

MILK AND HEALTH IN A SUSTAINABILITY PERSPECTIVE

Day 1 – Tuesday, November 12, 2019

8:00 a.m. Registration

Hot Topics – Sustainability

Chairman: Henrik J. Andersen, Arla Foods Ingredients, Aarhus, Denmark

9:00 a.m. **Welcome**

Bruce German, University of California-Davis, Davis, CA, USA

9:15 a.m. **Invited Speaker: ½ Liter of Milk a Day – What are the Implications?**

Troels Kristensen, Aarhus University, Tjele, Denmark

9:45 a.m. **Keynote Speaker: Sustainable Diets**

Nicole Darmon, INRA, Montpellier, France (tentative)

10:30 a.m. **Coffee Break**

11:00 a.m. **Keynote Speaker: Food Systems for Health, Env and Enterprise: The SUSFANS Project and Its Findings**

Monika Zurek, Oxford University, Oxford, United Kingdom

11:45 a.m. **Sustainable Dairy Production and its Exploitation into Healthy Dairy Products**

Nina Aagaard Poulsen, Aarhus University, Tjele, Denmark

12:15 p.m. **Student Travel Award Recipient: Genetic Variants and Posttranslational Modifications of Milk Proteins in Relation to Non-Coagulating Milk**

Kajsa Nilsson, Lund University, Lund, Sweden

12:35 p.m. **Lunch**

The Microbiome and the Metagenome

Chairman: Bruce German, University of California-Davis, Davis, CA, USA

1:30 p.m. **Keynote Speaker: Microbiota Impact in the Early Stages of Life and the Effects on Health Later in Life**

Christopher Stewart, Newcastle University, Newcastle upon Tyne, United Kingdom

2:15 p.m. **Invited Speaker: The Composition of the Perinatal Intestinal Microbiota in Cattle**

Mikael Niku, University of Helsinki, Helsinki, Finland

2:45 p.m. **Coffee Break**

3:15 p.m. **The Composition of the Postprandial Metabolome of Human Blood and Urine Depends on the Human Genome and the Dairy Products Consumed**

Guy Vergères, Agroscope, Bern, Switzerland

3:45 p.m. **Student Travel Award Recipient: Infant Commensal Complexed with Milk Secretory Immunoglobulin A Prevents Enteric Infection**

Vanessa Dunne-Castagna, University of California-Davis, Davis, CA, USA

4:05 p.m. **Panel Discussion – Linking Sustainability to the Microbiome and Metagenome**

Moderator: Bruce German, University of California-Davis

Panelists: Troels Kristensen, Aarhus University; Nicole Darmon, INRA (tentative); Monika Zurek, Oxford University; Mikael Niku, University of Helsinki; Christopher Stewart, Newcastle University

4:30 p.m. **Update from 2018's Most Valuable Presentation**

Ishita Shah, University of California-Davis, Davis, CA, USA

- 4:50 p.m. **Highlights from IMGC's "SPLASH!® milk science update" and Upcoming Hot Topics**
Danielle Lemay, Western Human Nutrition Research Center, USDA, CA, USA
- 5:15-6:15 p.m. **Joint Scientific Advisory Council/Steering Committee Meeting (Closed Session)**
- 5:15-7:15 p.m. **Poster Reception with Refreshments**
- 7:15 p.m. **End of day 1**

Day 2 – Wednesday, November 13, 2019

Comparative Biology and Genomics

Chairman: Danielle Lemay, Western Human Nutrition Research Center, USDA, CA, USA

- 8:30 a.m. **Keynote Speaker: Milk Components across Species**
Warren McNabb, Riddet Institute, Massey University, Palmerston North, New Zealand
- 9:15 a.m. **Invited Speaker: Functionality and Structural Aspects of Milk Genetic Variants**
Jared Raynes, Food and Nutrition, Commonwealth Scientific and Industrial Research Organization (CSIRO), Werribee, Australia
- 9:45 a.m. **Genomic Variation in Milk Proteins in European Cattle Breeds**
Bernt Guldbbrandtsen, Aarhus University, Tjele, Denmark
- 10:15 a.m. **Coffee Break**
- 10:45 a.m. **Sequence-Based GWAS, Network and Pathway Analyses Reveal Genes Co-Associated with Milk Cheese-Making Properties and Milk Composition in Montbéliarde Cows**
Marie-Pierre Sanchez, INRA, Jouy-en-Josas, France
- 11:15 p.m. **Student Travel Award Recipient: Variability of Oligosaccharides in Milk from Native Nordic Cattle Breeds**
Anne Vuholm Sunds, University of Aarhus, Tjele, Denmark

