150)

Lee, Judy, Foster Farms Poultry (P3-172\*)

Lee, JungEun, Seoul National University (P2-152)

Lee, Kyuho, Sejong University (P3-166\*)

Lee, Marilyn, Ryerson University (P1-123\*)

Lee, Min Hwa, Chung-Ang University (P2-73\*)

Lee, Nari, Korea Food Research Institute (P1-130)

Lee, Seonmi, Dongguk University (P1-71\*)

Lee, Soo-Kyoung, Konkuk University (P1-158, P3-07\*)

Lee, Soo-Kyung, Konkuk University (P1-10)

Lee, Soomin, Sookmyung Women's University (P2-166, P1-150, P2-172, P2-165)

Lee, SoonHo, Korea Food and Drug Administration (P2-165, P2-172, P1-85, P1-152)

Lee, Sunah, Sookmyung Women's University (P2-170, P2-75)

Lee, Susan, University of Guelph (T10-02)

Lee, Yee Ming, Kansas State University (T7-11, P1-149)

Lee, Yonggue, Chung-Ang University (P3-81)

Lee, Young-Duck, Korea University (P1-56, P1-54)

Lee, Youngsu, University of Massachusetts (P1-18)

Legge, Ryan, University of Nebraska-Lincoln (P2-115)

Leguerinel, Ivan, LUBEM-UMT 08.3 PHYSI'Opt (P1-46)

Leite, Juliana Abigail, University of Sao Paulo (P3-87)

Leiva, Rachel, Q Laboratories, Inc. (P1-103)

LeJeune, Jeffrey, The Ohio State University (P1-125, P2-50)

Lemons, Laura, Texas Tech University (P1-146, P1-168)

Leon, Juan, Emory University (P3-46, T10-05, T4-06)

Leong, Wan Mei, University of Wisconsin-Madison (P3-120\*)

Leslie, Mira, Agriculture and Agri-Food Canada (P1-101)

LeStrange, Kyle, University of Delaware (P3-123, P3-141\*)

Leturnier, Geraldine, CEERAM S.A.S (P1-41)

Levine, Seth, Virginia Department of Health (P1-128)

Levins, Ernest, U.S. Food and Drug Administration (P1-128)

Lewis, Carrie, The Pennsylvania State University (P2-141)

Lewis Ivey, Melanie, The Ohio State University (P2-50)

Li, Fena, Ibis Biosciences (P2-113)

Li, Haiping, U.S. Food and Drug Administration (P1-172\*)

Li, Jianrong, The Ohio State University (P1-66, T6-09, T6-07)

Li, Jianrong, BoHai University (P2-99, P2-167)

Li, Jiping, University of Guelph (T10-02)

Li, Min, Zhejiang University (P2-107, T5-10)

Li, Mingming, Institute for Food Safety and Health (P1-108, P1-107)

Li, Suigiong, Auburn University (P1-113)

Li, Wenchao, Rutgers University (P1-176\*)

Li, Xihong, Tianjin University of Science and Technology (P2-90)

Li, Xinhui, The Ohio State University (T6-09)

Li, Xunde, University of California-Davis (P3-157\*)

Li, Yanbin, Zhejiang University (T5-10, P2-107)

Li, Yi, University of Maryland (P2-139)

Li. You. North Carolina State University (P2-114)

Liao, Jean, University of Georgia (P3-54)

Liao, Yen Te, Texas Tech University (P1-92\*)

Lienau, Andrew, BioControl Systems, Inc. (P3-138, P3-139)

Lierz, Michael, Justus-Liebig-University (P3-08)

Lillie, Richard, Washington State Department of Health (T2-07)

Lim, Hyeong-Geun, Korea Livestock Products HACCP

Accreditation Service (P1-60)

Lim, Winnie, University of Georgia (P3-42\*)

Limbago, Brandi, Centers for Disease Control and Prevention (RT1\*)

Limcharoenchat, Pichamon, Michigan State University (P3-11\*)

Lin, Andrew, U.S. Food and Drug Administration (P1-06)

Lin, Jun, University of Tennessee-Knoxville (P1-24)

Lin, Mengshi, University of Missouri (P3-110)

Lin, Wen, U.S. Food and Drug Administration-ORA-DFS (P1-26,

Linardopoulou, Elena, IEH Laboratories and Consulting Group (P3-165)

Lindhardt, Charlotte, Merck Millipore (T5-02, P3-08)

Lindsay, Denise, Fonterra Co-Operative Group Ltd. (P1-61, P2-69)

Lindsay, James, U.S. Department of Agriculture-ARS-NPS

Linton, Richard, The Ohio State University (T8-12, P1-66)

Linville, John, U.S. Department of Agriculture-FSIS (P2-24)

Liu, Jennifer, University of British Columbia (P3-105, P3-108)

Liu, Li, University of Illinois at Chicago (T7-03)

Liu, Pei, Kansas State University (P1-149, T7-11, T7-10)

Liu, Pengbo, Emory University (P1-59\*)

Liu, Ruijie, Jiangnan University (P3-72)

Liu, Xiumei, Ministry of Health (RT3\*) Liu, Yanhong, U.S. Department of Agriculture-ARS (P2-35, P2-169)

Liu, Yarui, University of Missouri-Columbia (P1-106\*)

Liu, Yuanfa, Jiangnan University (P3-72\*)

Lloyd, David, University of Wales Institute, Cardiff (P1-141)

Lohmueller, Tobias, Buhler Barth AG (T9-09)

Loisy, Fabienne, CEERAM S.A.S (P1-41\*)

Lommerse, Gijs, Purac Biochem (P3-99)

Loneragan, Guy, Texas Tech University (S29\*, S10\*, P1-104, P1-168, P1-92, P1-120, P2-15, P3-109)

Lopez-Malo, Aurelio, Universidad De Las Americas-Puebla (P3-96, P3-100)

Lopez-Velasco, Gabriela, University of California-Davis (T3-04, T4-07, P2-28, T3-03)

Lou, Fangfei, The Ohio State University (P1-66, T6-09, T6-07) Loubier, Catherine, Agriculture and Agri-Food Canada (P1-87) Louie, Marie, Provincial Laboratory for Public Health (Alberta (P1-27)

Loukou, Anneza, Agricultural University of Athens (P3-129)

Louvet-van Eijk, Marielle, PURAC (P3-102)

Lu, Haixia, Zhejiang Gongshang University (P2-99, P2-167)

Luan, Jun, Jiangsu CIQ (P1-112)

Lucatelli, Adriana, University of Sao Paulo (P3-27\*)

Luccioli, Stefano, U.S. Food and Drug Administration-CFSAN (S16\*)

Luchansky, John, U.S. Department of Agriculture-ARS-ERRC (S32\*, P2-129, P3-145)

Luedeke, David, Battelle (T3-08\*)

Lues, Ryk, Central University of Technology (P1-131, P3-93)

Luevano de la Fuente, Ricardo, Universidad Autonoma de Nuevo Leon (P3-52)

Lugovaz, Irene, Health Canada (S42\*)

Luley, Sandra, Qiagen Inc. (P2-117)

Luo, Yaguang, U.S. Department of Agriculture-ARS (P1-99, T1-07, T1-10, T4-11, P1-19, T9-08)

Luo, Zhiyao, University of Florida (T8-04)

Luplow, Karen, Neogen Corp. (T10-10)

Lusk, Tina, U.S. Food and Drug Administration-CFSAN (P1-34, P2-109)

Lynch, Brian, Grocery Manufacturers Association (S14\*)

Lyons, William, New York State Department of Agriculture and Markets (T7-09)

Lyra, Efstathia, National Agricultural Research Foundation (P2-64) Ma, Li, National Institute for Microbial Forensics & Food and Agricultural Biosecurity (P3-144, P3-51)

Ma, Songchuan, Illinois Institute of Technology (P1-95\*)

Macarisin, Dumitru, U.S. Department of Agriculture-ARS (T4-09, T10-09\*)

Mach, Patrick, 3M (T10-01)

Maes, Martine, Institute for Agricultural and Fisheries Research (ILVO) (T6-03)

Maganty, Gayatri, SA Scientific (P2-126)

Magestro, Leanne, North Carolina State University (T2-05)

Mahero, Michael, University of Minnesota (T4-02\*)

Mahmoud, Barakat, Mississippi State University (P2-144, P2-143)

Mahovic, Michael, U.S. Food and Drug Administration (S35\*)

Mai, Tam, IEH Laboratories & Consulting Group (P1-166, P1-69)

Maia Franco, Robson, Fluminense Federal University (P3-17)

Main, Kevan, Mote Marine Laboratory (S12\*)

Maite, Morgan, Spelman College (P2-149)

Maitland, Jessica, Virginia Tech (P1-160\*)

Maldonado-Siman, Ema, Universidad Autonoma Chapingo (T5-03\*)

Mallea, Sabine, INRA (T9-07)

Maloney, Pat, Brookline Health Department (S3\*)

Mamber, Stephen, U.S. Department of Agriculture-ODIFP-DAIG (T8-01, P1-17, T8-09, P3-22)

Manges, Amee, McGill University (P2-19)

Manios, Stavros, Agricultural University of Athens (P2-137, P2-10)

Mann, David, University of Georgia (P1-75, P2-108)

Mannion, Philip, Public Health Wales (P3-14)

Manns, David, Cornell University (P2-84, P2-168)

Manu, David, Iowa State University (P3-101\*)

Maounounen-Laasri, Anna, U.S. Food and Drug Administration (P1-34)

Marcy, Joseph, Virginia Tech (P3-136)

Marion, Bill, BioGX (T10-12)

Markland, Sarah, University of Delaware (P3-141, P2-44, P3-123)

Marks, Bradley, Michigan State University (T4-12, S11\*, P3-29, P1-170, P3-55, P3-11, P1-174)

Marks, Harry, U.S. Department of Agriculture-FSIS-ODIFP (P1-17)

