

## Program Schedule

**Monday October 6, 2014**

**Noon - 1:00 pm Lunch**

**1:00 pm**      **Welcome:** *Chuck Ahlem, Founding owner and partner, Hilmar Cheese, Hilmar, California, USA*  
**Opening:** *Bruce German, Professor, UC Davis, California, USA*

### Milk Genomics – Where It All Starts...

*Moderators: Søren Borchersen, Head of R&D VikingGenetics & Vivi Raundahl Gregersen, Department of Genetics and Biotechnology, Aarhus University*

**1:25 pm**      **Genomics and RuminOmics**  
*John Wallace, Professor, Rowett Institute of Nutrition and Health, University of Aberdeen, Scotland*

**2:00 pm**      **Bovine Genomic Selection Today - Possibilities to Improve Novel Milk Traits through Genomic Selection**  
*Hans Stålhammar, Chief Geneticist, VikingGenetics, Sweden*

**2:35 pm**      **Epitope Mapping of  $\alpha$ S1-Casein by Microarray Immunoassay Reveals Differences in Ige Binding within Dairy Breeds and Between Water Buffaloes, Sheep, Goats**  
*Maria Lisson, Department of Animal Breeding and Genetics, Justus-Liebig University, Gießen, Germany*  
**Student Travel Award Recipient**

**2:50 pm**      **Break**

**3:20 pm**      **Genetic Analysis of Micro- and Macro-elements in Danish Holstein and Danish Jersey Milk**  
*A.J. Buitenhuis, Associate Professor, Department of Molecular Biology and Genetics - Center for Quantitative Genetics and Genomics, Aarhus University, Denmark*

**3:40 pm**      **Quantification of Individual Milk Fatty Acids by Infrared Spectroscopy and Chemometrics: In the Cage of Covariance with Total Fat Content**  
*Carl Emil Aae Eskildsen, Department of Food Science, University of Copenhagen, Denmark*

**3:55 pm**      **Protein Quality in a Sustainable Context**  
*Toon van Hooijdonk, Professor, Agrotechnology & Food Sciences, Wageningen University, The Netherlands*

**4:30 pm**      **Discussion - Genetic Markers and Milk Traits of Tomorrow**

**5:00 pm - 7 pm Poster Reception**

**5:00-6:00 pm Joint Scientific Advisory Council/Steering Committee Meeting (closed session)**

**Tuesday October 7, 2014**

### Lactation Biology

*Moderators: Anne Staudt Kvistgaard, Senior manager, Arla Foods Ingredients Group P/S & Skipper Sørensen, Associate professor, Department of Genetics and Biotechnology, Aarhus University*

**9:00 am Good Morning & Practical info**

**9:05 am In-Silico Genomic Approaches to Understanding Lactation, Mammary Development, and Breast Cancer**

*Darryl L. Hadsell Associate Professor, Department of Pediatrics, USDA/ARS Children's Nutrition Research Center, Baylor College of Medicine, USA*

**9:25 am The Comparative Genomics of Monotremes, Marsupials, and Pinnipeds: Models to Examine the Functions of Milk Proteins**

*Julie Sharp, Research Fellow, Centre for Biotechnology and Interdisciplinary Sciences, Deakin University, Australia*

**9:45 am The Relationship Between Milk Proteins and Extracellular Matrix in Regulating Murine Mammary Gland Involution**

*Sugeetha Ramakrishnan, School of Medicine, Deakin University, Victoria, Australia*

**Student Travel Award Recipient**

**10:00 am Effect of A 48h Food Deprivation on the Lactating Goat Mammary MiRNome Obtained by Deep Sequencing**

*Lenha Mobuchon, INRA, Saint Genès Champanelle, France*

**Student Travel Award Recipient**

**10:15 am Break**

### Milk and the Neonate

*Moderators: Anne Staudt Kvistgaard, Senior manager, Arla Foods Ingredients Group P/S & Skipper Sørensen, Associate professor, Department of Genetics and Biotechnology, Aarhus University*

**10:45 am Animal Models for Early Infant Nutrition**

*Per Sangild, Professor, Department of Nutrition, Exercise and Sports, University of Copenhagen, Denmark*

**11:25 am TGF- $\beta$ 2 Protects Intestinal Epithelial Cells by Regulation of Proteins Associated with Stress and Endotoxin Responses**

*Duc Ninh Nguyen, Department of Food Science, University of Copenhagen, Denmark*

**Student Travel Award Recipient**

**11:40 am Human Milk: Mother Nature's Prototypical Probiotic Food?**

*Michelle McGuire, Professor, School of Biological Sciences, Washington State University, USA*

