Health and Nutrition (H&N) Interest Area
Tentative Technical Program
As of February 12, 2020

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

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

Monday Morning

H&N 1: Dietary Cannabinoids and Health
Session Chairpersons: Eileen Bailey Hall, DSM Nutritional Products, USA; and Robert Ward, Utah State University, USA

Analysis of the Antitumor Activity of Bioactive Compounds of Cannabis Flowers Extracted by Green Solvents. Daniel R. Grijó1, Danielle L. Bidoia2, Celso V. Nakamura2, Ignacio Vieitez*3, and Lúcio Cardozo-Filho1, 1Department of Chemical Engineering, Universidade Estadual de Maringá, Brazil; 2Department of Health Basic Sciences, Universidade Estadual de Maringá, Brazil; 3UdelaR, Uruguay

Monday Afternoon

H&N 2: Neurological Health Issues and Vegetable and Marine Oils
Session Chairpersons: Richard Bazinet, University of Toronto, Canada; Ameer Taha, University of California, Davis, USA; and Stephen Cunnane, Research Center on Aging, Canada

Implications of short-term high-fat intake on gut, liver, and cardiovascular health of adolescent male rats. Meli'sa S Crawford1, Corrie Whisner1, Layla Al-Nakkash2, and Karen L. Sweazea*1, 1Arizona State University, USA; 2Midwestern University, USA

Lessons from Agpat4/Lpaat-delta knockout mice on brain phospholipids and anxiety in aging. Maria F. Fernandes, Ryan M Bradley, Juan J. Aristizabal Henao, Ken D. Stark, and Robin E Duncan*, University of Waterloo, Canada

Medium chain fatty acids induce hepatic thermogenesis and improve metabolic health. Sabri Rial, Antoine Jutras-Carignan, Karl-Frederik Bergeron, and Catherine Mounier*, Université du Québec à Montréal, Canada

A ketogenic drink improves brain energy and some measures of cognition in MCI. Stephen C. Cunnane*, Research Center on Aging, Canada
H&N 2a/PCP 2a: Health Benefits of Food Proteins and Peptides
Session Chairpersons: Kaustav Majumder, University of Nebraska, USA; and Hitomi Kumagai, Dept. of Chemistry and Life Science, College of Bioresource Sciences, Nihon University, Japan

Neuroprotective effects of bioactive peptides derived from fermented rice beverage in scopolamine-induced amnesic mice. Shigeru Katayama* and Soichiro Nakamura, Shinshu University, Japan

Rice Albumin Hydrolysates Suppress Glucose Absorption from the Small Intestine by Dual Function. Hitomi Kumagai*1, Shigenobu Ina2, Aya Hamada3, Chiaki Sugimoto4, Yusuke Yamaguchi4, and Hitoshi Kumagai5, 1Dept. of Chemistry and Life Science, College of Bioresource Sciences, Nihon University, Japan; 2College of Bioresource Sciences, Nihon University, Japan; 3College of Bioresource Sciences, Nihon University; 4Nihon University, Japan; 5Faculty of Home Economics, Kyoritsu Women’s University, Japan

Overview of the Effects of Food Proteins and Peptides in Human Nutrition. Rotimi Aluko*, University of Manitoba, Canada

Dual Hypocholesterolemic Effect of Lupin-derived Peptides. Carmen Lammi*, Carlotta Bollati, Gilda Aiello, and Anna Arnoldi, University of Milan, Italy

Tuesday Afternoon

H&N 3: Health Benefits and Controversy of Edible Oils and Their Derived Supplements
Session Chairpersons: Samia Mezouari, Research & Consulting, Canada; and Ernesto Hernandez, Advanced Lipid Consultants, USA

Metabolomics reveals the toxicological effects of polar compounds from frying palm oil. YongJiang Xu*, Jiangnan University, China

Impact of Nanochitin on Gastrointestinal Fate of Pickering Emulsions: Lipid Digestion and Nutraceutical bioavailability. Hualu Zhou*, University of Massachusetts Amherst, USA