Marquez Gonzalez, Mayra, Universidad de Guadalajara (P1-40)

Marrero, Ileana, University of Puerto Rico (P2-100)

Marshall, Douglas, Eurofins Scientific Inc. (Special Session\*)

Marshall, Kristin, U.S. Food and Drug Administration (P3-113\*)

Martin, Craig, Purdue University (P2-76)

Martin, Jennifer, Texas Tech University (P1-92)

Martin, Keely, U.S. Food and Drug Administration-ORA (P3-158)

Martin, William, U.S. Food and Drug Administration (P2-147, P2-113)

Martinez, Bismarck, University of Nebraska-Lincoln (P1-115, P3-115)

Martinez, Virginia, Unilever (P2-122)

Martinez Cardenas, Cristina, Universidad de Guadalajara (P1-40)

Martinez Peniche, Ramon A., Universidad Autonoma de Queretaro (P2-30)

Martino, Karina, University of Georgia (P3-145)

Masiri, Jongkit, IEH Laboratories and Consulting Group (P1-69, P1-129)

Maskell, Duncan J., University of Cambridge (P3-90)

Masson, Luke, National Research Council (P2-17)

Matheny, Sharon, Life Technologies (P3-150, P3-152)

Mathia, Olivier, Institut Scientifique d'Hygiene et d'Analyse (P2-110)

Mathis, Greg, Southern Poultry, Inc (T5-05)

Mathot, Anne-Gabrielle, LUBEM-UMT 08.3 PHYSI'Opt (P1-46, P1-68)

Matloob, Mazin, University of Guelph (P3-82)

Matthews, Karl, Rutgers University (P3-34, P3-38)

Mattson, Tyler, Clordisys Solutions, Inc. (T9-12\*)

Maux, Melinda, Eurofins IPL Nord (P2-116, P3-153)

Mazengia, Eyob, Integrated Public Health Services (P3-19\*)

Mazure, Celine, Bio-Rad (P3-09)

Mbandi, Evelyne, U.S. Department of Agriculture-FSIS (P3-145)

McCardell, Barbara, U.S. Food and Drug Administration-CFSAN (P1-12)

McCarthy, Susan, U.S. Food and Drug Administration (P1-74\*)

McClements, D. Julian, University of Massachussetts-Amherst (P3-97)

McDonough, Patrick, Cornell University (P2-94)

McDougal, Susan, Neogen Corporation (P3-149)

McDowell, Joyce, The Ohio State University (T7-08)

McEgan, Rachel, University of Florida (P1-156\*)

McEntire, Jennifer, Leavitt Partners (S24\*)

McGarry, Sherri, U.S. Food & Drug Administration (S3\*, S19\*, Special Session)

\*Presenter McGarvey, David, Department of Homeland Security (T3-08) McIntyre, Lorraine, BC Centre for Disease Control (P3-137) Mckee, Shelly, Auburn University (T5-07, P1-09) McKellar, Robin, Agriculture and Agri-Food Canada (P3-40, T3-02) McKelvey, Pamela, Ecolab (P1-63\*) McLandsborough, Lynne, University of Massachusetts-Amherst (P1-18, P3-91, P3-97, T1-04, P3-117) McMahon, Wendy, Silliker, Inc. (P2-72, P1-42) McMinn, Russell, Food Research Institute (P3-24, P2-60, P2-61) McMullen, Lynn, University of Alberta (P2-92) McReynolds, Roland, Carolina Farm Stewardship Association (T7-04)Medeiros, Eber, Federal University of Vicosa (T9-03) Medina, Marjorie, U.S. Department of Agriculture-ARS-ERRC (T10-07\*) Megalis, Christina, U.S. Food and Drug Administration (P1-172) Meija-Ruiz, Fernando, Universidad Autónoma de Querétaro Meldrum, Richard, Ryerson University (P3-14\*) Melka, David, U.S. Food and Drug Administration (P2-65, P3-86) Mendonca, Aubrey, Iowa State University (P3-101) Meneses-Sanchez, Maria de la Cruz, Benemerita Universidad Autonoma de Puebla (P2-77) Meng, Jianghong, University of Maryland (P1-15, P1-86, P1-109, P2-139) Mesak, Lili, University of British Columbia (P3-105, P3-33, P3-108, P3-142, P3-45) Meschke, John, University of Washington (P3-19, P1-175, P3-53) Migo, Veronica, IEH Laboratories and Consulting Group (P1-39) Miksch, Robert, IEH Labs & Consulting (P1-166\*) Milkowski, Andrew, University of Wisconsin (P2-13) Miller, Amy., U.S. Food and Drug Administration-CFSAN (P3-118) MIller, Benjamin, Minnesota Department of Agriculture (T2-08\*) Miller, Mark, Texas Tech University (P1-168, P1-146, P3-21, P2-15, P1-120, P3-109) Miller, Sally, The Ohio State University (P2-50) Millner, Patricia, U.S. Department of Agriculture-ARS (T1-10, T4-11, T1-05, P3-116, P1-19, T9-08, P3-43, P1-99) Mills, Brittany, Delaware Valley College (P3-01) Mills, Edward, Penn State University (P3-16) Min, Kyung Jin, Kyung Hee University (P1-152, P1-85) Mohareb, Fady, Cranfield University (P1-73, P1-81) Mohr, Timothy, U.S. Department of Agriculture-MD-OPHS-FSIS (T8-01, T8-09, P3-22) Mokhtari, Amir, RTI International (T3-07\*) Molina, Karina, Universidad Autonoma De Nuevo Leon (P3-46) Molotla, Juan Carlos, ALSEA (P2-123\*) Monaco, Matthew, Iowa State University (P1-142\*) Mondragon, Guadalupe, 3M (P2-122, P2-123) Montei, Carolyn, Neogen Corporation (P3-149\*) Montez, Sergio, Food Safety Net Services (P3-128, P1-102, P3-130) Montgomery, Nedra, Alabama A&M University (P2-46) Moon, Jin San, Quarantine and Inspection Agency (P3-10, P2-01) Moore, Matthew, North Carolina State University (P3-162) Moore-Neibel, Katherine, University of Arizona (P2-37) Moorman, Mark, Kellogg's (T10-08\*) Mootian, Gabriel, Rutgers University (P1-156) Moraes, Paula Mendonca, Universidade Federal de Vicosa (P2-59) Morales Rayas, Rocio, University of Guelph (T5-11\*) Moraru, Carmen, Cornell University (P3-62)

Morey, Amit, Auburn University (T5-07) Morgan, Mark, Purdue University (P1-66, T8-12) Morier, MPH, Douglas, UCLA School of Public Health (P1-127\*) Morris, J. Glenn, University of Florida (T2-11) Morris, John, University of Florida (P1-155) Morse, Dale, Centers for Disease Control and Prevention (S19\*) Mortimore, Sara, Land O'Lakes (S13\*) Moschonas, Galatios, Colorado State University (P2-11) Mouscadet, Jean-Francois, Bio-Rad (P1-22, P3-09) Moyne, Anne-laure, University of California (P3-47, P3-37) Mozola, Mark, Neogen Corporation (P3-149, T10-10) Mtenga, Adelard, Gyeongsang National University (P1-53\*) Mukherji, Raja, Creme Global (T3-10) Mukhopadhyay, Sudarsan, U.S. Department of Agriculture-ARS (P2-52\*) Muldoon, Mark, Strategic Diagnostics Inc. (P3-127, P2-140) Mungai, Peris, Kennesaw State University (P2-97) Muniz Flores, Jorge Adrian, Universidad de Guadalajara (P1-40\*) Murphy, Cheryl, University of Arkansas (P3-65) Murphy, Melissa, Drexel University (P3-145) Muruvanda, Tim, U.S. Food and Drug Administration (P3-86) Mustapha, Azlin, University of Missouri (P3-110, P1-106, P1-97) Nadala, Cesar, IEH Laboratories and Consulting Group (P3-165, P1-31, P1-129, P3-171, P1-28, P3-170, P1-39, P1-29) Nagel, Gretchen, Auburn University (T5-07\*) Nahashon, Samuel, Tennessee State University (P1-90) Nair, Chandni, Texas A&M University (T6-08\*) Narang, Neelam, U.S. Department of Agriculture-FSIS (P3-124, T10-07) Narvaez, Claudia, Agriculture and Agri-Food Canada (P2-19) Nascimento, Maristela, ITAL (P3-79) Nasella, James, Drexel University (P3-145) Nava, Gerardo, Washington University (P2-55) Navarro-Cruz, Addi, Benemerita Universidad Autonoma de Puebla Neal, Jack, University of Houston (P3-64, P3-75, P2-29, P3-65, P1-80, P3-69, P3-76) Neetoo, Hudaa, University of Delaware (T6-07) Nero, Luis Augusto, Universidade Federal de Vicosa (P1-57, P1-117, P2-02, P1-76, P2-03, P2-59, P2-04, P2-05) Nestora, Sofia, Agricultural University of Athens (P3-106) Netramai, Siriyupa, Mahidol University (T2-01, P3-92) Nevarez-Morillon, G. Virginia, Universidad Autonoma de Chihuahua (P3-96) Newkirk, Ryan, U.S. Department of Agriculture-FSIS (S27\*) Nezer, Carine, Quality Partner (P1-70) Nguyen, Thao, University of Florida (P2-36\*) Nguyen, Trang, Drexel University (P3-145) Nicholas, David, New York State Department of Health (Special Session\*) Nicholson, April, Delaware State University (P3-41) Nicholson, Gina, The Kroger Company (\$38\*) Niebuhr, Steve, Iowa State University (P3-26) Niemann, Mary, U.S. Department of Agriculture-FSIS (P1-17) Niemira, Brendan, U.S. Department of Agriculture-ARS (P3-41, T6-07) Nietfeldt, Joseph, University of Nebraska-Lincoln (P2-115) Nightingale, Kendra, Texas Tech University (T3-05, P3-125, P1-143, P1-105, P2-15, T8-08, P3-155) Nisiotou, Aspasia, National Agricultural Research Foundation Nitin, Nitin, University of California-Davis (S41\*) Nomade, Peggy, bioMerieux (P2-116, P2-128)

