

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Optimizing Nutrition for Maternal, Newborn and Child Health (EK8)

October 21-23, 2020 • Virtual at your computer • , CO, USA

Scientific Organizers: Emily Smith, Anura Kurpad and Farhad Imam

Part of the Keystone Symposia Global Health Series, supported by the Bill & Melinda Gates Foundation

Global Health Travel Award Deadline: October 14, 2020 / Scholarship Deadline: / Abstract Deadline: September 22, 2020 / Discounted Registration Deadline:

WEDNESDAY, OCTOBER 21

Welcoming Remarks and Keynote Address (7am Denver/Mountain Time Start)

*Emily R. Smith, George Washington University, USA

Rajiv Bahl, World Health Organization, Switzerland
Global Maternal, Fetal, and Newborn Nutrition: The Challenges and Opportunities

Maternal (Intrauterine) Nutrition and Fetal Growth - Shared Session with Grand Challenges (8am Denver/Mountain Time Start)

*Jian Yan, Bill & Melinda Gates Foundation, USA

Emily R. Smith, George Washington University, USA
Modern Methods to Optimize Maternal Micronutrient Status

Yoel Sadovsky, Magee-Womens Research Institute, USA
Intrauterine Nutrition and Placental Fat Management

Balakrishnan Siddhartha Ramakrishna, SRM Institutes for Medical Science, India
Iron and the Gut Microbiome: Considerations for Iron Supplementation in Pregnancy

Bosede Bukola Afolabi, University of Lagos, Nigeria
Current Utilization of Intravenous Iron for Maternal Anaemia during Pregnancy

Ranadip Chowdhury, Society for Applied Studies, India
Maternal Nutrition, Gestational Weight Gain and Adverse Birth Outcomes

Joint Keynote Session with Grand Challenges (10:00am Denver/Mountain Time Start)

Joint with Grand Challenges: Follow-up Conversation on Preserving Culture: Embracing Traditional Fermented Foods for Improving Maternal Nutrition (Networking Lounge) (12:20pm Denver/Mountain Time Start)

Meet the Editors (1:30pm Denver/Mountain Time Start)

Sara Hamilton, Cell Press, USA
Sri Devi Narasimhan, Cell Press, USA
Lucy Chubbock, Frontiers, Switzerland

Poster Session 1 (2:30pm Denver/Mountain Time Start)

THURSDAY, OCTOBER 22

Human Breastmilk: What's in It? How Does It Affect Infant Health? (7am Denver/Mountain Time Start)

Lindsay H. Allen, USDA, Agricultural Research Service, USA
What's Normal? Global Reference Values for Human Milk (MILQ Study)

Alecia-Jane Twigger, University of Cambridge, UK
Unravelling the Heterogeneity and Function of Human Milk Secretory Cells to Reveal Breast Maturation and Milk Production Pathways

Brittany A. Goods, Massachusetts Institute of Technology, USA
Short Talk: Longitudinal Profiling of Breast Milk-Resident Cells by Single-Cell RNA-Sequencing Over the Course of Lactation Reveals Secretory Epithelial Cell and Macrophage Diversity

Janos Zempleni, University of Nebraska, Lincoln, USA

Short Talk: Exosomes and MicroRNAs in Maternal Milk Are Important for Growth and Gut Health during Lactation in Murine Pups

Feeding Vulnerable Infants: Considerations for Preterm and Low Birthweight Newborns (8:15am Denver/Mountain Time Start)

*Katherine E. Semrau, Brigham and Women's Hospital, USA
Feeding Vulnerable Infants - Global Evidence, Policy, and a Call to Action

*Paula P. Meier, Rush University, USA
Health and Nutrition Impacts of Donor Human Milk for Vulnerable Infants: Implications for Low- and Middle-Income Countries

Valerie Flaherman, University of California, San Francisco, USA
Feeding Vulnerable Newborns to Preventing Stunting and Wasting During Infancy and Beyond

Martha Mwangome, KEMRI – Wellcome Trust, Kenya
The Role of Breastmilk in Treatment of Severe Acute Malnutrition in Infants Aged Below 6 Months

Fernanda Rosa, University of Arkansas for Medical Sciences, USA
Short Talk: Human Milk and Dairy-Based Formula Impact Large Intestine Metabolome Profile in a Neonatal Porcine Model

Yabo Josiane Honkpehedji, Centre de Recherches Médicales de Lambaréné, Gabon
Short Talk: Association of Low Birth Weight and Polyparasitic Infection during Pregnancy in Lambaréné, Gabon

Career Roundtable (11:30am Denver/Mountain Time Start)

Farhad B. Imam, Bill & Melinda Gates Foundation, USA
David J. Kyle, Evolve BioSystems, USA
Katherine E. Semrau, Brigham and Women's Hospital, USA

Poster Session 2 (12:30pm Denver/Mountain Time Start)

FRIDAY, OCTOBER 23

Innovative Breastmilk Supplements for Newborns (7am Denver/Mountain Time Start)

*Farhad B. Imam, Bill & Melinda Gates Foundation, USA
David J. Kyle, Evolve BioSystems, USA
Historical Overview of the Role of B. infantis in Breastfeeding Infants
Buffy Stahl, DuPont, USA
Landscape of Microbial Products and Therapeutics (L. Plantarum, etc)

Grace M. Lee, Virginia Tech Carilion School of Medicine, USA
Short Talk: Effects of Lactobacillus reuteri Supplementation during Pregnancy and Lactation on Neonatal IgA Production in Murine Models

Optimal Nutrition in Older Infants and Young Children (8:05am Denver/Mountain Time Start)

Seth Adu-Afarwuah, University of Ghana, Legon, Ghana
Lipid Nutrient Supplements (LNS) – Who Benefits? Big Data for Precision Public Health

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Christine P. Stewart, University of California, Davis, USA
Eggs and Egg Products as Complementary Food for Growth

***Anura V. Kurpad**, St. John's Research Institute, India
Amino Acid Digestibility

Christopher Sudfeld, Harvard T.H. Chan School of Public Health, USA

Neurocognitive Benefits of Childhood Nutrition Interventions

Tahmeed Ahmed, ICDDR,B, Bangladesh
Microbiota Directed Complementary Foods for the Treatment of Childhood Malnutrition

Naomi S. Dsouza, King Edward Memorial Hospital, India
Short Talk: Pre-Conceptional B12 Supplementation and Offspring Neurocognitive Development: Observations in Pune Rural Intervention in Young Adolescents (PRIYA) Trial

Closing Remarks

***Farhad B. Imam**, Bill & Melinda Gates Foundation, USA