Tuesday October 1, 2013

9:00 am  Welcome: Butch Dias, California Dairy Research Foundation, Davis, California
Opening: Bruce German, Foods for Health Institute, Department of Food Science & Technology, University of California, Davis

Milk’s Manipulation of the Gut Microbiota

9:25 am  KEYNOTE: IMGC 10th Anniversary Plenary Lecture – Dining in With Trillions of Fascinating Friends: Exploring Our Human Gut Microbiota in Health And Disease
Jeffrey I. Gordon, Center for Genome Sciences and Systems Biology, Washington University School of Medicine, St. Louis, MO

10:10 am  Effects of Consuming Milk Oligosaccharides (Extracted from Cheese Whey) on Gut Microbiota and Tolerability in Healthy Humans
Daniela Barile, Foods for Health Institute, Department of Food Science & Technology, University of California, Davis

10:30 am  STUDENT TRAVEL AWARD RECIPIENT: Milk and Milk Containing Lactobacillus Casei Differentially Influence the Composition of the Intestinal Microbiota of Mice
Xiaochen Yin, University of California, Davis

Coffee Break

11:20 am  Protein-derived Bioactive Compounds Produced During Ripening of American Cheddar Cheese Modulate Fecal Microbiota from Obese Mice
Giuliana Noratto, School of Food Science and School of Molecular Biosciences, Washington State University

11:40 am  STUDENT TRAVEL AWARD RECIPIENT: Maternal FUT2 Polymorphisms Influence the Gut Microbial Communities of Breastfed Infants
Zachery Lewis, University of California, Davis

11:55 am  STUDENT TRAVEL AWARD RECIPIENT: Milk Promotes Probiotic Efficacy in the Intestine
Bokyung Lee, University of California, Davis

12:10 pm  Lunch

Mechanisms of Milk Oligosaccharide Utilization by Bacteria

1:15 pm  KEYNOTE: Interactions Between Milk Oligosaccharides, Bifidobacteria and the Animal Host
Dave Mills, Department of Food Science and Technology, Department of Viticulture and Enology and Helen Raybould, UC Davis School of Veterinary Medicine, University of California, Davis

2:00 pm  Anything You Can Do I Can Do Better: Divergent Mechanisms to Metabolize Milk Oligosaccharides by Two Bifidobacterial Species
David Sela, Department of Food Science, University of Massachusetts, Amherst

2:20 pm  Various Infant-associated Intestinal Bacteria Hydrolyze Milk Gangliosides In Vitro
Hyeyoung Lee, Department of Food Science & Technology, University of California, Davis

2:40 pm  Coffee Break

Tenth Year Anniversary: Visions of the Past and the Future

3:10 pm  KEYNOTE: International Milk Genomics Consortium: Ten years of Collaboration and Innovation
Bruce German, Foods for Health Institute, Department of Food Science & Technology, University of California, Davis

3:55 pm  Bringing the Science to Practice – Industry Discussion ‘Milk and the Gut’
Moderator: Peter Williamson, Physiology and Genomics & Veterinary Science, University of Sydney

4:30-6:30 pm  Poster Reception
5:00-6:00 pm  Joint Scientific Advisory Council/Steering Committee Meeting
Wednesday October 2, 2013

9:00 am  KEYNOTE: Boy Milk & Girl Milk: Evolutionary Insights
          Katie Hinde, Human Evolutionary Biology, Harvard University, Cambridge, Massachusetts

9:45 am  KEYNOTE: Modifying Mammary Gland Function, Then, Now and in the Future
          Russ Hovey, Department of Animal Science, University of California, Davis

10:30 am  Coffee Break

Manipulation of Bovine Milk Fat

11:00 am  INVITED LECTURE: Metabolic Regulation of Bovine Milk Fat Globule Size
          Nurit Argov-Argaman, The Department of Animal Sciences, the Robert H Smith faculty of Agriculture, Food and
          Environment, The Hebrew University, Israel

11:20 am  Extremes in Diverse Natural Populations: A Phenotypic Population Screen Discovers a de Novo Mutation
          for Unsaturated Milk Fat
          Klaus Lehnert, University of Auckland, Auckland, New Zealand

11:40 am  STUDENT TRAVEL AWARD RECIPIENT: Regiospecific Analysis of Bovine Milk Fat Triacylglycerols: Variability Within
          a Dairy Cattle Population
          Daylan Tzompa-Sosa, Wageningen University, the Netherlands