Morelli, Joseph, Ecolab Inc. (P2-08)

Moreno Switt, Andrea, Cornell University (P1-89\*)

Norton, Paul, Neogen Corporation (T10-10)

Nou, Xiangwu, U.S. Department of Agriculture-ARS-BARC (P1-19, T4-11, P1-99, T1-10, T1-07, T9-08)

Nowaczyk, II, Louis, U.S Food and Drug Administration (P3-113) Nsubuga, Johnson, U.S Food and Drug Administration (P1-128)

Nugen, Sam, University of Massachusetts-Amherst (S41\*)

Nunez, Arlene, Life Technologies (P1-23)

Nunez, Manuel, INIA-Dpto, Tecnologia De Alimentos (P2-62\*)

Nyarko, Esmond, University of Vermont (T10-01\*)

Nychas, George-John, Agricultural University of Athens (P1-91, P1-81, P1-73, P3-80, P3-25, P1-51, P1-72, P2-22)

O' Mahony, Cian, Creme Global (T3-10\*)

O'Connell, Catherine, Life Technologies (P1-23, P3-150, P3-152)

O'Donnell, Julie, Texas Woman's University (P3-68)

O'Keefe, Sean, Virginia Tech (P3-136)

Obanni, Mohammed, Hain Celestial Group (S21\*)

Odumeru, Joseph, Ministry of the Environment (T10-02)

Oger-Duroy, Cecile, Bio-Rad (P3-09)

Ogunremi, Dele, Canadian Food Inspection Agency (T10-02)

Oh, Ah-Sa, Konkuk University (P1-158)

Oh, Deog-Hwan, Kangwon National University (P2-171, S40\*, S4\*)

Oh, JeeHwan, University of Wisconsin-Madison (P2-61\*)

Oh, Jun-Hyun, Sangmyung University (P1-113)

Ok, Gyeong-Sik, Korea Food Research Institute (P2-130)

Ok, Hyun Ee, Korea Food Research Institute (P1-134)

Olanya, Modesto, U.S. Department of Agriculture-ARS (T4-10)

Oliveira, Aline, UFRGS (P1-52)

Oliveira, Carlos Augusto, University of Campinas (P2-71, P3-71)

Oliveira, Silvana, UNICAMP (P2-80)

Oliver, Haley, Purdue University (P1-140, S38, T8-12)

Oliver, Stephen, University of Tennessee-Knoxville (P1-24)

Olsen, Peter, New York State Department of Agriculture and Markets (P1-128)

Olson, Jonathan, North Carolina State University (P1-83)

Oni, Ruth, University of Maryland (P2-27\*)

Opsteegh, Marieke, National Institute for Public Health and the Environment (RIVM) (S17\*)

Orsi, Renato, Cornell University (P1-89)

Ortega, Ynes, University of Georgia, CFSQE (P3-54)

Orue, Nydia, Universidad Autonoma de Nuevo Leon (P2-104\*)

Oryang, David, U.S. Food and Drug Administration-CFSAN (S8\*,

Oscar, Thomas, U.S. Department of Agriculture-ARS (P1-151, P1-173)

Osoria, Angie, U.S. Department of Agriculture-ARS-ERRC (P3-29)

Osorio, Nancy, ALSEA (P2-123)

Ossmer, Rolf, Merck Millipore (T5-02)

Oteiza, Juan, CIATI (P1-132, P1-133)

Otten, Ainsley, Public Health Agency of Canada (T3-02)

Overton, Tim, University of Birmingham (P3-163)

Paccagnella, Ana, BC Centre for Disease Control (P3-137)

Pacheco-Aguilar, Ramiro, Universidad Autonoma de Queretaro (P3-58)

Padilla-Zakour, Olga, Cornell University (P2-67, P3-62, P2-168)

Pagotto, Franco, Health Canada (T10-02)

Paiva, Leticia, University of Campinas (P1-78)

Palou, Enrique, Universidad de las Americas Puebla (P3-100, P3-96) Pamboukian, Ruiging, U.S. Food and Drug Administration (P2-159, P1-26)

Pan, Yanying, Purdue University (T6-04\*)

Panagiotakis, Anastasios, Agricultural University of Athens (P1-65) Panagou, Efstathios, Agricultural University of Athens (P1-72,

P3-25, P1-81, P3-80, P2-64, P1-73, P1-91, P1-51, P2-22)

Panchal, Palak, University of Illinois-Chicago (P1-124, T7-03)

Papadakis, Lori, U.S. Food and Drug Administration-HHS (P3-145) Papadopoulou, Olga, Agricultural University of Athens (P1-72,

P3-25)

Papariella, Melanie, Purdue University (T6-04)

Parish, Mickey, U.S. Food and Drug Administration (S2\*)

Park, Ahreum, Sookmyung Women's University (P2-165, T9-05, P2-75, P2-166)

Park, Bosson, U.S. Department of Agriculture-ARS (P3-124)

Park, Geun Woo, Centers for Disease Control and Prevention

Park, Hee Jin, Kyung Hee University (P1-85, P1-152)

Park, Hyunjung, Quarantine and Inspection Agency (P3-12, P2-01)

Park, J. Douglas, U.S. Food and Drug Administration (P1-128)

Park, Jae-Han, Nongshim Co., Ltd. (P1-77\*)

Park, Jong-Hyun, Kyungwon University (P1-54, P1-56)

Park, Joong-Hyun, Kangwon National University (P2-171)

Park, Jun-Ho, Konkuk University (P1-158, T10-03, P1-10, P1-07, P3-10, P3-07)

Park, Ki-Hwan, Chung-Ang University (P1-134, P3-81, S4\*)

Park, Kyeong-Hun, Microbial Safety Division (P1-162)

Park, Mi-Kyung, Auburn University (P1-113\*)

Park, Mihee, Chung-Ang University (P3-81)

Park, Myoung-Su, Kangwon National University (P2-171)

Park, Na Yoon, Kyung Hee University (P1-85, P1-152)

Park, Paul, State of California (P3-156\*)

Park, Sang Shin, Texas A&M University (T3-05\*)

Park, Shin Young, Chung-Ang University (P3-135, P3-134, P1-67)

Park, Su-Hee, Gyeongsang National University (P1-161)

Parks, Amy, Texas Tech University (P2-138, P1-120)

Parrish, Torrey, Evogen, Inc. (P2-26, P2-119)

Parveen, Salina, University of Maryland Eastern Shore (P2-38\*)

Patel, Jitu, U.S. Department of Agriculture-ARS (P2-37, T4-09, P3-32)

Patel, Vishnu, U.S. Food and Drug Administration (P3-147)

Paul, Yitzy, University of Maryland (T1-07)

Pava-Ripoll, Monica, U.S. Food and Drug Administration-CFSAN (P3-118\*)

Pavan, Sonia, ADRIA (P2-111)

Pavic, Anthony, Baiada Poultry (P1-05\*, P3-28)

Payton, Mark, Oklahoma State University (P3-144)

Pearson, Rachel, U.S. Food and Drug Administration-CFSAN (P3-118)

Pendleton, Sean, University of Tennessee (P2-153\*)

Peng, Linda Xuan, DuPont Qualicon (P1-112, P1-111, P3-59)

Penteado, Ana, Embrapa (P2-80)

Peplinski, Alice, Eurofins IPL Nord (P2-116)

Pereira, Juliano Goncalves, Federal University of Parana (P1-57)

Perera, Ashan, NanoDetection Technology (P1-24)

Perez, Sophie, Rutgers University (P2-43)

Perez-Escalante, Dinorah, Universidad Autonoma de Queretaro (P2-55\*)

Perez-Mendez, Alma, Colorado State University (P1-37, T10-04, P1-30, T10-06)

Perez-Rodriguez, Fernando, University of Cordoba (T3-06, T4-12, T3-09)

Perin, Luana Martins, Universidade Federal de Vicosa (P2-59)

Peron, Sarah, ADRIA (P2-127, P3-148, P2-131, P2-132)

Perren, Rainer, RPN Excellence AG (T9-09\*)

Perry, Jennifer, The Ohio State University (P2-82)

Peterson-Vangsness, Glenyce, University of Minnesota (P1-148)

Petrauskene, Olga, Applied Biosystems, LIFE Technologies (P1-23)

Pfohl-Leszkowicz, Annie, Institut National Polytechnique Toulouse

Pham, Trudy, University of California (T3-03, T4-07)

Phillips, John, U.S. Department of Agriculture-ARS (P2-129)

Phister, Trevor, University of Nottingham (P1-64)

Picon, Antonia, INIA (P2-62)

Pielaat, Annemarie, RIVM Dutch Institute for Public Health and the Environment (P3-31, P1-163)

Pierce, Sarah, U.S. Food and Drug Administration (P2-147\*)

Pierre, Sophie, Bio-Rad Laboratories (P2-121, P1-22, P3-09)

Pieta, Luiza, UFRGS (P3-119\*)

Pinkava, Lisa, Neogen Corporation (T10-10)

Pinon, Anthony, Institut Pasteur (P1-169)

Pinto, Jose Paes de Almeida Nogueira, Sao Paulo State University (P1-57)

Pinto, Paulo Sergio de Arruda, Universidade Federal de Vicosa (P2-02, P2-04)

Pitt, John, CSIRO (S43\*)

Pittet, Jean-Louis, bioMerieux (P2-110, P2-128, P2-116, P3-153)

Plattner, Brian, Wenger Manufacturer (P1-115, P3-115)

Pleitner, Aaron, Purdue University (T8-12, P1-140)

Plunkett, David, CSPI (S16\*)

Poelzler, Thomas, University of Veterinary Medicine (P2-25)

