



HARVARD
MEDICAL SCHOOL
 DIVISION OF NUTRITION

Symposium Program

September 22-23, 2014 | Joseph B. Martin Conference Center
 Harvard Medical School | Boston, Massachusetts, USA

PROBIOTICS

Throughout the

Lifespan

GUT MICROBIOTA, PROBIOTICS AND
 THEIR IMPACT THROUGHOUT THE LIFESPAN

2014



Unrestricted Educational Grants provided by:



Monday, September 22, 2014

- 7:00 a.m.** **Registration & Breakfast**
- 8:00 a.m.** **Welcome and Program Overview** – W. Allan Walker, MD, Director, Division of Nutrition, Harvard Medical School
- 8:10 a.m.** **Opening Keynote - "Manipulating the Microbiota: Beyond Traditional Probiotics and Fecal Transplant"**
R. Balfour Sartor, MD
Distinguished Professor of Medicine, Microbiology and Immunology, Director, UNC Multidisciplinary Center for IBD Research and Treatment, University of North Carolina

SESSION IA: Pregnancy

Moderator: Mary Ellen Sanders, PhD, Dairy & Food Culture Technologies

- 8:25 a.m.** **Keynote: "The Microbiota During Pregnancy"**
Omry Koren, PhD
Assistant Professor, Faculty of Medicine, Bar Ilan University, Israel
- 8:55 a.m.** **Probiotic Use During Pregnancy for Protection Against Childhood Diseases**
Erika Isolauri, MD, D. Med. Sc
Professor of Pediatrics, University of Turku, Finland
Chief Physician, Department of Paediatrics, Turku University Hospital, Finland
- 9:25 a.m.** **Diet and Microbiotic Exposure During Pregnancy and Immune Protection Against Allergic Manifestations**
Erika von Mutius, MD, MSc
Professor of Pediatrics, Head of Asthmas and Allergy Department, Dr. von Hauner Children's Hospital, Germany
- 9:55 a.m.** **Discussion**
- 10:20 a.m.** **Break**

SESSION IB: Neonatal Period

Moderator: W. Allan Walker, MD, Harvard Medical School

- 10:45 a.m.** **Keynote: "Development of Human Infant Intestinal Microbiota"**
David A. Relman, MD
Thomas C. and Joan M. Merigan Professor, Departments of Medicine and of Microbiology and Immunology, Stanford University
- 11:15 a.m.** **Antibiotics and Neonatal Colonization**
Martin J. Blaser, MD
Muriel and George Singer Professor of Medicine, Professor of Microbiology, Director, Human Microbiome Program, New York University Langone Medical Center
- 11:45 a.m.** **Establishment of a Milk-Oriented Microbiota in Infants: New Insight into Probiotics and Prebiotics**
David A. Mills, PhD
Peter J. Shields Endowed Chair in Dairy Food Science, Department of Viticulture and Enology, Department of Food Science and Technology, University of California, Davis
- 12:15 p.m.** **Lunch**
- 1:15 p.m.** **Probiotic Studies in NEC**
W. Allan Walker, MD
Conrad Taff Professor of Nutrition, Professor of Pediatrics; Director, Division of Nutrition, Harvard Medical School
Mucosal Immunology and Biology Research Center, Massachusetts General Hospital

Monday, September 22, 2014 continued

1:45 p.m. **The Perinatal Microbiome: Implications for Health and Disease**

Josef Neu, MD
Professor of Pediatrics, Division of Neonatology, University of Florida

2:15 p.m. **Discussion**

2:40 p.m. **Break**

SESSION II: Adult Period

Moderators: Peter R. Holt, MD, The Rockefeller University; Richard L. Guerrant, MD, University of Virginia School of Medicine

3:05 p.m. **Keynote: "Diet and the Gut Microbiota"**

Gary D. Wu, MD
Ferdinand G. Weisbrod Professor of Gastroenterology, Associate Chief of Research, Division of Gastroenterology, Associate Director, Center for Molecular Studies in Digestive and Liver Disease, Perelman School of Medicine, University of Pennsylvania

