2015 International Symposium and Annual Meeting of The KSABC

Back to the Basic "from Genome to Metabolome"

June 18(Thu)-20(Sat), 2015

Pyeongchang Campus Seoul National University

Organized by

- The Korean Society for Applied Biological Chemistry

Co-Organized by

- The National Center for GM Crops
- Functional Glycosie Conjugater Research Center, Konkuk University
- Agricultural Biotechnology Center for Innovative Future Brains, Kyung Hee Uiversity
- The Agricultural Genome Center
- Graduate School of International Agricultural Technology, Seoul National University
- The Institute of Plant Environment Science, Research Institute of Agriculture and Life Sciences, Seoul National University
- Korea Promotion Institute for Traditional Medicine Industry. Bioconverted Medical Herb Materials Bank

Supported by

- Korean Federation of Science and Technology Societies
- Gangwon Convention & Visitors Bureau
- Ginseng Exportation Model Development Team
- Konkuk University
- Rural Development Administration
- Dong-il SHIMADZU Corp
- Macrogen

한국응용생명화학회
The Korean Society for Applied Biological Chemistry

목 차

Ⅰ (사)한국응용생명화학회 국제학술대회 및 제 104차 정기총회 일정

1 국제학술대회 개요

행 사 명	2015 International Symposium and Annual Meeting of the KSABC (2015년도 (사)한국응용생명화학회 국제학술대회 및 제 104차 정기총회)
주 제	Back to the Basic "from Genome to Metabolome"
일 시	2015. 6. 18(목) - 20(토)
장 소	서울대학교 평창캠퍼스 (101동)

공동개최 및 후원

구분	기관명
Organized by	(사)한국응용생명화학회
Co-Organized by	GM작물개발사업단
	(재)한국한방산업진흥원 한방바이오소재은행구축사업
	건국대학교 기능배당체연구소
	경희대학교 농생명 창의적 미래인재 양성사업단
	농생물게놈활용연구사업단
	서울대학교 국제농업기술대학원 국제농업기술학과
	서울대학교 농업생명과학연구원 식물환경과학연구소
Supported by	한국과학기술단체총연합회
	(사)강원국제회의산업지원센터
	농촌진흥청 ((사)한국농식품생명과학협회)
	중앙대학교 대중국 인삼수출적용기술 모델개발 사업팀
	동일시마즈㈜
	㈜마크로젠

전시 및 광고참여

구 분	내 용
물품후원	2개 기관
기기전시	20개 기관 (22개 부스)
지면 광고 및 홈페이지 배너	20개 기관

2 학술대회 일정

June 18 (Thu)			
09:00-09:30	Registration (Lobby, 3F)		Bio-exhibition
09:30-11:30	Graduate Student Presentation (301)		
11:30-12:20	Award Lectures (301)		
12:20-13:20	Lunch (1F)		
13:20-13:40	General Assembly Members Meeting (301)		
13:40-13:50	Opening Ceremony (301)		
14:00-17:00	**International Symposia (301)** **IS1**	**Symposia (201)** **S1 / S2**	
17:00-18:00	Poster Session Ⅰ (Lobby, 2F) Workshop (201, 202)		
18:00-20:00	Welcome Reception (1F)		
June 19 (Fri)			
09:00-09:30	Registration (Lobby, 3F)		Bio-exhibition
09:30-12:30	**International Symposia (301)** **IS2**	**Symposia (201)** **S3 / S4**	
12:30-13:30	Lunch (1F)		
13:30-14:30	Poster Session Ⅱ (Lobby, 2F) Workshop (202)		
14:30-16:30	**International Symposia (301)** **IS3**	**Symposia (201)** **S5**	
16:30-16:50	Closing Ceremony (301)		
June 20 (Sat)			
09:00-	Field Trip		

AL	Award Lectures		
IS	International Symposia	IS1	Metabolomics · Natural Products
		IS2	Genomics
		IS3	Biochemistry · Proteomics
S	Symposia	S1	Environmental Sciences
		S2	Biochemistry · Molecular Biology · Microbiology
		S3	Food Sciences
		S4	Biologics
		S5	Natural Products · Bioactive Materials · Biomedical Sciences
GS	Graduate Student Presentation	GS1	Biochemistry · Molecular Biology · Microbiology
		GS2	Natural Products · Bioactive Materials · Biomedical Sciences
		GS3	Environmental Sciences · Food Sciences
P	Poster Session	PBM	Biochemistry · Molecular Biology · Microbiology
		PNB	Natural Products · Bioactive Materials · Biomedical Sciences
		PES	Environmental Sciences
		PFS	Food Sciences
W	Workshop		
B	Bio-exhibition		

3 강연안내

301

Date	Lectures	Time	Speaker	Affiliation	Chair
June 18 (Thu)	GS1-1	09:30-09:42	So Eui Lee	Pusan National University	Cheol-Ho Pan (KIST)
	GS1-2	09:42-09:54	Kaewta Rattanapisit	Kyung Hee University	
	GS1-3	09:54-10:06	Mark C.F.R. Redillas	Seoul National University	
	GS1-4	10:06-10:18	Youngchul Yoo	Kyung Hee University	
	GS2-1	10:18-10:30	Jaeun Song	Chonbuk National University	
	GS2-2	10:30-10:42	Won Min Pak	Pukyong National University	
	GS2-3	10:42-10:54	Kwang-Su Park	Konkuk University	
	GS2-4	10:54-11:06	Seunghyun Ahn	Konkuk University	
	GS3-1	11:06-11:18	Jeong-In Hwang	Kyungpook National University	
	GS3-2	11:18-11:30	Peerapong Ngamnikom	Gangneung-Wonju National University	
	AL-1	11:30-12:00	Ki Hun Park	Gyeongsang National University	Yoongho Lim (Konkuk University)
	AL-2	12:00-12:20	Sei-Ryang Oh	Korea Research Institute of Bioscience and Biotechnology	
	IS1-1	14:00-14:30	Mechthild Tegeder	Washington State University, USA	Nam-In Baek (Kyung-Hee University)
	IS1-2	14:30-15:00	Céline Masclaux-Daubresse	Institut Jean Pierre Bourgin, INRA Versailles, France	
	IS1-3	15:00-15:30	Eiichiro Fukusaki	Osaka University, Japan	Dong Hern Kim (National Academy of Agricultural Science, RDA)
	IS1-4	15:30-16:00	Dongho Lee	Korea University, Korea	
	IS1-5	16:00-16:30	Payungsak Tantipaiboonwong	University of Phayao, Thailand	
June 19 (Fri)	IS2-1	09:30-10:00	Suk-Ha Lee	Seoul National University, Korea	Yang Do Choi (Seoul Nat'l University)
	IS2-2	10:00-10:30	Leslie E. Sieburth	University of Utah, USA	
	IS2-3	10:30-11:00	Nam-Chon Paek	Seoul National University, Korea	
	IS2-4	11:00-11:30	Matthieu Arlat	Université Toulouse 3 Paul Sabatier, France	Lin-Woo Kang (Konkuk University)
	IS2-5	11:30-12:00	Girdhar K. Pandey	University of Delhi South Campus, India	
	IS2-6	12:00-12:30	Myeong-Je Cho	DuPont-Pioneer, USA	
	IS3-1	14:30-15:00	L. Mario Amzel	Johns Hopkins University School of Medicine, USA	Soo-Un Kim (Seoul Nat'l University)
	IS3-2	15:00-15:30	Dae-Kyun Ro	University of Calgary, Canada	
	IS3-3	15:30-16:00	Pingfang Yang	Chinese Academy of Sciences, China	Sun Chul Kang (Daegu University)
	IS3-4	16:00-16:30	Joohyun lee	Konkuk University, Korea	

201

Date	Lectures	Time	Speaker	Affiliation	Chair
June 18 (Thu)	S1-1	14:00-14:30	Won-Chan Kim	Kyungpook National University	Jang-Eok Kim (Kyungpook Nat'l University)
	S1-2	14:30-15:00	Hyoung-Joon Park	National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety	
	S1-3	15:00-15:30	Young Soo Keum	Konkuk University	
	S2-1	15:30-16:00	Jungwhoi Lee	Jeju National University	Young-Kee Kim (Chungbuk Nat'l University)
	S2-2	16:00-16:30	Jiyeun Kate Kim	Kosin University	
	S2-3	16:30-17:00	Do Yup Lee	Kookmin University	
	W-4	17:00-17:20	Ginseng Exportation Model Development Team (중앙대학교 대중국 인삼수출적용기술 모델개발 사업팀)		
	W-5	17:20-17:40	LST (Life Science Technology) (㈜엘에스텍)		
June 19 (Fri)	S3-1	09:30-10:00	Sang Hoon Song	[1]CJ Foods R&D, CJ Cheiljedang [2]Seoul National University	Young-Suk Kim (Ewha Womans University)
	S3-2	10:00-10:30	Eunju Park	Kyungnam University	
	S3-3	10:30-11:00	Soon-Mi Shim	Sejong University	
	S4-1	11:00-11:30	Kwang-won Hong	BIOONE, Co., Ltd.	Se-Ho Kim (Gangneung-Wonju Nat'l University)
	S4-2	11:30-12:00	Hae Joon Park	BioNext Inc. Ltd.	
	S4-3	12:00-12:30	Moonsup Jeong	Pharma R&D Division, GeneOne Life Science	
	S5-1	14:30-15:00	Woo Song Lee	Korea Research Institute of Bioscience and Biotechnology	Ki Hun Park (Gyeongsang Nat'l University)
	S5-2	15:00-15:30	Mun-Chual Rho	Eco-friendly Biomaterial Research Center, Korea Research Institute of Bioscience and Biotechnology	
	S5-3	15:30-16:00	Nam-In Baek	Kyung-Hee University	Kyung-Sik Song (Kyungpook Nat'l University)
	S5-4	16:00-16:30	Souren Paul	Daegu University	

202

Date	Lectures	Time	Speaker
June 18 (Thu)	W-1	17:00-17:20	Choongin Science Inc. (㈜충인과학)
	W-2	17:20-17:40	ChunLab, Inc. (㈜천랩)
	W-3	17:40-18:00	Macrogen (㈜마크로젠)
June 19 (Fri)	W-6	13:30-13:50	AB SCIEX KOREA (사이엑스코리아)
	W-7	13:50-14:10	EmaGene Science (이매진사이언스)
	W-8	14:10-14:30	YOUNG WHA SCIENTIFIC CO., LTD. (㈜영화과학)

Poster Session

▣ Poster Category

PBM	Biochemistry · Molecular Biology · Microbiology
PNB	Natural Products · Bioactive Materials · Biomedical Sciences
PES	Environmental Sciences
PFS	Food Sciences

▣ Poster Session Ⅰ & Ⅱ

Session / Date	PBM	PNB	PES	PFS
Ⅰ June 18 (Thu) 17:00 - 18:00	#1-47	#1-75	#1-20	#1-20
Ⅱ June 19 (Fri) 13:30 - 14:30	#48-93	#76-150	#21-41	#21-39
Place	Lobby, 2F			

4 행사장 안내도 (서울대학교 평창캠퍼스 101동)

Ⅱ 개회식 / 평의원회 및 정기총회 / 폐회식 안내

1 개회식 / 평의원회 및 정기총회 / 폐회식

구 분	일 시		내 용	장 소
등 록	6/18(목)	09:00 -	- 등록	로비 (3층)
	6/19(금)			
평의원회 및 정기총회	6/18(목)	13:20-13:40	- 평의원회 및 정기총회	301 (3층)
개 회 식		13:40-13:50	- 환영사 - 학회상 및 감사패 시상 - 개회선언	
폐 회 식	6/19(금)	16:30-16:50	- 우수논문발표상 시상 - 경품추첨 - 폐회선언	

2 리셉션

일 시		내 용		장 소
6/18(목)	18:00-19:00	만찬 (뷔페)		카페테리아 (1층)
	19:10-20:00	공연	- LED퍼포먼스 - 전자현악 공연 - 비보이 퍼포먼스 - 전자현악 & 비보이 콜라보 공연	301 (3층)

Ⅲ 포스터 발표 안내

1. 포스터 발표 분야

PBM	Biochemistry • Molecular Biology • Microbiology
PNB	Natural Products • Bioactive Materials • Biomedical Sciences
PES	Environmental Sciences
PFS	Food Sciences

2. 포스터 발표 시간 Ⅰ & Ⅱ

Session / Date	PBM	PNB	PES	PFS
Ⅰ June 18 (Thu) 17:00 - 18:00	#1-47	#1-75	#1-20	#1-20
Ⅱ June 19 (Fri) 13:30 - 14:30	#48-93	#76-150	#21-41	#21-39
Place	Lobby, 2F			

※ 포스터 발표는 편수 및 발표장의 상황을 고려하여 2회의 교체 발표로 진행될 예정이오니, 해당 분야의 발표 날짜와 시간 등을 반드시 지켜주시기 바랍니다.
포스터 초록 접수 시 부여된 번호와 최종 발표번호는 다를 수 있으므로 포스터 발표 번호도 꼭 확인하시기 바랍니다.

3. 포스터 발표 시 유의사항

- 발표자는 정해진 발표시간에 의무적으로 포스터 앞에서 질의에 참여해야 함.
- Poster Board의 크기는 가로 90㎝ × 세로 150㎝을 넘지 않아야 함.
- Poster의 내용은 전방 2m 위치에서 쉽게 읽을 수 있도록 명확히 표기
- Poster 부착은 테이프 사용 (발표자 지참 필수)
- 발표 종료 후 철거되지 않은 포스터는 학회에서 일괄 철거 및 폐기
- **Poster 게시 및 철거 시간**

구분	Poster 게시	Poster 철거
6/18(목)	09:00	20:10
6/19(금)	09:00	16:50

4. 우수논문발표상

- 시상은 폐회식에서 하며 선발된 학생이 폐회식(시상식)에 불참 시 선발 무효

IV 공지 사항

1. 등록비 안내

구분	회원		비회원	
	일반	학생	일반	학생
사전등록	140,000	90,000	200,000	110,000
현장등록	170,000	120,000	230,000	140,000

※ 등록비에는 학회참가비, 초록집, 점심 2회, 리셉션 1회 비용 등이 포함되며,
등록을 하지 않은 경우, 발표장 및 리셉션에 입장하실 수 없습니다.

2. 학회상 수상자 명단

구 분	성명 (소속)
제 33회 학술상	박기훈 교수 (경상대학교)
제 6회 기창과학상	오세량 박사 (한국생명공학연구원)
제 17회 젊은과학자상	이지훈 교수 (전북대학교)
JKSABC 우수논문상	이회선 교수 (전북대학교)
JABC 우수논문상 (Co-corresponding authors)	정남현 교수 (고려대학교) 이용권 교수 (유한대학)
제 25회 과학기술 우수논문상 (한국과총 시상) 추천	조문제 교수 (제주대학교)

구 분		성명 (소속)
감사패	2014년도 회장	최용락 교수 (동아대학교)
	2014년도 운영위원장	오세량 박사 (한국생명공학연구원)

3. 현지 교통 및 숙소 안내

구 분	상 세 내 용
교 통	http://ksabc.or.kr/04_symposium/symposium07.htm **※ 행사장에서는 별도의 주차비가 없습니다.**
숙 소	http://ksabc.or.kr/04_symposium/symposium06.htm
관 광	http://gwcvb.gwd.go.kr/hb/mice/sub01_01

4. 행사장 오시는 길

■ 서울대학교 평창캠퍼스 101동 (그린바이오 첨단연구단지)

구조소 : 강원도 평창군 대화면 신리 1200번지 일대
신주소 : 강원도 평창군 대화면 평창대로 1447 (우 232-916)

교통안내

자가용

수도권(서울기준)
경부고속도로(하행선)신갈분기점→영동고속도로(강릉방면)
중부고속도로(하행선)→호법분기점→영동고속도로(강릉방면)

충청권(대전기준)
중부고속도로→호법분기점→영동고속도로(강릉방면)

경상권(대구기준)
중앙고속도로→만종분기점→영동고속도로(강릉방면)

춘천권
중앙고속도로→만종분기점→영동고속도로(강릉방면)

시외버스

장평 버스터미널 033-332-4209
동서울터미널 1688-5979 : 약 30분마다 운행 (1시간 50분 소요)
남부터미널 02-521-8550 : 장평IC까지 매일 4회 운행 (1시간 40분 소요)

장평터미널 버스시간표 DOWN LOAD

기차

원주방면 원주역→ 원주시외버스터미널에서 장평행 시외버스 이용
강릉방면 강릉역→ 강릉시외버스터미널에서 장평행 시외버스 이용

■ 셔틀버스 운행 안내

1) 서울 ↔ 휘닉스파크

서울 → 휘닉스파크		휘닉스파크 → 서울	
삼성역 출발	09:30	휘닉스파크 출발	14:00
종합운동장 출발	09:40		
이용요금			
대인		소인	
편도 15,000원		편도 12,000원	
왕복 30,000원		왕복 24,000원	
이용안내 : http://www.phoenixpark.co.kr/favorite/traffic_stated.aspx			

2) 장평터미널(평창군) ↔ 휘닉스파크

구분	장평터미널 출발 → 휘닉스파크 도착						
	장평터미널 출발	남안교 사거리	덕거리 입구	흥정계곡 입구	무이 예술관	아벨라 편의점	휘닉스파크 도착
1회차	09:15	09:22	09:24	09:27	09:29	09:34	09:37
2회차	11:15	11:22	11:24	11:27	11:29	11:34	11:37
3회차	12:50	12:57	12:59	13:03	13:05	13:10	13:12
4회차	14:50	14:57	14:59	15:03	15:05	15:10	15:12
5회차	17:15	17:22	17:24	17:27	17:29	17:34	17:37
6회차	20:00	20:07	20:09	20:12	20:14	20:19	20:22