Poimenidou, Sofia, Agricultural University of Athens (P1-65, P3-129)

Pond, Ansen, Texas Tech University (P3-109, P1-168)

Ponder, Monica, Virginia Tech (P3-23, P1-100, P2-146)

Pornaem, Sarinya, National Center for Genetic Engineering and Biotechnology (P2-23)

Porso, Rick, Washington State Department of Health (T2-07) Porto-Fett, Anna, U.S. Department of Agriculture-ARS-ERRC (P3-145, P2-129)

Posada-Izquierdo, Guiomar Denisse, University of Cordoba (T3-09)

Postollec, Florence, ADRIA (P1-46, P1-68, P2-111, P1-169)

Posy, Phyllis, Atlantium Technologies (S12\*)

Pouillot, Regis, U.S. Food and Drug Administration-CFSAN (S32\*, P3-145)

Poullet, Jean-Baptiste, Quality Partner (P1-70)

Poulsen, Keith, University of Wisconsin-Madison (P1-154\*)

Pradel, Jean-Michel, bioMerieux (P3-153)

Pramateftaki, Paraskevi, National Agricultural Research Foundation (P2-64)

Prashant, Prashant, University of Missouri (P1-97\*)

Pratt, Mark, U.S. Department of Agriculture-FSIS (P1-17\*)

Prince, Gale, Sage Food Safety Consultants (S27\*)

Pringle, Jeshua, Centers for Disease Control and Prevention (P1-128)

Prinster, Michael, Romer Labs, Inc. (P3-169\*)

Prinvawiwatkul, Witoon, Louisiana State University (P1-08)

Pritchard, Jane, British Columbia Ministry of Agriculture (P1-101)

Pruett, W. Payton, The Kroger Company (RT1\*)

Pukalo, Karen, U.S. Food and Drug Administration (P1-32)

Pulendran, Uma, Centers for Disease Control and Prevention

Puligundla, Pradeep, Sejong University (P3-166)

Quinlan, Jennifer, Drexel University (T7-05, P3-90, T6-10)

Quintana, Julio, Charm Sciences, Inc. (P3-13)

Quintana-Hayashi, Macarena, North Carolina State University (T2-05)

Rabinovitch, Leon, Fundação Oswaldo Cruz (P3-87)

Radcliff, Roy, Marshfield Clinic (P2-118)

Radhakrishna, Rama, The Pennsylvania State University (T5-06)

Raengpradub-Wheeler, Sarita, Silliker, Inc. (P1-42)

Rahman, S.M.E., Kangwon National University (P2-171)

Rahmat Ali, Gulam Rusul, Universiti Sains Malaysia (T8-07)

Raiagopal, Lakshman, Iowa State University (P1-142, T7-06)

Rajic, Andrijana, Public Health Agency of Canada (P1-125)

Rajkowski, Kathleen, U.S. Department of Agriculture-ARS (P3-02,

Ramenzoni, Marni, Brazilian Agricultural Research Corporation (P3-84)

Ramirez Porras, Rosa Gabriela, Universidad Autonoma de Yucatan (P3-109)

Ramsey, Bill, McCormick & Co. (S27\*)

Rana, Gunjot, Luminex(r) Corporation (P2-118)

Rannou, Maryse, ADRIA (P3-148, P2-131, P2-132, P2-127)

Raphael, Brian, Centers for Disease Control and Prevention (P3-113)

Rapnicki, Paul, University of Minnesota (P3-13)

Ravaliva, Kruti, North Carolina State University (T10-05\*)

Ravishankar, Sadhana, University of Arizona (P3-89, P2-37, P3-112)

Rawsthorne, Helen, North Carolina State University (P3-162)

Rebe, Paul, Parker Hannifin Corp (P1-18)

Reddy, Ravinder, U.S. Food and Drug Administration (P3-147, P1-36, P3-48)

Reddy, Rukma, U.S. Food and Drug Administration (P3-113)

Redmond, Elizabeth, Cardiff Metropolitan University (UWIC) (P1-147, P1-145, P1-141)

Reed, China, Drexel University (P3-145)

Reis, Fernanda Barbosa, University of Sao Paulo (P3-78\*)

Rempel, Heidi, Agriculture and Agri-Food Canada (P1-101)

Ren, Lin, Michigan State University (T1-08, T1-09)

Renton, Deric, Silliker Australia (P2-07)

Restaino, Lawrence, R & F Laboratories, Inc. (P3-167\*)

Reyes, Deena, New York State Department of Health (P1-128)

Reyna-Granados, Javier, University of Arizona (P3-112)

Reynolds, Sara, U.S. Department of Agriculture-ARS (P3-116)

Rezende, Ana Carolina Bortolossi, University of Sao Paulo (P2-80, P2-161\*)

Ribeiro, Vinicius, University of Sao Paulo (P2-145\*)

Rice, Jennifer, Neogen Corporation (P3-149, T10-10, P2-120)

Richard, Angela, Clemson University (P2-81\*)

Richards, Gary, U.S. Department of Agriculture-ARS (S6\*)

Richards, Jesse, Cornell University (P2-94)

Ricke, Steven, University of Arkansas (T5-05)

Rideout, Steven, Virginia Tech (P3-86, S35\*)

Riess, Jeannine, Colorado State University (S33\*)

Robach, Michael, Cargill (\$30\*)

Roberts, Cheryl, U.S. Department of Agriculture-ARS (P3-32, T1-05)

Roberts, Tanya, Center for Foodborne Illness Research &

Prevention (S28\*)

Roche, Jean-Marc, bioMerieux (P2-110)

Rodda, Tom, University of Minnesota (P1-137)

Rodrick, Gary, University of Florida (P2-101)

Rodriguez Garcia, Ofelia, Universidad de Guadalajara (P1-40)

Rogers, Adrian, Romer Labs UK Ltd. (P3-169)

Rohrbeck, Jeffrey, DuPont (P1-35)

Roias, Aleiandro, 3M (P1-52)

Rokey, Galen, Wenger Manufacturer (P3-115, P1-115)

Rosales, Erik, ALSEA (P2-123)

Rosauer, Micki, 3M (P2-142)

Rothrock, Michael, U.S. Department of Agriculture-ARS (P3-160\*)

Rotich, Emily, Tennessee State University (P1-90)

