Symposium Program

Food, Agriculture and Nutrition [FAN]

Symposium Chair: Hee-Yong Kim (NIH)
Co-Chairs: Sung Woo Kim (North Carolina State University); Eunok Choe (Inha University)

August 7, Thursday
8:00 pm – 9:40 am, Sandpebble E Room

FAN-1 Session: Molecular and Biochemical Nutrition
Chair: Kee-Hong Kim (Purdue University)
Co-chair: Seong-Ho Lee (University of Maryland)

1. 8:00 AM (FAN-1) Keynote Talk Molecular Mechanisms of Omega-3 Fatty Acids in Brain Development and Neuroprotection, Hee-Yong Kim (NIH)
2. 8:30 AM (FAN-2) Invited Talk Role of Advanced Glycation End-Products (AGEs)/Receptor for AGEs (RAGE) Axis in Adipocyte Differentiation, Chih-Yu Chen, Allison M. Abell, Yangsoo Moon, Kee-Hong Kim (Purdue University)
3. 9:00 AM (FAN-3) Invited Talk Intestinal microbiota of mice with defect in tryptophan metabolism, Jihee Shin, Woo Jeong Son, Dong-Mi Shin (Seoul National University, Korea)

August 7, Thursday
1:30 pm – 3:30 pm, Sandpebble E Room

FAN-2 Session: Plant Agriculture: New Trends and Innovations
Chair: Chiwon W. Lee (North Dakota University)
Co-chair: Ka Yeon Jung (The Scotts Miracle-Gro Company)

1. 1:30 PM (FAN-5) Invited Talk Enhancement of nutritional composition of vegetables by hydroponic culture, Chiwon W. Lee (North Dakota State University)
2. 1:50 PM (FAN-6) Invited Talk Sustainable Production Systems in Plant Agriculture Hye-Ji Kim (University of Hawaii)
3. 2:10 PM (FAN-7) Invited Talk Development of Useful Plant Fertilizers from Livestock Waste Materials, Myung Gyu Lee and Soo Ryang Kim (Sangji University)
4. 2:30 PM (FAN-8) Invited Talk Roles of Horticultural Industry in Enhancing Life Quality, Ka Yeon Jeong (The Scotts Miracle-Gro Company)
5. 2:50 PM (FAN-9) Invited Talk Global Changes and Geographical Approaches to Find Resilience In A Korean Agroecosystem, Yooinn Hong (Penn State University)
6. 3:10 PM (FAN-10) Invited Talk Plant-endophyte Symbiosis as a Means for Adapting Crops to Climate Change, Hyungmin "Tony" Rho, Sharon L. Doty, and Soo-Hyung Kim (University of Washington)

August 7, Thursday
4:00 pm – 6:00 pm, Sandpebble E Room
FAN-3 Session: Nutrition Policy and Diet Recommendation
Chair: Namsoo Chang (Ewha Womans University)
Co-Chair: Jung Sun Lee (University of Georgia)

1. 4:00 PM (FAN-11) Invited Talk Nutrition Policy in South Korea: Current Situation and Future Perspective, Namsoo Chang (Ewha Womans University)
2. 4:20 PM (FAN-12) Invited Talk Development of Dietary Reference Intakes for Koreans, Youn-Ok Cho (Dukswng Women’s University)
3. 4:40 PM (FAN-13) Invited Talk Changes in Eating Habits and Incidence of Diet-related Cancers in Korea, Haeng-Shin Lee (Korea Health Industry Development Institute), Jee-Young Yeon, Min-Ji Song, Yoon-Hee Lee, and Mi-Kyung Sung (Sookmyung Women’s University)
4. 5:00 PM (FAN-14) Invited Talk Using Research to Improve Nutrition Programs and Policies for Older Adults: Experiences focusing on Food insecurity in Georgia, U.S., Jung Sun Lee (University of Georgia)
6. 5:40 PM (FAN-16) Invited Talk Food-water-climate linkage: Impact of extreme weather events on food safety, Jiyong Lee, Chongtao Ge, Cheonghoon Lee (The Ohio State University)

