Human Nutrition, Environment and Health

October 14–18, 2015
China World Hotel | Beijing | China

Scientific Organizers: Martin Kussmann, Hannelore Daniel and Jacqueline Pontes Monteiro

Organized in collaboration with BGI. Part of the Keystone Symposia Global Health Series, supported by the Bill & Melinda Gates Foundation.

Diet is the most important environmental factor for maintaining health and preventing disease. The goals and outcomes of this meeting include: 1) Bringing together researchers from traditionally rather separated disciplines: nutrition, (gen)omics, clinics, physiology, epidemiology, analytics, biomathematics; 2) Advancing nutrition research as a quantitative, holistic and molecular science; 3) Reviewing/challenging classical pre-clinical models and clinical study designs and incorporating improved translational in vitro and in vivo models, human intervention study designs, and innovative new tools/technologies for molecular phenotyping and capture of human diet and lifestyle; and 4) Connecting basic laboratory science to patient- and consumer-relevant outputs in terms of personalized dietary/nutritional counseling and monitoring/diagnostics.

Session Topics:
• The Interaction between Human Genome, Diet and Environment
• Translational Models for Human Nutrition and Health
• Human Nutritional and Lifestyle Interventions
• Capturing and Monitoring Human Individuality
• From Nutrigenomics to Systems Nutrition
• Nutrition 2.0 – Translation into Solutions for Human Health
• Global Nutrition and Sustainability
• Joint Session with Grand Challenges and Keystone Symposia plus one workshop

Note that special subsidized registration rates are available to meeting participants in China.

Note that abstracts can continue to be submitted online through the discounted registration deadline, and you can register up until the meeting begins.

Discounted Registration Deadline: September 10, 2015

For additional details, visit www.keystonesymposia.org/15T1.
**KEYSTONE SYMPOSIA**  
**on Molecular and Cellular Biology**  
**Human Nutrition, Environment and Health (T1)**  
October 14-18, 2015 • China World Hotel • Beijing, China

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**WEDNESDAY, OCTOBER 14**

**Arrival and Registration**

**THURSDAY, OCTOBER 15**

**Welcome and Keynote Address**
- *Martin Kussmann*, Saria International, Switzerland
- *Jacqueline Pontes Monteiro*, Universidade de São Paulo, Brazil
- *Hannelore Daniel*, Technische Universität München, Germany
- *José M. Ordovás*, Tufts University, USA

*Human Health, Genes and Diet*

**The Interaction between Human Genome, Diet and Environment**
- *Claudio Franceschi*, University of Bologna, Italy
- *Leroy E. Hood*, Institute for Systems Biology, USA
- *Ping Zhao*, Shanghai Jiao Tong University, China and Rutgers University, USA
- *Patrick J. Stover*, Cornell University, USA

*Systems Genetics Analysis of Host-Gut Microbiota Interactions*

**Management**
- *Short Talk: The Impact of Milk Derived Bioactives on Glycemic Response in Chinese*

**Diabetes: Evidence from the Ukraine Famine of 1932-1933**
- *Kendal Hirschi*, Baylor College Medicine, USA
- *Vijayalakshmi Varma*, National Center for Toxicological Research, USA
- *Aldons J. Lusis*, University of California, Los Angeles, USA
- *Sumei Hu*, Institute of Food and Health, University College Dublin, Ireland

*Adipocyte Responses to Fructose: A Characterization Using Systems Biology Approaches*

**From Disconnected Data to Emerging Insights: Unraveling Complexity of Human Health**
- *Short Talk: Characterising Normal Human Metabolism*

**Diet, Systems Flexibility and My Optimal Health**
- *Human Health, Genes and Diet*
- *Nutrition and Complex Diseases*
- *Artery Disease in Indian Population*

**Translational Models for Human Nutrition and Health**
- *Martin Kussmann*, Saria International, Switzerland
- *Claudio Franceschi*, University of Bologna, Italy
- *Vijayalakshmi Varma*, National Center for Toxicological Research, USA
- *Patrick J. Stover*, Cornell University, USA

*Adipocyte Responses to Fructose: A Characterization Using Systems Biology Approaches*

**From Nutrigenomics to Systems Nutrition**
- *Jim Kaput*, Nestlé Institute of Health Sciences, Switzerland
- *Martin Kussmann*, Saria International, Switzerland
- *Marina Radev*, Nestlé Health Science, USA
- *Rui Chen*, Stanford University, USA
- *Qiang Tian*, University of Trento Centre for Computational Biol, Italy

*Polphenones Intake: Antioxidant-Related Gene Expression Changes by Cocoa Polyphenols Intake*