Rotstein, David, U.S. Food and Drug Administration (P1-128) Scott, Jenny, U.S. Food and Drug Administration-CFSAN (S18\*, Rovison, John, FMC Corporation (P3-60) S24\*, S1\*, Ivan Parkin Lecture) Royer, Tom, Oklahoma State University (P3-51) Scott, Morgan, Kansas State University (S10\*) Rubino, Maria, Michigan State University (T2-02, P3-92, T2-01) Scow, Kate, University of California-Davis (T1-02) Ruby, John, JBS (S29\*) Scullen, O. Joseph, U.S. Department of Agriculture (P3-02, P3-01) Ruiz, Henry, Texas Tech University (P2-15) Sebranek, Joseph, Iowa State University (P3-101) Russell, Scott, University of Georgia (\$33\*) Selman, Carol, Centers for Disease Control and Prevention (S3\*) Rust, Bob, International Specialty Supply (\$34\*) Senecal, Andre, U. S. Army Natick RDE Center (S41\*) Ryang, Jun-Hwan, Nongshim Co., Ltd. (P1-77) Seo, Kun-Ho, Konkuk University (P1-158, P3-07, P3-10, P1-10, Rymut, Susan, The Ohio State University (P3-44\*) P1-07, T10-03) Ryser, Elliot, Michigan State University (P3-49, P3-92, T1-08, T1-09, Seo, Seungwook, Rutgers University (P3-34, P3-38) T1-12, P1-170, P1-174, T4-12) Sergeev, Nikolay, Life Technologies (P3-150\*) Ryu, Dojin, Texas Woman's University (P1-149, P3-68, T7-11) Sfaciotte, Ricardo Antonio Pileg, Universidade Estadua de Ryu, Jee-Hoon, Korea University (P2-160, P2-86) Maringa (P2-05) Rvu, Kvoung-Yul, Rural Development Administration (P1-162) Shafir, Shira, UCLA School of Public Health (P1-127) Sadowski, Jennifer, U.S. Food and Drug Administration (P1-12) Shale, Karabo, Central University of Technology (P1-131\*) Sai, Mariam, CanBiocin (P2-92) Shao, Jingdong, Jiangsu Entry-Exit Inspection and Quarantine Saleh-Lakha, Saleema, University of Guelph (T10-02) Bureau of P.R. China (T10-11, P3-154) Salter, Robert, Charm Sciences, Inc. (P3-13\*) Sharma, Amit, Penn State University (P1-177\*) Samadpour, Mansour, LifeForce Foods (P3-165, P1-31, P1-166, S34\*, Sharma, Chander Shekhar, Mississippi State University (P2-101\*) P1-129, P3-171, P1-69, P1-28, P3-170, P3-19, P1-39, P1-29, P2-151) Sharma, Manan, U.S. Department of Agriculture-ARS (T1-05, Sampath, Rangarajan, Ibis Biosciences (P2-113) P3-123, P3-32, P2-27, P3-43) Sanchez, Eduardo, Universidad Autonoma de Nuevo Leon Sharpe, Susan, Birling Avian Laboratories (T5-08) (P2-106\*) Shaw, William, U.S. Department of Agriculture-FSIS (P3-145, P2-129) Sanderson, Robert, Jonathan Sprouts Inc. (\$34\*) Shawkat, Daliya, SA Scientific (P2-126) Shazer, Arlette, U.S. Food and Drug Administration (P1-95) Sant'Ana, Anderson, University of Sao Paulo (P2-71, P2-43, P3-17, P1-133, P1-78, P1-159, P1-132, P3-71) Shearer, Adrienne, University of Delaware (P3-98\*) Santiago, Cristi, Rutgers University (P2-43) Sheehan, John, U.S. Food and Drug Administration-CFSAN (S16\*) Santillana-Farakos, Sofia, University of Georgia (P1-118\*) Sheen, Lee-Yan, National Taiwan University (P1-136\*) Shehady, Elia, Kraft Foods Inc. (P2-100) Santin, Monica, U.S. Department of Agriculture-ARS (T10-09) Santos, Fernanda, Brazilian Agricultural Research Corporation Shelver, Weilin, U.S. Department of Agriculture (T10-07) (P3-84\*) Shen, Cangliang, U.S. Department of Agriculture-ARS (T1-10\*, T9-08\*, P1-99\*) Sarver, Ronald, Neogen (P3-149) Sathyamoorthy, Venugopal, U.S. Food and Drug Administration-Shen, Jinling, University of Maryland (P1-86, P1-109) Shen, Zhenyu, University of Missouri-Columbia (P1-21\*) CFSAN (P1-12\*) Sauer, Kevin, Kansas State University (T7-11) Shepherd, Marion, Clemson University (P2-96) Sawyer, Erin, New York State Department of Agriculture and Shi, Xianming, Shanghai Jiao Tong University (P2-154\*) Markets (P1-128) Shieh, Carol, U.S. Food and Drug Administration (S7\*, P1-95, P2-39) Shim, Won-Bo, Florida State University (P1-53, P1-161) Saxenian, Brian, University of Houston (P3-76\*) Sbodio, Adrian, University of California-Davis (T4-07, T3-04, T3-03) Shortlidge, Krystal, University of Delaware (P3-123, P3-141) Schaffner, Donald, Rutgers University (S7\*, P1-156, P1-159, S18\*, Shoyer, Bradley, U.S. Department of Agriculture-ARS-ERRC T9-11, P1-118, P2-43, S11\*) (P3-145, P2-129) Scharff, Robert, The Ohio State University (P3-75, T7-08) Shuck, Karen, University of Nebraska-Lincoln (P3-13) Scheinberg, Joshua, Pennsylvania State University (T5-06\*) Siddig, Muhammad, Michigan State University (P3-55) Schermann, Michele, University of Minnesota (T4-02) Siletzky, Robin, North Carolina State University (P1-83) Schiochet, Marisete, Brazilian Agricultural Research Corporation Silk, Benjamin, Centers for Disease Control and Prevention (S19\*) (P3-84) Silva, Eliane Pereira, Universidade de Sao Paulo (P3-78) Schlesser, Joseph, U.S. Food and Drug Administration (P1-95) Silva, Teofilo, Fluminense Federal University (P3-17) Schmale, III, David, Virginia Tech (P3-23) Silva, Wladimir Padilha da, Universidade Federal de Pelotas (P1-117) Schmidl, Mary, IUFoST (S30\*) Silva Junior, Abelardo, Universidade Federal de Vicosa (P2-59) Schmidt, Charles, Agrana Fruit Services (P3-53) Silverman, Meryl, U.S. Department of Agriculture (T8-09) Schmidt, Flavio, UNICAMP (P2-80) Sim, Hui Li, National University of Singapore (P2-41) Schmidt, John, U.S. Department of Agriculture-ARS (P2-95\*) Simonne, Amarat, University of Florida (P2-93\*) Schneider, Keith, University of Florida (RT5\*, P3-50, P2-105, T1-01, Sindelar, Jeffrey, University of Wisconsin (P3-30, P3-24) P2-34) Singh, Ajay, U.S. Department of Agriculture-ARS (P3-32) Schoenenbruecher, Holger, Merck Millipore (T5-02, P3-08) Singh, Manpreet, Auburn University (P1-116) Schrickx, Jan, University Utrecht (T2-04) Singh, Randhir, Clemson University (P2-96, P3-114) Schroeder, Matthew, Virginia Tech (P3-23\*) Sinsawasdi, Valeeratana, University of Florida (P2-93) Schuppe, Sabine, Qiagen GmbH (P2-117) Sirsat, Sujata, University of Houston (P2-29, P1-80) Schwarz, John, Texas A&M University-Galveston (T2-07) Sites, Joseph, U.S. Department of Agriculture-ARS (P3-01) Scott, Janet, PepsiCo Europe (S13\*) Six, Johan, University of California (T1-02)

\*Presenter Skandamis, Panagiotis, Agricultural University of Athens (P1-65, P2-172, P3-129, P2-137, P3-106, P2-78) Skinner, Guy, U.S. Food and Drug Administration (P3-113) Slaghuis, Joerg, Merck Millipore (P3-08, P2-25) Slenk, Emily, Neogen Corporation (P2-120) Smathers, Sarah, North Carolina State University (P1-64\*) Smid, Joost, Utrecht University (P1-163, P3-31) Smiley, Ronald, U.S. Food and Drug Administration-ORA (P3-85\*, P3-158\*) Smith, David, Griffith Laboratories Canada (P2-92\*) Smith, Gary, Colorado State University (P2-11) Smith, Madeleine, University of Birmingham (P3-163, P1-139, P1-178) Smith, Michelle, U.S. Food and Drug Administration (S34\*) Smith DeWaal, Caroline, Center for Science in the Public Interest (P1-126\*) Snyder, Abigail, The Ohio State University (P2-82\*) Snyder, Heather, Iowa State University (P3-26\*) Snyder, Oscar, Hospitality Institute of Tech and Management (P2-18) Soares, Nilda, Federal University of Vicosa (T9-03) Soares, Vanessa Mendonca, Sao Paulo State University (P1-57) Sofos, John, Colorado State University (P2-11, P2-10, P1-98, P1-105, P2-98, P3-125) Sohier, Daniele, ADRIA (P1-46, P1-68, P2-111, P2-127, P3-148, P2-131, P2-132) Sokorai, Kimberly, U.S. Department of Agriculture-ARS (P2-35) Solis-Soto, Luisa, Universidad Autonoma de Nuevo Leon (P3-52\*) Sommer, Dagmar, Justus-Liebig-University (P3-08) Sommers, Christopher, U.S. Department of Agriculture-ARS (P3-01, T4-10, P3-02) Son, Insook, U.S. Food and Drug Administration-CFSAN (P1-34, P1-06) Son, Myeongki, Chung-Ang University (P3-81) Song, Kwang-Young, Konkuk University (P1-10, P1-158, P3-07, P3-10, P1-07, T10-03) Song, Liuyan, Guangzhou Center for Disease Control and Prevention (P3-157) Songer, Glenn, The University of Arizona (RT1\*) Soontravanich, Roikhwan, Chulalungkorn University (P2-23\*) Soto, Silvina, Centro de Investigación y Asistencia Tecnica a la Industria Agroalimentaria (P1-132, P1-133) Soto-Marguez, Alejandro, Universidad Autonoma de Queretaro (P3-58\*) Souza, Marcelo, Universidade Federal de Minas Gerais (P2-68, P2-66) Souza Barbosa, Matheus, University of Sao Paulo (P3-95\*) Soyer, Yesim, Middle East Technical University (P2-94\*) Speller-Henderson, Leslie, Tennessee State University (P1-138) Spurlino, Christopher, Drexel University (P3-145) Sreenivasa, MY, Mysore University (P2-97) Sriranganathan, Nammalwar, Virginia Tech (T1-03) Stahl, Valerie, AERIAL (P1-169) Stanley, Megan, Purdue University (P2-76) Starks, Holland, Drexel University (P3-145) Staschower, Fabiane, Michigan State University (T2-01\*) Steele, James, University of Wisconsin-Madison (P2-61) Stein, Susan, Drexel University (T7-05) Steiner, Brent, Neogen Corporation (P3-149) Stephan, Roger, University of Zurich (P2-148) Stessl, Beatrix, University of Veterinary Medicine Vienna (P2-25) Stewart, Diana, U.S. Food and Drug Administration (P1-95) Stiles, Michael, CanBiocin (P2-92)

Stone, Richard, Tennessee State University (P1-138) Stopforth, Jarret, Campbell Soup Company (S40\*, P2-11) Stratton, Jayne, University of Nebraska (P3-115, P1-115) Strawn, Laura, Cornell University (T3-01\*) Strohbehn, Catherine, Iowa State University (T7-06) Su, Xiaowei, University of Tennessee-Knoxville (T9-04, T9-01) Suehr, Quincy, Michigan State University (P3-11) Suh, Soohwan, North Carolina State University (P3-164\*) Suk, Hee-Jin, Korea Livestock Products HACCP Accreditation Service (P1-60, P2-166, P1-150) Sullivan, Elizabeth, Cornell University (P2-67, P2-168\*) Sun, Yan, U.S. Food and Drug Administration (P2-39\*) Sung, Chang-Hyeon, Konkuk University (P1-158) Sunkara, Vamsi Krishna, Texas Tech University (P3-21) Supkis, Michaela, University of Houston (P3-64\*) Suresh, Deepika, Auburn University (P1-116\*) Suslow, Trevor, University of California-Davis (S36\*, P2-28, T3-04, T1-02, T4-07, S12\*, T3-03, T4-04) Sutzko, Meredith, SDIX (P2-140, P3-127) Svoboda, Amanda, The Pennsylvania State University (P3-16\*) Swart, Arno, National Institute for Public Health and the Environment (P1-163) Sweeney, Kari, ConAgra Foods, Inc. (P3-83) Szonyi, Barbara, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University (T3-05) Tabari, Mahsa, Islamic Azad University (P1-135) Taboada, Eduardo, Public Health Agency of Canada (T10-02) Tadler, Monica, DuPont (P1-35) Talbert, Joey, University of Massachusetts-Amherst (T1-04) Talens, Angelita, IEH Laboratories and Consulting Group (P3-171) Tall, Ben, U. S. Food and Drug Administration (P1-12, T2-07) Tallent, Sandra, U. S. Food and Drug Administration (P2-65) Taminiau, Bernard, University of Liege (P1-70) Tang, Juni, Southwest University for Nationalities (P2-154) Taniwaki, Marta, Instituto de Tecnologia de Alimentos (S43\*) Taormina, Peter, John Morrell & Co. (T8-10, T5-04) Tassou, Chrysoula, National Agricultural Research Foundation (P3-80, P2-64, P1-91, P3-25) Taylor, Helen, UWIC (T2-03\*) Taylor, Tiffany, Cal Poly (P3-73\*) Tebbs, Robert, Life Technologies (P3-150, P1-23, P3-152) Teixeira, Leonardo, 3M Brasil (P1-52) Tekbas, Omer, Gulhane Military Medical Academy (P3-61\*) Teofilo, Reinaldo, Federal University of Vicosa (T9-03) Teplitski, Max, University of Florida (T1-01) Thakur, Siddhartha, North Carolina State University (T2-05\*) Thippareddi, Harshavardhan, University of Nebraska-Lincoln (P2-18) Thomas, Ellen, North Carolina State University (T7-01\*) Thomas, Kate, Public Health Agency of Canada (\$28\*) Thompson, Angela, FMC Corporation (P3-60\*) Thompson, Leslie, Texas Tech University (P1-120, P3-109, P1-146) Thuault, Dominique, ADRIA (P1-169) Tice, George, DuPont (P1-35) Tillman, Glenn, U. S. Department of Agriculture (T10-07) Tirtajaya, Imelda, University of Massachusetts-Amherst (P3-117\*) Todd, Ewen, Michigan State University (T7-11, T3-09) Todorov, Svetoslav, University of Sao Paulo (P3-88, P3-95, P2-59) Tokarskyy, Oleksandr, University of Florida (P3-50, P2-105) Tolan, Jerry, Neogen Corp. (T10-10) Tomas-Callejas, Alejandro, University of California-Davis (T4-07, P2-28, T3-04, T3-03)