August 8, Friday
8:00 am – 9:40 am, Sandpebble E Room

FAN-4 Session: Clinical and Community Nutrition
Chair: Yeon Bai (Montclair State University)
Co-Chair: Sun-Ok Lee (University of Arkansas)

1. 8:00 AM (FAN-17) Invited Talk Trend in Beverage Consumption in U.S. Adults Between 2001 and 2010: Findings from NHANES, Ruoxue Yao, Sarah C. Couch, Jane C. Khoury, Seung-Yeon Lee (University of Cincinnati)
2. 8:20 AM (FAN-18) Invited Talk Veggiecation® within HealthCorps®: A Case of Mentor-Mentee Dynamics, Yeon Bai (Montclair State University)
3. 8:40 AM (FAN-19) Invited Talk Plasma Unmetabolized Folic Acid and the Risk of Colorectal Cancer, Eunyoung Cho (Brown University)
4. 9:00 AM (FAN-20) Invited Talk Effects of Sorghum Muffins on Blood Glucose and Insulin Responses in People with Prediabetes, Xuan Gu, Nicole Poquette, Sun-Ok Lee (University of Arkansas)
5. 9:20 AM (FAN-21) Invited Talk The Effects of Sansa Extract Compound-33 Supplementation on Growth Indices, Diet and Picky Eating Behaviors of Thin Preschool Children, Kijoon Kim, Joonsuk Lee, Jae Eun Shim, Bongha Ryu, Hee Young Paik (Seoul National University)

August 8, Friday
1:30 pm – 3:30 am, Sandpebble E Room

FAN-5 Session: Animal Agriculture and Nutrition
Chair: Byungrok Min (University of Maryland Easternshore)
Co-Chair: Woo Kyun Kim (University of Georgia)

1. 1:30 PM (FAN-22) Keynote Talk Functional Amino Acids in Animal Agriculture, Sung Woo Kim (North Carolina State University)
2. 2:00 PM (FAN-23) Invited Talk Phenolics and Antioxidant Capacities in Corn Distillers Grain Products from Fuel Ethanol Production, Byungrok Min and Daramola Adebola (University of Maryland Eastern Shore)
3. 2:20 PM (FAN-24) Invited Talk Prebiotics on Growth Performance, Intestinal Morphology, and
Immune Responses of Broiler Chickens, Woo Kyun Kim (University of Georgia)

4. 2:40 PM (FAN-25) **Invited Talk** Egg – The New Frontier, Dong Uk Ahn (Iowa State University)

5. 3:10 AM (FAN-26) **Invited Talk** Comparison between High hydrostatic Pressure Extract of Ginseng and Hot Water Extract of Ginseng on Obesity and Inflammation in Rats Fed a High-fat Diet, Sunyoon Jung, Mak-Soon Lee, Yoonjin Shin, Chong-Tai Kim, Yangha Kim (Ewha Womans University)

August 9, Saturday
8:00 am – 9:40 am, Sandpebble E Room

**FAN-6 Session: Food Safety and Regulation**
Chair: Huyng Hee Baek (Dankook University)
Co-chair: Haejung An (USFDA)

1. 8:00 AM (FAN-27) **Invited Talk** KORUS FTA and Its Impact on Trade in Food, Suk-Oh Kim (Korean Consulate General in Los Angeles)
2. 8:30 AM (FAN-28) **Invited Talk** Regulatory Screening of Chemical Contaminants for Imported Foods, Haejung An, USFDA
3. 8:50 AM (FAN-29) **Invited Talk** Modernization of Korea Food Additives Code, Hyung Hee Baek (Dankook University)
4. 9:10 AM (FAN-30) **Invited Talk** The Myth of Antioxidants, Chang Yong Lee (Cornell University)

