

**Gastrointestinal Microbiota and
Advances in Prebiotic and Probiotic Research**

**Hilton Washington DC/Rockville Executive Meeting Center
Rockville, Maryland
December 11–12, 2007**

DRAFT AGENDA

Tuesday, December 11, 2007

7:15 – 8:00 a.m. Registration and Continental Breakfast

8:00 – 8:30 a.m. Welcome and Setting the Stage
Jeff Gordon, Director, Center for Genome Sciences, Washington
University School of Medicine
Jon Vanderhoof, Vice President, Global Medical Affairs, Mead-Johnson
Nutritionals

Session I: Function of Gut Microbiota

8:30 – 8:35 a.m. Introduction by Session Chair
Cathryn Nagler, Massachusetts General Hospital and Harvard Medical
School

8:35 – 9:00 a.m. Roles of Gut Microbes in Bioavailability of Dietary Phenolics
Suzanne Hendrich, Department of Food Science and Human Nutrition,
Iowa State University

9:00 – 9:25 a.m. Modifying Immune Function
Bengt Björkstén, Allergy Prevention, Karolinska Institutet, Stockholm,
Sweden

**9:25– 9:50 a.m. Animal Models of Immune System Development and Modulation
Throughout Lifespan**
Gary Huffnagle, Department of Internal Medicine, University of Michigan

9:50 – 10:20 a.m. Session Discussion

10:20– 10:45 a.m. Break

Tuesday, December 11, 2007 (continued)

Session II: Defining Normal Gut Ecology

- 10:45 – 10:50 a.m. Introduction by Session Chair**
Martin Floch, Digestive Disease Section, Department of Internal Medicine, Yale University School of Medicine
- 10:50 – 11:15 a.m. Development and Maintenance of Gut Microbiota**
David Newburg, Pediatric Gastroenterology and Nutrition Unit, Massachusetts General Hospital
- 11:15– 11:40 p.m. Esophageal Bacterial Biota, Beyond, and Below**
Zhiheng Pei, Department of Medicine, New York University School of Medicine
- 11:40 – 12:05 p.m. Analysis of Distal Gut in Adults**
Ruth Ley, Center of Genome Sciences, Washington University School of Medicine
- 12:05 – 1:20 p.m. Lunch (on your own)**
- 1:20 – 1:45 p.m. Elderly and Gut Microbiota**
Adil E. Bharucha, Division of Gastroenterology and Hepatology, Mayo Clinic College of Medicine
- 1:45 – 2:10 p.m. Animal Models of Gastrointestinal Function**
Simon Hogan, Cincinnati Children's Hospital
- 2:10 – 2:40 p.m. Session Discussion**

Session III: Impact of Disease on Gut Microbiota

- 2:40 – 2:45 p.m. Introduction by Session Chair**
Martin Blaser, Department of Medicine, New York University School of Medicine
- 2:45 – 3:10 p.m. Necrotizing Enterocolitis**
Cathy Hammerman, Newborn Nurseries, Shaare Zedek Medical Center, Jerusalem, Israel
- 3:10 – 3:35 p.m. Effects of Probiotics in Mouse Models and IBD**
Fabio Cominelli, Digestive Health Research Center, University of Virginia Health System
- 3:35 – 4:00 p.m. Break**

Tuesday, December 11, 2007 (continued)

- 4:00 – 4:25 p.m.** **Type 1 Interferon: New Assignment in the Intestinal Tract**
Eyal Raz, Department of Medicine, University of California–San Diego
- 4:25 – 4:50 p.m.** **Metagenomic Studies of the Gut Microbiome and its Role in Energy Balance**
Jeff Gordon, Center for Genome Sciences, Washington University School of Medicine
- 4:50 – 5:20 p.m.** **Session Discussion**
- 5:20 – 5:30 p.m.** **Closing Remarks**
Jeff Gordon, Director, Center for Genome Sciences, Washington University School of Medicine
Jon Vanderhoof, Vice President, Global Medical Affairs, Mead-Johnson Nutritionals
- 5:30 p.m.** **Adjournment**

Wednesday, December 12, 2007

- 8:00 – 8:30 a.m.** **Continental Breakfast**

Session IV: Factors Influencing Gut Microbiota

- 8:30 – 8:35 a.m.** **Introduction by Session Chair**
Kelly Tappenden, Division of Nutritional Sciences, University of Illinois at Urbana-Champaign
- 8:35 – 9:00 a.m.** **Factors Influencing Gut Microbiota: Probiotics**
Mary Ellen Sanders, Dairy and Food Culture Technologies
- 9:00 – 9:25 a.m.** **Prebiotics and Their Effects on Intestinal Microbiota in GI Health and Disease**
Leo Dieleman, Division of Gastroenterology, University of Alberta, Alberta, Canada
- 9:25 – 9:50 a.m.** **Factors Influencing the Gut Microbiota of the Premature Infant**
Frank Greer, Department of Pediatrics and Nutritional Science, University of Wisconsin School of Medicine
- 9:50 – 10:15 a.m.** **Impact of Diet and Nutritional Status on the Gut Microbiota**
Randy Buddington, Department of Health and Sports Sciences, University of Memphis
- 10:15 – 10:35 a.m.** **Break**

Wednesday, December 12, 2007 (continued)

- 10:35 – 11:00 a.m. Factors Affecting Gut Microbiota: Antibiotic Use**
Josef Neu, Department of Pediatrics, University of Florida
- 11:00 – 11:25 a.m. Colonization of Gut in Animal Models**
Kelly Tappenden, Division of Nutritional Sciences, University of Illinois at Urbana-Champaign
- 11:25 – 11:55 a.m. Session Discussion**
- 11:55 – 1:05 p.m. Lunch (on your own)**

Session V: New Developments in Prebiotic and Probiotic Research

- 1:05 – 1:10 p.m. Introduction by Session Chair**
James Versalovic, Departments of Pathology, Molecular and Human Genetics, and Molecular Virology and Microbiology, Baylor College of Medicine and Texas Children's Hospital
- 1:10 – 1:35 p.m. Novel Dietary Carbohydrates for Changing Intestinal Microbiota**
George Fahey, Department of Animal Sciences, University of Illinois
- 1:35 – 2:00 p.m. Immune Enhancing Effects of Prebiotics**
Bernhard Watzl, Institute of Nutritional Physiology, Federal Research Centre for Nutrition and Food, Karlsruhe, Germany
- 2:00 – 2:25 p.m. Interrelationship Between Soy Isoflavone-Metabolizing Phenotypes and Human Genetics**
Johanna Lampe, Public Health Sciences Division, Fred Hutchinson Cancer Research Center
- 2:25 – 2:50 p.m. A Functional Genomic-Based Analysis of the Interactions Between Probiotics, Prominent Members of the Gut Microbiota, and the Host**
Justin Sonnenburg, Center of Genome Sciences, Washington University School of Medicine
- 2:50 – 3:20 p.m. Session Discussion**
- 3:20 – 3:30 p.m. Closing Remarks**
Jeff Gordon, Director, Center for Genome Sciences, Washington University School of Medicine
Jon Vanderhoof, Vice President, Global Medical Affairs, Mead-Johnson Nutritionals
- 3:30 p.m. Adjournment**