11:35 a.m.-12.30 p.m. Lunch

Inherent Milk Characteristics and Functionalities

Chairman: Marie Paulsson, Lund University, Lund, Sweden

- 12:30 p.m. **Keynote Speaker: Casein Micelle Mineralization**
Thom Huppertz, Friesland Campina, The Netherlands
- 1:15 p.m. **Invited Speaker: Milk Cathepsins – Implications for Health and Functionality**
Lotte Bach Larsen, Aarhus University, Tjele, Denmark
- 1:45 p.m. **Student Travel Award Recipient: High Proportion of Transient Neonatal Zinc Deficiency (TNZD) Causing Alleles in the General Population**
Yarden Golan, Technion-Israel Institute of Technology, Haifa, Israel
- 2:05 p.m. **Coffee Break**
- 2:30 p.m. **Invited Speaker: Understanding the Function of the Milk Fat Globule Membrane**
Carolyn M. Slupsky, University of California-Davis, CA, USA
- 3:00 p.m. **Isolation, Characterization, and Biological Properties of Milk Extracellular Vesicles**
Jan Trige Rasmussen, Aarhus University, Aarhus, Denmark
- 3:30 p.m. **Invited Speaker: The Role of Whey Protein in Postprandial Glycaemic Control**
Daniela Jakobowicz, Tel Aviv University, Israel
- 4:00 p.m. **Natural Glycosidases in Bovine Milk**
Søren Drud-Heydary Nielsen, Aarhus University, Tjele, Denmark
- 4:30 p.m. **End of day 2**
- 6:30-10:30 p.m. Symposium Group Dinner at Smedjen (The Smitty), Centralværkstedet

Day 3 – Thursday, November 14, 2019

Matrix Effects of Milk and Milk Components

Chairman: Peter Langborg Wejse, Arla Foods, Aarhus, Denmark

- 9:00 a.m. **Keynote Speaker: Whole Dairy Matrix or Single Nutrients in Assessment of Health Effects: Current Evidence and Knowledge Gaps**
Michelle McKinley, Queens University Belfast, Belfast, United Kingdom
- 9:45 a.m. **Invited Speaker: Dairy Matrix Effects: Response to Consumption of Dairy Fat Differs when Eaten within the Cheese Matrix – a Randomized Controlled Trial**
Emma Feeney, University College Dublin, Dublin, Ireland
- 10:15 a.m. **Coffee Break**
- 10:45 a.m. **Discovering Added-Value Compounds in Dairy Streams: Proteomic Profiling Reveals the Presence of Xanthine Oxidase with Remarkable Antimicrobial Activity**
Gulustan Ozturk, University of California-Davis, Davis, CA, USA
- 11:15 a.m. **Student Travel Award Recipient: Maternal Allergy and the Presence of Non-Human Proteinaceous Material in Human Milk**
Pieter Dekker, Wageningen University, Wageningen, The Netherlands
- 11:35 a.m. **Panel Discussion – the Dairy Matrix**
Moderator: Merete Myrup, Danish Agriculture & Food Council
Panelists: Michelle McKinley, Queens University Belfast; Emma Feeney, University College Dublin; Stephan Peters, NZO (tentative); Bruce German, University of California-Davis
- 12:00 p.m. **Closing Remarks**
- 12:15 p.m. **Lunch**
- 12:45 p.m. **End of Conference**

Ready for more....

Before the IMGC Symposium:

Join the Arla Food for Health & Danish Dairy Research Foundation symposium “Dairy Matters – Health and Nutrition throughout Life” on Monday 11 November 2019, 12-5 pm. More information may be found at <https://www.tilmeld.dk/dairymatters>

After the IMGC Symposium:

Join the Master Class on “Dairy Protein Biochemistry and Proteomics” organized by Aarhus University and Wageningen University and Research on 14-15 November 2019. More information may be found at <http://phd.scitech.au.dk/fr/for-phd-students/courses/scientific-courses/kurser-2019/food-science/dairy-protein-biochemistry-and-proteomics-2019/>