Thursday, April 25

**MORNING**

8:00 am – OPENING COMMENTS
David H. Perlmutter, MD – Dean and Executive Vice Chancellor for Medical Affairs
Organizers – Brian Mueggge, Peter Turnbaugh, Meng Wu

8:15 am – SESSION 1
Exploring gut microbial ecology and function

- **How human is the human microbiome**
  Ruth Ley  Max Planck Institute for Biology

- **Saying BHB-ye bye to autoimmunity**
  Peter Turnbaugh  University of California, San Francisco

- **Microbial contributions to digestive health - perspectives from your inner fish**
  John F. Rawls  Duke University

10:15 am – SESSION 2
Gnotobiotic models, mechanisms and translation

- **Uncovering the metabolic secrets of anaerobes for therapeutic applications**
  Lynn Bry  Harvard University

- **Regulation of metabolism and immunity by the microbiome**
  Lora Hooper  University of Texas, Southwestern

- **From identification of a microbially produced metabolite to development of a potential novel treatment modality**
  Fredrik Bäckhed  University of Gothenburg

**AFTERNOON**

1:00 pm – SESSION 3
Bacteroides as model symbionts and a paradise for glycobiologists

- **Studying gut bacterial dietary habits: Getting into a sticky situation**
  Justin Sonnenburg  Stanford University

- **Mucus-degrading human gut bacteria in inflammatory bowel disease**
  Eric Martens  University of Michigan

- **Microbiome dynamics during infection**
  Andy Goodman  Yale University

- **Recent insights into carbohydrate-active enzymes of the microbiome**
  Bernard Henrissat  Technical University of Denmark

3:15 pm – SESSION 4
The microbiome, global health & interdisciplinary science

- **Going farther, together: Views on a Global Partnership**
  Tahmeed Ahmed  International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b)

- **Catalyzing change: Collaborative efforts to improve infant health through microbiome and undernutrition solutions**
  Vanessa Ridaura  The Bill & Melinda Gates Foundation

- **How listeria outsmarts its host**
  Marc Lecuit  Institut Pasteur

- **Statistical design of functional microbiomes**
  Arjun Raman  University of Chicago

4:45 pm – REFLECTION
Caroline Ash  Senior Editor, Science
Jeffrey Gordon  WashU Medicine
Friday, April 26  Moore Auditorium

**M O R N I N G**

**8:00 am – SESSION 5**
Characterizing microbes in diverse habitats

RACS-Seq and FlowRACS: Developing instruments for mapping microbiome @ single-cell resolution
Jian Xu  Qingdao Institute of Bioenergy and Bioprocess Technology

Microbe-microbe interactions at nutrient depots in the gut
Michael Patnode  University of California, Santa Cruz

Modeling intestinal eukaryotic microbes in mice and microfluidic devices
Laura Knoll  University of Wisconsin

Tripartite interactions among the microbiota, stromal cells and the immune system
Meng Wu  WashU Medicine

**10:00 am – SESSION 6**
Metabolism!

Gut bacterial metabolism and cardiometabolic disease
Federico Rey  University of Wisconsin

Protective interorgan, intercellular, and inter-compartmental metabolite shuttles in obesity
Peter Crawford  University of Minnesota

Mining the edible plant microbiome to develop medical foods for managing post-menopausal bone loss and rheumatoid arthritis
Mark Charbonneau  Solarea Bio

Transcriptional and epigenetic control of intestinal metabolism
Brian Muegge  WashU Medicine

**A F T E R N O O N**

**1:30 pm – SESSION 7**
Career trajectories

ROUNDTABLE DISCUSSION
The many paths to becoming a cancer biologist
- Michelle Hermiston  University of California, San Francisco
- Neel Dey  Fred Hutchinson Cancer Center
- Marios Giannakis  Dana Farber Cancer Institute

Advancing microbiome sciences in LMICs
Alejandro Reyes  Universidad de los Andes, Colombia

From protein N-myristoylation to the enteric nervous system
Robert Heuckeroth  Children’s Hospital of Pennsylvania

**3:15 pm – CLOSING REMARKS**
Jeffrey Gordon  WashU Medicine

Symposium Information & Registration
sites.wustl.edu/genomesciences/symposium

Washington University School of Medicine
School of Medicine