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.
KEYSTONE SYMPOSIA
on Molecular and Cellular Biology

Human Nutrition, Environment and Health (T1)
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Jacqueline Pontes Monteiro, Universidade de São Paulo, Brazil
The Genomics of Micronutrient Requirements

Robert Zeigler, IRRI, USA
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

Namita Parikshit 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

Capturing and Monitoring Human Individuality

*Chris Evelo, Maastricht University, Netherlands
Qiang Tian, , USA
Wellness, Diseases and P4 Medicine

Rui Chen, Stanford University, USA
Longitudinal Omics in Humans

Rick Weiss, Viocare, Inc, USA
Self-Monitoring of Diet and Lifestyle

Karsten Hiller, University of Luxembourg, Luxembourg
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, Frontiers Media S.A., Switzerland
Omics-Rooted Systems Studies of Human Phenotypes

Lorraine Brennan, University College Dublin, Ireland
Metabotyping in Nutrition Research

Marjana Radonjic, EdgeLeap, Netherlands
From Disconnected Data to Emerging Insights: Unraveling Complexity of Food-Health Interactions

Paloma K. Barrera, INMEGEN, Mexico
Short Talk: Antioxidant-Related Gene Expression Changes by Cocoa Polyphenols Intake

Xiaojie Tan, Waters, China
Short Talk: Markers of Health: Molecular Phenotyping Unveils the Healthy Biosignature of “Omega-3” Transgenic Mice

Nutrition 2.0 - Translation into Solutions for Human Health

*Jacqueline Pontes Monteiro, Universidade de São Paulo, Brazil
Juan B. Ochoa, Nestlé Health Science, USA
Personalized Nutrition in Critical Care

Xu Lin, Shanghai Institutes for Biological Sciences Chinese Academy of Sciences, China
Genetic Variants, Nutrient-Related Biomarkers on Metabolic Diseases in Chinese
**Poster Session 2**

**SUNDAY, OCTOBER 18**

**Global Nutrition and Sustainability**

*Ben van Ommen*, TNO, Netherlands

**Jim Kaput**, Nestlé Institute of Health Sciences, Switzerland

*Enabling 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*, Frontiers Media S.A., 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)*

**Pieter Johan Giesbertz**, Technische Universität München, Germany

*Metabolic Signatures of Obesity and Diabetes Revealed in Corresponding Genetic Mouse Models*

**Godfrey Oakley**, Emory University, USA

*Epidemic Folic Acid Preventable Spina Bifida and Anencephaly--Important Preventable Contribution to Perinatal, Neonatal, Infant and Under 5 Child Mortality*

**Daniel L. Marks**, Oregon Health & Science University, USA

*A Comprehensive Approach to Healthy Birth, Growth and Development*

**MONDAY, OCTOBER 19**

**Deparature**