**Rights Management**
- *Short Talk: The Impact of Milk Derived Bioactives on Glycemic Management*

**Capturing and Monitoring Human Individuality**
- *Chris Evelo*, Maastricht University, Netherlands
- *Qiang Tian*, University of Trento Centre for Computational Biol, Italy
- *Rui Chen*, Stanford University, USA
- *Rick Weiss*, Viocare, Inc, USA

*Self-Monitoring of Diet and Lifestyle*

**Profile Dynamics of Glucose Metabolism in Human Subjects**
- *Short Talk: Combining Dried Blood Spots with Stable-Isotope Tracers to Profile Dynamics of Glucose Metabolism in Human Subjects*

**SATURDAY, OCTOBER 17**

**From Nutrigenomics to Systems Nutrition**
- *Jim Kaput*, Nestlé Institute of Health Sciences, Switzerland
- *Martin Kussmann*, Saria International, Switzerland
- *Marina Radev*, Nestlé Health Science, USA
- *Lorraine Brennan*, University College Dublin, Ireland

*Metabotyping in Nutrition Research*

**Rice as a Tool to Improve Nutrition for the World’s Poor**
- *Marie Pier Scott-Boyer*, University of Trento Centre for Computational Biol, Italy
- *Short Talk: Network-Based Analysis of Cofactor-Protein Interactions in Nutrition and Complex Diseases*

**Rice as a Tool to Improve Nutrition for the World’s Poor**
- *Namita Parikh Mahalle*, Deenanath Mangeshkar Hospital and Research Center, India
- *Short Talk: A Study of Nutritional Factors and its Relation with Insulin Resistance and Inflammatory Markers in Patients with Coronary Artery Disease in Indian Population*

**Nutrition 2.0 - Translation into Solutions for Human Health**
- *Jacqueline Pontes Monteiro*, Universidade de São Paulo, Brazil
- *Juan B. Ochoa*, Nestlé Health Science, USA
- *Xu Lin*, Shanghai Health Science, USA

*Personalized Nutrition in Critical Care*

**Wellness, Diseases and P4 Medicine**
- *Qiang Tian*, University of Trento Centre for Computational Biol, Italy
- *Rick Weiss*, Viocare, Inc, USA

*Self-Monitoring of Diet and Lifestyle*

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* Session Chair † Invited but not yet accepted  Program current as of November 2, 2018. Program subject to change. Meal formats are based on meeting venue. For the most up-to-date details, visit www.keystonesymposia.org/16T1.
**Global Nutrition and Sustainability**

*Ben van Ommen*, TNO, Netherlands

**Enable Nutrient Security and Sustainability through Systems Research**

*Nina V. Fedoroff*, Pennsylvania State University, USA

The Safety, Nutritional Value, and Sustainability of Organically and Conventionally Grown Food

**Panel Discussion: Perspectives and Needs for research in the Food, Diet and Health Relationship**

*Martin Kussmann*, Saria International, Switzerland

Jim Kaput, Nestlé Institute of Health Sciences, Switzerland

Ben van Ommen, TNO, Netherlands

Lorraine Brennan, University College Dublin, Ireland

Claudio Franceschi, University of Bologna, Italy

**Meeting Wrap-Up: Outcomes and Future Directions (Organizers)**

**Workshop**

*Jacqueline Pontes Monteiro*, Universidade de São Paulo, Brazil

**G. Bhanuprakash Reddy**, National Institute of Nutrition, India

Influence of Micronutrients on Biochemical Pathways Involved in Diabetic Complications

Padmapriyadarsini Chandrasekaran, National Institute for Research in Tuberculosis, India

Dietary Intake, Nutritional Status and Relationship to Serum Lipids among Antiretroviral Naïve HIV-Infected Children in South India

Neil A. Hanchard, Baylor College of Medicine, USA

Dna Methylation Changes in Severe Childhood Malnutrition

Shuxin Han, Case Western Reserve University, USA

Circadian Control of Bile Acid Synthesis by a KLF15-Fgf15 Axis

Efrat Monsonego Ornan, Hebrew University of Jerusalem, Israel

Nutritional Aspects of Skeletal Development

Abena S. Amoah, Noguchi Memorial Institute for Medical Research, Ghana

Breastfeeding Duration and Asthma in Urban Schoolchildren in Ghana

Edwin Andres Higuita, Corporación Universitaria Remington, Colombia

Immunomodulation of T Cells Subpopulations and NK Cells in Elderly Adults during a 12 Weeks Intervention with a Nutritional Complement Enriched with Biotechnologically Ganoderma lucidum Extracted Beta Glucans (ISRCTN 53126301)