구분	휘닉스파크 출발 → 장평터미널 도착					
	휘닉스파크 출발	아벨라 편의점	무이 예술관	흥정계곡 입구	남안교 사거리	장평터미널 도착
1회차	08:50	08:53	08:58	09:00	09:05	09:12
2회차	10:50	10:53	10:58	11:00	11:05	11:12
3회차	12:25	12:28	12:33	12:35	12:40	12:47
4회차	14:25	14:28	14:33	14:35	14:40	14:47
5회차	16:50	16:53	16:58	17:00	17:05	17:12
6회차	18:30	-	-	-	18:45	18:53
7회차	20:30	-	-	-	20:45	20:53

※ 이용안내 : http://www.phoenixpark.co.kr/favorite/traffic_free.aspx

3) 휘닉스파크 ↔ 행사장

날짜	휘닉스파크 → 행사장	행사장 → 휘닉스파크
6월 18일 (목)	**08:40**	**20:30**
6월 19일 (금)	**08:40**	**17:00**

※ 차량 운행시간은 행사 일정에 따라 변경될 수도 있음.
※ 운행 차량 수는 투숙자 수에 따라 조정 예정임.
※ 휘닉스파크 투숙자 : 무료이용
※ 타 숙소 투숙자 : 편도 5,000원

5. 경품 이벤트

구분	경품
1등	노트북 1대
2등	아이패드 미니 1대
3등	TV 겸용 모니터 4대
4등	소니 유무선 헤드셋 5대
5등	신세계상품권 오만원권 6매

V 발표 논문 일람

2015
International Symposium
and Annual Meeting of
The KSABC

Back to the Basic "from Genome to Metabolome"

June 18(Thu)-20(Sat), 2015
Pyeongchang Campus Seoul National University

Contents

Timetable

June 18 (Thu)

09:00-09:30	Registration (Lobby, 3F)		Bio-exhibition
09:30-11:30	Graduate Student Presentation (301)		
11:30-12:20	Award Lectures (301)		
12:20-13:20	Lunch (1F)		
13:20-13:40	General Assembly Members Meeting (301)		
13:40-13:50	Opening Ceremony (301)		
14:00-17:00	**International Symposia (301)** IS1	**Symposia (201)** S1 / S2	
17:00-18:00	Poster Session I (Lobby, 2F) Workshop (201, 202)		
18:00-20:00	Welcome Reception (1F, 3F)		

June 19 (Fri)

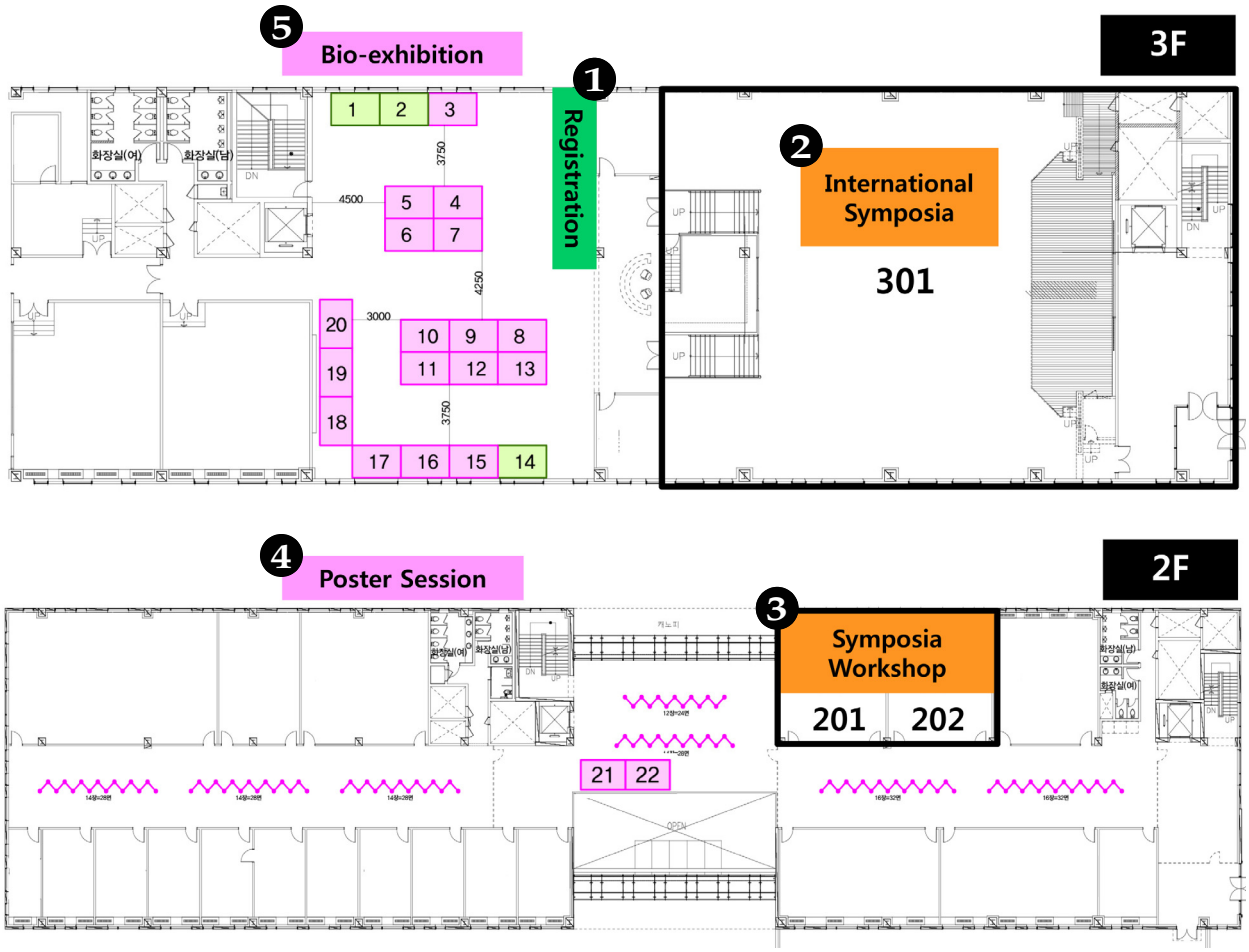
09:00-09:30	Registration (Lobby, 3F)		Bio-exhibition
09:30-12:30	**International Symposia (301)** IS2	**Symposia (201)** S3 / S4	
12:30-13:30	Lunch (1F)		
13:30-14:30	Poster Session II (Lobby, 2F) Workshop (202)		
14:30-16:30	**International Symposia (301)** IS3	**Symposia (201)** S5	
16:30-16:50	Closing Ceremony (301)		

June 20 (Sat)

09:00-	**Field Trip**

AL	Award Lectures		
IS	International Symposia	**IS1**	Metabolomics · Natural Products
		IS2	Genomics
		IS3	Biochemistry · Proteomics
S	Symposia	**S1**	Environmental Sciences
		S2	Biochemistry · Molecular Biology · Microbiology
		S3	Food Sciences
		S4	Biologics
		S5	Natural Products · Bioactive Materials · Biomedical Sciences
GS	Graduate Student Presentation	**GS1**	Biochemistry · Molecular Biology · Microbiology
		GS2	Natural Products · Bioactive Materials · Biomedical Sciences
		GS3	Environmental Sciences · Food Sciences
P	Poster Session	**PBM**	Biochemistry · Molecular Biology · Microbiology
		PNB	Natural Products · Bioactive Materials · Biomedical Sciences
		PES	Environmental Sciences
		PFS	Food Sciences
W	Workshop		
B	Bio-exhibition		

Floor Plan



❶ Registration	❹ Poster Session
❷ International Symposia	❺ Bio-exhibition
❸ Symposia Workshop	

Program Schedule

Award Lectures

June 18 (Thu), 301
Chair: Yoongho Lim (Konkuk University)

AL-1

11:30-12:00

Natural Product in the Human Health: Enzyme Inhibition and Chronic Disease

Ki Hun Park
Division of Applied Life Science (BK21 plus), IALS, Gyeongsang National University, Jinju 660-701, Korea

AL-2

12:00-12:20

From wild plant in Korea to global natural drug against asthma/COPD

Sei-Ryang Oh
Natural Medicine Research Center, KRIBB, Cheongju 363-883, Korea

International Symposia

IS1 Metabolomics · Natural Products

June 18 (Thu), 301
Chair: Nam-In Baek (Kyung-Hee University)

IS1-1

14:00-14:30

Importance of nitrogen transporter function for plant metabolism and growth

Mechthild Tegeder
School of Biological Sciences, Washington State University, Pullman, WA 99164, USA

IS1-2

14:30-15:00

Autophagy machinery controls nitrogen remobilization to the seeds

Céline Masclaux-Daubresse*, Anne Guiboileau, Liliana Avila-Ospina Kohki Yoshimoto, Anne Marmagne, Fabien Chardon and Michèle Reisdorf-Cren
INRA UMR1318, Institut Jean-Pierre Bourgin, RD10, F-78000 Versailles, France

June 18 (Thu), 301

Chair: Dong Hern Kim (National Academy of Agricultural Science, RDA)

IS1-3

15:00-15:30

Application of Metabolomics to High Resolution Phenotype Analysis

Eiichiro Fukusaki

Dept. Biotech. Grad. Sch. Eng. Osaka Univ. Suita, 565-0871, Japan

IS1-4

15:30-16:00

Metabolomic Analysis of Natural Products: An Analytical Aspects

Dongho Lee

College of Life Sciences and Biotechnology, Korea University, Seoul 136-713, Korea

IS1-5

16:00-16:30

Red rice rich in phenolics, proanthocyanidin, vitamin E isomers has preventive effect against inflammation and glycation in diabetic rats and its cooking reduce oxidative stress in type II DM patients

Payungsak Tantipaiboonwong, Komsak Pintha, Orada Chumphukam, Napapan Kangwan and Maitree Suttajit*

Division of Biochemistry, School of Medical Science, University of Phayao, Phayao, Thailand

IS2 Genomics

June 19 (Fri), 301

Chair: Yang Do Choi (Seoul Nat'l University)

IS2-1

09:30-10:00

Comparative Genome Sequence of Mungbean and Adzuki Bean

Yango-Je Kang[1], Dani Satyawanra[1], Rajeev K Varshney[2], and Suk-Ha Lee[1*]

[1]Department of Plant Science, Seoul National University, Seoul 151-921, Korea, [2]International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India

IS2-2

10:00-10:30

Root-to-Shoot Signaling: the *bypass* signaling pathway functions upstream of ABA to induce osmotic stress responses

Leslie E. Sieburth[1*], Dong-Keun Lee[1,2], David L. Parrott[1]

[1]University of Utah, Salt Lake City, USA, [2]Crop Biotechnology Institute, Seoul National University, Pyeongchang, Korea

IS2-3

10:30-11:00

Divergent Roles of STAY-GREEN (SGR) Homologs in Chlorophyll Degradation

Yasuhito Sakuraba and Nam-Chon Paek*

Department of Plant Science, Seoul National University, Seoul 151-921, Korea

June 19 (Fri), 301

Chair: Lin-Woo Kang (Kunkuk University)

IS2-4

11:00-11:30

Interplay between bacterial effectors and plant immunity: *Xanthomonas campestris* pv *campestris* XopAC/AvrAC effector-triggered immunity in Arabidospsis depends on PBL2 kinase, RKS1 pseudokinase and ZAR1 NB-LRR Receptor

Brice Roux[1,2#], Guoxun Wang[4#], Feng Feng[4#], Endrick Guy[1,2], Martine Lautier[1,2,3], Marie-Françoise Jardinaud[1,2], Matthieu Chabannes[1,2], Matthieu Arlat[1,2,3*], Chaozu He[5], and Jian-Min Zhou[4*]and Laurent D. Noël[1,2*]

*[1]INRA, Laboratoire des Interactions Plantes Micro-organismes (LIPM), UMR 441, Castanet-Tolosan, France, [2]CNRS, Laboratoire des Interactions PlantesMicro-organismes (LIPM), UMR 2594, Castanet-Tolosan, France, [3]Université Paul Sabatier, Toulouse, France, [4]State Key Laboratory of Plant Genomics, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, No. 1 West Beichen Road, Beijing 100101, China, [5]Hainan University, Haikou, China (#,*These authors contributed equally to this work)*

IS2-5

11:30-12:00

Interplay of kinases and phosphatases during K^+ deprivation stress signaling in plant

Girdhar K. Pandey

Department of Plant Molecular Biology, University of Delhi South Campus, New Delhi-110021, India

IS2-6

12:00-12:30

Green Regenerative Tissue Technology and Commercial Maize Elite Inbred Transformation

Myeong-Je Cho

DuPont-Pioneer, USA

IS3 Biochemistry · Proteomics

June 19 (Fri), 301

Chair: Soo-Un Kim (Seoul Nat'l University)

IS3-1

14:30-15:00

Control of the levels of PIP3 in normal and tumor cells: Structure and Function of the lipid kinase PI3Kα

Ignacia Echeverria[1,2], Evan Brower[3,4], Daniele Chaves Moreira[1,5], Yunglong Liu[1], Michelle Miller[1,6], B. Vogelstein[3], S. B. Gabelli[1,7], and L. M. Amzel[1*]

[1]Department of Biophysics and Biophysical Chemistry, Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA, [2]Department of Chemistry and Biochemistry, University of Maryland, College Park, Maryland 20742, USA, [3]Ludwig Center for Cancer Genetics and Therapeutics and Howard Hughes Medical Institute at the Hopkins-Kimmel Cancer Center, University School of Medicine, Baltimore, MD 21231, USA, [4]Present address: Paragon Bioservices, Baltimore, MD, USA, [5]Present address: Universidade Federal do Paraná, Department of Cell Biology, Brazil, [6]Medicinal Chemistry, Monash Institute of Pharmaceutical Sciences, 381 Royal Parade, Parkville, Victoria 3052, Australia, [7]Department of Medicine and Department of Oncology, Johns Hopkins University School of Medicine, Baltimore, Maryland 21287, USA

IS3-2

15:00-15:30

Unlocking the mystery of natural rubber biosynthesis in lettuce (*Lactuca sativa*)

Dae-Kyun Ro*, Yang Qu, Romit Chakrabarty, Hue T. Tran, Moonhyuk Kwon, Eun-Joo G. Kwon, and Trinh-Don Nguyen

Department of Biological Sciences, University of Calgary, Alberta, Canada

June 19 (Fri), 301

Chair: Sun Chul Kang (Daegu University)

IS3-3

15:30-16:00

Proteomic analysis on rice seed germination

Pingfang Yang

Wuhan Botanical Garden, Chinese Academy of Sciences, China

IS3-4

16:00-16:30

Shotgun proteomics approach in crop proteomic researches

Joohyun Lee

Department of applied Bioscience, Konkuk University, Seoul 143-701, Korea

Symposia

S1 Environmental Sciences

June 18 (Thu), 201

Chair: Jang-Eok Kim (Kyungpook Nat'l University)

S1-1

14:00-14:30

Pathway-Specific Biomass Engineering

Won-Chan Kim

School of Applied Biosciences, Kyungpook National University, Daegu 702-701, Korea

S1-2

14:30-15:00

Establishment of analytical method of harmful constituents in mainstream smoke of tobacco

Hyoung-Joon Park, So-Hyun Cho, Jin-Hee Lee, Sooyeul Cho, Sung-kwan Park, Chang-yong Yoon, Jung-Ah Do, Seok Heo, JiHyun Lee, JeongHwa Jo, Sun-Young Baek*

Advanced Analysis Team, Toxicological Evaluation and Research Department, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Chungcheongbuk-do, 363-700, Korea

S1-3

15:00-15:30

Synthetic Application of Microorganisms and Plants in Contaminated Environments

Young Soo Keum

Department of Bioresources and Food Science, Konkuk University, 1 Hwayang-Dong, Gwanjin-Gu, Seoul, Korea

S2 Biochemistry · Molecular Biology · Microbiology

June 18 (Thu), 201

Chair: Young-Kee Kim (Chungbuk Nat'l University)

S2-1

15:30-16:00

Blockade of dual-specificity phosphatase 28 decreases chemo-resistance and migration in human pancreatic cancer cells

Jungwhoi Lee[1], Jeong Hun Yun[1], Jungsul Lee[2], Chulhee Choi[2], and Jae Hoon Kim[1*]

[1]Faculty of Biotechnology, college of Applied Life Science, Jeju National University, Jeju-do 690-756, Korea, [2]Department of Bio and Brain Engineering, KAIST, Daejeon 305-701, Korea

S2-2

16:00-16:30

Manageable symbiont: cell wall changes of gut symbiont increase susceptibility against host immune responses

Jiyeun Kate Kim[1*], Antonio Molinaro[2], and Bok Luel Lee[3]

[1]Department of Microbiology, College of Medicine, Kosin University, Korea, [2]Dipartimento di Scienze Chimiche, Università di Napoli Federico II, Italy, [3]Global Research Laboratory, College of Pharmacy, Pusan National University, Korea

S2-3

16:30-17:00

Mass spectrometry-driven investigation of molecular dynamics for a microalga, *Chlamydomonas reihnhardtii*

Jung-Eun Lee[1], Yeoul Cho[1], Sooah Kim[2], Kyoung Heon Kim[2], Do Yup Lee[1*]

[1]Department of Bio and Fermentation Convergence Technology, Kookmin University, 77 Jeongneung-ro, Seongbuk-gu, Seoul, 136-702, Korea, [2]School of Life Sciences and Biotechnology, Korea University, 145 Anam-ro, Seongbuk-gu, Seoul, 136-701, Korea

