

Technical Program

Session I: Healthy Developments in Fats and Oils

MONDAY MORNING

Chairs: A. Wright, University of Guelph, Canada; and D. Balke, DTB Product Development, Canada

Keynote Presentation I: Altering Fat and Fatty Acid Compositions for Enhancing Human Health: Balancing Science with Marketing Claims.

B. Holub, University of Guelph, Canada

Keynote Presentation II: TBA.

B. Flickinger, Archer Daniels Midland Co., USA

Frying Stability of Canola Oil as Affected by Minor Components.

F.A. Aladedunye, R. Przybylski, University of Lethbridge, Lethbridge, Alberta, Canada

The Effect of α -linolenic Acid-rich Flaxseed Oil on Human Breast Cancer Xenografts (MCF-7).

J.S. Truan, J. Chen, L.U. Thompson, University of Toronto, Toronto, ON, Canada

The Effect of Substituting n-6 with n-3 Polyunsaturated Fatty Acids on Neuroinflammation.

S.K. Orr¹, D.W.L. Ma², J.X. Kang³, C.E. Greenwood¹, R.P. Bazinet¹, ¹Department of Nutritional Sciences, University of Toronto, Toronto, Ontario, Canada, ²Department of Human Health and Nutritional Sciences, University of Guelph, Guelph, Ontario, Canada, ³Department of Medicine, Harvard Medical School, Boston, Massachusetts, USA

A Clear and Present Danger of Overloading with Polyunsaturated Dietary Fats.

A. Kuksis, University of Toronto, Toronto, Ontario, Canada

Session II: Innovation in Oilseed Crops and Alternative Feedstocks

MONDAY AFTERNOON

Chairs: I. Rajcan, University of Guelph, Canada; and R. Ryan, Dow AgroSciences Canada Inc., Canada

Keynote Presentation: From Oilsands to Oilseeds - Increasing Triacylglycerol Accumulation in Plants.

R.J. Weselake, Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta T6G 2P5, Canada

Innovations on Plant Breeding Techniques and its Impact on the Food Industry.

D. Dzisiak, Dow AgroSciences Canada Inc., Canada

Investigating Bottlenecks in Very Long Chain Polyunsaturated Fatty Acid Accumulation in Transgenic *Brassica napus*.

C.L. Snyder¹, R. Hryniuk¹, J. Bauer², T. Senger², R.J. Weselake¹, ¹Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, Alberta, Canada, ²BASF Plant Science GmbH, Limburgerhof, Germany

Sea Buckthorn: An Oil Crop for Health and Biotechnological Benefits.

T. Fatima, W.R. Schroeder, L. Corno, R. Weselake, P. Krishna, University of Western Ontario, Agri-Food Canada, University of Alberta, Canada

Physiochemical Properties and Fatty Acid Composition of Canola Oil Obtained with Conventional Methods and Supercritical Fluid Extraction.

R. Khattab, C. Rempel, U. Thiyam, University of Manitoba, Winnipeg, MB, Canada

Recovering Multiple Compounds from Thin Stillage.

Kornsulee Ratanapariyanuch¹, Yunhua Jia², Jianheng Shen¹, Martin J.T. Reaney¹, ¹Department of Food and Bioproduct Sciences, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, ²College of Medicine, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

Growth of Microalgae for the production of lipids and value-added products.

T. Irving, N. Nadarajah, D. G. Allen, University of Toronto, Canada

Nutritionally Interesting Fatty Acids from Algae for Food Applications.

I. Foubert^{1,2}, E. Ryckebosch^{1,2}, K. Muylaert², ¹K.U. Leuven, Science, Engineering and Technology Campus Kortrijk, Research Unit Food & Lipids, Kortrijk, Belgium, ²K.U. Leuven, Science, Engineering and Technology Campus Kortrijk, Research Unit Aquatic Biology, Kortrijk, Belgium

Session III.: Processed Food Applications: Bakery, Dairy and Snack Foods

TUESDAY MORNING

Chairs: S. Ghosh, Ryerson University, Canada; and A.P. Singh, Parmalat, Canada

Keynote Presentation: Crystallization Kinetics and Morphological Modification of Edible Fats Affected by Food Emulsifiers.