12:00 pm  Lunch

Genetic Selection for Economically Important Traits

1:00 pm  KEYNOTE: RNA Sequencing for the Analysis of Complex Traits in Milk
          Juan F. Medrano, Animal Genomics Laboratory, Department of Animal Science, University of California, Davis

1:45 pm  Transcobalamin in Cows’ Milk Facilitates Uptake of Vitamin B12 into Human Intestinal Epithelial Cells
          Tom Wheeler, AgResearch, Ruakura Research Centre, Hamilton New Zealand

2:05 pm  Reducing Methane Emission by Dairy Cows through Genetic Selection
          Marleen Visker, Animal Breeding and Genomics Centre, Wageningen University, the Netherlands

2:25 pm  Coffee Break

Diagnostics

3:00 pm  INVITED LECTURE: Probing the Transcriptome of Milk Production: Milk Trumps Mammary Tissue
          Danielle Lemay, Genome Center and Foods For Health Institute, University of California, Davis

3:20 pm  Integrating Different Omics Techniques to Better Understand Milk Composition in Relation to Cow’s Health:
          A Case of Negative Energy Balance
          Elsa Antunes Fernandes, Dairy Science and Technology, Wageningen University, the Netherlands

3:40 pm  Comparison of Five Different RNA Sources to Examine the Lactating Bovine Mammary Gland Transcriptome Using
          RNA-Sequencing
          Angela Cánovas, Department of Animal Science, University of California, Davis

4:00 pm  Rapid Measurement of Human Milk Macronutrients in the Neonatal Intensive Care Unit: Accuracy and
          Precision of Fourier Transform Mid-Infrared Spectroscopy
          Jennifer Smilowitz, Foods for Health Institute, University of California Davis

4:20 pm  Industry Discussion Bringing genetic traits to Practice
          Moderator: Johan van Arondonk, Animal Breeding and Genomics Centre, Wageningen University, the Netherlands

5:00 pm  Adjourn

6:30-11 pm  Group Dinner at the Old Sugar Mill with The Johnny Cash Tribute Show featuring James Garner
          (Bus will pick up in front of Hyatt Place next door to the Conference Center)
**Thursday October 3, 2013**

### Analytics

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>9:00 am</td>
<td><strong>KEYNOTE: The Innovation Enabling Science of Analytics</strong></td>
<td>Carlito Lebrilla, Department of Chemistry and Department of Biochemistry and Molecular Medicine, University of California, Davis</td>
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<tr>
<td>9:45 am</td>
<td>Comprehensive Peptidomic Analysis of Human Milk through Lactation</td>
<td>Andres Guerrero, Chemistry Department, University California, Davis</td>
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<td>10:05 am</td>
<td>Peptidomic Profile of Milk of Holstein Cows at Peak Lactation</td>
<td>David Dallas, Foods for Health Institute, Department of Food Science &amp; Technology, University of California, Davis</td>
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<td>10:25 am</td>
<td>STUDENT TRAVEL AWARD RECIPIENT: A Novel LC-MS Protein Profiling Method to Characterize and Quantify Individual Milk Proteins and Multiple Isoforms</td>
<td>Zuzana Krupova, Institut National de la Recherche Agronomique, Paris, France</td>
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<td>10:40 am</td>
<td>Coffee Break</td>
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### Milk-inspired Therapeutics

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<tr>
<td>11:20 am</td>
<td><strong>KEYNOTE: The Innovation Enabling Science of Biology</strong></td>
<td>Julie Sharp, School of Medicine, Deakin University, Australia</td>
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<td>12:05 pm</td>
<td>STUDENT TRAVEL AWARD RECIPIENT: Developmental Role of Milk in Lung Maturation of Marsupial Pouch Young (Tammar Wallaby)</td>
<td>Vengama Naidu Modepalli, Deakin University, Australia</td>
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<td>12:20 pm</td>
<td>STUDENT TRAVEL AWARD RECIPIENT: Tammar Wallaby: A Marsupial Model to Understand the Role of Milk in Regulating Stomach Development</td>
<td>Sanjana Kuruppath, Deakin University, Australia</td>
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<td>12:35 pm</td>
<td>Closing Remarks</td>
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<td>1:00 pm</td>
<td>Lunch</td>
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