S3 Food Sciences

June 19 (Fri), 201

Chair: Young-Suk Kim (Ewha Womans University)

S3-1

09:30-10:00

Analysis of Microflora Profile in Korean Traditional *Nuruk*

Sang Hoon Song[1,5], Chung hee Lee[2], Sulhee Lee[3], Jung Min Park[4], Hyong-Joo Lee[5], Dong-Hoon Bai[2], Sung-Sik Yoon[6], Jun Bong Choi[7], and Young-Seo Park[3*]

[1]CJ Foods R&D, CJ Cheiljedang, Seoul 152-051, Korea, [2]Department of Food Engineering, Dankook University, Cheonan 330-714, Korea, [3]Department of Food Science and Biotechnology, Gachon University, Seongnam 461-701, Korea, [4]Korea Culture Center of Microorganisms, Korea Federation of Culture Collections, Seoul 120-091, Korea, [5]Department of Agricultural Biotechnology, Seoul National University, Seoul 151-921, Korea, [6]Division of Biological Science and Technology, Yonsei University, Wonju 220-100, Korea, [7]Graduate School

of Hotel & Tourism, The University of Suwon, Hwaseong 445-743, Korea

S3-2

10:00-10:30

Screening of Antioxidants and Anti-aging Activity from Various Natural Materials

Hyun-Jung Lee, So Young Baek, and Eunju Park*
Department of Food and Nutrition, Kyungnam University, Changwon 631-701, Korea

S3-3

10:30-11:00

Intestinal transport mechanism of vitamin U by using Caco-2 cells

Soon-Mi Shim
Department of Food Science and Technology, Sejong University, Seoul 134-747, Korea

S4 Biologics

June 19 (Fri), 201

Chair: Se-Ho Kim (Gangneung-Wonju Nat'l University)

S4-1

11:00-11:30

Inhibitory effects of recombinant Fc-IL-18BP isoforms and Fc-ST2 protein on inflammatory cytokine production

Kwang-won Hong
BIOONE, Co., Ltd, Gangneung-si 210-702, Korea

S4-2

11:30-12:00

Recent trend of molecular diagnostics in medical science

Hae Joon Park
BioNext Inc. Ltd., Yongin, Korea

S4-3

12:00-12:30

DNA Based Monoclonal Antibody Therapeutics, dMAb: Proof of Concept

Moonsup Jeong
Pharma R&D Division, GeneOne Life Science, Seoul 135-914, Korea

S5 Natural Products · Bioactive Materials · Biomedical Sciences

June 19 (Fri), 201

Chair: Ki Hun Park (Gyeongsang Nat'l University)

S5-1

14:30-15:00

Development and Industrialization of Natural Product for Virus Infection Control

Young Bae Ryu[1], Su-Jin Park[1], Hyung Jae Jeong[1], Hyung JunK won[1], Kyung-Oh Cho[2], Chang-Seon Song[3], and Woo Song Lee[1*]

[1]Korea Research Institute of Bioscience and Biotechnology, Jeongeup 181, Korea, [2]Laboratory of Veterinary Pathology, College of Veterinary Medicine, Chonnam National University, Gwangju 500-757, Korea, [3]Avian Disease Laboratory, College of Veterinary Medicine, Konkuk University, 120 Neungdong-ro, Gwangjin-gu, Seoul 143-701, Korea

S5-2

15:00-15:30

Development of Immune Regulators from Natural Resources

Mun-Chual Rho

Eco-friendly Biomaterial Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIBB), 1404 Sinjeong-ding, Jeongeup-si, Jeonbuk 580-185, Korea

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June 19 (Fri), 301

Chair: Kyung-Sik Song (Kyungpook Nat'l University)

S5-3

15:30-16:00

Flowers, New Source for Biologically Active Materials

Jung-Hwa Kwon, Jae-Woo Jung , Kyeong-Hwa Seo, and Nam-In Baek*

Graduate School of Biotechnology and Oriental Medicine Biotechnology, Kyung-Hee University

S5-4

16:00-16:30

Glutathione S-transferase, a ruling factor of aflatoxin induced autophagy-apoptosis cross talk in macrophage

Souren Paul, Rekha Jakhar, and Sun Chul Kang*

Department of Biotechnology, Daegu University, Kyoungsan, Kyoungbook 712-714, Korea

Graduate Student Presentation

GS1 Biochemistry · Molecular Biology · Microbiology

June 18 (Thu), 301

Chair: Cheol-Ho Pan (Korea Institute of Science and Technology (KIST))

GS1-1

09:30-09:42

In-planta* transcriptomics and proteomics analysis of *Xanthomonas oryzae pv. Oryzae

So Eui Lee[1], Yiming Wang[2], Kyu Young Kang[3], Sun Tae Kim[1*]

[1]*Dept. of Plant Bioscience, Pusan National University, Miryang, 627-706, Korea,* [2]*Department of Plant Microbe Interactions, Max-planck Institute for Plant Breeding Research, Cologne, Germany,* [3]*Devision of Applied Life Science and Plant Molecular Biology & Biotechnology Research Center, Gyeongsang National University, Jinju, 660-701, Korea*

GS1-2

09:42-09:54

Study of phytochrome A degradation domain and ubiquitination site

Kaewta Rattanapisit, Man-Ho Cho, Tae-Ryong Hahn and Seong Hee Bhoo*

Graduate School of Biotechnology and Plant Metabolism Research Center, Kyung Hee University, Yongin 446-701, Korea

GS1-3

09:54-10:06

The overexpression of *OsNAC9* alters the root architecture of rice plants enhancing drought resistance and grain yield under field conditions

Mark C.F.R. Redillas[1†], Jin Seo Jeong[1†], Youn Shic Kim[1], Harin Jung[1], Seung Woon Bang[1], Yang Do Choi[2], Sun-Hwa Ha[3], Christophe Reuzeau[4] and Ju-Kon Kim[1*]

[1]Crop Biotechnology Institute, GreenBio Science and Technology, Seoul National University, Pyeongchang 232-916, Korea, [2]School of Agricultural Biotechnology, Seoul National University, Seoul, 151-921, Korea, [3]Department of Plant Molecular Systems Biotechnology, Crop Biotech Institute, Kyung Hee University, Yongin 446-701, Korea, [4]Crop Design NV, a BASF Plant Science Company, Technologiepark 3, B-9052 Ghent, Belgium (C.R.) ([†]These authors contributed equally to this work)

GS1-4

10:06-10:18

Lack of a cytoplasmic non-RD kinase induces a strong resistance to bacterial leaf blight of rice

Youngchul Yoo, Jong Chan Park, Joo-Mi Yoon, Sang-Won Lee*

Graduate School of Biotechnology, Kyung Hee University, Yongin 446-70, Korea

GS2 Natural Products · Bioactive Materials · Biomedical Sciences

June 18 (Thu), 301

GS2-1

10:18-10:30

Evaluation of Benzaldehyde Derivatives as Anti-mite Agents with Dual Function as Acaricide and Mite Indicator

Jaeun Song, Ji-Yeon Yang, Hoi-Seon Lee*

Department of Bioenvironmental Chemistry, College of Agriculture & Life Sciences, Chonbuk National University, Jeonju 561-756, Korea

GS2-2

10:30-10:42

Anti-Melanogenesis and Anti-Wrinkle Effects of *Sargassum micracanthum* and *Myagropsis*

myagroides Extracts

Won Min Pak[1], Koth Bong Woo Ri Kim[2], Min Ji Kim[2], Si Woo Bark[1], Na Kyung Ahn[1], Yeon Uk Choi[1], Ji Hye Park[1], Nan Young Bae[1], Sun Hee Park[1], Dong-Hyun Ahn[1*]

[1]Department of Food Science and Technology, Pukyong National University, Busan 608-737, Korea, [2]Institute of Fisheries Sciences/Pukyong National University, 474, llgwang-ro, llgwang-myeon, Gijang-gun, Busan 619-911, Korea

GS2-3

10:42-10:54

Curcumin based Near-infrared Fluorescence (NIRF) Probe for Detection of Tau Aggregate

Kwang-Su Park, Yujin Seo, Mi Kyoung Kim, Kyungdo Kim, Youhoon Chong*

Department of Bioscience & Biotechnology, Konkuk University, 1 Hwayang-dong, Gwangjin-gu, Seoul 143-701, Korea

GS2-4

10:54-11:06

Design and synthesis of hydroxy-methoxynaphthochalcones bearing pyrazolylcarbothioamide, and their cytotoxicities

Seunghyun Ahn, Yoongho Lim*

Division of Bioscience and Biotechnology, BMIC, Konkuk University, Seoul 143-701, Korea

GS3 Environmental Sciences · Food Sciences

June 18 (Thu), 301

GS3-1

11:06-11:18

Mathematical Prediction for Residual Patterns of Endosulfan Isomers in Soils with Different Properties

Jeong-In Hwang, Sang-Oh Jeon, Sang-Hyeob Lee, Min-su Kang, Hye-Hyun Jung, Sung-Eun Lee and Jang-Eok Kim*

School of Applied Biosciences, Kyungpook National University, Daegu 702-701, Korea

GS3-2

11:18-11:30

Characteristics of agar-based core-shell macrocapsules formed by electro-coextrusion

Peerapong Ngamnikom[1], Natthiya Phawaphuthanon[1], Moojoong Kim[1], Donghwa Chung[2*]

[1]Department of Marine Food Science and Technology, Gangneung-Wonju National University, Gangneung 210-702, Korea, [2]Institute of Food Industrialization, Graduate School of International Agricultural Technology, Seoul National University, Pyeongchang 232-916, Korea

Workshop

June 18 (Thu), 202

W-1 17:00-17:20
Choongin Science Inc.

W-2 17:20-17:40
ChunLab, Inc.

W-3 17:40-18:00
Macrogen

June 18 (Thu), 201

W-4 17:00-17:20
Ginseng Exportation Model Development Team

W-5 17:20-17:40
LST (Life Science Technology)

June 19 (Fri), 202

W-6 13:30-13:50
AB SCIEX KOREA

W-7 13:50-14:10
EmaGene Science

W-8 14:10-14:30
YOUNG WHA SCIENTIFIC CO., LTD.

Poster Session

Poster Category

PBM	Biochemistry · Molecular Biology · Microbiology
PNB	Natural Products · Bioactive Materials · Biomedical Sciences
PES	Environmental Sciences
PFS	Food Sciences

Poster Session Ⅰ & Ⅱ

Date \ Session	PBM	PNB	PES	PFS
Ⅰ June 18 (Thu) 17:00 - 18:00	#1-47	#1-75	#1-20	#1-20
Ⅱ June 19 (Fri) 13:30 - 14:30	#48-93	#76-150	#21-41	#21-39
Place	Lobby, 2F			

PBM Biochemistry · Molecular Biology · Microbiology

PBM-1

Anti-Cancer Activity of Safflower Seed Extracts through Cyclin D1 Proteasomal Degradation in Human Colon Cancer Cells

Se Chul Hong[1*], Ik Su Joo[1], Sun Young Son[1], Nam Hee Kwon[1], Gwang Hun Park[2], Hyun Ji Eo[2], Hun Min Song[2], Jin Wook Lee[2], Mi Kyung Kim[2], Jin Boo Jeong[2*]

[1]Testing&Certification Center, Gumi Electronics & Information Technology Research Institute, [2]Department of Bioresource Sciences, Andong National University

PBM-2

Bacterial synthesis of two coumarin derivatives from glucose

So-Mi Yang[1], Geun-Young Sim[1], Bong-Gyu Kim[2], Joong-Hoon Ahn[1*]

[1]Department of Bioscience and Biotechnology, Bio/Molecular Informatics Center, Konkuk University, [2]Department of Forest Resource, Gyeongnam National University of Science & Technology

PBM-3

Biosythesis of hydroxycinnamoyl tyramine

Geun-Young Sim, So-Mi Yang, Joong-Hoon Ahn[*]

Department of Bioscience and Biotechnology, Bio/Molecular Informatics Center, Konkuk University

PBM-4

Arabidopsis *NAC-S*, one of NAC transcription factors, plays a negative role in ABA signaling

Chan Young Jeong, Ho Joung Lee*
Department of Biosystems and Biotechnology, Korea University

PBM-5

AtMYBH, a MYB-like protein, interferes with cytokinin-induced *AtGA2OX8* expression in *Arabidopsis thaliana*

Nguyen Hoai Nguyen[1], Chan Young Jeong[1], Ye Rim Kwon[1], Sang A Lee[1], Suk Whan Hong[2], Ho Joung Lee[1*]
[1]Department of Biosystems and Biotechnology, Korea University, [2]Department of Molecular Biotechnology, Chonnam National University

PBM-6

Ectopic expression of *AtMYBS1* reduces the salt-stress tolerance of *Arabidopsis thaliana*

Sang A Lee, Chan Young Jeong, Ho Joung Lee*
Department of Biosystems and Biotechnology, Korea University

PBM-7

Arabidopsis *MybC* plays a negative role in the accumulation of anthocyanin in response to sucrose

Ji Hye Kim, Nguyen Hoai Nguyen, Chan Young Jeong, Ho Joung Lee*
Department of Biosystems and Biotechnology, Korea University

PBM-8

Development of Genetically Modified Rice Event Lines of Enhanced Grain Yield and Biomass

Tae Young Um[1], Geu Pil Jang[1], Ji Myung Moon[1], Sun Hyun Chang[1], Ju Kon Kim[2], Yang Do Choi[1*]
[1]Department of Agricultural Biotechnology, Seoul National University, [2]Graduate School of International Agricultural Technology, Seoul National University

PBM-9

Role of the chaperonic part ClpC1 and ClpC2 of Clp protease in the physiology and development in plants

Md. Sarafat Ali, Kwang-Hyun Baek*
School of Biotechnology, Yeungnam University

PBM-10

Antibacterial potential of endophytic bacteria isolated from *Equisetum arvense* L.

Gitishree Das, Kwang-Hyun Baek*
School of Biotechnology, Yeungnam University

PBM-11

Isolation of endophytic bacteria from *Taxus brevifolia* for antibacterial activity

Islam Nurul, Kwang-Hyun Baek*
School of Biotechnology, Yeungnam University

PBM-12

Functional identification of two Flavonoid 3′-Hydroxylases isolated from pigmented and non-pigmented rice

Sangkyu Park[1], Sun-Hwa Ha[2], Minji Choi[1], Da-Hye Kim[1], Jong-Yeol Lee[1], Young-Mi Kim[1], Sun-Hyung Lim[1*]
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[2]Graduate School of Biotechnology, Kyung Hee University, Yongin, 446-701, Korea

PBM-13

An R2R3 MYB transcription factor associated with regulation of the anthocyanin biosynthetic pathway in Radish (*Raphanus sativus*)

Minji Choi[1], Da-Hye Kim[1], Sangkyu Park[1], Sun-Hwa Ha[2], Jong-Yeol Lee[1], Young-Mi Kim[1], Sun-Hyung Lim[1*]
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PBM-14

Vaccination of respiratory syncytial virus by formulation of synthetic peptide epitope-CpG-DNA-liposome complex

Byoung Kwon Park[1], Song Hee Choi[2], Dongbum Kim[1], Guang Wu[1], Su In Lee[2], Younghee Lee[3], Hyung - Joo Kwon[1,2*]
[1]Center for Medical Science Research, Hallym University College of Medicine, [2]Department of Microbiology, Hallym University College of Medicine, [3]Department of Biochemistry, Chungbuk National University

PBM-15

Post-Transcriptional Silencing of Dihydroflavonol 4-Reductase mRNA in Tobacco Leads to Change the Flower Color

Da-Hye Kim[1], Sangkyu Park[1], Minji Choi[1], Sun-Hwa Ha[2], Jong-Yeol Lee[1], Young-Mi Kim[1], Sun-Hyung Lim[1*]
[1]National Academy of Agricultural Science, Rural Development Administration, JeonJu, 560-500, Korea,
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PBM-16

Production of monoclonal antibody against F protein of respiratory syncytial virus

Byoung Kwon Park[1], Song Hee Choi[2], Te Ha Kim[2], Avishekh Gautam[2], Jung Nam Kim[2], Young - Eun Kim[3], Younghee Lee[3], Hyung - Joo Kwon[1,2*]
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PBM-17

Comprehensive Identification of LMW-GS Genes and Their Protein Products

Hye-Rang Beom, Sun-Hyung Lim, Young-Mi Kim, Jong-Yeol Lee[*]
National Academy of Agricultural Science, Rural Development Administration, JeonJu, 560-500, Korea

PBM-18

Proteomic Analysis of Glutenin Subunits in Korean Common Wheat Cultivars

Jong-Yeol Lee[*], Hye-Rang Beom, Sun-Hyung Lim, Young-Mi Kim
National Academy of Agricultural Science, Rural Development Administration, JeonJu, 560-500, Korea

PBM-19

A new wheat mutant of low-molecular-weight glutenin subunit at *Glu-B3* locus

Jong-Yeol Lee[1*], Hye-Rang Beom[1], Sun-Hyung Lim[1], Young-Mi Kim[1], Chul-Soo Park[2]
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PBM-20

New Design of Storage Proteins to Improve Processing Properties in Rice Seed

Young-Min Jo, Hye-Jung Lee, Jong-Yeol Lee, Young-Mi Kim*
National Academy of Agricultural Science, RDA, Jeonju 560-500, Korea

PBM-21

Development of GM soybean (*Glycine max*) that overexpressed material protein for bio-industrial use

Sung Kwan Park, Eun Hye Kim, Ju Seok Seo, Sung Ho Moon*
R&D center, Celltrion

PBM-22

Improvement of Daptomycin Yield by Increasing of Decanoic Acid Resistance in *Streptomyces roseosporus*

