Program Schedule

Monday - October 26, 2015

9:00 am  Welcome: Peter Williamson, Faculty of Veterinary Science, University of Sydney, Australia

9:15 am  Opening: Milk Genomics: How Lactation Can Teach Us about Lifelong Health
Bruce German, Foods for Health Institute, University of California, Davis, USA

9:45 am  Emerging Hot Topics in Milk Science
Danielle Lemay, University of California Davis Genome Center, Davis, USA

10:30 am  Break

11:00 am  Cow Milk-Derived Extracellular Vesicles Possess Immunoregulatory - and Anti-Inflammatory Activities and Oral Administration Ameliorates Experimental Arthritis
Fons van de Loo, Experimental Rheumatology, Radboud University Medical Center, Nijmegen, The Netherlands

11:40 am  Supplementation with Bifidobacterium Infantis in Combination with Bioactive Milk Components to Alter Microbial Composition in Children with Autism
Megan Sanctuary, Department of Nutrition, University of California, Davis, USA
Student Travel Award Recipient

12:00 pm  Metabolic Programming in Utero - How a Mother’s Diet Shapes Her Child’s Future
Jennie Brand-Miller, School of Molecular Biosciences and Boden Institute of Obesity, Nutrition and Exercise, University of Sydney, Australia

12:40 pm  Lunch

2:00 pm  Sensor Derived Health Phenotypes for Improved Dairy Cattle Management and Genetic Selection
Cameron Clark, Dairy Science Group, The University of Sydney, Camden, Australia

2:40 pm  Harnessing the Benefit of Functional Genomics Information When Combining Two Unrelated Populations for Genomic Selection
Antonio Reverter, CSIRO Agriculture Flagship, Queensland Bioscience Precinct, St. Lucia, Australia

3:20 pm  Collection of Data for the Genetic Improvement of Health Traits in Australian Dairy Cattle
Mary Abdelsayed, Faculty of Veterinary Science, The University of Sydney, Camden, Australia
Student Travel Award Recipient

3:40 pm  Break
4:00 pm  Human Breast Milk miRNA, Maternal Probiotic Supplementation and Atopic Dermatitis in Offspring  
Melanie Rae Simpson, Department of Public Health and General Practice, Norwegian University of Science and Technology (NTNU), Trondheim, Norway  
Student Travel Award Recipient

4:20 pm  Freed Milk Glycan Monomers Create a Niche for Gut Pathogens in Vivo  
Steven Frese, Department of Food Science and Technology, University of California, Davis, USA

5:15 pm – 6:15 pm Joint Scientific Advisory Council/Steering Committee Meeting (closed session)

6:00 pm – 8:00 pm Poster Reception

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Tuesday - October 27, 2015

8:30 am  Novel Genetic Makers Affect Rennet-Induced Milk Coagulation  
Vivi Gregersen, Department of Molecular Biology and Genetics, Aarhus University, Tjele, Denmark

9:10 am  Not Sex but Birth Weight of the Calf Affects Its Mother's Milk Production  
Yu Wang, Animal Breeding and Genomics Centre, Wageningen University, The Netherlands

9:50 am  An Evaluation of Extended Lactation in the Australian Dairy Industry  
Peter Thomson, Faculty of Veterinary Science, The University of Sydney, Camden, Australia

10:30 am  Break

10:50 am  Characterization of Regulatory Elements Associated With Mammary Gland Function in Mouse and Cow  
Monique Rijnkels, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University, USA

11:30 am  Maternal Mechanisms of Energy Mobilisation during Lactation in Mouse Models  
Peter Williamson, Faculty of Veterinary Science, The University of Sydney, Australia

12:10 pm  A Role for Sim2s in Elongation Regulation of Milk Protein Gene Transcription in the Mammary Gland  
Jessica Elswood, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University, USA  
Student Travel Award Recipient
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| 2:00 pm | Peptidomics of Human and Bovine Milk Revealing Novel Antimicrobial Peptides  
            David Dallas, Department of Food Science and Technology, University of California, Davis USA |
| 2:40 pm | Survival of New Probiotic Strains with Anti-Inflammatory & Anti-Obesity Effects Used in Non-Fat Yogurt and Low-Fat Cheddar Cheese Making  
            Véronique Demers-Mathieu, Dairy Science and Technology (STELA), Institute of Nutrition and Functional Foods (INAF), Department of Food Sciences and Nutrition, Laval University, Quebec City, Canada  
            Student Travel Award Recipient |
| 3:00 pm | Molecular Determinants of Milk Lactoferrin as A Bioactive Compound in Early Neurodevelopment and Cognition  
            Bing Wang, School of Medicine, Xiamen University, China, and School of Animal and Veterinary Sciences, Charles Sturt University, Sydney, Australia |
| 3:40 pm | Break                                                                  |
| 4:00 pm | Packaging of Endogenous and Exogenous Milk miRNAs in the Mammary Gland: New Opportunities for Milk as a Therapeutic  
            Meagan Gillespie, CSIRO, Australian Animal Health Laboratory, Geelong, Victoria, Australia |
| 4:40 pm | Comparative Analysis of Milk miRNA  
            Christophe Lefevre, The Walter and Eliza Hall Institute of Medical Research, and Melbourne University, Australia |
| 7:00 pm | Group Dinner: Sydney Harbor Dinner Cruise                              |

**Wednesday – October 28, 2015**

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| 9:00 am | Effects of Maternal Periconception Overnutrition on the Adipose Tissue Epigenome of Offspring  
            Ross Tellam, CSIRO Agriculture, Brisbane, Australia |
| 9:40 am | The Nature of Nutrition: An Integrative Framework from Animal Adaptation to Human Obesity  
            Stephen J. Simpson, Charles Perkins Centre, The University of Sydney, Australia |
| 10:20 am | Modulation and Programming of Immunity and Intestinal Microbiota through Early Life Supplementation with Human Milk Oligosaccharides in an Autoimmune Mice Model  
            Belinda van't Land/Dr. Bernd Stahl, Nutricia Research, Utrecht, The Netherlands |
11:00 am  Break

11:20 am  Homeostasis and the Composition of Mammalian Milk  
David Raubenheimer, Charles Perkins Centre, The University of Sydney, Australia

12:00 pm  Human Complex Milk Lipids: Concentrations, Benefits and Implications for Human Infant Formula  
Alastair MacGibbon, Fonterra Co-operative Group, Palmerston North, New Zealand

12:40 pm  Metabolomic and Proteomic Insights into Milk Biochemistry: Genetic, Seasonal and Feed Induced Changes in Milk  
Simone Rochfort, AgriBio, Centre for AgriBioscience, Biosciences Research, DEDJTR, and School of Applied Systems Biology, La Trobe University, Bundoora, Australia

1:20 pm  Closing Remarks

1:30 pm  Lunch