Stoltzfus, Angeline, DuPont Qualicon (P2-136)

\*Presenter Tomikatu, Clara, UNICAMP (P2-80) Tondo, Eduardo Cesar, UFRGS (P1-52, P3-119) Toney, Denise, Div. Consolidated Labs (P1-128) Tong, Cindy, University of Minnesota (T4-02) Tong, Yu, Zhejiang Gongshang University (P2-167) Topalcengiz, Zeynal, University of Florida (T6-01\*) Topp, Ed, Agriculture and Agri-Food Canada (P1-101) Toro, Magaly, University of Maryland (P1-86, P2-139) Torresan, Renata, EMBRAPA-CTAA (P3-17) Tortorelli, Suzanne, Campbell Soup Company (\$12\*) Tortorello, Mary Lou, U.S. Food and Drug Administration (P1-95, P3-35, P3-48, P1-172) Tourniaire, Jean-Philippe, Bio-Rad (P1-22, P3-09, P2-121) Tran-Dinh, Nai, CSIRO (S43\*) Traylor, Alan, MOCON, Inc. (P2-134\*) Trimble, Lisa, University of Georgia (P2-06\*) Trinetta, Valentina, Purdue University (T8-12) Truelstrup Hansen, Lisbeth, Dalhousie University (T8-11) Tsakalidou, Effie, Agricultural University of Athens (P3-80) Tsarouha, Joanne, University of Wisconsin-Madison (P1-96) Tsuchiya, Ana Claudia, Universidade Estadual de Campinas (P3-132) Tsuyuki, Steven, Maple Leaf Foods (S18\*) Tucker, Ward, BioSentinel, Inc. (P2-125\*) Tuite, Carla, U. S. Food and Drug Administration (P1-128) Tulini, Fabricio, University of Sao Paulo (P2-89, P3-77, P3-87) Tung, Grace, North Carolina State University (P1-82\*) Tzou, Ywh-Min, University of Alabama at Birmingham (P2-102) Uesugi, Aaron, Cornell University (P2-100) Uhlich, Gaylen, U.S. Department of Agriculture-ARS (P3-146, P3-121) Ukuku, Dike, U.S. Department of Agriculture-ARS-FSIT-ERRC (P2-52, T4-10) Urbanczyk, Michael, Illinois Institute of Technology (P3-147\*) Usaga Barrientos, Jessie, Cornell University (P3-62) Uyttendaele, Mieke, Ghent University (T6-03, T3-11, S15\*) Valadez, Angela, University of Florida (P2-49\*) Van Abel, Nicole, University of Washington (P1-175\*) Van Bruggen, Ariena, University of Florida (T8-04, T8-03) Van der Linden, Inge, Institute for Agricultural and Fisheries Research (ILVO) (T6-03\*) van der Linden, Ivo, PURAC (P3-102) Van Doren, Jane, U.S. Food and Drug Administration-CFSAN-OFDCER (P2-150, S16\*) Van Stelten, Anna, Texas Tech University (P1-143\*) Varkey, Stephen, DuPont (P1-35, P2-136, P1-94) Vasan, Akhila, University of Wisconsin-Madison (T5-01\*) Vasavada, Purnendu, University of Wisconsin-River Falls (S1\*) Vaz, Clarissa, Brazilian Agricultural Research Corporation (P3-84) Velazguez-Nunez, Maria Jose, Universidad de las Americas Puebla (P3-100\*) Vellidis, George, University of Georgia (T8-04) Venter, Pierre, Fonterra Research Centre (P1-131) Vera-Lopez, Obdulia, Benemerita Universidad Autonoma de Puebla (P2-77) Viazis, Stelios, U.S. Food and Drug Administration (P1-128) Vickery, Michael, BioGX (T10-12\*)

Vicosa, Gabriela Nogueira, Universidade Federal de Vicosa (P1-117) Villalobos-Reyes, Salvador, Instituto Nacional de Investigaciones Forestales Agricolas y Pecuarias (P3-58) Villaneva, Michael, California Leafy Green Marketing Agreement Villegas, Lucille, IEH Laboratories and Consulting Group (P1-69)

Villeneuve, Sebastien, Agriculture and Agri-Food Canada (T3-02) Vinay-Lara, Elena, University of Wisconsin-Madison (P2-61) Vinje, Jan, Centers for Disease Control and Prevention (P1-33) Vitor, Debora, Federal University of Vicosa (T9-03) Vlaemynck, Geertrui, Institute for Agricultural and Fisheries Research (ILVO) (T6-03) Vonasek, Erica, University of California-Davis (P3-140\*) Vongkamjan, Kitiya, Cornell University (P1-89) VonTayson, Roxanne, University of Wisconsin-Madison (P3-30\*) Voronkova, Valentina, IEH Laboratories and Consulting Group (P3-171, P1-39) Vorst, Keith, California Polytechnic State University (T4-12) Voss-Rech, Daiane, Brazilian Agricultural Research Corporation (P3-84) Waddell, Lisa, Public Health Agency of Canada (P1-125) Wade, Iris, Rutgers University (P2-43) Wadl, Martina, Robert Koch-Institute (P2-25) Wadsworth, Sarah, Food Safety Connect (P3-145) Wagner, Martin, University of Veterinary Medicine (P2-25) Waite, Robert, FoodTrack, Inc. (S14\*) Waite-Cusic, Joy, IEH (P1-25) Walkling-Ribeiro, Markus, University of Guelph (P3-133\*) Wall, Gretchen, Cornell University (T7-07\*) Wall, Patrick, University College Dublin (S30\*) Wallace, Morgan, DuPont Qualicon (P1-35, P1-94) Wallis, Audra, University of Tennessee (P2-153) Walls, Isabel, U.S. Department of Agriculture-NIFA (S15\*) Wang, Charles, U. S. Food and Drug Administration (P3-86) Wang, Fei, Louisiana State University (P1-15\*) Wang, Fei, Jiangnan University (P3-72) Wang, Gongbo, DuPont Qualicon (P1-112) Wang, Haigiang, Michigan State University (T1-12, P3-49, T1-09) Wang, Hua, U.S. Food and Drug Administration (P1-38\*) Wang, Jun, Kangwon National University (P2-171) Wang, Morgan, Daniel High School (P2-96\*) Wang, Ou, Auburn University (P1-09) Wang, Qian, Institute for Food Safety and Health (P1-16, P3-147) Wang, Qin, University of Maryland (P1-99, T1-10, T1-07, T9-08) Wang, Qing, University of Delaware (P2-44\*) Wang, Wen, Zhejiang University (T5-10, P2-107) Wang, Xingguo, Jiangnan University (P3-72) Wang, Yiqian, Zhangjiagang CIQ (P1-112) Wang, Zhihong, U.S. Department of Agriculture-FSIS-LQAD (P1-17) Wang, Zhouping, Jiangnan University (T10-11, P3-154) Warchoki, Steven, Cornell University (P1-143) Ward, Shanna, Texas Tech University (P3-109\*) Warnick, Lorin Dean, Cornell University (P2-94) Warren, Katherine, Washington State University (P3-56) Webb, Jennifer, U.S. Department of Agriculture (P3-22) Wee, Sung Hwan, Quarantine and Inspection Agency (P2-01) Weese, Jean, Auburn University (P1-09, P2-87, P2-102) Wei, Polly, University of California (T3-03, T4-07, P2-28) Weier, Steven, University of Nebraska (P1-115, P3-115) Weijers, Thijs, Check-Points B.V. (P1-42) Welker, Erica, Romer Labs Inc. (P3-169) Wells, Jim, U.S. Meat Animal Research Center (P3-13) Wetherington, Diane, Intertox (P2-53) Weyker, Robert, University of Wisconsin-Madison (P3-30) Wheeler, Mark, U.S. Department of Agriculture (P3-22) White, Patricia, U.S. Department of Agriculture-FSIS (S19\*) White, Valerie, The Ohio State University (T7-08)

White III, James, Ecolab Inc. (P2-08, P2-85)

Whitmire, Mark, Department of Homeland Security (T3-08)

Wieczorek, Kinga, National Veterinary Research Institute (P1-84)