Sung-Kwon Lee[1], Ying-Yu Jin[1], Seung Hwan Yang[1,2*], Joo-Won Suh[1,3*]
[1]Center for Nutraceutical and Pharmaceutical Materials, Myongji University, Gyeonggi, Republic of Korea, [2]Interdisciplinary Program of Biomodulation, Myongji University, Gyeonggi, Republic of Korea, [3]Division of Bioscience and Bioinformatics, Myongji University, Gyeonggi, Republic of Korea

PBM-23

The Ethyl Acetate Extract of *Streptomyces* sp. strain MJM 8637 has Glutathione S-transferase pi (GST-pi) Inhibition and Anti-inflammation Activity

Sung-Kwon Lee[1], Dong-Ryung Lee[1], Jinghua Cheng[1], Sasikumar Arunachalam Palaniyandi[1], Seung Hwan Yang[1,2*], Joo-Won Suh[1,3*]
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PBM-24

Developmental stage-specific proteomic analysis of root-knot nematode (*Meloidogyne incognita*)

Joon-Soo Sim, Inchan Choi, Chang-Muk Lee, Bon-Sung Koo, Sang-Hong Yoon, Bum-Soo Hahn*
Department of Agricultural Biotechnology, National Academy of Agricultural Science

PBM-25′

Suppressing activity of staurosporine from *Streptomyces* sp. MJM4426 against rice bacterial blight disease

Jinhua Cheng[1,2], Seung Hwan Yang[3,4], Joo-Won Suh[1,3], Jeong Gu Kim[5*]
[1]Division of Bioscience and Bioinformatics, College of Natural Science, Myongji University, [2]Center for Nutraceutical and Pharmaceutical Materials, Myongji University, [3]Center for Neutraceutical and Pharmaceutical Materials, Myongji University, [4]Interdisciplinary Program of Biomodulation, Myongji University, [5]Genomics Division, National Academy of Agricultural Science, Rural Development Administration

PBM-26

Systemic spatiotemporal analyses in rice reveal different senescence programs between the flag leaf and the 2nd leaf during the grain filling period

Shinyoung Lee[1], Hyobin Jeong[1], Sun-Ji Kim[1], Sichul Lee[1], Jinwon Lee[1], Pyung Ok Lim[2], Dahee Hwang[1,2], Hong Gil Nam[1,2*]

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PBM-27

Suppression of Botrytis Fruit Rot on Strawberry by *Streptomyces acidiscabies* JA(II)-10

Eun-Kyung Lee[1*], Hyo-Jin Lee[2], Ju-Ok Kim[2], Yea-Rim Lee[2], In-Hwa Jeon[2], Geon-Yeong Cho[2], Kyung-Sook Whang[1,2]

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PBM-28

Nitrogen assimilation and transport in *Puccinia horiana*, the causal agent of *Chrysanthemum* white rust and the comparison to those of *Puccinia graminis* f. sp. *tritici* the wheat leaf rust pathogen : prediction from draft genome

Jeong-Gu Kim[1*], Shin-Chul Bae[2], Seung Hwan Kim[1], Byoung Moo Lee[1], Dong-Jun Lee[1], Changhoon Kim[3], Jeong Hun Baek[4]

[1]Genomics Division, National Academy of Agricultural Science, [2]Molecular Breeding Division, National Academy of Agricultural Science, [3]Bioinformatics Research Center, Macrogen Inc, [4]Bioinformatics Research Center, Macrogen Inc.

PBM-29

Iron uptake related genes are stimulated by rice leaf extract in *Xanthomonas oryzae* pathovar *oryzae*

Seunghwan Kim[1], Lin-Woo Kang[2], Jeong-Gu Kim[1*]

[1]Genomics Division, National Academy of Agricultural Science, [2]Department of Biological Sciences, Konkuk University

PBM-30

One dimensional native gel electrophoresis of bacterial H-NS

Ji-Hwan Yook[1], Choong-Min Kang[2], Woo-Yeon Kim[1*]

[1]Chung-Ang University, Dept. of Systemic Biotechnology, [2]California State University, Stanislaus, USA, Dept. of Biology

PBM-31

Purification and characterization of polyphenol oxidase from Potato

Ji-Hwan Yook, Woo-Yeon Kim[*]

Chung-Ang University, Dept. of Systemic Biotechnology

PBM-32

A combination of gel based and shotgun approaches to identify salt stress responsive total and secreted proteins from different growth stages of *Panax ginseng*

Sowun Kim[1], Chul Woo Min[1], Ravi Gupta[1], Ick Hyun Jo[2], Kyong Hwan Bang[2], Sun Tae Kim[1*]

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PBM-33′

OsbZIP23 and _OsbZIP45_, members of the rice basic leucine zipper transcription factor family, are involved in drought tolerance

Su-Hyun Park[1], Jin Seo Jeong[1], Youn Shic Kim[1], Yang Do Choi[1,2], Ju-Kon Kim[1*]
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PBM-34′

The activities of four constitutively expressed promoters in single-copy transgenic rice plants for two homozygous generations

Seung Woon Bang[1], Su-Hyun Park[1], Youn Shic Kim[1], Yang Do Choi[1,2*]
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PBM-35′

OsIAA6, A Member of the Rice _Aux/IAA_ Gene Family, is Involved in Drought Tolerance and Tiller Outgrowth

Harin Jung[1], Dong-Keun Lee[1], Yang Do Choi[1,2], Ju-Kon Kim[1*]
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PBM-36′

Global Changes in Rice Transcriptome in Response to Nitrogen Starvation

Chanseok Shin[1,2*], Sang-Yoon Shin[2], Jin Seo Jeong[3], Ju-Kon Kim[3]
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PBM-37′

Small RNA and degradome profiling reveals a role for miRNAs and their targets in the regulation of disease resistance genes

Chanseok Shin[*], June Hyun Park
Department of Agricultural Biotechnology, Seoul National University, Seoul, 151-921, Republic of Korea

PBM-38′

MYB96 regulates FATTY ACID ELONGATION1 (_FAE1_) gene in Arabidopsis seeds

Bo-Yeon Park[1], Hong Gill Lee[2], Pil Joon Seo[2], Kyeong-Ryeol Lee[1], Kyung Hee Roh[1], Han-Chul Kang[1], Jong-Bum Kim[1], Hyun Uk Kim[1*]
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PBM-39′

Metabolomics Study of Alzheimer's Disease in Human Serum by UPLC-QTOF MS

Jian-Zhi Wang[1], Yung-Feng Lin[2], Ching-Kuo Lee[1,2*]

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PBM-40′

Potent crop protectant material from UV-treated rice leaves

Hye Lin Park, Youngchul Yoo, Sang-Won Lee, Seong Hee Bhoo, Man-Ho Cho[*]

Graduate School of Biotechnology, Kyung Hee University, Yongin 446-701, Korea

PBM-41

Fine mutational analysis of novel epitope tags with highly sensitive monoclonal antibodies 2B8 and 3H7 for improved detection

Tae-Lim Kim, Hye Rin Choi, Kaewta Rattanapisit, Karan Lohmaneeratana, Seong Hee Bhoo[*]

Graduate School of Biotechnology, Kyung Hee University, Yongin 446-701, Korea

PBM-42′

Production of poly-methyl flavonoids using a fusion flavonoid *O*-methyltransferase

Dan Bi Lee, Hye Lin Park, Seong Hee Bhoo, Man-Ho Cho[*]

Graduate School of Biotechnology, Kyung Hee University, Yongin 446-701, Korea

PBM-43′

Next-generation sequencing and transcriptome analysis-based isolation of terpene synthases in *Piper nigrum*

Zhehao Jin[1], Ah-Reum Lee[1], Moonhyuk Kwon[1,2], Dae-Kyun Ro[2], Soo-Un Kim[1,3*]

[1]Department of Agricultural Biotechnology, Seoul National University, [2]Department of Biological Sciences, University of Calgary, [3]School of Gardening and Horticulture, Yangtze University

PBM-44

Exploration of Reference Genes for Quantitative Real-Time PCR in marine diatom *Phaeodactylum tricornutum*

Yu-Jin Jung, Bok-Kyu Shin, Sang Min Kim, Cheol-Ho Pan[*]

Laboratory of Biomodulation, Natural Products Research Center, KIST Gangneung Institute of Natural Products, Gangneung, Ganwon-do 210-340, Korea

PBM-45

Metabolic Engineering to Study Fucoxanthin Biosynthesis in Marine Diatom *Phaeodactylum tricornutum*

Bok-Kyu Shin, Yu-Jin Jung, Byeo-Ri Kwon, Sang-Min Kim, Cheol-Ho Pan[*]

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PBM-46′

Prevalence of Potential Human Pathogenic *Vibrio* spp. in the Southern Coastal Waters and Mud

Doris Yoong Wen Di, Youri Yang, Hor-Gil Hur[*]

School of Environmental Science and Engineering, Gwangju Institute of Science and Technology, Buk-gu, Gwangju 500-712, Korea

PBM-47 **A novel family VIII esterase with distinctive substrate specificity from a compost metagenomic library**

Hyun Woo Lee[1], Won Kyeong Jung[2], Yong Ho Kim[3], Bum Han Ryu[4], Jungho Kim[3], T. Doohun Kim[4], Hoon Kim[1,2,3*]

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PBM-48 **Down-Regulation of Brassinosteroid (BR) Biosynthetic Genes Leads to a Dwarf Phenotype in *Echinacea purpurea***

Jin Zhao[1], Yuan-Yuan Fu[1], Min Ji Lee[2], Ji Hye Kim[2], Jong-Hwa Park[1], Kong Young Park[3], Geun-Won Choi[2], In Sik Chung[1], Youn-Hyung Lee[2*]

[1]Department of Genetic Engineering and Graduate School of Biotechnology, Kyung Hee University, [2]Department of Horticultural Biotechnology, Kyung Hee University, [3]URISEED Inc., Korea

PBM-49 **Rice FLAVIN-BINDING, KELCH REPEAT, F-BOX 1 (OsFKF1) promotes flowering independent of photoperiod**

Soocheul Yoo[1], Su-Hyun Han[2], Nam-Chon Paek[2*]

[1]Department of Plant Life & Environmental Science, Hankyong National University, [2]Department of Plant Science, Seoul National University

PBM-50 **Development of a novel and reproducible method for analyzing the "Hidden Proteome" of plants**

Ravi Gupta[1], Chul Woo Min[1], So Wun Kim[1], Ganesh Kumar Agrawal[2], Randeep Rakwal[3], Sun Tae Kim[1*]

[1]Department of Plant Bioscience, Pusan National University, Miryang, 627-706, South Korea, [2]Research Laboratory for Biotechnology and Biochemistry, Kathmandu, Nepal, [3]Organization for Educational Initiatives, University of Tsukuba, Tsukuba, Japan

PBM-51 **Proteomics based recent studies on biotic stress: a review**

Ram Krishna, Ravi Gupta, Chul Woo Min, So Wun Kim, Sun Tae Kim[*]

Department of Plant Bioscience, Pusan National University, Miryang, 627-706, South Korea

PBM-52 **Structural and functional study of CRISPR-associated protein Cas2 at various pHs**

Donghyun Ka[1], Euiyoung Bae[1,2,3*]

[1]Department of Agricultural Biotechnology, Seoul National University, [2]Center for Food and Bioconvergence, Seoul National University, [3]Research Institute of Agriculture and Life Sciences, Seoul National University

PBM-53

Cloning, Expression, and Purification of *Xanthomonas* Csy3 proteins

Ugeene Jeong[1], Euiyoung Bae[1,2,3*]

[1]Department of Agricultural Biotechnology, Seoul National University, [2]Center for Food and Bioconvergence, Seoul National University, [3]Research Institute of Agriculture and Life Sciences, Seoul National University

PBM-54

The Effects of Tylosin as Antibiotics Growth Promoter on Swine Gut Microbiota

Jungman Kim, Robin B. Guevarra, Son G. Nguyen, Tatsuya Unno*

Faculty of Biotechnology, College of Applied Life Sciences, Jeju National University

PBM-55

Gut Microbiota Comparison between Black and White pigs fed with or without AGP

Nakwon Hwang, Mincheol Kim, Yumi Kim, Jungman Kim, Robin B. Guevarra, Son G. Nguyen, Tatsuya Unno*

Faculty of Biotechnology, College of Applied Life Sciences, Jeju National University

PBM-56

Comparison Analysis of Fecal Microbiome Based on 16S rRNA Gene Sequences

Mincheol Kim, Nakwon Hwang, Yumi Kim, Jungman Kim, Robin B. Guevarra, Son G. Nguyen, Unno Tatsuya*

Faculty of Biotechnology, College of Applied Life Sciences, Jeju National University

PBM-57

Metagenomics characterization of methane emission mechanisms from rice paddies in Vietnam

Son G. Nguyen, Robin B. Guevarra, Jungman Kim, Tatsuya Unno*

Faculty of Biotechnology, College of Applied Life Sciences, Jeju National University

PBM-58

Inhibitory Effects of Bacterial Peptide Toxins on the Various Varieties of Trichoderma harzianum

Hyoung-Jin Lee, Hye-Jin Choi, Young-Kee Kim*

Department of Environmental and Biological Chemistry, Chungbuk National University

PBM-59

Analysis of Structural Similarities among Bacteriophages Measured by Phage-induced Polyclonal Antibodies

Ji-Hye Han, Soo-Jin Park, Young-Kee Kim*

Department of Environmental and Biological Chemistry, Chungbuk National University

PBM-60

Expression dynamics of metabolic and regulatory components across stage of panicle and seed development in rice

Songhwa Chae[1], Joung Sug Kim[1], Kyong-Mi Jun[2], Yoon Mok Pahk[2], Yeon-Ki Kim[1*], Baek-Hie Nahm[1,2*]

[1]Division of Bioscience and Bioinformatics, Myongji University, [2]Plant molecular genetics Institute, GreenGene Biotech. Inc.

PBM-61

MSP1 triggers host cell death and defense response in rice

Qing Feng Meng[1], Yi Ming Wang[2], Kyu Young Kang[3], Ravi Gupta[1], Sun Tae Kim[1*]

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PBM-62

Isolation and characterization of senescence regulation gene from rice

Chi Yeol Kim, Kieu Vo, Da Yeong Kang, Jong Seong Jeon[*]

Crop Biotech Institute & Graduate School of Biotechnology, Kyung Hee University

PBM-63

Gene flow from transgenic B. napus to Korean varieties of B. rapa

Soo-In Sohn[1*], Sung-Dug Oh[1], Tae-Hoon Ryu[1], Gang-Seob Lee[1], Doh-Won Yun[1], Hyun-Suk Cho[1], Young-Ju Oh[2]

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PBM-64

Identification and characterization of callus-specific promoters in Rice

Kyong-Mi Jun[1], Joung Sug Kim[2], Songhwa Chae[2], Yoon Mok Pahk[1], Yeon-Ki Kim[2*], Baek-Hie Nahm[1,2*]

[1]Plant molecular genetics Institute, GreenGene Biotech Inc, [2]Division of Bioscience and Bioinformatics, Myongji University

PBM-65

Role of rice cytosolic hexokinase *OsHXK7* in sugar signaling and metabolism

Hyun Bi Kim, Sang Kyu Lee, Danh Nguyen, Yu Kyung Je, Jong Seong Jeon[*]

Crop Biotech Institute & Graduate School of Biotechnology, Kyung Hee University

PBM-66

Expressions profiles of glucosinolate genes in Brassica rapa under various light qualities

Jin A Kim[*], Soo In Lee, Mi-Jeong Jeong

Department of Agricultural Biotechnology, National Academy of Agricultural Science, Rural Development Administration

PBM-67

Identification of specific circadian regulation in Brassica rapa through the diurnal transcriptome analysis

Jin A Kim[*], Soo In Lee, Mi-Jeong Jeong

Department of Agricultural Biotechnology, National Academy of Agricultural Science, Rural Development Administration

PBM-68

Development of salt resistant palnts through regulation of a Brassica rapa GIGANTEA gene

Ha-Eun Jung, Mi-Jeong Jeong, Soo In Lee, Jin A Kim*

Department of Agricultural Biotechnology, National Academy of Agricultural Science, Rural Development Administration

PBM-69′

OsMDB1, a MYB transcription factor, is involved in the control of plant height by down-regulating gibberellin biosynthetic Genes

Joung Sug Kim[1], Songhwa Chae[1], Kyong-Mi Jun[2], Yoon Mok Pahk[2], Baek-Hie Nahm[1,2*], Yeon-Ki Kim[1*]

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PBM-70

The Effects of Laminarin, a Polysaccharide from Seaweed, on Fecal Microbiota of High Fat-Fed Mice

Robin B. Guevarra, Jungman Kim, Son G. Nguyen, Tatsuya Unno*

Faculty of Biotechnology, College of Applied Life Sciences, SARI, Jeju National University

PBM-71

Analysis of cecal microbiota in mice fed with high-fat diet with or without laminarin

Yumi Kim, Mincheol Kim, Nakwon Hwang, Jungman Kim, Robin B. Guevarra, Son G. Nguyen, Tatsuya Unno*

Faculty of Biotechnology, College of Applied Life Sciences, SARI, Jeju National University

PBM-72

Fusarium toxin contamination of discolored rice from rice processing complexes in 2011

Soohyung Lee*, Theresa Lee, Hye Yeon Mun, Kyung Ah Lee, Min Hee Kim, Sung Kee Hong, Jae-Gee Ryu

Microbial Safety Team, National Academy of Agricultural Science,, Rural Development Administration, Wanju 565-851, Korea

PBM-73

Crystal structure of D-alanine-D-alanine ligase from *Yersinia pestis*

Thi Huyen Tran[1], Myoungki Hong[1], Jeong-Gu Kim[2], Byoung-Moo Lee[2], Yeh-Jin Ahn[3*], Lin Woo Kang[1*]