K. Sato, Hiroshima University, Japan

Trans-fat Free Fats Based from Fully Hydrogenated Stock, Nano-scale Modifications and Functionality.

N.C. Acevedo, A.G. Marangoni, University of Guelph, Guelph, Ontario, Canada

Can Food Preparation be a Source of trans Fatty Acids?.

R. Przybylski, F. Aladedunye, University of Lethbridge, Lethbridge, AB, Canada

Preparation, Characterization, and Phase Behavior of Model Diacid 1,3-diacylglycerols.

R.J. Craven, R.W. Lencki, Department of Food Science, University of Guelph, Guelph, Ontario, Canada

RHEO-NMR and Synchrotron X-Ray Diffraction Characterization of Crystallizing Triglycerides.

Mengyu Li, Gianfranco Mazzanti, Dalhousie University, Halifax, Nova Scotia, Canada

Development of Zero *trans* Baking Shortenings by Enzymatic Interesterification.

E. Gruczynska^{1,2}, R. Przybylski², ¹Warsaw University of Life Sciences, Warsaw, Poland, ²University of Lethbridge, Lethbridge, Alberta, Canada

Nano-scale Matrices for Controlled Release Applications.

D. Rousseau, Ryerson University, Canada

Structure and Rheological Properties of Polymer Organogels.

M. Rietberg, T. Dey, A.G. Marangoni, University of Guelph, Guelph, ON, Canada

High Oleic Soybean Oil: An Improved Soybean Oil for Use in Food.

S. Knowlton, DuPont Company, USA

Session IV: Industrial and Non-food Applications

TUESDAY AFTERNOON

Chairs: L. Diosady, University of Toronto, Canada; and T. Haig, Biox Corporation, Canada

Keynote Presentation: Challenges and Opportunities for Biodiesel in Canada.

Stewart Campbell, Canadian Bioenergy Corporation, Canada

Effects of Combustion of Biodiesel and Vegetable Oil on Diesel Engine Emissions and Biological Effects.

Jürgen M Büniger^{1,4}, Jürgen Krahl^{2,3}, Axel Munack³, ¹BGFA - Ruhr University, Bochum, NRW, Germany, ²University of Applied Sciences, Coburg, Bavaria, Germany, ³Federal Research Institute for Rural Areas, Forestry and Fisheries (vTI), Braunschweig, Lower Saxony, Germany, ⁴Steinbeis-Transfer-Center Biofuels, Coburg, Bavaria, Germany

Microemulsion-based Oil Seed Extraction for Biodiesel Production.

L. Do, E. Acosta, T. Nguyen, S. Islamoglu, D. Sabatini, University of Oklahoma, USA; University of Toronto, Canada

Coupling Ridge Regression with K-matrix Chemometric Technique for the Direct Determination of Lipids.

Gerard Dumancas, Mary Muriuki, Lisa Reilly, Neil Purdie, Oklahoma State University, Stillwater, Oklahoma, USA

Polyol Production from Canola Oil.

Ray Bergstra, Morley Kjargaard, Hong Qi, Niranjan Purohit, Alberta Agriculture and Rural Development, BioIndustrial Technologies Division, Canada

Aqueous Polyurethane Dispersions for Coatings Based on Polyols Derived from Vegetable Oils.

V. Mannari, S. Rengasamy, Eastern Michigan University, Ypsilanti, MI, USA

Biodegradable Chelating Agent Derived from Renewable Feedstock: Economic Replacement of EDTA, NTA, and Phosphates.

W. Parry¹, G. Perron², ¹Akzo Nobel Functional Chemical LLC, Chicago, IL, USA, ²Quadra Chemicals Ltd., Vaudreuil-Dorian, QC Canada