August 9, Saturday
1:30 pm – 3:30 pm, Sandpebble E Room

**FAN-7 Session: Functional Foods**
Chair: Chu Won Nho (Korea Institute of Science and Technology)
Co-Chair: Hong-Sik Hwang (USDA)

1. 1:30 PM (FAN-31) **Invited Talk** Reduction of Lipid Oxidation by Formation of Caseinate-Oil-Oat Gum Emulsions, Sean X. Liu, Mukti Singh, Ashley Wayman, Hong-Sik Hwang, and Matthew Fahner (USDA, ARS, NCAUR)
2. 1:55 PM (FAN-32) **Invited Talk** The Potential Role of Functional Food on Eye Diseases, Sang Hoon Jung (Korea Institute of Science and Technology)
3. 2:20 PM (FAN-33) **Invited Talk** Developments and Functional Characterization of Various Pear Functional Products For Practical Application, Seung-Hee Nam (JARES) and Sun-Hee Yim (RDA)
4. 2:45 PM (FAN-34) **Invited Talk** Margarine and Spread Products with Oils Rich in Polyunsaturated Fatty Acid – Organogel Approach, Hong-Sik Hwang, Mukti Singh, Jill K. Winkler-Moser, Erica L. Bakota, and Sean X. Liu (USDA, ARS, NCAUR)
5. 3:10 PM (FAN-35) **Invited Talk** Effects of Relative Humidity on the Antioxidant Properties of lipophilic and hydrophilic compounds in Bulk Oils, Ji Young Kim, Mi-Ja Kim, Bora Yi, Sumi Oh, and JaeHwan Lee (Sungkyunkwan University)

August 9, Saturday
4:00 pm – 6:00 pm, Sandpebble E Room

**FAN-8 Session: Food Processing and Product Development**
Chair: Iksoon Kang (Michigan State University)
Co-Chair: Malshick Shin (Chonnam National University)

1. 4:00 PM (FAN-36) **Keynote Talk** Utilization of Antioxidants for the Improvement of Food Quality, Eunok Choe (Inha University)
2. 4:20 PM (FAN-37) **Invited Talk** Combination of Muscle Tension and Crust-freeze-air-chilling
Improved Efficacy of Air Chilling and Quality of Broiler Fillets, Iksoon Kang (Michigan State University)
3.  4:40 PM  (FAN-38) **Invited Talk** Preparation of Gluten-Free Rice Products using Newly Developed Rice Flour, Malshick Shin (Chonnam National University)
4.  5:00 PM  (FAN-39) **Invited Talk** Consumer Acceptance of *Sujeonggwa* by Cross-culture Consumers and Its Relationship to Flavor Profile, Jeehyun Lee, Hana Kim, and Yeong-Ok Song (Pusan National University)
5.  5:20 PM  (FAN-40) **Invited Talk** Strategy for New Food Product Development for 2030, JeanSoon Park (Procter & Gamble)
6.  5:40 PM  (FAN-41) **Invited Talk** Effect of Cycloamylose Inclusion Complexation on the Solubility and Stability of Fat-soluble Vitamins, Shin-Joung Rho and Yong-Ro Kim (Seoul National University)
FAN Poster Presentations:

1. (FAN-P1) Diet quality is not associated with adequate gestational weight gain, Dayeon Shin and Won O Song (Michigan State University)
2. (FAN-P2) Insulin resistance and lipid profile in diabetic adults with depression, Wookyong Kim, Dayeon Shin, SuJin Song and Won O. Song (Michigan State University)
3. (FAN-P3) Daily eating frequency is associated with diet quality and weight status in US adults, Won O Song and Dayeon Shin (Michigan State University)
4. (FAN-P4) Coping with Oxidative Stress: Transcriptome Analysis of Vibrio vulnificus Response to Oxidative Stress Using RNA-sequencing, Ye-Ji Bang, Hye-Rim Kim and Sang Ho Choi (Seoul National University)
5. (FAN-P5) Additive risks of metabolic syndrome by heavy alcohol consumption and smoking in Korean men, SuJin Song, Eun-Kyung Kim, Sooyoung Hong, Sangah Shin, YoonJu Song, Hyun Wook Baik, Hyojee Youn, Hee Young Paik (Seoul National University)
6. (FAN-P6) Identification and Subtyping of Cronobacter sakazakii in Food Commodities, Stephanie Horton, Muthusamy Manoharan and Jaheon Koo (University of Arkansas at Pine Bluff)
7. (FAN-P7) Functional and Physiochemical Properties of After-ripening Kiwi fruits, Seung-Hee Nam, Sun-Hee Yim, Jeong-Hwa Kang, Jong-Bang Eun, You Seok Lee, Bong-Yun Oh, Sun-Kyung Lee, Kil-Ja Kim, Kyung-Ju Jung and Kyong-Ju Choi (Food and Farm Management Institute, JARES)
9. (FAN-P9) Physiochemical Properties of Colorful Cowpea Varieties and Their Starch Qualification, Jeong-Hwa Kang, You Seok Lee, Seung-Hee Nam, Dong Kwan Kim, Sun-Kyung Lee, Bong-Yun Oh, Kyung-Ju Jung and Kyong-Ju Choi (Jellenamdo Agricultural Research and Extension Services)
10. (FAN-P10) Putrescine regulating by stress-responsive MAPK cascade contributes to bacterial pathogen defense in Arabidopsis, Su-Hyun Kim, Seung-Hee Nam, Baik Ho Cho and Kwang-Yeol Yang (Chonnam National University)
12. (FAN-P12) Effects of high-pressure treatment on the inactivation of microorganisms in milk and the alleviation, Jieun Lee, Eun-Ji Choi, Sun Young Park, Ga Young Jeon, Ja-Young Jang, Tae-Woon Kim, Jong-Hee Lee, Hae Woong Park, Hyun Ju Kim, Jung Tae Jeon and Hak-Jong Choi (World Institute of Kimchi)
13. (FAN-P13) Reuse Technology of Baechu (Kimchi cabbage) Salting Brine, Eung Soo Han, Eun Jin Seo, Jung Pyo Ryu and Young Bae Chung (World Institute of Kimchi An annex of Korea Food Research Institute)
14. (FAN-P14) Optimum Brewing Condition for Korean Alcoholic Beverages with Various Pichia sp., Ji-Ho Choi, Soo-Hwan Yeo, Seok-Tae Jeong, Ji-Hye Park, Han Seok Kim, Ji-Eun Kim and Nam-Jeong Kim (NAAS, RDA)
15. (FAN-P15) Effect of Puffing Conditions on Physiochemical Characteristics of Puffed Millet Cake with Rice, Jisu Kang, Fu-hung Hsieh and Jong-Bang Eun (Chonnam National University)
16. (FAN-P16) Physicochemical properties and antioxidative activity of pear juices from 10 different cultivars of Asian pears from Korea, Gui-Hun Jiang and Jong-Bang Eun (Chonnam National University)
17. (FAN-P17) Enhancing lettuce productivity while suppressing biofilm growth in a windowfarm system using Pseudom, Seunjun Lee, Chongtao Ge, Zuzana Bohrerova, Parwinder S. Grewal, Jiyoung Lee (The Ohio State University)
18. (FAN-P18) Integron Profiles in Multi Drug Resistant Escherichia coli Isolated from Swine, Minyoung Lee and Yeonhee Lee (Seoul Women’s University)
19. (FAN-P19) Analysis of Flavor and Taste of Coffee Beans using Electronic Nose and Tongue, Yeon-Soo Suh, Seung-Heon Lee and Won Jong Lee (Gangneung-Wonju National University)
21. (FAN-P21) Anti-inflammatory Effect of Ginseng Berry Extracts by Solvent Fraction in LPS-induced RAW 264.7 Cells, Ka-Soon Lee, Gwan-Hou Kim, Sox-Su Lee, Bong-Jae Seong, Sun-Ick Kim, Seung-Ho Han, Young-Choon Yoo, Eun-Ju Kang, Hye Yang and Gyu-hee Lee (Konyang University)

