

2018 AOCs Annual Meeting & Expo

May 6–9 | Minneapolis Convention Center | Minneapolis, Minnesota, USA



Health and Nutrition (H&N) Interest Area Tentative Technical Program

As of January 3, 2018

This presentation list is not final and is subject to change.

The presenter is the first author, or the author indicated with an asterisk ().*

Monday Afternoon

H&N 1 / PHO 1: Emerging Bioactives and Health Impacts

Chairs: Eileen Bailey Hall, DSM Nutritional Products, USA; and Xiaosan Wang, Jiangnan University, China

Arachidonic Acid has Anti-diabetic Actions. Gundala K. Naveen Kumar, and Undurti Das*, *BioScience Research Centre, India*

Effects of Sesamol on Lipid Metabolism and Neurodegeneration. Xuebo Liu and Zhigang Liu, *Northwest A&F University, China*

A Novel Method for Evaluating Anti-inflammatory Activity of Camellia Seed Oil. Ruijie Liu¹, Niannian Lan², Ming Chang¹, Qingzhe Jin¹, and Xingguo Wang¹, ¹*Jiangnan University, China*; ²*School of Food Science and Technology, Jiangnan University, China*

Dietary Krill Oil Enhances Neurocognitive Functions and Modulates Proteomic Changes in Brain Tissues of Aging Mice. Ling Zhi Cheong, Tingting Sun, and Xiurong Su, *Ningbo University, China*

Tuesday Morning

BIO 2.1 / H&N 2: Dietary Lipids and the Gut Microbiota

Chairs: Barry Tulk, DuPont Nutrition & Health, USA; and Jun Ogawa, Kyoto University, Japan

Impact of Dietary Fat Intervention on Metabolic Parameter and Gut Microbiota Changes Associated with Obesity and NAFLD. Karmin O, *University of Manitoba, Canada*

Interaction Between Diets and Gut Commensal Bacteria in the Regulation of Immunological Health and Diseases. Jun Kunisawa, *NIBIOHN, Japan*

Efficiency Improvement in the Enzymatic Fractionation of PUFA. Yomi Watanabe¹, Ryosuke Hoshina², Kazumi Katagiri², and Hideaki Kobayashi², ¹*Osaka Research Institute of Industrial Science and Technology, Japan*; ²*Kewpie Corporation, Japan*

Tuesday Afternoon

H&N 3: Lipids through the Lifespan

Chairs: Adriana Gaitan, Louisiana State University, USA; and Ignacio Vieitez, UdelaR, Uruguay

Understanding the Relationship Between Dietary Fatty Acids and Blood and Tissue Fatty Acid Composition.

Ken D. Stark, *University of Waterloo, Canada*

Antioxidant Potential of Esterified Resveratrol Derivatives in Different Model Systems.

Won Young Oh and Fereidoon Shahidi, *Memorial University of Newfoundland, Canada*

Identifying Novel Docosahexaenoic Acid-containing Phospholipids in Human Whole Blood as Indicators of Omega-3 PUFA Intake.

Juan J. Aristizabal Henao and Ken D. Stark, *University of Waterloo, Canada*

Effect of Fatty Acid Chain Length and Saturation on the Lipid Profiles of Wistar Rats.

Chathuri M. Senanayake¹, Gangi R. Samarawickrama², Nimanthi Jayathilaka², and Kapila N. Seneviratne*¹, ¹*University of Kelaniya, Sri Lanka*; ²*Department of Chemistry, University of Kelaniya, Sri Lanka*

EAT 3.2 / H&N 3.1: Influence of Fat Composition on Metabolic Status

Chairs: Amanda Wright, University of Guelph, Canada; and Marie-Caroline Michalski,

Citric Acid Esters-stabilized Emulsions During *in vitro* Digestion: Effect of the Physical State of Emulsifier.

Qing Guo, Nick Bellissimo, and D errick Rousseau, *Ryerson University, Canada*

Impact of Emulsion Droplet Physical State on *in vitro* Lipid Digestion.

Surangi K.P.H. Thilakarathna and Amanda Wright, *University of Guelph, Canada*

Monounsaturated Fats and Stearic Acid: Summary of Impact on Human Cardiometabolic Outcomes.

Dariusz Mozaffarian, *Friedman School of Nutrition & Health Policy, Tufts University, USA*

***In vitro* and *in vivo* Evidence of Dietary trans-vaccenic Acid Retroconversion to trans-palmitoleic Acid.**

Etienne Guillocheau, Garcia Cyrielle, L eo Richard, Daniel Catheline, Philippe Legrand, and Vincent Rioux, *Agrocampus Ouest, France*

Wednesday Morning

H&N 4: Nutrigenomics and Nutrigenetics of Lipid Metabolism

Chairs: Susan Ratz, USDA, ARS, Grand Forks Human Nutrition Research Center, USA; and Fabiola Dionisi, Nestl e Research Center, Switzerland

Effect of Fatty Acid Chain Length on Regulation of Hepatic Gene Expression by Saturated Fats.