[1]Department of Biological Sciences, Konkuk University, [2]Genomics Division, National Academy of Agricultural Science (NAAS), [3]Department of Life Science, Sangmyung University

PBM-74′

Differential protein expression profiling in *Pleurotus ferulae* caused by asafoetida extract

Yujia Bai[1], Weicheng Hu[2], Zuoshan Feng[1*]

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PBM-75

Inhibitory Effects of *Sphallerocarpus gracilis* on IgE-induced Degranulation in Rat Basophilic Leukemia Mast Cells and TNF-α- and IFN-γ-induced Expression of Chemokines and Cytokines

in Human Keratinocytes

Myungsuk Kim, Eui Jeong Nam, Ahmad Randy, Sue Ji Lim, Chu Won Nho*
Natural Products Research Center, Korea Institute of Science and Technology

PBM-76

Expression of the BnPPT gene and BnPPT promoter activity in developing seeds of Arabidopsis thaliana

Kyung Hee Roh*, Han-Chul Kang, Jong-Bum Kim, Hyun Uk Kim, Kyeong-Ryeol Lee, Sun Hee Kim
Department of Agricultural Biotechnology, National Academy of Agricultural Science (NAAS)

PBM-77

Metabolite profiling based comparison of solid-state and liquid-state fermentation by *Aspergillus Oryzae*

Su Young Son, Eun Sung Jung, Dong Ho Suh, Choong Hwan Lee*
Department of Bioscience and Biotechnology, Konkuk University

PBM-78′

DetR charging in defense is critical for virulence in *Xanthomonas oryzae* pv. *oryzae*

Sang-Won Lee*, Minh-Phuong Nguyen
Department of Genetic Engineering and Graduate School of Biotechnology, Kyung Hee University

PBM-79

Identification of sound wave induced genes in *Arabidopsis thaliana*

Joo Yeol Kim, Hyeon Ju Kim, Soo In Lee, Jin A Kim, Mi Jeong Jeong*
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PBM-80′

Tomato fruit ripening delayed by sound waves through regulation of ethylene biosynthesis and signaling related genes

Joo Yeol Kim[1], Jin Su Lee[2], Hye Ryun Ahn[1], Soo In Lee[1], Jin A Kim[1], Soo Chul Park[1], Mi Jeong Jeong[1*]
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PBM-81′

Transgenic rice plant producing caffeine confers resistance to rice pathogens and triggered the plant immune system

Jong Chan Park[1,2], Youngchul Yoo[1,2], Hyemin Lim[3], Gang-Seob Lee[3], Sang-Won Lee[1,2*]
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PBM-82

The Anti-Photoaging effect of Glycitin

Ga Young Seo[1], Young Mee Kim[1], Phorl Sophors[1], Mo A Son[2], Sanggyu Park[3], Jung-Sik Huh[4], Moonjae Cho[5*]
[1]Department of Biochemistry School of Medicine, Jeju National University, [2]Department of Biomaterials, Jeju National University, [3]Division of Life & Environmental Science, Daegu University, [4]Department of Urology,

School of Medicine, Jeju National University, [5]Institute of Medical Science, Jeju National University

PBM-83

The Novel Naphtochalcone Derivative Accelerates Wound Healing Through Induction of EMT of Keratinocyte

Ga Young Seo[1], Youngmee Kim[1], Phorl Sophors[1], Mo A Son[2], Dongsoo Koh[3], Youngho Lim[4], Changlim Hyun[5], Moonjae Cho[6*]

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PBM-84′

System Establishment for Candidate Selection of Transgenic Rice lines to Produce β-Carotene as GMO Events

Jin Hwa Kim[1], Ye-Sol Jeong[1], Jae-Kwang Kim[2], Min-Kyoung You[1,3], Sun-Hwa Ha[1,3*]

[1]Crop Biotech Institute, Kyung Hee University, Yongin, Korea, [2]Department of Life Science, Incheon National University, Korea, [3]Graduate School of Biotechnology, Kyung Hee University, Yongin, Korea

PBM-85′

Development of a transit peptide derived from a carotenoid enzyme for targeting to the specified-membrane structures in chloroplasts

Min Kyoung You[1,2], Jin Hwa Kim[2], Yeo Jin Lee[1,2], Ye Sol Jeong[2], Mi Ran Ko[1,2], Sun-Hwa Ha[1,2*]

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PBM-86′

Elucidation of Regulatory Genes Involved in Terpenoid Metabolism of Rice

Ye Sol Jeong[1], Sun-Hyung Lim[2], Mi Ran Ko[1,3], Min-Kyoung You[1,3], Sun-Hwa Ha[1,3*]

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PBM-87′

Blockade of dual-specificity phosphatase 28 decreases chemo-resistance and migration in human pancreatic cancer cells

Jungwhoi Lee[1], Jeong Hun Yun[1], Jungsul Lee[2], Chulhee Choi[2], Jae Hoon Kim[1,3*]

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PBM-88′

Molecular cloning and characterization of a flavonoid glucosyltransferase, bGT612, from Citrus platymamma Hort.et Tanaka

Myeong Seung Kim[1], Dong Shik Yang[1], Song-I Han[1], Jeong Hun Yun[1], Jae Hoon Kim[1,2*]

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PBM-89′

Melecular cloning and characterization of flavonoid 7-o-glcosyltransferase gene from Byungkyool (Citrus platymamma Hort.ex. Tanaka)

Dong Shik Yang[1], Myeung Seung Kim[1], Song-I Han[1], Jung Hun Yun[1], Jae Hoon Kim[1,2*]

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PBM-90′

Functional analysis of a flavonoid glucosyltransferase from Byungkyool (*Citrus platymamma*, Hort. ex. Tanaka)

Song-I Han[1], Jungwhoi Lee [1], Dong Shik Yang [1], Myeung Seung Kim [1], Jae Hoon Kim[1,2*]

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PBM-91′

Involvement of a Chloroplast DNA Repair Protein in the Innate Immune Response of Higher Plants

Hyesung Jeon, Hye-Yun Lee, Minkyun Kim*

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PBM-92′

Positive ABA Responses by a Novel G Protein β Subunit-like Protein in Arabidopsis

Jaemin Hwang, Sang-Ryoung Park, Minkyun Kim*

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PBM-93′

Functional RNA-Seq Based De Novo Transcriptome Profiling of *Phlomis umbrosa* Turcz. Root

Yeon Bok Kim*, Young-Sub Lee, Siyoon Hwang, Sin-Hee Han, Young-Guk Kim, Seon-Woo Cha, Sang-Won Lee

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PNB Natural Products · Bioactive Materials · Biomedical Sciences

PNB-1′

Acaricidal Potency of 2-Isopropyl-5-Methylcyclohexanol and Its Structural Analogues against Pyroglyphid Mites

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PNB-2′

Evaluation of Benzaldehyde Derivatives as Anti-mite Agents with Dual Function as Acaricide and Mite Indicator

Jaeun Song, Ji-Yeon Yang, Hoi-Seon Lee*

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PNB-3′

Insecticidal Effects of Essential Oils Derived from Twelve Plants against Stored Grain Insects

Jaeun Song[1], Jeong-Moon Kim[2], Sang-Guei Lee[3], Hoi-Seon Lee[1*]

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PNB-4′

Insecticidal Constituent from *Ruta graveolens* and Structure-Activity Relationship Studies against Stored-Food Pests

Jaeun Song[1], Jeong-Moon Kim[2], Sang-Guei Lee[3], Hoi-Seon Lee[1*]

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PNB-5′

Naturally Occurring Naphthalenedione and Its Structurally Related Analogs Show Larvicidal Toxicities against Three Mosquito Species

Jaeun Song, Hoi-Seon Lee[*]

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PNB-6′

Larvicidal Activities of 5-Hydroxy-2-Methyl-1,4-Naphthoquinone Isolated from *Diospyros Kaki* against *Aedes aegypti*, *Culex pipiens pallens*, and *Ochlerotatus togoi*

Jaeun Song, Hoi-Seon Lee[*]

Department of Bioenvironmental Chemistry, College of Agriculture & Life Sciences, Chonbuk National University, Jeonju 561-756, Korea

PNB-7′

Antimicrobial Activities of Active Component Isolated from *Lawsonia inermis* Leaves and Structure-activity Relationships of Its Analogues against Food-borne Bacteria

Jaeun Song, Hoi-Seon Lee[*]

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PNB-8′

Methylbenzladehyde Derivatives as Acaricide and Mite Kit with Fumigant and Contact Action against Stored-Food Mites

Hwa-Won Lee, Jaeun Song, Hoi-Seon Lee[*]

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PNB-9′

Antimicrobial Effects of *Platycladus orientalis* oil against Intestinal Bacteria and Its Chemical

Analysis

Jaeun Song, Hoi-Seon Lee*
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PNB-10

Mechanisms of autophagy and apoptosis triggered by mimulone in A549 human lung cancer cells

Hyung-In moon[1*], Yonug-Tak Kim[1], Soo-Ki Kim[2]
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PNB-11

Serum lipidotyping in high-fat diet induced obese mice for the evaluation of the pharmacological effect of compound K

Kwang-Hyeon Liu[1*], Jong Cheol Shon[1], Heungsop Shin[2]
[1]College of Pharmacy, Kyungpook National University, [2]Department of Chemical Engineering & Biotechnology, Korea Polytechnic University

PNB-12

Controlled Drug Release Using Ascorbate-Responsive Quercetin-Conjugated Alginate Hydrogels

Jungchan Nam, Woon-Seok Yeo*
Department of Bioscience and Biotechnology, Bio/Molecular Informatics Center, Konkuk University, Seoul

PNB-13

Determination of the Ratio between Two Types of Prostate Specific Antigens for Prostate Cancer Diagnosis by Using LDI-TOF MS and Gold Nanoparticles

Minyoung Yoo, Jungchan Nam, Woon-Seok Yeo*
Department of Bioscience and Biotechnology, Bio/Molecular Informatics Center, Konkuk University, Seoul

PNB-14

Chemical Composition and Biological Activity of 23 *Curcuma* species

Supawadee Burapan[1,2], Mihyang Kim[1,2], Jaeeun Hwang[1,2], Hailong Wu[1,2], Jaehong Han[1,2*]
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PNB-15

Exportation Model for the Korean Ginseng Product to China

Seungho Lee[1,2], Jaeeun Hwang[2,3], Mihyang Kim[2,3], Nan Jiang[1,2], Supawadee Burapan[2,3], Hailong Wu[2,3], Jaehong Han[2,3*]
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PNB-16

Ginseng Database: Health Promoting Effects of Ginseng Published in the Scientific Journals is Available for Public

Mihyang Kim[1,2], Jaeeun Hwang[1,2], Supawadee Burapan[1,2], Hailong Wu[1,2], Jaehong Han[1,2*]

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PNB-17

Immunomodulatory Effects of Orally-administered Astragali Radix Water Extract on macrophage and T cell Responses in Mice

Mi-Gi Lee[1], Hyuckjin Kwon[1], Jong Suk Lee[1*], Hee Kang[2*]

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PNB-18

Anti-inflammatory Activities of Taxifolin from *Opuntia humifusa*in Lipopolysaccharide Stimulated RAW264.7 Murine Macrophages

Jaeyoung Kim, Yonghwa Lee, Yongsub Yi*

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PNB-19′

Cytotoxicities of combined polyphenols of resveratrol and chalcone

Youngshim Lee[1], Seunghyun Ahn[1], Yearam Jung[1], Hyeryoung Jung[1], Jihyun Im[1], Hyeok Lee[1], Kyungrai Kang[1], Dongsoo Koh[2*], Kang-Yeoun Jung[3], Yoongho Lim[1*]

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PNB-20′

^{1}H and ^{13}C NMR spectral assignments of chalcones with benzothiazepine moiety

Seunghyun Ahn[1], Hyeryoung Jung[1], Yearam Jung[1], Jihyun Im[1], Hyeok Lee[1], Kyungrai Kang[1], Dongsoo Koh[2*], Kang-Yeoun Jung[3], Yoongho Lim[1*]

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PNB-21′

Holo QSAR between flavones and their inhibitory effects on glycogen synthase kinase 3β

Yearam Jung[1], Hyeryoung Jung[1], Seunghyun Ahn[1], Jihyun Im[1], Hyeok Lee[1], Kyungrai Kang[1], Dongsoo Koh[2*], Kang-Yeoun Jung[3], Yoongho Lim[1*]

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PNB-22′

^{1}H and ^{13}C NMR spectral assignments of flavonols

Yearam Jung[1], Seunghyun Ahn[1], Hyeryoung Jung[1], Jihyun Im[1], Hyeok Lee[1], Kyungrai Kang[1], Dongsoo Koh[2*],

Kang-Yeoun Jung[3], Yoongho Lim[1*]
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PNB-23′

^{1}H and ^{13}C NMR spectral assignments of 19 novel polymethoxylated diphenylnaphthylpyrazolinylcarbothioamides

Hyeryoung Jung[1], Seunghyun Ahn[1], Yearam Jung[1], Jihyun Im[1], Hyeok Lee[1], Kyungrai Kang[1], Dongsoo Koh[2*], Kang-Yeoun Jung[3], Yoongho Lim[1*]
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PNB-24′

Flavonoid showing the AMPK activation, kaempferide

Hyeryoung Jung[1], Yearam Jung[1], Seunghyun Ahn[1], Jihyun Im[1], Hyeok Lee[1], Kyungrai Kang[1], Dongsoo Koh[2*], Kang-Yeoun Jung[3], Yoongho Lim[1*]
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PNB-25

Green synthesis of silver nanoparticles using *Zea mays* hair extract and investigation of its antibacterial and antioxidant potential: A novel approach towards waste utilization

Jayanta Kumar Patra, Kwang-Hyun Baek[*]
School of Biotechnology, Yeungnam University

PNB-26′

Triazole-linked-D-fructoses showing sialidase inhibitory effect

Kang-Yeoun Jung[*], Tae-Woo Kim
Department of Biochemical Engineering, Gangneung-Wonju National University

PNB-27

Inhibition of *Candida albicans* Morphological Transition by Phorbasin H Isolated form *Phorbas* sp.

Eun ji Cho, Chan Hong Ahn, Ki-Bong Oh[*]
Department of Agricultural Biotechnology, College of Agriculture and Life Sciences, Seoul National University

PNB-28′

Quercetin derivative (5,3′-dihydroxy-3,7,4′-triethoxyflavone) induces apoptosis in human colon cancer HCT 116 cells

Imran Khan[1], Souren Paul[1], Youngrong Park[2], Jaehong Han[2], Sun Chul Kang[1*]
[1]Department of Biotechnology, Daegu University, [2]Metalloenzyme Research Group, College of Biotechnology and Natural Resources, Chung-Ang University

PNB-29

Chemical composition, antibacterial and antioxidant activities of essential oil and extracts of *Lippia alba*

Atiqur Rahman, Anil Kumar Chauhan, Souren Paul, Sun Chul Kang*
Department of Biotechnology, Daegu University

PNB-30′

Modulation of cigarette smoke induced apoptosis by morin hydrate in the rat respiratory system

Rekha Jakhar, Souren Paul, Monika Bhardwaj, Sun Chul Kang*
Department of Biotechnology, Daegu University

PNB-31

Bioactive packaging using polyethylene (PE) film coated with antimicrobial leaf extract of *Metasequoia glyptostroboides* Miki ex Hu to extended self life of grapes (*Vitis vinifera* L.)

Ashutosh Bahuguna, Anil Kumar Chauhan, Souren Paul, Sun Chul Kang*
Department of Biotechnology, Daegu University

PNB-32′

5, 3′-Dihydroxy-3, 7, 4′-trimethoxyflavone; an alkyl quercetin derivative induced mitochondrial apoptosis in HCT-116 colon cancer cells

Mahendra Pal Singh[1], Souren Paul[1], Youngrong Park[2], Jaehong Han[2], Sun Chul Kang[1*]
[1]Department of Biotechnology, Daegu University, [2]Metalloenzyme Research Group, College of Biotechnology and Natural Resources, Chung-Ang University

PNB-33

Aflatoxin B1 induces macrophage activation via TLR4-Myd88 dependent pathway

Souren Paul, Rekha Jakhar, Monika Bhardwaj, Sun Chul Kang*
Department of Biotechnology, Daegu University

PNB-34′

Vitexin activates intracellular reactive oxygen species and promotes autophagy mediated cell death in HCT-116 human colon carcinoma cell line

Monika Bhardwaj, Souren Paul, Rekha Jakhar, Sun Chul Kang*
Department of Biotechnology, Daegu University

PNB-35

Isolation and Biological Activity of Suvanine Sesterterpenes and Deacyl Irciniasulfonic Acid from a Tropical *Coscinoderma* sp. Sponge

Beom Koo Chung[1], Chang-Kwon Kim[2], Yeon-Ju Lee[3], Hyi-Seung Lee[3], Jongheon Shin[2], Ki-Bong Oh[1*]
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PNB-36

Inhibition of *Candida albicans* Isocitrate Lyase Activity by Cadiolides and Synoilides from the Ascidian *Synoicum* sp.