22. (FAN-P22) Comparison of component and anti-inflammatory effect of root, leaf, flower stalk and berry of ginseng, Ka-Soon Lee, Gwan-Hou Kim, Sox-Su Lee, Bong-Jae Seong, Sun-Ick Kim, Seung-Ho Han, Young-Choon Yoo, Eun-Ju Kang, Hye Yang and Gyu-hee Lee (Konyang University)

23. (FAN-P23) Genome-wide association study for the interaction between BMR and BMI in Korean obese females, Jung Ran Choi, Dae Young Kwon, Myung-Sunny Kim, Hye-Jin Park, JooHyun Jung and Myoungsook Lee (Sungshin Women’s University)

24. (FAN-P24) Caffeine suppress LPS induced inflammation through regulating nuclear translocation of NF-κB and MAPK phosphorylation in murine macrophages, Ji-Hyun Hwang, Su-Jung Ryu, Hyeon-Son Choi and Boo-yong Lee (Korea University College of Health Science)

25. (FAN-P25) Kaempferol suppresses adipogenesis in 3T3-L1 adipocyte and obesity, Yeon-Joo Lee, Min-Jung Seo, Hui-Jeon Jeon, Hyeon-Son Choi and Boo-Yong Lee (CHA University)

26. (FAN-P26) Health-promoting substances in germinated brown rice, Seung-Taik Lim and Dong-Hwa Cho (Korea University)

27. (FAN-P27) Research on food-grade lubricants used in processing machines and packaging materials, Minkyong Lee, Suhyun Lee, Jieun Song, Minhae Lee, Jiyong Park, Jaemyong. Oh, Dongwoo, Shin, Sohee, Kim and Youngsik Park (Korea University Functional Food Research Center)

28. (FAN-28) Inhibitory effects of Ecdysterone from Achyranthes Radix on osteoclast differentiation, Kyoung-Sun Park, Chang-Hoon Lee, Kyung-Sub Lee and Jin Moo Lee (Kyung Hee University)

29. (FAN-P29) Ursolic acid from Prunella vulgaris inhibits osteoclastogenesis, Ja-Kyung Heo, Jin-Moo Lee, Chang-Hoon Lee and Kyung Sub Lee (Kyung Hee University)

30. (FAN-P30) Proteolysis and Digestibility of Textured Soy Proteins after Their Treatment with Proteolytic Enzymes, Jeong Ah Lim, Min Kyoung Lee and Sook Young Lee (Chung-Ang University)

31. (FAN-P31) Texture and Digestibility of the Modified Tofu Developed for the Elderly by Subjecting to a Freeze/Thaw Cycle, Followed by Proteolysis, Min Kyoung Lee and Sook Young Lee (Chung-Ang University)

32. (FAN-P32) Cytotoxic and antigenotoxic activities of phosvitin from egg yolk, SunHee Moon, Jae Hoon Lee, Dong Uk Ahn and Hyun-Dong Paik (Iowa State University)

33. (FAN-P33) Bitter melon improves glycemic control and attenuates inflammation in a rat model of obesity and type 2 diabetes, Eugene Chang, Jung Mook Choi, Lisa Kim and Cheol-Young Park (Ewha Womans University and Sungkyunkwan University School of Medicine)

34. (FAN-P34) Inhibition of mTORC1 activity by natural ingredient of Ignatius beans, Boohyeong Byun (Daegu Haany University) and Cheol O Joe (Korea Advanced Institute of Science and Technology)