Milk Polar Lipid Supplementation Improves Cholesterol Metabolism in Postmenopausal Women: Gut-Related Mechanisms. Cécile Vors1, Laurie Joumard-Cubizolles2, Manon Lecomte1, Mélanie Le Barz1, David Cheillan3, Florent Joffre4, Lemlih Ouchchane5, Stéphanie Lambert-Porcheron6, Hubert Vidal7, Corinne Malpuech-Brugère2, and Marie-Caroline Michalski*8, 1Univ Lyon, Université Claude Bernard Lyon 1, CarMeN laboratory, France; 2Université Clermont Auvergne, INRA, UNH, Unité de Nutrition Humaine, France; 3Unité Maladies Héréditaires du Métabolisme, Centre de Biologie et de Pathologie Est, Hospices Civils de Lyon, France; 4ITERG, France; 5Université Clermont Auvergne, CNRS, SIGMA Clermont, Institut Pascal, France; 6CRNH Rhône-Alpes, France; 7INSERM, CarMeN laboratory, France; 8INRA, France

Acute Lipemic Response Differences Based on Emulsion Triacylglycerol Physical State. Amanda Wright*, University of Guelph, Canada
Tumoral Docosahexaenoic Acid Content of 5% Improved Chemotherapy Efficacy in Mice Bearing Patient Derived Breast Cancer Xenografts via the Necroptosis Pathway. Marnie Newell*, Susan Goruk, Vera Mazurak, Lynne M. Postovit, and Catherine J. Field, University of Alberta, Canada.


Wednesday Morning

H&N 4: General Health and Nutrition & Awards
Session Chairpersons: Ignacio Vieitez, UdelaR, Uruguay; and Amanda Wright, University of Guelph, Canada.

Linoleate-rich cardiolipin and tissue architecture are altered in skeletal muscle of healthy mice fed diets differing in dietary fat quality. Deena B. Snoke*1, Rachel M. Cole2, Genevieve C. Sparagna3, and Martha Belury4, 1The Ohio State University, USA; 2The Ohio State University; 3University of Colorado Boulder, USA; 4Ohio State University, USA.

Mimicking Lipid Self-assembly in Digesting Milk-like Emulsions. Andrew Clulow*1, Malinda Salim2, Anna C. Pham2, Syaza Binte Abu Bakar2, Adrian Hawley3, and Ben J. Boyd2, 1Monash Institute of Pharmaceutical Sciences, Monash University, Australia; 2Monash Institute of Pharmaceutical Sciences, Australia; 3Australian Synchrotron, ANSTO, Australia.

A Qualitative Approach for enhancing the nutritional properties of palm olein and flaxseed oil. kshitij Bhardwaj*, King Georges Medical University, India.

Varietal differences in carotenoid composition and their bioaccessibility from papaya (C. papaya) cultivars in Hawaii. Alice Laurora*1, Kacie K.H.Y. Ho2, Jon-Paul Bingham2, and Mahesha Poojary2, 1University of Hawaii/University of Copenhagen, USA; 2University of Hawaii at Manoa, USA; 2University of Copenhagen, Denmark.

Impact of Curcumin Delivery System Format on Bioaccessibility: Nanocrystals, Nanoemulsion Droplets and Natural Oil Bodies. Bingjing Zheng*1, Xiaoyun Zhang2, and David Julian McClements3, 1University of Massachusetts Amherst, Food Biopolymers and Colloids Lab, USA; 2University of Massachusetts, Amherst, USA; 3Department of Food Science, University of Massachusetts Amherst.

Identification, Purification, and Anti-obesity Effects of 4,4-dimethyl Phytosterols in Different Vegetable Oils. Tao Zhang*1, Ruijie Liu2, Ming Chang3, Hui Zhang4, Qingzhe Jin5, and Xingguo Wang1, 1Jiangnan University, China; 2Jiangnan University, China/Cornell University, USA.


Butyric acid concentration is associated with Firmicutes bacteria abundance after dairy intake among hyperinsulinemic individuals. Leila Khorraminezhad*1, Karine Greffard3, Mickael Leclercq2, Arnaud Droit1, Jean-François Bilodeau3, and Iwona Rudkowska3, 1Endocrinology and Nephrology Unit, CHU de Québec-Laval University Research Center, Canada; 2Endocrinology and Nephrology Unit, CHU de Québec-Laval University Research Center, Canada.
H&N-P: Health and Nutrition Poster Session  
*Poster Session Chairperson: Hongbing Fan, University of Alberta, Canada*

Posters will be available for viewing from Sunday at 5:30 p.m. until Wednesday at 10:30 a.m.