Wanki Park[1], Tae Hyung Won[2], Jongheon Shin[2*], Ki-Bong Oh[1*]
[1]Department of Agricultural Biotechnology, College of Agriculture & Life Science, Seoul National University, [2]Natural Products Research Institute, College of Pharmacy, Seoul National University

PNB-37

Isoflavone metabolism leading by the Human Intestinal Bacteria

Mihyang Kim, Jaeeun Hwang , Jaehong Han*
Metalloenzyme Research Group and Department of Integrative Plant Science, Chung-Ang University

PNB-38

Antimicrobial activity of essential oil of Armeniacae Semen

Yu-Hong Min*
College of Herbal Bio-Industry, Daegu Haany University, Gyeongsan, 712-715, Korea

PNB-39

Armeniacae Semen essential oil inhibits melanin biosynthesis

Yu-Hong Min*
College of Herbal Bio-Industry, Daegu Haany University, Gyeongsan, 712-715, Korea

PNB-40

Isolation and Identification of Phytochemical Constituents from *Lespedeza cuneata*

Dong Gu Lee, Chun Geon Park, Young Sup Ahn, Yusu Shin*
Department of Herbal Crop Research, National Institute of Horticultural & Herbal Science, Rural Development Administration

PNB-41

LC-MS based Screening and Structure Analysis of Novel Secondary Metabolites from Marine Strain

Woo Jung Kim[1*], Young Ok Kim[2], Hye Min Lee[1], Jong Suk Lee[1]
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PNB-42′

Identification of Saponins in Achyranthis Radix by High Resolution Orbitrap MS

Dae-Min Bak, Si Hyung Park*
Department of Oriental Medicine Resources and Institute for Traditional Korean Medicine Industry, Mokpo National University, Muan 534-729, Korea

PNB-43′

Comparison of Saponins in Achyranthis Radix by HPLC-ESI-MS

Gun-Woong Joe, Hui Kim, Si Hyung Park*
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PNB-44′

Antioxidant activity of rice bran after fermented with *Monascus pilosus* KCCM60084

Jinhua Cheng[1,2], Bong-Keun Choi[2], Seung Hwan Yang[2,3*], Joo-Won Suh[4,5*]
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PNB-45

Antioxidant and Lifespan Extension Activities of Red bean sprouts

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PNB-46

Lifespan Extension Property of Vitexin from *Vigna angularis* in *Caenorhabditis elegans*

Eun Byeol Lee[1], Jun Hyeong Kim[1], Youn-Soo Cha[2], Mina Kim[2], Seuk Bo Song[3], Dae Keun Kim[1*]

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PNB-47

Suppressing activities of *Streptomyces* culture extracts on *Pectobacterium carotovorum* pv. *carotovorum*

Jinho Jeong[1], Seunghwan Kim[1], In-Ae Lee[2], Jinhua Cheng[2], Joo Won Suh[2], Lin-Woo Kang[3], Choong-Hwan Lee[4], Eun Sung Jung[4], Jeong-Gu Kim[1*]

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PNB-48

Chemotaxanomy analysis of Korean mistletoe types and their activity relative oleanolic acid contents

Hyuk-Hwan Song[1], Hyung Won Ryu[2], Hui-Seong Kim[2], Doo-Young Kim[2], Chan-Soo Kim[3], Sei-Ryang Oh[2*]

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PNB-49

Phytochemicals of *Gnaphalium affine* and Their Anti-inflammatory Activity

Ki Ohk Kim[1], Yhun Jung Park[1], Ju Hyeon An[1], Hyung Won Ryu[1], Hyuk-Hwan Song[2], Doo Young Kim[1], Sei-Ryang Oh[1*]

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PNB-50

Identification of secondary metabolites from the fruit of *Paulownia tomentosa*

Yhun Jung Park[1], Ki Ohk Kim[1], Hyung Won Ryu[1], Hyuk-Hwan Song[2], Doo Young Kim[1], Sei-Ryang Oh[1*], Ju Hyeon An[1]

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PNB-51

Comparative assessment of compositional components from *Agastache rugosa* Kuntze

Ju Hyeon An, Hyung Won Ryu, Yhun Jung Park, Ki Ohk Kim, Doo Young Kim, Sei-Ryang Oh*
Natural Medicine Research Center, Korea Research Institute of Bioscience &Biotechnology (KRIBB)

PNB-52

Selection of discriminant markers for authentication of *Pinellia ternata* by fingerprints and their anti-tyrosinase activity

Hyung Won Ryu, Ju Hyeon An, Yhun Jung Park, Ki Ohk Kim, Doo Young Kim, Sei-Ryang Oh*
Natural Medicine Research Center, Korea Research Institute of Bioscience &Biotechnology (KRIBB)

PNB-53

Metabolomics investigation of seasonal phytochemical changes in *Camellia sinensis* leaves

Hyung Won Ryu[1], Hyuk-Hwan Song[2], Heung Joo Yuk[1], Ju Hyeon An[1], Doo-Young Kim[1], Sei-Ryang Oh[1*]
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PNB-54

Phenolics and Monoterpene from the flowers of Brugmansia arborea

Hyoung Geun Kim, Jung Hwa Kwon, Eun Ji Oh, Eun Mi Ahn, Youn Hyung Lee, Nam In Baek*
Graduate School of Biotechnology & Department of Oriental Medicine Biotechnology, Kyung Hee University

PNB-55

Dineolignans from Magnolia obovata Fruits

Kyeong Hwa Seo[1], Dae Young Lee[2], Nhan Nguyen Thi[1], Nam In Baek[1*]
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PNB-56

Neuroprotective effect of prenylated arylbenzofuran and flavonoids from Morus alba fruits of on glutamate-induced oxidative injury in HT22 cells

Nhan Nguyen Thi[1], Kyoung Hwa Seo[1], Dong Sung Lee[2], Young Eon Kim[3], Dong Man Kim[3], Eock Kee Hong[4], Youn Chul Kim[2], Nam In Baek[1*]
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PNB-57

Flavonoids from The Roots of Sedum kamtschaticum

Yeong Geun Lee[1], Kyoung Hwa Seo[1], Eun Ji Oh[1], Nhan Nguyen Thi[1], Hee Cheol Kang[2], Nam In Baek[1*]
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PNB-58

Establishment of purification process of melanin from by Kitasatospora sp. DG09 and its structural characteristics

Eun Ji Oh[1], Jung Hwa Kwon[1], Na Young Song[1], Su Yeon Kim[1], Seo Ji In[1], Dong Geol Lee[2], Hee Cheol Kang[2], Youn Hyung Lee[1], Nam In Baek[1*]
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PNB-59

Chronic treatment of Pentamethoxyflavone (PMF) increased basal H_2S release of the thoracic aorta of middle-aged male rats

Chaweewan Jansakul[1*], Somruedee Yorsin[2], Kanyanatt Kanokwirun[3]
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PNB-60′

Mechanism of 1-hydroxy-2-hydroxymethylanthraquinone purified from *Coptosapelta flavescens* against *G. intestinalis* cell cycle and attachment to Caco-2 cell line

Nongyao Sawangjaroen[1*], Kruawan Hounkong[2], Wipapan Kongyen[3], Vatcharin Rukachaisirikul[4]
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PNB-61′

Encapsulation of Capsaicin with a maleated poly(vinyl alcohol)-g-gelatin

Sa-Ad Riyajan[1*], Wattana Sukhlaaied[2]
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PNB-62

Antifungal potential of *Streptomyces* sp. AC51 against fungal contaminants of natural rubber sheets

Souwalak Phongpaichit[1*], Sirinut Duangsook[2], Morakot Kaewpet[3], Vatcharin Rukachaisirikul[3], Aran H-kittikun[4], Saranyoo Klaiklay[5]
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PNB-63

Chemical constituents from the bulbs of *Crinum asiaticum*

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PNB-64

Antioxidant activity of extracts and flavonoid constituents from *Albizia myriophylla* Benth.

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PNB-65′

Chemical Constituents from the Twigs of *Feronia limonia*

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PNB-66

Antibacterial activity of the ethanol extract of *Eucalyptus citriodora* Hook. leaves against methicillin resistant *Staphylococcus aureus* (MRSA)

Jongkon Saising[1], Chirawan Chirawongsunthon[2], Apeechaya Jitsurong[3], Supayang Voravuthikunchai[4*]

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PNB-67

Engineering of the (−)-α-Bisabolol Production in Plant Epidermal Cell

Ah-Reum Lee[1], Young-Jin Son[1], Moon Hyuk Kwon[1,2], Dae-Kyun Ro[2], Soo-Un Kim[1,3*]

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PNB-68′

Anti-quorum sensing potential of certain phytochemicals against *Pseudomonas aeruginosa*

Khadar Syed Musthafa[1], Jongkon Saising[2], Supayang Piyawan Voravuthikunchai[3*]

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PNB-69

Evaluation of antibacterial activity of Thai herbal formulation (THF-GI003) traditionally used for gastrointestinal infections against diarrhoea-causing bacteria

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Faculty of Traditional Thai Medicine and Excellent Research Laboratory on Natural Products and Natural Product Research Center of Excellence, Prince of Songkla University, Thailand

PNB-70 **Antibacterial activity of lupinifolin against pathogenic bacteria of upper respiratory tract**

Wipawadee Sianglum[1*], Nantiya Joycharat[2], Kanitta Muangngam[1], Chatchai Funoi[1], Thanaporn Sinlapateeratorn[1], Sunisa Ammarin[1], Anassaya Lemkoon[1]

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PNB-71′ **Computer aided search on *Staphylococcus aureus* proteins for rhodomyrtone target identification**

Dennapa Saeloh[1*], Supayang Piyawan Voravuthikunchai[1], Varomyalin Tipmanee[2]

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PNB-72 **Antifungal activity of marine-derived actinomycetes against fungal diseases of rice and Para rubber**

Jirayu Buatong[1*], Souwalak Phongpaichit[1], Vatcharin Rukachaisirikul[2]

[1]Department of Microbiology, Faculty of Science and Natural Product Research Center of Excellence, Prince of Songkla University, Thailand, [2]Department of Chemistry, Faculty of Science, Prince of Songkla University, Thailand

PNB-73′ ***Entamoeba histolytica*: ultrastructural alteration cause by 1-hydroxy-2-hydroxymethylanthraquinone purified from *Coptosapelta flavescens***

Kruawan Hounkong[1], Nongyao Sawangjaroen[1*], Wipapan Kongyen[2], Vatcharin Rukachaisirikul[3]

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PNB-74 **Lipid-Lowering Effects of Ivy Gourd (*Coccinia grandis* L. Voigt) Root in Mice Fed a High-Fat Diet**

Ruthaiwan Bunkrongcheap[1], Inafuku Masashi[2], Oku Hirosuke[2], Nongporn Hutadilok-towatana[1*], Chatchai Wattanapiromsakul[3]

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PNB-75

Effects of oral administration of Pentamethoxyflavone isolated from *Kaempferia parviflora* rhizomes on the thoracic aorta of middle-aged male rats

Somruedee Yorsin[1*], Kanyanatt Kanokwirun[2], Chaweewan Jansakul[3]

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PNB-76

Effects of *Houttuynia cordata* water extract on vaginal innate immunity

Surada Satthakarn[1], Florian Hladik[2], Aornrutai Promsong[3], Wipawee Nittayananta[4*]

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PNB-77′

Reduction in mutation frequency from *Holarrhena antidysenterica* as a resistance modifying agent against drug-resistant *Acinetobacter baumannii*

Thanyaluc Siriyong[1], Sasitorn Chusri[2], Potjanee Srimanote[3], Supayang Piyawan Voravuthikunchai[1*]

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PNB-78′

The use of secondary metabolite profiling in chemotaxonomy of spider-associated fungus *Akanthomyces*

Wilawan Kuephadungphan[1*], Souwalak Phongpaichit[2], Jennifer Luangsa-ard[3], Vatcharin Rukachaisirikul[4], Marc Stadler[5]

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PNB-79′

Rhodomyrtone as a potential antiproliferative and apoptosis inducing agent in HaCaT keratinocyte cells

Supayang Piyawan Voravuthikunchai[1*], Julalak Chorachoo[1], Teerapol Srichana[2], Thanaporn Amnuaikit[2]

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PNB-80

Ellagic acid inhibits HIV-1 infection *in vitro*: Potential role as a novel microbicide

Wipawee Nittayananta[1*], Aornrutai Promsong[2], Thippawan Chuenchitra[3], Surada Satthakarn[4]

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PNB-81′

Improvement of γ-aminobutyric acid production by fermentation with lactic acid bacteria

Eun Hye Jang, Se Ah Kim, Hye Seon Park, Woo Kyeong Kim, Hyung Joo Kim, Hyun Jeong Soon, Young Geol Yoon*

Department of Biomedical Science, Jungwon University

PNB-82

Chemotaxonomic Classification of Traditional Indigenous Plant Species Based on Metabolomic Approaches

Sarah Lee[1], Dong Gu Oh[2], Ga Ryun Kim[1], Jong Seok Lee[1], Youn Kyoung Son[1], Chang-Hwan Bae[1], Joohong Yeo[1], Sunmin Lee[2], Choong Hwan Lee[2*]

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PNB-83

Chracterization for the Immobilized a-Amylase for *Exiguobacterium* sp. DAU5

Shu-Jun Fang[1,2], Je-Hoon Lee[1], Eun-Jung Hwang[1], Yong-Suk Lee[1], Yong-Lark Choi[1*]

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PNB-84

Isolation and Characterization of Carbohydrate Esterase from *Microbulbifer thermotolerans* DAU221

Eun-Jung Hwang, Yong-Suk Lee, Je-Hoon Lee, Hyo-Jung Lee, Yong-Lark Choi*

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PNB-85

Characterization of maltotriose by hydrolyzing of soluble starch with α-amylase from *Microbulbifer thermotolerans* DAU221

Yong-Suk Lee, Je-Hoon Lee, Eun-Jung Hwang, Hyo-Jung Lee, Yong-Lark Choi*

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PNB-86

Characterization of a novel ocean-derived Cellulophaga fucicola DAU203 degrading cypermethrin in saline condition

Je-Hoon Lee, Yong-Suk Lee, Eun-Jung Hwang, Hyo-Jung Lee, Yong-Lark Choi*

Department of Biotechnology, Dong-A University, Busan 604-714, Korea

PNB-87

Tyrosinase inhibitory activities of *meso*-dihydroguaiaretic acid from *Machilus thunbergii*

Hyun Sook Kwon[1], Joon Yeop Lee[1], Yun Ju Kwon[1], Ji Eun Park[1], Bomi Kim[1], Soo Jeong Cho[2*]
[1]*Natural Products Bank, Korea Promotion Institute for Traditional Medicine Industry,* [2]*Department of Pharmaceutical Engineering, Gyeongnam National University of Science and Technology*

PNB-88

Tyrosinase inhibitory activities of safrole from *Myristica fragrans* Houtt

Hyun Sook Kwon[1], Soo Jeong Cho[2], Hanna Lee[1], Hyun Hee Leem[1], Soo Hyun Kim[1], Ki Hun Park[3*]
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PNB-89′

Fermentation enhances antioxidative effects of Gentianae Scabrae Radix via increase in deglucosyltrifloroside content

Ju Gyeong Lee, Ju Hee An, Eun A Choi, Seo Hyun Kim, Joon Hyouk Moon, Kyung Sik Song[*]
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PNB-90′

Changes in Contents of Major Phenolic Compounds in *Crepidiastrum denticulatum* in Different Growth and Harvest Conditions

Sang-Bin Oh[1,2], Hee Ju Lee[1], Song-Yi Park[3,4], Jin-Hui Lee[3,4], Ji-Hoon Bae[3,4], Myung-Min Oh[3,4], Sang Min Kim[1*]
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PNB-91

Quantification of Pectolinarin in the Genus *Cirsium* Using HPLC/UV Analysis

Yoon Kyoung Lee[1], Sunghun Cho[1], Jaemin Lee[1], Sanghoon Yang[1], Kang Hee Lee[1], Jai Souk Sim[2], Sanghyun Lee[1*]
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PNB-92

Content Analysis of α- and γ-Linolenic Acids in the Seeds of *Perilla frutescens* var. *japonica*

Jaemin Lee[1], Sunghun Cho[1], Sanghoon Yang[1], Myoung-Hee Lee[2], Eun Ju Cho[3], Sanghyun Lee[1*]
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PNB-93

Analysis of Agstragalin Content in the Genus *Aster* by High-Performance Liquid Chromatography

Sanghoon Yang[1], Jaemin Lee[1], Sunghun Cho[1], Eun Ha Kim[2], Yeon Kwon Jung[2], Kung-Woo Nam[3], Sanghyun Lee[1*]
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Agricultural Technology Center, [3]Department of Life Science and Biotechnology, Soon Chun Hyang University

PNB-94

Anticancer Effects of the Lemon Leaf Extract in MCF-7-SC Human Breast Cancer Stem Cells

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PNB-95

Isolation and Identification of Phenolic Compounds from the Fruits of *Prunus davidiana* (Carriere) Franch

Min-Ji Lee[1], Ji-Hye Kim[1], Kyung-Hwa Seo[2], Youn-Hyung Lee[1*], Nam-In Baek[3]

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PNB-96

Comparison of *Zingiber mioga* and *officinale* with Their Plant and Root Part through MS-Based Metabolite Profiling and Bioactivities

Ji Soo Han, Hyang Yeon Kim, Choong Hwan Lee[*]

Department of Bioscience and Biotechnology, Konkuk University

PNB-97

Content Analysis of Rutin in the Leaves of *Boehmeria nivea* by HPLC/UV

Sunghun Cho[1], Sanghoon Yang[1], Jaemin Lee[1], Yong-Su Jung[2], Ho Bang Kim[3], Eun Ju Cho[4], Sanghyun Lee[1*]

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PNB-98

Antioxidant activity of hot-water extracts and floral waters from natural plant pigments

Su Jin Kim[1], Eun Sil Lee[1], Hyeong Ho Seo[2], Yong Chool Boo[2], Hwa Jin Suh[1*]

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PNB-99

Effects of Bambusae Caulis in Taeniam Extract on the UVB-induced Cell Death, Oxidative Stress and Matrix Metalloproteinase 1 Expression in Keratinocytes