Harsha Hapugaswatte¹, Chathuri M. Senanayake¹, Gangi R. Samarawickrama², Kapila N. Seneviratne¹, and Nimanthi Jayathilaka*², ¹*University of Kelaniya, Sri Lanka*; ²*Department of Chemistry, University of Kelaniya, Sri Lanka*

H&N 5: General Health and Nutrition

Chairs: Jenifer Heydinger Galante, Stepan Co., USA; and Fabien Schultz, Technical University of Berlin, Neubrandenburg University of Applied Sciences, Germany

Gamma-linolenic Acid Regresses Human Glioma. Undurti Das, *BioScience Research Centre, India*

High Speed, Consistent Extraction for the Compounds of Interest in the Potency Testing of Cannabis. Tom Hall and Rudolf Addink, *Fluid Management Systems, USA*

East and Central African Medicinal Plants as Anti-inflammatory Inhibitors in the 15-LOX / 15-Hydroxyeicosatetraenoic Acid and COX / PGH2 Pathways. Fabien Schultz¹, Godwin Anywar², Ogechi Favour Osuji³, and Leif-Alexander Garbe⁴, ¹*Technical University of Berlin, Neubrandenburg University of Applied Sciences, Germany*; ²*Makerere University, Uganda*; ³*Applied Chemistry, School of Agriculture and Food Sciences, Neubrandenburg University of Applied Sciences, Germany*; ⁴*Neubrandenburg University of Applied Sciences, Germany*

Sex Differences in Rat Oxylinpils Vary between Tissues and Diet, and Do Not Reflect Precursor Fatty Acids. Harold M. Aukema¹, Shan Leng¹, Anne Mendonca², Lucien GJ Cayer¹, Afroza Ferdouse¹, and Tanja Winter¹, ¹*University of Manitoba, Canada*; ²*Federal University of Uberlandia, Brazil*

Enhancing Bioaccessibility of Phytosterols using Nanoporous Starch Bioaerogels. Ali Ubeyitogullari, Regis Moreau, and Ozan N. Ciftci, *University of Nebraska-Lincoln, USA*

H&N-P: Health and Nutrition Poster Session

Chairs: Ignacio Vieitez, UdelaR, Uruguay; and Varun Koneru, Young Living Essential Oils, USA

Posters will be available for viewing from noon on Monday, May 7 through 2:00 p.m. Wednesday, May 9, 2018.

Study on the Effect of Activated Carbon with Bleaching Earth in Reduction of Polycyclic Aromatic Hydrocarbons in Soybean Oil. Nilufar Aliar Zanjani¹, Zahra Piravi Vanak², and Mehرداد Ghavami¹, ¹*Islamic Azad University, Science and Research Branch, Iran*; ²*Standard Research Institute of Iran, Faculty of Food Industries and Agriculture, Iran*

Different Effects of Squalene on Lipid Metabolism in Livers of KK-A^y and C57BL/6 Mice. Shaokai Liu¹, Masashi Hosokawa², and Kazuo Miyashita², ¹*Graduate School of Fisheries Sciences, Hokkaido University, Japan*; ²*Hokkaido University, Japan*

Investigation of Bioactive Lipids from African Medicinal Plants Collected in the Tropical Rainforests of Uganda. Fabien Schultz¹, Godwin Anywar², Ogechi Favour Osuji³, Anh Nguyen³, Luc Pieters⁴, and Leif-Alexander Garbe⁵, ¹*Technical University of Berlin, Neubrandenburg University of Applied Sciences, Germany*; ²*Makerere University, Uganda*; ³*Applied Chemistry, School of Agriculture and Food Sciences, Neubrandenburg University of Applied Sciences, Germany*; ⁴*Department of Pharmaceutical Sciences, University of Antwerp, Belgium*; ⁵*Neubrandenburg University of Applied Sciences, Germany*

Potential Bioactivity of Phenolics in Hulls and Dehulled Grains of Lentils; Focusing on the Inhibitory Activity Against the Oxidation of LDL Cholesterol and Supercoiled DNA Strand. Fereidoon Shahidi and JuDong Yeo*, *Memorial University of Newfoundland, Canada*

Dietary Intakes of n-3 and n-6 Polyunsaturated Fatty Acids in Preschool-aged Children in the Guelph Family Health Study. Jessie L. Burns (née MacKinnon), Julia A. Mirotta, Alison M. Duncan, Jess Haines, and David W.L. Ma, *University of Guelph, Canada*

Endocannabinoid Metabolome in Human Breast Milk – A Guatemalan Cohort. Adriana V. Gaitan¹, Jodi T. Wood², Lipin Ji², Yingpeng Liu², Spyros P. Nikas², Juliana A. Donohue³, Lindsay Allen⁴, Noel W. Solomons⁵, Alexandros Makriyannis³, and Carol J. Lammi-Keefe¹, ¹*Louisiana State University, USA*; ²*Center for Drug Discovery, Northeastern University, USA*; ³*Nestlé Institute of Health Sciences, Switzerland*; ⁴*University of California, Davis, USA*; ⁵*Center for the Studies of Sensory Impairment, Aging and Metabolism, Guatemala*

Effect of Noodle Formulation and Frying Medium on Oil Absorption in Steamed-and-Fried Instant Noodles. Jinfeng Qi¹ and Xingguo Wang², ¹*Jiangsu University of Science and Technology/Jiangnan University, China*; ²*Jiangnan University, China*

Virgin Grape Seed Oil Attenuates High-fat Diet-induced Obesity and Insulin Resistance. Hui Zhang and Gangcheng WU, *Jiangnan University, China*

Edible Hydrogel Beads Fabrication with Self-regulating Microclimate pH Properties: Retention of Enzyme Activity After Exposure to Gastric Conditions. Zipei Zhang and D. Julian McClements, *University of Massachusetts, Amherst, USA*