**12:05 pm Lunch**

**12:55 pm Conference photo**

- 1:10 pm**      **NMR Metabolomics of Term and Preterm Milk during the First Month of Lactation**  
*Ann Spevacek, Postdoctoral Researcher, UC Davis, USA*
- 1:30 pm**      **Comparative Proteomics of Human And Macaque Milks: Humans Get a Helping Hand During Post-Natal Development**  
*Kristen Beck, Genome Center, University of California Davis, USA*  
**Student Travel Award Recipient**

### Technological Aspects of Milk

*Moderator: Grith Mortensen, Director, Arla Foods amba*

- 1:45 pm**      **Milk Genomics from a Technological Perspective**  
*Lotte Bach Larsen, Professor, Department of Food Science, Aarhus University, Denmark*
- 2:15 pm**      **Strategies for Improving Milk Coagulation Properties**  
*Nina Poulsen, Department of Food Science, Aarhus University, Denmark*
- 2:35 pm**      **Break**
- 3:05 pm**      **Milk Phospholipids as Emulsifiers in Infant Formula**  
*Lars Hellgren, Associate Professor, Department of Systems Biology, Technical University of Denmark, Denmark*
- 3:25 pm**      **Lipid and Protein Release During In Vitro Digestion of Different Cheese Types**  
*Sylvie Turgeon, Professor and Acting director, Institute of Nutrition and Functional Foods, Laval University, Canada*
- 3:55 pm**      **Discussion - Bringing Basic Science into Application**
- 4:30 pm**      **Practical info**
- 7:00 pm**      **Group Dinner: Varna Palæet** (Busses to pick up at hotels at 6:30 pm)

**Wednesday October 8, 2014**

### Obesity and the Metabolic Syndrome

*Moderators: Bruce German, Professor, UC Davis & Peter Langborg Wejse, Senior Food Scientist, Arla Foods Ingredients Group P/S*

- 9:00 am**      **Good Morning & Practical info**
- 9:05 am**      **Dairy and Weight Management: A Review of the Evidence**  
*Arne Astrup, Professor, Department of Nutrition, Exercise and Sports, University of Copenhagen, Denmark*
- 9:45 am**      **Effect of Milk Protein And Butter with Different Fat Composition on the Observed Metabolites in Human Urine and Blood – Assessed by an Untargeted Metabolomics Approach**  
*Bashar Amer, PhD student, Department of Food Science, Aarhus University, Denmark*

**10:00 am Milk Protein Fractions and Body Weight Regulation – Mechanistic Studies Using Metabolomics in a Mouse Model**  
*Morten Rahr Clausen, Assistant Professor Department of Food Science, Aarhus University, Denmark*

**10:20 am Break**

### Biological Effects of Milk Constituents

*Moderators: Bruce German, Professor, UC Davis & Peter Langborg Wejse, Senior Food Scientist, Arla Foods Ingredients Group P/S*

**10:50 am Biological Effects of Milk Peptides/Proteins – State of the Art**  
*Bo Lönnerdal, Professor, University of California Davis, USA*

**11:20 am Osteopontin – A Bioactive Milk Protein with Immunological Properties**  
*Esben Skipper Sørensen, Associate Professor, Department of Molecular Biology and Genetics - Molecular Nutrition, Aarhus University, Denmark*

**11:50 am Consumption of Fucosyllactose by Infant Borne Bifidobacteria**  
*Mina Popovic, Department of Life Science, University of Modena and Reggio Emilia, Modena, Italy*  
**Student Travel Award Recipient**

**12:05 pm Lunch**

**1:05 pm Role of Protease Inhibitors in Breast Milk in Protection Against Allergy**  
*Kasper Hettinga, Assistant Professor, Food Quality and Design, WU Agrotechnology & Food Sciences, Wageningen UR, The Netherlands*

**1:25 pm Biotransfer of Milk Mirnas to the Baby: A New Functional Component of Milk?**  
*Meagan Gillespie, Post-doctoral fellow, Commonwealth Scientific and Industrial Research Organisation, Australian Animal Health Laboratory, Australia*

**1:45 pm Early Supplementation of Phospholipids and Gangliosides Affect Brain and Cognitive Development in Neonatal Piglets**  
*Emily C. Radlowski, Department of Animal Sciences, Division of Nutritional Sciences, University of Illinois at Urbana-Champaign, USA*

**2:15 pm Discussion - Is the 'hunt' for specific health components the way forward?**

**2:45 pm Break**

**3:15 pm Three Days of Highlights**

**3:45 pm Presentation of Award for 2013 IMGC Symposium MVP (Most Valuable Presentation)**

**4:10 pm Emerging Hot Topics in Milk Science: A Behind-The-Scenes Tour of “SPLASH! milk science update”**  
*Danielle G. Lemay, Research Professor, UC Davis Genome Center, UC Davis, USA*

**4:30 pm Closing Remarks**