Eun Sil Lee[1], Hwa Jin Suh[1], Su Jin Kim[1], Oh Oun Kwan[2], Jin Kyung Seok[3], Yong Chool Boo[4*]

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PNB-100 **Anticancer potential of the cortex of *Ulmus davidiana* var. *japonica***

Man-Jin In[1], Sung Eun Kim[2], Dong Chung Kim[3*]
[1]*Department of Human Nutrition and Food Science, Chungwoon University, Hongseng, Korea,* [2]*Department of Biological Science, Purdue University, Indiana, USA,* [3]*Department of Integrated Materials Engineering, Chungwoon University, Incheon, Korea*

PNB-101 **Phellodendron amurense Extract Attenuates the UVB-Induced Expressions of Cytokines in Keratinocytes and Indirectly Inhibits Matrix Metalloproteinase-1 Expression**

Hwa Jin Suh[1], Eun Sil Lee[1], Su Jin Kim[1], Oh Oun Kwan[2*]
[1]*Bio Fusion Research Team, Gyeongbuk Natural Color Industry Institute,* [2]*Natural Color Research Team, Gyeongbuk Natural Color Industry Institute*

PNB-102 **Chalcones isolated from *Angelica keiskei* inhibit cysteine proteases of SARS-CoV**

Ji-Young Park, Jin-A Ko, Hyung Jae Jeong, Mina Kim, Su Hwan Lim, Kyoung Su Kim, Woo Song Lee, Young Bae Ryu[*]
Eco-friendly Biomaterial Research Center, Korea Research Institute of Bioscience and Biotechnology

PNB-103 **Microwave treatment-accelerated solubilization of curcumin with steviol glycosides used as natural solubilizers**

Jin-A Ko, Hyung Jae Jeong, Ji-Young Park, Bang Hee Lee, Woo Song Lee, Young Bae Ryu[*]
Eco-friendly Biomaterial Research Center, Korea Research Institute of Bioscience and Biotechnology

PNB-104 **Identification of Secondary Metabolites from the twig of Broussoneita kazinoki**

Jin Kyu Kim[1], Jin Gwan Kwon[1], Changon Seo[1], Seong Su Hong[1], Chun Whan Choi[1], Wonsik Jeong[1], Yun-Hyeok Choi[1], Joa Sub Oh[1,2*]
[1]*Bio Center, Gyeonggi Institute of Science & Technology Promotion,* [2]*College of Pharmacy, Dankook University*

PNB-105 **Identification of Plebeian Herba as a Potential Therapeutic Agent for Gout**

Yongmun Choi[1], Jin Gwan Kwon[1], Jin Kyu Kim[1], Changon Seo[1], Seong Su Hong[1], Chun Whan Choi[1], Jung Mi Hyun[1], Kyuhee Park[1], Joa Sub Oh[1,2*]
[1]*Bio Center, Gyeonggi Institute of Science & Technology Promotion,* [2]*College of Pharmacy, Dankook University*

PNB-106 **Anti-Alzheimer Effect of Compound from *Eisenia bicyclis* on Beta-Amlyoid Induced Toxcity in Neuroblast Cells**

Hee-Guk Byun[*], Jung Kwon Lee
Department of Marine Biotechnology, Gangneung-Wonju National University

PNB-107 **Purification and Idenfitication of β-secretase Inhibitor from Brown Algae, *Dictyota corlacea* Extract**

Yong-Jae Kim, Yong-Won Tak, Hee-Guk Byun*
Department of Marine Biotechnology, Gangneung-Wonju National University

PNB-108 **Neuroprotective effect of derivatative-chitoooligsaccharide in BV-2 cell line**

Jeong-Wook Choi, Ji-Yoon Lee
Department of Marine Biotechnology, Gangneung-Wonju National University

PNB-109′ **Parthenocissin A displaying a potent α-glucosidase inhibition from *parthenocissus tricuspidata***

Won Min Jeong, Yeong Hun Song, Soo Min Lee, Seung Heon Kong, Ki Hun Park*
Division of Applied Life Science (BK21 plus), IALS, Gyeongsang National University, Jinju 660-701, Republic of Korea

PNB-110 **Protrctive effects of kurarinone against *tert*-butyl hydroperoxide-induced hepatotoxicity in HepG2 Cells**

Sook Jahr Park[1], Sang Chan Kim[1], Jong Rok Lee[2*]
[1]Medical Research Center for Globalization of Herbal Formulation, College of Korean Medicine, Daegu Haany University, [2]Department of Pharmaceutical Engineering, Daegu Haany University

PNB-111′ **Identification of Components from Juice and Organic Solvent Extracts of Water Dropwort (*Oenanthe javanica* DC)**

Lee Hee Ju[1], Oh Sang-bin[1,2], Kim Sang Min[1*]
[1]Laboratory of Biomodulation, Natural Products Research Center, KIST Gangneung Institute of Natural Products, [2]Department of Marine biotechnology, Gangneung-Wonju National University

PNB-112 **Anti-inflammatory effects of fermented herbs in LPS-activated macrophage cells**

Sang Chan Kim[1], Jong Rok Lee[2], Gyu Pyo Noh[1], Sook Jahr Park[1*]
[1]Medical Research Center for Globalization of Herbal Formulation, College of Korean Medicine, Daegu Haany University, [2]Department of Pharmaceutical Engineering, Daegu Haany University

PNB-113′ **Anti-neutrophil potential of flavonoids from *Campylotropis hirtella* and their kinetic study**

Zuopeng Li, Xuefei Tan, Jeong Yoon Kim, Yeong Jun Ban, Ki Hun Park*
Division of Applied Life Science (BK21 plus), IALS, Gyeongsang National University, Jinju 660-701, Republic of Korea

PNB-114 **Antioxidant activity and Nitric oxide production inhibitory effect in LPS-induced RAW 264.7 Cells of *Rosa rugosa***

Li Nan, Hyeon Hwa Nam, Byung Kil Choo*
Department of Agriculture and Life Sciences, Chonbuk National University

PNB-115

Antioxidant activity and Nitric oxide production inhibitory effect in LPS-induced RAW 264.7 Cells of *Astilbe koreana*

Hyeon Haw Nam, Byung Kil Choo*
Department of Agriculture and Life Sciences, Chonbuk National University

PNB-116

Antioxidant activity and Nitric oxide production inhibitory effect in LPS-induced RAW 264.7 Cells of *Sanguisorba tenuifolia*

Hyeon Hwa Nam, Byung Kil Choo*
Department of Agriculture and Life Sciences, Chonbuk National University

PNB-117′

Isolation of neutrophils elastase inhibitory alkaloids from *Chelidonium majus L*

Jeong Yoon Kim, Xuefei Tan, Yeong Hun Song, Su Bin Kim, Ki Hun Park*
Division of Applied Life Science (BK21 plus), IALS, Gyeongsang National University, Jinju 660-701, Republic of Korea

PNB-118

Antioxidant activity and Nitric oxide production inhibitory effect in LPS-induced RAW 264.7 Cells of *Sanguisorba longifolia*

Hyeon Hwa Nam, Byung Kil Choo*
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PNB-119

Antioxidant activity and Nitric oxide production inhibitory effect in LPS-induced RAW 264.7 Cells of *Viburnum opulus var. calvescens*

Hyeon Hwa Nam, Byung Kil Choo*
Department of Agriculture and Life Sciences, Chonbuk National University

PNB-120

A Lipidomic Platform Establishment for Structural Identification of Skin Ceramides with α-Hydroxyacyl Chains

Kwang-Hyeon Liu*, Zhexue Wu, Jong Cheol Shon, Jung-Hoon Shin
College of Pharmacy and Research Institutes of Pharmaceutical Sciences, Kyungpook National University

PNB-121

In Vitro Metabolism of an Estrogen-elated Receptor g Modulator, GSK5182

Kwang-Hyeon Liu*, Jeongmin Joo, Zhexue Wu, Jong Cheol Shon, Taeho Lee
College of Pharmacy and Research Institute of Pharmaceutical Sciences, Kyungpook National University

PNB-122

Danazol Inhibits CYP2J2 Activity in a Substrate Independent Manner

Kwang-Hyeon Liu*, Eunyoung Lee, Chaegu Lim
College of Pharmacy and Research Institute of Pharmaceutical Sciences, Kyungpook National University

PNB-123

Development of screening method for five cytochrome P450 and four UGT enzyme activities using liquid chromatography-tandem mass spectrometry

Kwang-Hyeon Liu*, Boram Lee, Hyeon-Kyeong Ji, Taeho Lee

College of Pharmacy and Research Institute of Pharmaceutical Sciences, Kyungpook National University

PNB-124

CYP2J2 Inhibitor Screening from 240 Natural Compounds using Human Liver Microsomes

Kwang-Hyeon Liu*, Nguyen Minh Phuc, Eunyoung Lee, Zhexue Wu

College of Pharmacy and Research Institute of Pharmaceutical Sciences, Kyungpook National University

PNB-125

Lipidomic approach to evaluate the neutricosmetical effect of borage oil on coconuut oil diet-induced epidermal hyperproliferation in guinea pig skin

Kwang-Hyeon Liu[1*], Jong Cheol Shon[1], Choong Hwan Lee[2], Jae Sung Hwang[3], Yunhi Cho[4]

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PNB-126

Skin lipidotyping from db/db and control mice using direct-infusion nanoelectrospray-tandem mass spectrometry

Kwang-Hyeon Liu[1*], Jong Cheol Shon[1], Eung Ho Choi[2]

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PNB-127

Inhibitor complexed structure of xoo1075, a peptide defromylase from *xanthomonas oryzae* pv. *Oryzae*

Ho-Phuong-Thuy Ngo[1], Myoungki Hong[1], Jeong-Gu Kim[2], Byoung-Moo Lee[2], Yeh-Jin Ahn[3*], Lin-Woo Kang[1*]

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PNB-128

Ascorbyl coumarates inhibit melanogenesis in human epidermal melanocytes and enhance collagen synthesis in human dermal fibroblasts

Jun Yup Kwak, Yong Chool Boo*

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PNB-129

Natural Polymers for Hydrogel Mask Packs

Hyang-Yeol Lee*

Department of Biotechnology, Korea National University of Transportation

PNB-130′

Aurantio-obtusin isolated from *Cassia tora* Inhibits UVB-induced MMP Expression and Promotes Type-1 Procollagen Production through Estrogen Receptor Activation in HaCaT Cells and Human Dermal fibroblasts

Eui Jeong Nam, Ahmad Randy, Myungsuk Kim, Young Gyun Park, Chu Won Nho*
Natural Products Research Center, Korea Institute of Science and Technology

PNB-131

The branches of *Hovenia dulcis Thunb. inhibit 2,4-dinitrochlorobenzene-induced atopic dermatitis-like skin lesions in NC/Nga mice and TNF-α/IFN-γ-induced chemokine activation in HaCaT cells*

Sue Ji Lim, Ahmad Randy, Eui Jeong Nam, Myungsuk Kim, Chu Won Nho*
Natural Products Research Center, Korea Institute of Science and Technology

PNB-132′

Mosquito larvicidal activities of constituents from Piper nigrum and P. longum against Culex pipiens larvae

In-Kyung Bae, Eun-Sil Park, Sung-Eun Lee*
School of Applied Biosciences, Kyungpook National University, Daegu 702-701, Korea

PNB-133

Integrated skin, serum, and liver metabolome from ultraviolet B-exposed and green tea-administrated mice

Eun Sung Jung[1], Hye Min Park[1], Seung Min Hyun[2], Jae Sung Hwang[2], Choong Hwan Lee[1*]
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PNB-134

Urine and Serum Metabolite Profiling of Rats Fed a High-Fat Diet and the Anti-Obesity Effects of Caffeine Consumption

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PNB-135

Metabolite Profiling of Lespedeza maximowiczii During the Growth Period and Correlation with Tyrosinase Inhibitory Activity

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PNB-136

Topical Application of Baby- and Adult-Aloe on Ultraviolet B Irradiated Mouse Skin with Metabolite Profiling

Hey Min Park[1], Eunjung Moon[2], Sarah Lee[3], Sun Yeou Kim[2], Seon-Gil Do[4], Jinwan Kim[4], Kwang Hyeon Liu[5], Choong Hwan Lee[1*]
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PNB-137′

Evaluation of Biological activities of *Nigella sativa* L.

Ga Hee Jang[1,2], Dong Jin Lee[2*], Seon Young Im[2], Jung Bong Kim[1], Heon Wong Kim[1], Min Ki Lee[1], Jae Hyeong Shin[1], A Ram Bak[1], So Young Jeong[1]

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PNB-138′

Identification of 17 methoxyflavone glycosides from Korean spinach (*Spinacia oleracea* L.) using UPLC-DAD-QTOF/MS

Heon Woong Kim, Jae Hyeong Shin, Min Ki Lee, Ga Hee Jang, Jin Sook Kim, Sung Hyun Lee, Hwan Hee Jang, Jeong Sook Choe, Jung Bong Kim*

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PNB-139′

Identification and quantification of anthocyanins in highbush blueberry (*Vaccinium corymbosum* L.) varieties

Min Ki Lee, Heon Woong Kim, Jae Hyeong Shin, Ga Hee Jang, Hyung Jin Baek, Ho Cheol Ko, Jung Bong Kim*

National Academy of Agricultural Science, Rural Development Adinistration, 166, Nongsaengmyeong-ro, Iseo-myeon, Wanju-gun, Jeollabuk-do

PNB-140′

Estimation of Flavonoid Compositions and in edible Korean fatsia shoots (*Aralia elata* Seem) by UPLC/ToF/MS

Jae Hyeong Shin, Heon Woong Kim, Min Ki Lee, Ga Hee Jang, Yu Jin Hwang, Sung Hyun Lee, Hwan Hee Jang, Jung Bong Kim*

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PNB-141′

Detail characterization of lipid alterations in the autophagic cell death of cancer cells

Jae-Won Lee[1], Haruka Shinohara[2], Yukihiro Akao[2], Kwang-Pyo Kim[3], Geum-Soog Kim[1], Seung-Eun Lee[1], Young-Sup Ahn[1], Nam-In Baek[4], Dae-Young Lee[1*]

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PNB-142

Metabolite profiling of saponins in different parts of Panax notoginseng using UPLC-QTOF-MS

Yuan Qu, Hyung Won Ryu, Hyuk-Hwan Song, Heung Joo Yuk, Ju Hyeon An, Doo-Young Kim, Sei-Ryang Oh*

Natural Medicine Research Center, Korea Research Institute of Bioscience &Biotechnology

PNB-143′

Aqueous extraction of citrus unshiu peel induces pro-angiogenic effects via the FAK and ERK1/2 signaling pathway in human umbilical vein endothelial cells

Jungwhoi Lee[1], Song-I Han[1], Dong-Shik Yang[1], Jeong Hun Yun[1], Il-Woong Kim[1], Jae Hoon Kim[1,2*]

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PNB-144′

Quercetin 3-O-glucoside suppresses epidermal growth factor-induced migration by inhibiting EGFR signaling in pancreatic cancer cells

Jungwhoi Lee[1], Song-I Han[1], Jeong-Hun Yun[1], Jae Hoon Kim[1,2*]

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PNB-145′

Kaempferol inhibits the migration and growth of human pancreatic cancers through ERK1/2 and AKT pathway

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PNB-146′

Comparison of major secondary metabolite in *Curcuma longa* growth in different locations of Korea and Malaysia

Dae Wook Kim[1], Woo Hyun Sim[2], Chi Yeol Park[3], Kyeong Yeol Oh[4], Byoung Sub Ko[1*]

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PNB-147′

Phenolic compounds from *Loranthus tanakae*

Eun-Ji Oh, Kyoung-Hwa Seo, Nam-In Baek[*]

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PNB-148′

Antibacterial activity and Scanning Electron Microscope (SEM) treated with *Caesalpinia sappan* (Fang) extract

Parichat Phalanisong[1,2,3], Kanit Vichitphan[2,3*], Jaehong Han[4], Sukanda Vichitphan[2,3]

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PNB-149′ **The extract of Mongolian traditional plants inhibit TNF-α-and IFN-γ-induced expression of chemokines and cytokines in human keratinocytes**

Myungsuk Kim, Sue Ji Lim, Ahmad Randy, Chu Won Nho*
Natural Products Research Center, Korea Institute of Science and Technology

PNB-150′ **Identification and Quantification of Polyphenol Profiles from Barley Sprouts at Different Growth Stages and Investigation of Their Antioxidative effects**

Woo Duck Seo[1*], Mi-Jin Park[2], Kyung Hye Seo[1], Mi-Ja Lee[1], Hyeon Jung Kang[1], Kwang-Sik Lee[1], Song-Min Oh[1], Young-Hwa Kang[2], Sun Lim Kim[1]
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PES Environmental Sciences

PES-1′ **Light-Emitting Diodes as Potential Attractant for *Tyrophagus putrescentiae* Adults in Y-Maze Chamber**

Jun-Hwan Park[1], Ji-Yeon Cheon[1], Yejin Lee[1], Ye-Jin Jeon[1], Hoi-Seon Lee[1], In-Deak Kim[2], Sang-Hoon Kim[2*]
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PES-2′ **Phototactic Behavior 7: Phototactic Responses of Maize Weevil (*Sitotroga zeamais* motsch) to Light Emitting Diodes**

Jaeun Song, Hoi-Seon Lee*
Department of Bioenvironmental Chemistry, College of Agriculture & Life Sciences, Chonbuk National University, Jeonju 561-756, Korea

PES-3′ **Phototactic Behavior 8: Phototactic Behavioral Responses of Western Flower Thrips to Light-Emitting Diodes**

Jaeun Song, Hoi-Seon Lee*
Department of Bioenvironmental Chemistry, College of Agriculture & Life Sciences, Chonbuk National University, Jeonju 561-756, Korea