**Dedicated Poster Sessions with Authors Present**
- **Monday, April 27** 5:30–6:30 p.m.
- **Tuesday, April 28** 5:30–6:30 p.m.

**Independent and interactive effects of dietary fats and salt on NAFLD in high fat-fed rats.** Isabelle Demonty*,1, Eleonora Swist2, The-Minh Luong3, Gen-Sheng Wang4, and Philip Griffin2, 1Nutrition Research Division, Bureau of Nutritional Sciences, Health Canada, Canada; 2Nutrition Research Division, Bureau of Nutritional Sciences, Health Canada, Ottawa, Canada, Canada; 3Biostatistics and Modelling Division, Bureau of Food Surveillance and Science Integration, Health Canada, Ottawa, Canada, Canada; 4Bureau of Chemical Safety, Health Canada, Ottawa, Canada, Canada

**Homogeneous triacylglycerol tracers can impact fat crystallization and its lipolysis rate under simulated physiological conditions.** Sabine Danthine1, Cécile Vors2, Annie Durand3, Frédéric Carrière3, Carole Knibbe1, Marion Létisse5, and Marie-Caroline Michalski*6, 1Université of Liège, Belgium; 2Univ Lyon, Université Claude Bernard Lyon 1, CarMeN laboratory, France; 3CNRS, Aix Marseille University, UMR 7282 Interfacial Enzymology and Physiology of Lipolysis, France; 4Inria “Beagle” team, Antenne Lyon la Doua, F-69603, Villeurbanne, France; 5INSA-Lyon, CarMeN laboratory, Villeurbanne, France; 6INRA, France

**Medio Level Characterization of the Macrolipidome of Human Plasma Standard Reference Material 1950.** Klaudia E. Steckel*, Juan J. Aristizabal-Henao, Dan Chalil, and Ken D. Stark, University of Waterloo, Canada

**Rapid Phospholipid Isolation Methods for Plasma Fatty Acid Analyses.** Dan Chalil*, and Ken D. Stark, University of Waterloo, Canada

**Fatty Acid Composition of Wild-Harvested Fish Species from the Canadian Subarctic and Arctic.** Lu Bai*, Tara N. Boag, Mallory Drysdale, Dan Chalil, Heidi K. Swanson, Brian D. Laird, and Ken D. Stark, University of Waterloo, Canada

**Effect of 6,9,12,15-Hexadecatetraenoic Acid on Lipid Contents and Fatty Acid Compositions in Mice.** Ryota Hosomi*,1, Toshifumi Tanizaki1, Tadahiro Tsushima2, Yoshihisa Misawa2, Naomichi Baba2, Munehiro Yoshida3, and Kenji Fukunaga4, 1Kansai University, Japan; 2Bizen Chemical C. Co. Ltd., Japan; 3Kansai Medical University, Japan; 4Faculty of Chemistry, Materials and Bioengineering, Kansai University, Japan

**Seasonal variation in FA and TAG composition and its influence on physical properties in bovine MF.** Sara L. Pacheco*, Naomi Arita Merino2, Sine Yener1, Jeroen Heck3, and Hein H.J van Valenberg4,
LRW does not reduce blood pressure as that of its structural analog IRW. Hongbing Fan¹, Kaiyu Wu², and Jianping Wu¹, ¹University of Alberta, Canada; ²University of Saskatchewan, Canada

Fatty acid and triacylglycerol composition of breast milk during different lactation stages. Tinglan Yuan*, Wei Wei, Xingguo Wang, and Qingzhe Jin, Jiangnan University, China

Screening for metabolic syndrome application of a herring by-product hydrolysate after separation by electrodialysis with ultrafiltration. Laurent Bazinet*, Rachel Durand, Genevieve Pellerin, Jacinthe Thibodeau¹, Erwann Fraboulet², and Andre Marette, ¹Universite Laval, Canada; ²UQAR