Wiedmann, Martin, Cornell University (S5\*, T3-01, T8-06, P1-89,

P1-105, P1-143, P2-94, P2-124, P3-125, S32\*)

Wierenga, Anieke, PURAC (P3-102)

Wiester, Thomas, Campbell Soup Company (S20\*)

Wijman, Janneke, PURAC Biochem (P3-102\*)

Wilger, Pamela, Cargill, Inc. (S22\*, S1\*)

Willems, Ashleigh, Texas Tech University (P2-138\*)

Willems, Kris, University Leuven (S6\*)

Williams, Elizabeth, University of Maryland (P1-153\*)

Williams, Laurie, U.S. Food and Drug Administration-HHS (P3-145) Williams, Leonard, North Carolina A&T State University (P3-104,

P3-126)

Williams, Patrick, Evogen, Inc. (P2-26)

Williams, Robert, Virginia Tech (T1-03, P3-136)

Williams, Sally, University of Florida (P2-101)

Williams-Hill, Donna M., U.S. Food and Drug Administration (P1-26, P2-113, P2-147)

Windham, Bob, U.S. Department of Agriculture-ARS (P3-124\*)

Winkelstroter, Lizziane, University of Sao Paulo (P2-89, P3-77)

Woerner, Dale, Colorado State University (P2-10, P2-11, P2-98)

Wofford, Michelle, Texas Woman's University (P3-68)

Wolf, Maxwell, Texas Tech University (P1-120\*)

Wong, Amy, University of Wisconsin (P1-96)

Wong, Lily, Life Technologies (P3-152)

Wood, Jayde, University of British Columbia (T4-03, P3-39)

Worobo, Randy, Cornell University (P2-168, P3-62, T3-01, P2-84)

Wotecki, Catherine (John H. Silliker Lecture)

Wright, Anita, University of Florida (T5-09, T8-04, P3-05)

Wu, Changqing, University of Delaware (P2-32)

Wu, Shijia, Jiangnan University (T10-11, P3-154)

Wu, Vivian Chi-Hua, University of Maine (S41\*)

Wu, Yunpeng, University of Maryland (T1-07)

Xia, Wensheng, 3M Microbiology (T10-01)

Xia, Yining, Michigan State University (T2-02\*)

Xie, YanPing, Shanghai Jiao Tong University (P2-154)

Xu, Jieging, University of British Columbia (P3-45, P3-33)

Xu, Wenging, University of Delaware (P2-32\*)

Xu, Xuilan, The Ohio State University (P2-50)

Yamazi, Anderson Keizo, Universidade Federal de Vicosa (P2-05, P1-76)

Yang, En, Chinese Academy of Sciences (P3-94)

Yang, Fei, IIT (P1-172)

Yang, Hongshun, University of Minnesota (P1-50)

Yang, Hua, Roka Bioscience (P2-10, P1-98, P1-03, P2-98)

Yang, Julie, 3M (P2-123, P2-142)

Yang, Qianru, Louisiana State University (P1-15, P1-08)

Yang, Yang, U.S. Department of Agriculture-ARS (T1-07)

Yeap, Jia Wei, The Ohio State University (P1-66\*)

Yen, Li-Han, IFSH (P3-35)

Yien, Wan, Griffith Laboratories Canada (P2-92)

Yim, Jin-Hyeok, Konkuk University (P1-158, P1-10)

Yin, Shuang, The Pennsylvania State University (P1-88\*)

Yolken, Robert, The Johns Hopkins University School of Medicine (S17\*)

Yoo, Ami, University of Missouri (P3-110\*)

Yoo, Hyelim, Gachon University (P1-54, P1-56\*)

Yoon, Hyunjoo, Sookmyung Women's University (P2-75, T9-05, P2-170, P2-166)

Yoon, Kisun, Kyung Hee University (P1-152, P2-164, P1-85)

Yoon, Seung-Chul, U.S. Department of Agriculture-ARS (P3-124) Yoon, Yohan, Sookmyung Women's University (P2-170, P2-172, P2-75, T9-05, P2-165, P2-166, P1-150, P1-53)

Yoshitomi, Ken, U.S. Food and Drug Administration-ORA (P1-32\*)

Yousef, Ahmed, The Ohio State University (T9-02, P2-82, S37)

Yuan, Wenqian, University of British Columbia (P3-45, P3-33)

Yuk, Hyun-Gyun, National University of Singapore (P2-41\*)

Yun, Gyiae, Chung-Ang University (P3-81)

Yun, Jong-Chul, Microbial Safety Division (P1-162)

Yun, Juan, U.S. Department of Agriculture-ARS (P2-90)

Zanella, Janice, Brazilian Agricultural Research Corporation (P3-84)

Zanette, Cristina Maria, Federal University of Parana (P1-57)

Zapata, Ruben, New Mexico State University (P2-159)

Zavala, Veronica, 3M (P1-40)

Zeng, Wenting, Michigan State University (T4-12\*)

Zerio, Cecilia, University of Houston (P1-80\*)

Zhang, Guodong, U.S. Food and Drug Administration (P3-51, P2-158)

Zhang, Hanshuai, Illinois Institute of Technology (P2-47\*)

Zhang, Jiayi, Purdue University (P2-76\*)

Zhang, Lin, Auburn University (P1-09)

Zhang, Nan, University of Tennessee (P2-153)

Zhang, Qingli, Texas Tech University (P2-91)

Zhang, Rui, Jiangsu CIQ (P1-112)

Zhang, Wei, Illinois Institute of Technology (P3-142, P3-143)

Zhang, Yifan, Wayne State University (T2-12, P3-107)

Zhao, Dongjun, Cornell University (P3-62\*)

Zhao, Heng, Institute for Food Safety and Health (P1-107, P1-108)

Zhao, Irene, University of California-Davis (P2-31\*)

Zhao, Ping, University of Georgia (P3-18)

Zhao, Shaohua, U.S. Food and Drug Administration (P1-109, P1-86, P2-139)

Zhao, Tong, University of Georgia (P3-18\*)

Zhao, Xi-Hong, Kangwon National University (P2-171)

Zheng, Guolu, Lincoln University (P1-21)

Zheng, Jie, U.S. Food and Drug Administration (P3-116, P3-86)

Zheng, Yue, Illinios Institute of Technology (P1-62)

Zhou, Bin, University of Maryland (T9-08, T1-07)

Zhou, Yang, Anhui Agricultural University (P1-112)

Zhu, Changqing, Inspection and Quarantine Bureau (T10-11, P1-112, P3-154)

Zhu, Libin, University of Arizona (P3-89)

Ziebell, Brad, ConAgra Foods (P2-115\*)

Zilelidou, Evangelia, Agricultural University of Athens (P2-78\*)

Ziner, Mark, Department of Homeland Security (S23\*)

Zink, Don, U.S. Food and Drug Administration-CFSAN (S11\*)

Ziobro, George C., U.S. Food and Drug Administration-CFSAN (P3-118)

Zook, Cynthia, 3M Microbiology (P2-142, P1-102, P1-103)

Zottarelli, Lisa, Texas Woman's University (P3-68, P1-149)

Zoumpopoulou, Georgia, Agricultural University of Athens (P3-80)

Zurera-Cosano, Gonzalo, University of Cordoba (T3-09)

Zweifel, Claudio, University of Zurich (P2-148\*)

# **Developing Scientist Competitors**

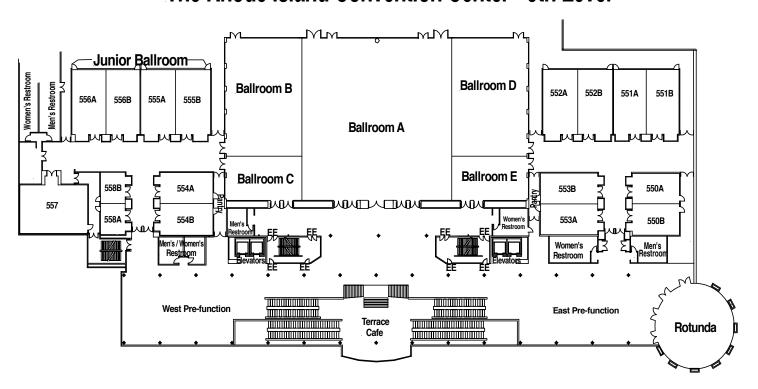
Adams, Chanelle, University of Massachusetts-Amherst (P3-97) Adolphe, Ysabelle, University of Liege (P3-151) Adzitev, Frederick, University for Development Studies (T8-07) Al-Mohaithef, Mohammed, University of Birmingham (P1-139) Anvarian, Amir H.P., University of Birmingham (P3-163) Apelagunta, Vinil, Illinois Institute of Technology (P1-47) Bang, Jihyun, Korea University (P2-160) Bozkurt, Hayriye, University of Tennessee (P2-162) Brandt, Alex, Texas Tech University (P1-105) Cancarevic, Ana, University of British Columbia (P3-143) Cao, Cong, University of Tennessee-Knoxville (T9-10) Cao, Guojie, University of Maryland (P1-93) Castillo, Sandra, Universidade A. de Nuevo Leon (P2-103) Chambliss-Bush, Sherre, University of Georgia (P1-55) Chandler, Jeffrey, Colorado State University (T10-04) Chaney, William, Texas Tech University (P3-21) Chapin, Travis, Cornell University (T8-06) Charaslertrangsi, Tumnoon, University of Guelph (P3-82) Chatzikyriakidou, Kyriaki, University of Wisconsin (P1-119) Chen, Chun, The Pennsylvania State University (P2-141) Chen, Jessica, Texas Tech University (T8-08) Chen, Wei, University of Tennessee, Knoxville (T8-02) Chenu, Jeremy, Baiada Poultry (P3-28) Chintagari, Sailaja, University of Georgia (P3-20) Choi, Song-Yi, Chung-Ang University (P3-131) Chon, Jung-Whan, Konkuk University (T10-03) Coleman, Shannon, Colorado State University (P1-37) Cormier, Jiemin, Louisiana State University (P3-04) Daneshvar Alavi, Hessam Edin, Dalhousie University (T8-11) Davidson, Gordon, Michigan State University (T1-08) Deen, Bronwyn, University of Minnesota (P1-137) Dev Kumar, Govindaraj, University of Arizona (T1-03) DiCaprio, Erin, The Ohio State University (T6-06) Diez, Francisco, University of Minnesota (P1-50) Dirks, Brian, Drexel University (T6-10) Draper, Audrey, The Pennsylvania State University (P3-36) Elder, Jacob, Texas Tech University (P3-155) Engstrom, Sarah, University of Wisconsin (P2-54) Fatica, Marianne, University of Florida (T1-01) Fouladkhah, Aliyar, Colorado State University (P2-98) Frelka, John, University of California-Davis (P2-51) Gautam, Dhiraj, National Institute for Microbial Forensics & Food and Agricultural Biosecurity (P3-144) Ge, Chongtao, The Ohio State University (P1-48) Golden, Max, University of Wisconsin-Madison (P3-103) Gragg, Sara, Texas Tech University (P2-15) Gutierrez-Rodriguez, Eduardo, University of California-Davis (T1-02) Hack-Youn, Kim, Konkok University (P2-170) Hayek, Saeed, North Carolina A&T State University (P2-88) Henley, Shauna C., Drexel University (T7-05) Hirneisen, Kirsten, University of Delaware (T4-01) Horm, Katie, University of Tennessee-Knoxville (T6-02) Huang, En, The Ohio State University (T9-02) Hyeon, Ji-Yeon, Konkuk University (P1-07) Ilic, Sanja, The Ohio State University (P2-50) Jensen, Dane, Rutgers University (T9-011) Jeong, Haerim, Chung-Ang University (P3-81) Jeong, Se-Hee, Chung-Ang University (P1-67) Jo, Hyejin, Kyung Hee University (P2-164) Ju, Wenting, University of Maryland (P1-86) Jun, Hyejung, Korea University (P2-86) Kalscheuer, Rebecca, University of Wisconsin-Madison (P2-60) Kapetanakou, Anastasia, Agricultural University of Athens (P3-106) Kennedy, Katherine, University of Wisconsin-Madison (P2-13) Kennedy, Nicole, Alabama A&M University (P2-46) Kim, Kuwan, University of Houston (P3-65) Klotz, Courtney, Virginia Tech (P2-146) Kovacevic, Jovana, University of British Columbia (P3-137) Lee, Chi-Ching, University of Georgia (P2-48) Lee, Min Hwa, Chung-Ang University (P2-73) Lee, Soomin, Sookmyung Women's University (P2-172)

