90th Nestlé Nutrition Institute Workshop
Lausanne, Switzerland – October 30 – November 1, 2017

"Human Milk: Composition, Clinical Benefits and Future Opportunities"

Chairs: Prof. Sharon DONOVAN | Prof. Bruce GERMAN |
Prof. Bo LÖNNERDAL | Prof. Alan LUCAS

Monday, October 30, 2017

09:00 – 09:05 Opening
Natalia Wagemans

09:05 – 09:15 Nestlé Policy in Supporting and Protecting Breast Feeding
Heiko Schipper

Session I State of Breast Feeding in the World Chair: Alan Lucas

09:15 – 09:30 Introduction of Scientific Session & Session Chair
José Saavedra

09:30 – 10:10 Breast Feeding in Medicine a Historical Perspective
Ruth Lawrence

10:10 – 10:50 Coffee Break & Group Picture

10:50 – 11:50 Breast Feeding and Health – a Biological Perspective
Alan Lucas

11:50 – 12:30 Physiologic Basis/Mechanics of Breastfeeding
Michael Woolridge

12:30 – 13:15 Panel Discussion

13:15 – 14:15 Lunch

Session II Human Milk Composition and Physiological Benefits Chair: Bo Lönnerdal

14:15 – 15:15 Physiological Effects of Feeding Infants and Young Children
a Formula Supplemented with Milk Fat Globule Membranes
Olle Hernell

15:15 – 16:15 Human Milk Oligosaccharides: Factors Affecting their Composition and their Physiological Significance
Norbert Sprenger

16:15 – 16:30 Coffee Break
"Human Milk: Composition, Clinical Benefits and Future Opportunities"

**Tuesday, October 31, 2017**

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<th>Human Milk Composition and Physiological Benefits (continued)</th>
<th>Chair: Bo Lönnerdal</th>
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<td>08:30 – 09:00</td>
<td>Fatty Acids and Fat-Soluble Vitamins in Breast Milk: Factors Affecting their Concentrations and their Physiological Significance</td>
<td>Ardythe Morrow</td>
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<td>09:00 – 09:30</td>
<td>Water-Soluble Vitamins in Breast Milk: Factors Affecting their Concentrations and their Physiological Significance</td>
<td>Lindsay Allen</td>
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<td>09:30 – 10:00</td>
<td>Q&amp;A on Vitamins in Breast Milk</td>
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<td>10:00 – 10:30</td>
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<td>10:30 – 11:30</td>
<td>Human Milk MicroRNAs/Exosomes: Composition and Biological Effects</td>
<td>Bo Lönnerdal</td>
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<td>11:30 – 12:30</td>
<td>Proteins in Human Milk: Composition and Biological Effects</td>
<td>Sharon Donovan</td>
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<td>12:30 – 13:30</td>
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**Session III**

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<th>Clinical Aspects of Human Milk on Infant Health Outcomes</th>
<th>Chair: Sharon Donovan</th>
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<td>13:30 – 14:30 Early Life Nutrition and Growth Trajectories and Metabolic Outcomes</td>
<td>Ferdinand Haschke</td>
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<td>14:30 – 15:30 Early Life Nutrition and Cognitive Development</td>
<td>Weili Lin</td>
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<td>16:00 – 17:00 Early Life Nutrition and Immune Development</td>
<td>Valerie Verhasselt</td>
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<td>17:00 – 18:00 Early Life Nutrition and Microbiome Development</td>
<td>Erika Isolauri</td>
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Wednesday, November 1, 2017

Session III  Clinical Aspects of Human Milk on Infant Health Outcomes (continued)  Chair: Sharon Donovan

08:30 – 09:30  Human Milk and Clinical Outcomes in Preterm Infants  Paula Meier

Session IV  Research Gap and Opportunities  Chair: Bruce German

09:30 – 10:30  Metabolomics’ Approach in HM Research  Carolyn Slupsky

10:30 – 11:00  Coffee Break

11:00 – 12:00  Next Generation of Milk’s Benefits: Behavioural Outcomes  Katie Hinde

12:00 – 13:00  Oligosaccharides: Next Generation Functions  Lars Bode

13:00 – 14:00  Lunch

14:00 – 15:00  Guiding Development – Lessons from Mammalia  Kevin Nicholas

15:00 – 16:00  Milk’s Structural Dynamics: Nutrient Delivery System  Bruce German

16:00 – 16:30  Closing of the Workshop