3:35 p.m. **Microbial Determination of Mucosal Homeostasis vs Chronic Intestinal Inflammation**

R. Balfour Sartor, MD
Distinguished Professor of Medicine, Microbiology and Immunology, Director, UNC Multidisciplinary Center for IBD Research and Treatment, University of North Carolina

4:05 p.m. **Microbial Interventions for Obesity and Metabolic Syndrome**

Max Nieuwdorp, MD, PhD
Associate Professor, Internal Medicine, Head of Experimental Vascular Medicine Department, Academic Medical Center, University of Amsterdam, Netherlands
Visiting Professor, Gothenborg University, Sweden

4:35 p.m. **Microbiota and Brain Gut Axis**

Emeran A. Mayer, MD
Professor, Department of Medicine, Physiology and Psychiatry, Co-Director, CURE: Digestive Disease Research Center, David Geffen School of Medicine, University of California, Los Angeles
Executive Director, Oppenheimer Family Center for Neurobiology of Stress

5:05 p.m. **Microbiome-gut-brain Interactions in an Autism Mouse Model**

Elaine Y. Hsiao, PhD
Research Assistant Professor, Division of Biology & Biological Engineering, California Institute of Technology

5:25 p.m. **Discussion**

6:00 p.m. **Adjourn Symposium**

6:00 p.m. **Reception/Poster Session at Martin Center**

7:00 p.m. **Adjourn**

Tuesday, September 23, 2014

7:00 a.m. **Registration & Breakfast**

8:00 a.m. **Welcome & Introductions** – W. Allan Walker, MD

Tuesday, September 23, 2014 continued

SESSION III: Older Adults

Moderator: Samuel Klein, MD, Washington University School of Medicine in St. Louis

- 8:10 a.m.** **Keynote: "Microbiota in Older Adults – Changes, Associations, and Intervention Prospects"**
Paul W. O'Toole, PhD
Professor of Microbial Genomics, School of Microbiology & Alimentary Pharmabiotic Centre, University College Cork, Ireland
- 8:40 a.m.** **Probiotics and the Elderly Microbiome – Is it ever too late to change?**
Patricia L. Hibberd, MD, PhD
Professor, Department of Pediatrics, Harvard Medical School
Chief, Division of Global Health, Department of Pediatrics, Massachusetts General Hospital
- 9:10 a.m.** **Prevention of Recurrent *Clostridium difficile* Infection**
Ciarán P. Kelly, MD
Professor of Medicine, Harvard Medical School
Director, Gastroenterology Fellowship Training, Medical Director, Celiac Center,
Beth Israel Deaconess Medical Center
- 9:40 a.m.** **Break**
- 10:00 a.m.** **Diet, Microbiota and Atherosclerosis**
Stanley L. Hazen, MD, PhD
Chair, Department of Cellular and Molecular Medicine, Vice Chair of Translational Research, Lerner Research Institute
Section Head of Preventive Cardiology & Cardiac Rehabilitation, Heart and Vascular Institute, Cleveland Clinic
- 10:30 a.m.** **Discussion**
- 11:00 a.m.** **Final Overview Keynote - "Future Directions"**
Introduction – Emeran A. Mayer, MD
Jonathan Braun, MD, PhD
Professor, Chair, Department of Pathology and Laboratory Medicine, David Geffen School of Medicine, University of California,
Los Angeles
- 11:45 a.m.** **Closing Remarks** – W. Allan Walker, MD
Adjourn

Organizing Committee

W. Allan Walker, MD - Chair

Harvard Medical School

Richard Guerrant, MD

University of Virginia School of Medicine

Peter Holt, MD

The Rockefeller University

Emeran Mayer, MD

David Geffen School of Medicine, University of California, Los Angeles

Balfour Sartor, MD

University of North Carolina