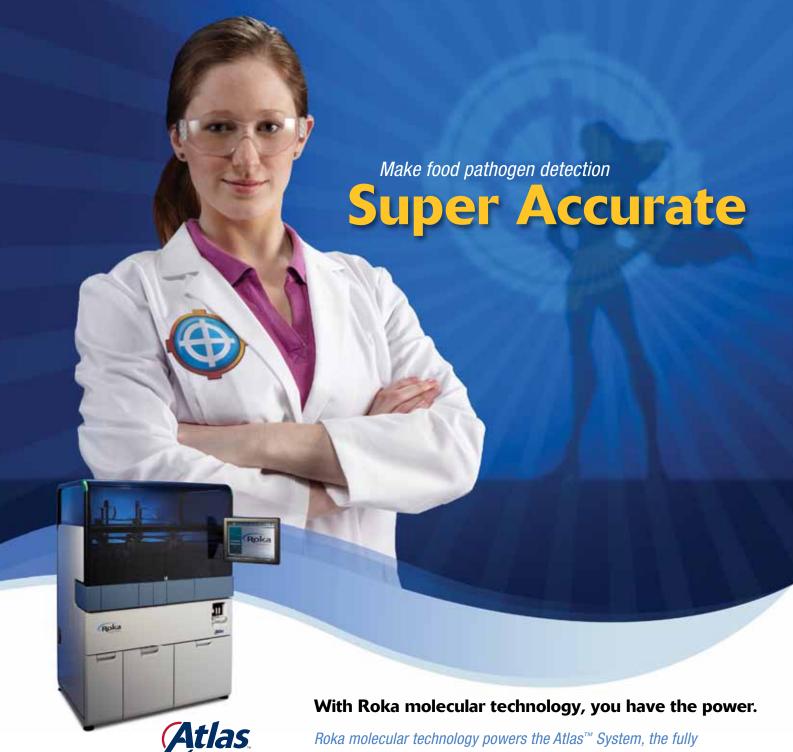
Leong, Wan Mei, University of Wisconsin-Madison (P3-120) LeStrange, Kyle, University of Delaware (P3-141) Li, Mingming, Institute for Food Safety and Health (P1-108) Li, Wenchao, Rutgers University (P1-176) Liao, Yen Te, Texas Tech University (P1-92) Lim, Winnie, University of Georgia (P3-42) Liu, Pei, Kansas State University (T7-10) Lou, Fangfei, The Ohio State University (T6-07) Ma, Songchuan, Illinois Institute of Technology (P1-95) Mahero, Michael, University of Minnesota (T4-02) Manios, Stavros, Agricultural University of Athens (P2-137) Manu, David, Iowa State University (P3-101) Markland, Sarah, University of Delaware (P3-123) Mazengia, Eyob, Integrated Public Health Services (P3-19) Moreno Switt, Andrea, Cornell University (P1-89) Mtenga, Adelard B., Gyeongsang National University (P1-53) Nagel, Gretchen, Auburn University (T5-07) Nguyen, Thao, University of Florida (P2-36) Nyarko, Esmond, University of Vermont (T10-01) Oh, JeeHwan, University of Wisconsin-Madison (P2-61) Oni, Ruth, University of Maryland (P2-27) Panchal, Palak, University of Illinois-Chicago (P1-124) Park, Hee Jin, Kyung Hee University (P1-152) Park, Na Yoon, Kyung Hee University (P1-85) Park, Sang Shin, Texas A&M University (T3-05) Pendleton, Sean, University of Tennessee (P2-153) Perez-Mendez, Alma, Colorado State University (P1-30) Pleitner, Aaron, Purdue University (T8-12) Prashant, Prashant, University of Missouri (P1-97) Ravaliya, Kruti, North Carolina State University (T10-05) Ravishankar, Sadhana, University of Arizona (P3-112) Ribeiro, Vinicius, University of Sao Paulo (P2-145) Richard, Angela, Clemson University (P2-81) Sanchez, Eduardo, Universidad Autonoma de Nuevo Leon (P2-106) Saxenian, Brian, University of Houston (P3-76) Scheinberg, Joshua, Pennsylvania State University (T5-06) Seo, Seungwook, Rutgers University (P3-34) Solis-Soto, Luisa, Universidad Autonoma de Nuevo Leon (P3-52) Soto-Marguez, Alejandro, Universidad Autonoma de Queretaro (P3-58) Staschower, Fabiane, Michigan State University (T2-01) Strawn, Laura, Cornell University (T3-01) Supkis, Michaela, University of Houston (P3-64) Suresh, Deepika, Auburn University (P1-116) Svoboda, Amanda, The Pennsylvania State University (P3-16) Tirtajaya, Imelda, University of Massachusetts-Amherst (P3-117) Topalcengiz, Zeynal, University of Florida (T6-01) Toro, Magaly, University of Maryland (P2-139) Trimble, Lisa, University of Georgia (P2-06) Valadez, Angela, University of Florida (P2-49) Van Abel, Nicole, University of Washington (P1-175) Vasan, Akhila, University of Wisconsin-Madison (T5-01) Wang, Haiqiang, Michigan State University (T1-09) Wang, Qian, Institute for Food Safety and Health (P1-16) Wang, Qing, University of Delaware (P2-44) Wang, Wen, Zhejiang University (T5-10) Williams, Elizabeth, University of Maryland (P1-153) Wood, Jayde, University of British Columbia (T4-03) Xia, Yining, Michigan State University (T2-02) Xu, Wenqing, University of Delaware (P2-32) Yang, Qianru, Louisiana State University (P1-08) Yeap, Jia Wei, The Ohio State University (P1-66) Yim, Jin-Hyeok, Konkuk University (P1-10) Yin, Shuang, The Pennsylvania State University (P1-88) Yoon, Hyunjoo, Sookmyung Women's University (P2-166) Zeng, Wenting, Michigan State University (T4-12) Zerio, Cecilia, University of Houston (P1-80) Zhang, Hanshuai, Illinois Institute of Technology (P2-47) Zhao, Dongjun, Cornell University (P3-62) Zhao, Heng, Institute for Food Safety and Health (P1-107) Zhao, Irene, University of California-Davis (P2-31) Zilelidou, Evangelia, Agricultural University of Athens (P2-78)

Lee, Sunah, Sookmyung Women's University (P2-75)

# Floor Plan

# The Rhode Island Convention Center - 5th Level





# AOAC-RI-certified assays:

Listeria spp. and Salmonella \*

\*Additional assays in development.

Experience the power for yourself. Visit us at booth #821.



© 2012 Roka Bioscience, Inc. MSFPUB0212

automated molecular pathogen detection system for food safety testing.

- Full sample-to-result traceability
- Integrated process controls
- Single manual transfer
- Proven molecular technologies incorporate three levels of specificity
- Complete electronic audit trail

# Superpower your lab!

We're Roka. And we'll help you get there.



1.855.R0KABIO | www.rokabio.com



# Discover a million reasons Total Plant Assurance pays.



Our integrated approach examines the complex connections between your systems, and then tailors solutions to help you take advantage of hidden opportunities across your entire operation. Learn how Ecolab service, solutions and expertise can help you gain a competitive advantage.

Ecolab. Everywhere It Matters.™





Call 1800 392 3392 or your Ecolab representative to learn what happens when expert solutions meet your business needs.