SUNDAY, JANUARY 17

Arrival and Registration

MONDAY, JANUARY 18

Welcome and Keynote Address (Joint)
Jeffrey I. Gordon, Washington University School of Medicine, USA
Nutrition, the Gut Microbiota and Infant Development

Chemical Biology of the Microbiome (Joint)
Emily P. Balskus, Harvard University, USA
Dissecting and Manipulating Microbial Metabolism in the Vagina and the Gut Microbiota

Mohamed S. Donia, Princeton University, USA
Chemical Ecology of the Human Microbiome in Health and Disease

Michael A. Fischbach, Stanford University, USA
Small Molecules from the Human Microbiota

Short Talks Chosen from Abstracts

The Vaginal Microbiome in Health and Disease (J3)
Jacques Ravel, University of Maryland School of Medicine, USA
The Host-Vaginal Microbiome Dialogue

Tal Korem, Columbia University, USA
Modeling Vaginal Metagenomes: Metabolomes in Health and Disease

Marguerite Indriati Hood-Pishchany, Boston Children's Hospital, USA
Interspecies Competition for Glycans in the Vaginal Microbiota

Short Talks Chosen from Abstracts

Interactions between Phage and Intestinal Bacteria (J4)
Kimberley Seed, University of California, Berkeley, USA
Phage Dynamics during Intestinal Infection with Vibrio cholerae

Paul L. Bollyky, Stanford University, USA
Impact of Bacteriophage on Mammalian Cells

Colin Hill, University College Cork, Ireland
Shining Light on the Viral Dark Matter of the Human Gut Microbiome

Short Talks Chosen from Abstracts

Poster Session 1

TUESDAY, JANUARY 19

The Microbiome and Pregnancy Outcomes (J3)
Michal A. Elovitz, University of Pennsylvania School of Medicine, USA
Immunological and Microbial Modulation of the Cervicovaginal Microbiota and Spontaneous Preterm Birth

David Maclntyre, Imperial College London, UK
Glycan Mediated Microbiota-Host Interactions in the Reproductive Tract and Pregnancy Outcomes

David A. Relman, Stanford University, USA
The Post-Partum Microbiome and Predisposition Towards Spontaneous Preterm Birth

Katharina Ribbeck, Massachusetts Institute of Technology, USA
Modulation of the Properties of Cervicovaginal Mucus by the Microbiota: A Role in Spontaneous Preterm Birth?

Short Talks Chosen from Abstracts

Interactions of Pathogens with the Microbiota (J4)
Denise M. Monack, Stanford University, USA
Commensal Metabolites and Inhibitions of Salmonella

Bärbel Stecher, Ludwig-Maximilians-Universität München, Germany
Interaction of Pathogens and the Gut Microbiota

Trevor Lawley, Wellcome Sanger Institute, UK
Exploiting Commensal Bacteria to Combat Intestinal Infection

Manuela Raffatellu, University of California, San Diego, USA
Mechanisms of Commensal-Mediated Inhibition of Pathogens

Short Talks Chosen from Abstracts

Microbiome Transmission from Mother to Infants (J3)
Moran Yassour, Hebrew University of Jerusalem, Israel
Strain-Level Analysis of Mother-to-Child Bacterial Transmission during the First Few Months of Life

Anita L. Kozyrskyj, University of Alberta, Canada
Roles of Birth Mode and Infant Gut Microbiota in Intergenerational Transmission of Overweight and Obesity from Mother to Offspring

Grace M. Aldrovandi, University of California, Los Angeles, USA
When Mom is Sick: Maternal Health and the Infant Microbiome

Short Talks Chosen from Abstracts

Metabolic Pathways within the Microbiota (J4)
Alan Walker, University of Aberdeen, Scotland
Implications of Gut Microbiota Variability for Dietary and Therapeutic Interventions
**The Microbiome: From Mother to Child (J3)**

Scientific Organizers: Jacques Ravel, David M. Aronoff, Grace M. Aldrovandi and Maria Carmen Collado

Harvesting the Microbiome for Disease Prevention and Therapy (J4)

Scientific Organizers: Eric G. Pamer, Laurie E. Comstock and Alan Walker

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**Kiran Patil**, European Molecular Biology Laboratory, Germany

Impact of Therapeutic Drugs on Microbiota Metabolism

**Lora V. Hooper**, University of Texas Southwestern Medical Center, USA

Metabolism, the Microbiome, and the Circadian Clock

**Short Talks Chosen from Abstracts**

**Poster Session 2**

**WEDNESDAY, JANUARY 20**

**Development of the Infant Gut Microbiota (J3)**

**Joseph F. Petrosino**, Baylor College of Medicine, USA

Temporal Development of the Gut Microbiome in Early Childhood from the TEDDY Study