PES-4′ **Phototactic Responses of *Sitotroga cerealella* Adults to Six Light Emitting Diode Monochromatic Lights**

Jaeun Song, Hoi-Seon Lee*
Department of Bioenvironmental Chemistry, College of Agriculture & Life Sciences, Chonbuk National University, Jeonju 561-756, Korea

PES-5 **Evaluation of Detection Frequency and Concentration Using Simultaneous Analysis Method by**

GC-MS

Sunhwa Park*, Hyun-Koo Kim, Sang-Ho Jeon, Da-Hee Song, Deok-Hyun Kim, Moon-Su Kim, Hyoung-Seop Kim, Tae-Seung Kim
National Institute of Environmental Research, Soil and Groundwater Research Division

PES-6

Monitoring Ammonia and Boron in Groundwater, South Korea and Evaluation of Human Risk

Sunhwa Park*, Hyun-Koo Kim, Da-Hee Song, Sang-Ho Jeon, Deok-Hyun Kim, Moon-Su Kim, Hyoung-Seop Kim, Tae-Seung Kim
National Institute of Environmental Research, Soil and Groundwater Research Division

PES-7

Thermal stability of perfluorooctanesulfonic acid during biochar preparation

Jin Hyo Kim*, Geun-Hyoung Choi, Byong-Jun Park
Chemical Safety Division, National Academy of Agricultural Science, RDA

PES-8

Stability of the insecticidal active ingredient in neem biopesticide in soil and water environment

Jin Hyo Kim*, Geun-Hyoung Choi, Byong-Jun Park
Chemical Safety Division, National Academy of Agricultural Science, RDA

PES-9

Stability of the insecticidal active ingredient in Sophora flavescens biopesticide in soil and water environment

Jin Hyo Kim*, Geun-Hyoung Choi, Byong-Jun Park
Chemical Safety Division, National Academy of Agricultural Science, RDA

PES-10

Establishment of Pre-Harvest Residue Limit (PHRL) of Acequinocyl and Hydroxyacequinocyl on Plum during cultivation

Kyu-Won Hwang[1], Hyeong-Wook Jo[2], Joon-Kwan Moon[1*]
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PES-11

Establishment of Pre-Harvest Residue Limit (PHRL) of Cyenopyrafen on Plum during cultivation

Kyu-Won Hwang[1], Hyeong-Wook Jo[2], Joon-Kwan Moon[1*]
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PES-12

Validation and Uncertainty Estimation for the Analysis of Nicotine in Cigarette Mainstream Smoke

Hyoung-Joon Park , So-Hyun Cho, Jin-Hee Lee , Chang-Yong Yoon, Jung-Ah Do, Seok Heo, Jeong Hwa Jo, Jih-Yun Lee, Soo-Yeul Cho, Sun-Young Baek*
Advanced Analysis Team, Ministry of Food and Drug Safety

PES-13

Risk Assessment and Evaluation of Drought-tolerant Transgenic Rice : Responses of Misgurnus anguillicaudatus and Cyprinus carpio Fed on Drought-tolerant Transgenic Rice Variety

Sung-Dug Oh[1], Sang Jae Suh[2], Doh-Won Yun[1], Soo-In Sohn[1], Hyun Suk Cho[1], Tae-Hun Ryu[1*]

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PES-14

Determination of Pesticide Residues in soil using with QuEChERS and GC-ECD

Taek Kyum Kim[*], Su Myung Hong, Hye Young Kwon, Nam-Jun Cho

Department of Agro-Food Safety/Chemical safety division, NAAS, RDA

PES-15

Physico-chemical properties of coir mediums with different particle ratio in *Capsicum annuum* L.

Jae Taek Lee[1*], Chi Seon Kim[1], Yun Hee Cho[1], Jong Suk Park[1], Yong Kyu Shin[1], Young Ju Song[2], Ji Hye Jang[1], Jong Hyang Bae[3]

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PES-16

Soil Microbial Diversity and Community Analysis in Organic Peach Orchard in southern province

Min-Gi Kim, Choong-Bae Park, Cho Rong Lee, Seung Gil Hong, Kwang Lai Park, Won-A Choi, Jin Ho Kim[*]

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PES-17

OsCYP21-4 is a novel Golgi resident cyclophilin and involved in environment stress tolerance by enhancing peroxidase enzyme activity in rice

Sang Sook Lee[1], Dae Hwa Yoon[2], Hyun Ji Park[1], Young Nim You[1], A Reum Lee[1], Won Yong Jeong[1], Beom-Gi Kim[3], Jun Cheul Ahn[4], Hye Sun Cho[1*]

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PES-18

Comparative transcriptome profiling of three phenotypic Jerusalem artichoke (*Helianthus tuberosus* L.) cultivars in response to abiotic stresse

Won Yong Jung[1,2], Sang Sook Lee[1], Chul Wook Kim[2], Hyun-Soon Kim[1], Jae-Heung Jeon[1], Hye Sun Cho[1*]

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PES-19

Comparison of Residual Characteristics of Fungicide Boscalid in Water Dropwort and Perilla Leaf

Sang-Oh Jeon[1], Jeong-In Hwang[1], Sang-Hyeob Lee[1], Min-Su Kang[1], Hye-Hyun Jeong[1], Kee-Sung Kyung[2],

Tae-Hwa Kim[3], Dong-Sool Kim[4], Yeong-Uk Son[4], Chan-Hyeok Kwon[4], Jang-Eok Kim[1*]
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PES-20

Residual Behavior of Flonicamid and its Metabolites in Pepper (*Capsicum annuum*) Plant using Liquid Chromatography – Tandem Mass Spectrometry

Dong Yeol Lee[1,2], Dong Kyu Jeong[1], Kyu Young Kang[1,2*]
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PES-21

Dissipation and Residual Behavior of Chlorfenapyr in Persimmon (*Diospyros kaki Thumb.*) Fruit and Leaf using Gas Chromatography-Electron Capture Detector

Dong Kyu Jeong[1], Dong Yeol Lee[1,2], Kyu Young Kang[1,2*]
[1]Divisoin of Applied Life Science (BK21 Plus), Gyeongsang National University, Jinju 660-701, Korea, [2]Institute of Agriculture and Life Science, Gyeongsang National University, Jinju 660-701, Korea

PES-22

Establishment of Pre-Harvest Residue Limit(PHRL) of Insecticide Lepimectin during Cultivation of Korean Cabbage

Young Seock Song[1], Dong Kyu Jeong[2], Dong Yeol Lee[2,3], Kyu Young Kang[1,2,3*]
[1]Department of Appied Life Chemistry, Gyeongsang National University, Jinju 660-701, Korea, [2]Divisoin of Applied Life Science (BK21 Plus), Gyeongsang National University, Jinju 660-701, Korea, [3]Institute of Agriculture and Life Science, Gyeongsang National University, Jinju, 660-701, Korea

PES-23

Determination of Simultaneous Analysis of Spirotetramat and Its Metabolite in Korean Cabbage using LC-MS/MS

I Je Jo[1], Dong Kyu Jeong[2], Dong Yeol Lee[3,4], Kyu Young Kang[1,3,5*]
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PES-24

Establishment of Pre-Harvest Residue Limit(PHRL) of Insecticide Fluopicolide during Cultivation of Korean Cabbage

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PES-25′

Changes of EC during desalinization of reclaimed tideland soil

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PES-26′

Changes of hydraulic conductivity during desalinization of reclaimed tideland soil

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PES-27′

Changes of ESP during desalinization of reclaimed tideland soil

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PES-28′

Changes of pH during desalinization of reclaimed tideland soil

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PES-29′

Estimation of leaching requirement water during desalinization of reclaimed tideland soil

Jae Young Cho[1*], Jae Gwon Son[2], Gi Hwan Cho[3], Jae Do Song[2], Won Tae Shin[1]
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PES-30′

Reuse of hydroponic waste solution

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PES-31′

Compost characteristics of cow dung treated with composting beneficial microorganism

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PES-32

Properties of abiogenic/biogenic Fe minerals and their potential for natural attenuation of As

Jin Hee Park*
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PES-33′

Chemical composition of hydroponic waste solution

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PES-34

Dissipation pattern of Diflubenzuron on Cucumber during Cultivation

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PES-35

Dissipation pattern of Diflubenzuron on Spring Onion during Cultivation

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PES-36′

Adsorption of arsenic onto biogenic iron oxides formed from the anaerobic biogenic nitrite-driven iron oxidation by *Paracoccus denitrificans*

Sunhwa Park[1], Youri Yang[1], Taeyang Kim[2], Jisoo Lee[1], Hor-Gil Hur[1*]
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PES-37

Understanding Phytoavailability of Soil Contaminants for Risk Assessment of Contaminated Sites

Rog-Young Kim[1], Jeong-Ki Yoon[1], Ji In Kim[1], Tae-Seung Kim[1*], Kwon-Rae Kim[2]
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PES-38′

Monitoring and Current Status of Pesticide-Originated Persistent Organic Pollutants in Agricultural Environments in Chungchung Province

Hwang-Ju Jeon[1], Bonhwa Ku[2], Eun-Sil Park[1], In-Kyung Bae[1], Young-Sun Moon[1], Sung-Eun Lee[1*]
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PES-39′

Monitoring Persistent Organic Pollutants in Agricultural Environments in Gyeonggi Province

Hwang-Ju Jeon[1], Bonhwa Ku[2], Eun-Sil Park[1], In-Kyung Bae[1], Young-Sun Moon[1], Sung-Eun Lee[1*]
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PES-40′

Chlorpyrifos-induced toxicities on zebrafish (*Danio rerio*)

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PES-41

iTRAQ-based proteomics approach to find potential marker proteins, which is associated with preharvest sprouting tolerance in wheat

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PFS Food Sciences

PFS-1

Phenolics Profiling of Rice using Gas Chromatography-time-of-flight Mass Spectrometry

Soo-Yun Park[1], Jae Kwang Kim[2], So Young Lee[1], Seonwoo Oh[1], Si Myung Lee[1], Yunsoo Yeo[1*]
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PFS-2

Environmental Impact and Nutritional Quality Assessment of the Genetically Modified Rice and Its Non-transgenic Comparators

Yunsoo Yeo[1*], Soo-Yun Park[1], So Young Lee[1], Seonwoo Oh[1], Si Myung Lee[1], Jae Kwang Kim[2]
[1]National Academy of Agricultural Science, Rural Development Administration, [2]Division of Life Sciences, Incheon National University

PFS-3′

Comparison of reference standard plasmid and genomic DNA calibrators for quantification of genetically modified Roundup Ready Soybean

Saet-Byul Park, Jae-Hwan Kim, Hae-Yeong Kim*
Department of Food Science and Biotechnology, Kyung Hee University, Yongin, Korea

PFS-4′

Inhibition of Melanogenesis Synthesis of Seed Oil from *Ginkgo biloba*

Yoonsuk Kim, Jaeyoung Kim, Yonghwa Lee, Yongsub Yi*
Department of Herbal Cosmetic Science, Hoseo University

PFS-5

Comparative analysis of nutritional composition of resveratrol-enriched rice with stilbene synthase gene and its non-transgenic counterpart

Min Sung Kim[1], Seung-A Baek[1], So-Hyeon Baek[2], Soon-Jong Kweon[2], Yunsoo Yeo[3], Soo-Yun Park[3], Sung-Dug Oh[3], Tae-Hun Ryu[3], Kyung-Hoan Im[1], Jae Kwang Kim[1*]

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PFS-6

Multiplex PCR system for screening of genetically modified maize events

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PFS-7

Metabolite Profiling of Soybean Fermented by *Bacillus subtilis* with/without *Lonicera caerulea* and *Cudrania tricuspidata* for Enhancing Bioacitivity

Dong Ho Suh[1], Sarah Lee[2], Gayoung Jung[3], Seon-Gil Do[3], Yang Hee Jo[4], Mi Kyeong Lee[4], Choong Hwan Lee[1*]
[1]*Bioscience and Biotechnology, Konkuk University,* [2]*Biological and Genetic Resources Assessment Division, National Institute of Biological Resources,* [3]*Wellness R&D center, Univera,* [4]*College of Pharmacy, Chungbuk National University*

PFS-8′

Evaluation of cholesterol-lowering activity of probiotic *Pediococcus pentosaceus* strain KID7: an *in vitro* findings and *in vivo* studies

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PFS-9′

Functional probiotic characterization of lactic acid bacteria isolated from fermented radish and their anti-adherence activity against intestinal pathogens

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PFS-10

Effect of low temperature on ethanolic fermentation in Korean traditional Yakju

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PFS-11′

Preparation of *Panax ginseng* extract enriched with ginsenoside Rd using a combination of enzyme treatment and high hydrostatic pressure

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PFS-12

Construction of a LC-Q-TOF-MS Library for Screening of 25 Obesity control drugs in Dietary Supplements

Jung-Ah Do, Eunyoung Noh, Soon Byung Yoon, Sung-Kwan Park, Hyoung-Joon Park, Seok Heo, Jeong-Hwa Cho, Ji-Hyun Lee, Chang-Yong Yoon, Soo-Yeul Cho, Sun-Young Baek*
Advanced Analysis Team, Ministry of Food and Drug Safety

PFS-13′

Fermentation of *Sorghum bicolor* (L.) Moench with *Lactobacillus brevis* strain GODL1 increases quercetin and kaempferol contents

Jungeun Kim[1,2], Sung-Kwon Lee[2], A Rom Geum[1,2], Karthiyaini Damodharan[2,3], Seung Hwan Yang[1,2*], Joo-Won Suh[2,3*]
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PFS-14

Increasing of antioxidant activities and the phenolic acid contents via fermentation with lactic acid bacteria

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PFS-15′

Evaluation of textural and sensorial characteristics of peppermint oil-loaded calcium-alginate macrocapsules

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PFS-16

Anti-tumor, anti-inflammatory, antioxidant activity screening of extracts from subtropical vegetables grown in Korea

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PFS-17

Anti-Inflammatory Effect of Ethanolic Extract from *Zostera marina* in LPS-Stimulated RAW 264.7 Cells

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PFS-18

Development and validation of an ultra-performance liquid chromatography for simultaneous analysis of 28 narcotic drugs in dietary supplements

Seok Heo, Ji Yeon Choi, Geum Joo Yoo, Hyoung-Joon Park, Jung-Ah Do, Jeong-Hwa Cho, Ji Hyun Lee, Chang-Yong Yoon, Sung-Kwan Park, Soo Yeul Cho, Sun Young Baek[*]

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PFS-19

Development and validation of LC-MS/MS and Q-TOF/MS method for three aconitum alkaloids in food

Jeong- Hwa Cho, Ji Yeon Choi, Hyoung-Joon Park, Jung-Ah Do, Seok Heo, Ji Hyun Lee, Sooyeul Cho, Chang-Yong Yoon, Sung-Kwan Park , Sun Young Baek[*]

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PFS-20′

Investigation of Factors Which Cause Allergic Problems in Domestic and Imported International Wheat Species, and Comparison of Their Characteristics

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PFS-21

Comparative proteomic analyses in artificially aged *Glycine max* seeds and whey

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PFS-22

Metabolite Profiling of Three Types of Garlic Added *Cheonggukjang* (fermented soybean paste)

and Its Correlation with Bioactivities

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PFS-23

Primary and Secondary Metabolite Profiling of Korean Fermented Red Pepper Paste (*gochujang*) according to Industrial Manufacturing Process

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PFS-24

The effect of pre-fermentation periods on preventing pressure build-up/volume expansion of Kimchi packages

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PFS-25

MS-based metabolomic analysis of industrial *gochujang* (Korean fermented red pepper paste) containing different kinds of raw material

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PFS-26

Identification and Quantification of Carotenoids in Paprika Fruits and Cabbage, Kale, and Lettuce Leaves

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PFS-27

Metabolite Profiling of the *Lonicera caerulea* Fruits during Ripening and Its Relationship with Antioxidant Activity

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PFS-28′

Polymethoxy flavonoids ameliorate ethanol-induced liver injury through modulation of AMPK and Nrf2-related signals in binge drinking mice model

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PFS-29′

Bioavailability Investigation of Fucoxanthin Contained in Milk Products and Orange Juice : In Vitro Simulated Digestion and Caco-2 Assays

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PFS-30

A Survey on GMO recognition of the members of Korean national assembly

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PFS-31′

Effect of Magnolia Flower Extracts on Obesity Mice: Hepatotoxicity and Antioxidant Capacity

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PFS-32

Interpretation for Monitoring Results of Residual Pesticides in Leafy Vegetables

Sang-Hyeob Lee[1], Jeong-In Hwang[1], Sang-Oh Jeon[1], Min-Su Kang[1], Hye-Hyun Jeong[1], Han-Sub Jang[2], Jang-Eok Kim[1*]

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PFS-33

A comparison of antioxidant activity from *Angelica gigas* water extracts depending on stir-frying and stir-frying with liquids process

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PFS-34

A comparison of antioxidant activity from *Lycium chinense* water extracts depending on stir-frying and stir-frying with liquids process

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PFS-35

Reference standard plasmids for detecting genetically modified maize

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PFS-36

Comparison of electrospray ionization (ESI) and atmospheric chemical ionization (APCI) for the liquid chromatography-tandem mass spectrometry (LC-MS/MS) analysis of cholesteryl esters

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PFS-37

Optimization and validation of HRLC-MS method to identify and quantify triacylglycerols in human milk

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PFS-38

Non-targeted Metabolite Profiling of Hot Pepper (*Capsicum annuum L.*) Fruit Development

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PFS-39

Comprehensive Metabolic Profiles of *Doenjang* between Existing Industrial Process and Time Reduced Industrial Process

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