**Marie-Claire Arrieta**, University of Calgary, Canada

Maturation of the Gut Micro and Mycobiome and Risk of Asthma in Childhood

**Erika C. Claud**, University of Chicago, USA

Necrotizing Enterocolitis and the Preterm Infant Microbiome

**Short Talks Chosen from Abstracts**

**Microbiome and Immunity (J4)**

**Ivaylo I. Ivanov**, Columbia University, USA

Uptake and Presentation of Commensal Antigens

**Wendy S. Garrett**, Harvard School of Public Health, USA

Commensal Bacteria, Inflammation and Cancer

**Kenya Honda**, School of Medicine, Keio University, Japan

Mining the Microbiota and Identifying Effector Microbes that Causally Affect the Host Physiology

**Short Talks Chosen from Abstracts**

**The Influence of Nutrition on Infants' Microbiota and Health (J3)**

**Steven D. Townsend**, Vanderbilt University, USA

Human Milk Oligosaccharides: Defense Against Pathogens

**David M. Aronoff**, Vanderbilt University, USA

Group B Streptococcus: Transmission of a Pathogen from Mother to Infant

**Maria Carmen Collado**, Institute of Agrochemistry and Food Technology-Spanish National Research Council, Spain

Impact of Maternal Diet and Environment/Geographical Location on Maternal Breast Milk Neonatal Microbiota

**Short Talks Chosen from Abstracts**

**Optimizing the Microbiota for Cancer Treatment (J4)**

**Thomas Gajewski**, University of Chicago, USA

Using Commensal Microbes to Fight Cancer

**Melody Smith**, Memorial Sloan Kettering Cancer Center, USA

Intestinal Microbiome Analyses Identify Biomarkers for Patient Response to CAR T Cell Therapy

**Laurence Zitvogel**, Institut Gustave Roussy, France

Mechanisms by Which Microbiota Impact Tumor Immunosurveillance

**Short Talks Chosen from Abstracts**

**Poster Session 3**

**THURSDAY, JANUARY 21**

**The Mother and Infant Microbiome and Neurodevelopment (J3)**

**Speaker to be Announced**

**Tracy L. Bale**, University of Maryland School of Medicine, USA

The Transfer of Stress and Trauma via the Maternal Vaginal Microbiome

**Elaine Y. Hsiao**, University of California, Los Angeles, USA

Perinatal Interactions between the Microbiome, Immunity, and Neurodevelopment

**Jun R. Huh**, Harvard Medical School, USA

Maternal Microbiota and Neurodevelopmental Abnormalities

**Short Talks Chosen from Abstracts**

**The Microbiome, Intestinal Inflammation and Cancer (J4)**

**Ramnik Xavier**, Massachusetts General Hospital, USA

Microbiota Compositions and Inflammatory Bowel Disease

**Bana Jabri**, University of Chicago, USA

Microbiota, Bowel Inflammation and Celiac Disease

**Cynthia L. Sears**, Johns Hopkins University School of Medicine, USA

Commensal Bacterial Biofilms Associated with Colon Cancer

**Short Talks Chosen from Abstracts**

**The Placental and Endometrial Microbiota – A Debate: Technical Artifact or Biological Reality? (J3)**

*Jacques Ravel*, University of Maryland School of Medicine, USA

**Indira U. Mysorekar**, Washington University School of Medicine, USA

Moving from 'Microbiome' to Microbes in the Placenta and Uncovering Microbial-Immune Crosstalk

**Frederic D. Bushman**, University of Pennsylvania, USA

De-Discovery of the Placenta Microbiome

**Short Talks Chosen from Abstracts**

**Genetics of Microbe-Microbe Interactions (J4)**

**Seth Rakoff-Nahoum**, Boston Children's Hospital, USA

Talk Title to be Announced

**Chun-Jun Guo**, Weill Cornell Medicine, USA

A Genetic Approach to Investigate Microbe-Host Interaction at the Molecular Level

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*Session Chair † Invited but not yet accepted Program current as of June 20, 2020. Program subject to change. Meal formats are based on meeting venue. For the most up-to-date details, visit [https://www.keystonesymposia.org](https://www.keystonesymposia.org).*
Laurie E. Comstock, Brigham and Women's Hospital/Harvard Medical School, USA
Antagonism within the Microbiota

Andrew L. Goodman, Yale School of Medicine, USA
Survival Strategies in the Gut Microbiome

Short Talks Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J3)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (J4)

FRIDAY, JANUARY 22

Departure