SUNDAY, FEBRUARY 13
Arrival and Registration

MONDAY, FEBRUARY 14
Welcome and Keynote Address (Q3)
Howard Ochman, University of Texas at Austin, USA
Evolution of the Human Microbiome

Welcome and Keynote Address (Q4)
Eric G. Pamer, University of Chicago, USA
Impact of Antibiotic Resistance Development, the Microbiome and Human Health

Host Factors and the Microbiome (Q3)
Alexandra Zhernakova, University Medical Center Groningen, Netherlands
Host Genetics in Relation to the Microbiome
C. Jessica Metcalf, Princeton University, USA
Demographics and the Human Microbiome
Nandita Garud, University of California, Los Angeles, USA
Comparative Population Genetics in the Human Gut Microbiome
Qijun Zhang, University of Wisconsin-Madison, USA
Short Talk: Systems Genetics Uncovers Microbe-Lipid-Host Connections in the Murine Gut
Faye Chleilat, Stanford University, USA
Short Talk: Paternal High Protein Diet-induced Intergenerational Effects on Body Composition, Insulin Sensitivity, Epigenetics and the Gut Microbiota

Expanding the Source of Chemical Space for Antimicrobial (Q4)
Man-Wah Tan, Genentech, Inc., USA
DNA Encoded Macrocycles and Metagenomic Mining for Antibiotic Discovery
David Bikard, Pasteur Institute and Eliigo Bioscience, France
Engineering CRISPR-CAS Systems to Kill Bacteria
Davide Corti, Vir Biotechnology, Switzerland
Advances and Challenges in the Development of Anti-Infective Monoclonal Antibodies
Paola Estrada†, Princeton University, USA
Short Talk: Discovery of Aromatic Polyketides from the Human Microbiome
Noam Adir†, Technion, Israel
Short Talk: Lethal Sequences: Development of a Platform for Novel Peptide Antibiotics

Panel Discussion (Q4)
*Deborah T. Hung, Broad Institute of MIT & Harvard, USA
Man-Wah Tan, Genentech, Inc., USA

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* Session Chair † Invited but not yet accepted     Program current as of December 22, 2021. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org.
Soumaya Zlitni, Stanford University, USA
Short Talk: Microbial Chatter: A Novel Quorum Sensing System in the Gut Bacterium and Pathogen E. Faecalis

Mackenzie Gutierrez, University of Calgary, Canada
Short Talk: Early-life Fungal Colonization Mediates Host Metabolism and White Adipose Tissue Inflammation in Mice

Alternatives Approaches to tackle AMR (Q4)
Annette Vogel, BioNTech, Germany
TB Vaccine based on mRNA Technology

Cesar de la Fuente†, University of Pennsylvania, USA
Talk Title to be Announced

Kimberly Kline, Nanyang Technological University, Singapore
Biofilm and AMR

Heather Pinkett, Northwestern University, USA
Transporters in AMR

Uyen Thy Nguyen†, University of Wisconsin Madison, USA
Short Talk: Mining Sustainable Antimicrobials in the Human Skin Microbiome

Jaroslav Zelenka†, University of Chemistry and Technology Prague, Czech Republic
Short Talk: Elimination of Bacterial Biofilms with Antimicrobial Photodynamic Therapy

Host-Virus-Microbiome Interactions (Joint)
Andrew T. Gewirtz, Georgia State University / Frontiers, USA
Host-Virus-Microbiome Interactions

Alejandro Reyes, Los Andes University, Colombia
Bioinformatics Approaches to Phage-Host Interactions

Matthew Henn, Seres Therapeutics, USA
Microbiome Therapeutics to Combat Antimicrobial Resistance and Modulate Host Immunity

Lindsay R. Kalan, University of Wisconsin Madison, USA
Short Talk: Antifungal Potential of the Skin Microbiome

Julia Berksont†, FDA, USA
Short Talk: Immunological and Microbial Responses to Bacteriophage Therapy Targeting Vancomycin-Resistant Enterococcus Colonization

Poster Session 2

WEDNESDAY, FEBRUARY 16

Microbe-Microbe Interactions in Shaping the Microbiome (Q3)
Britt Koskella, University of California, Berkeley, USA
How Microbial Interactions Maintain Diversity

Carolina Tropini, University of British Columbia, Canada
How the host physical environment shapes the gut microbiota in health and disease

Jeff Gore, Massachusetts Institute of Technology, USA
Modeling Interactions

Kevin Foster, University of Oxford, UK
Cooperation and Competition in Microbes and the Microbiome

Anna Sophie Weiss, Max von Pettenkofer Institute, Germany
Short Talk: Exploring the Interaction Network of a Synthetic Gut Bacterial Community

Matthew Barber, University of Oregon, USA
Short Talk: Evolution of Microbial-Host Cell Adherence at Epithelial Barriers

Caitlin H. Kowalski, University of Oregon, USA
Short Talk: Antimicrobial Activity of Skin-Resident Fungi Alters Pathogen Adaptation

Innovations in Rapid Diagnostic to Combat AMR (Q4)
Pierre Mahé, Biomerieux, France
Diagnosing AMR through Sequencing

Julie A. Segre, National Institutes of Health, USA
Tracking an Emerging Pathogen Candida auris in Nursing Homes with Genomic-Epidemiology

Kelly Flentie, Selux Diagnostics, Inc, USA
Rapid Phenotypic Antibiotic Susceptibility Testing

Yoelkys Morales†, Tufts University School of Medicine, USA
Short Talk: Impact of Tissue mimetic Conditions on Combination Therapy in the Treatment of Multi-drug Resistant Klebsiella

Skylar Martin†, Harvard School of Public Health, USA
Short Talk: Optimizing Molecular Antimicrobial Susceptibility Tests for Neisseria Gonorrhoeae

Molecular Cross Talk (Q3)
Elizabeth L. Johnson, Cornell University, USA
Sphingolipids in the Infant Gut Microbiome

Ruth E. Ley, Max Planck Institute for Developmental Biology, Germany
The Interactions between Bacterial Flagellins and Toll-Like Receptor 5

Eric C. Martens, University of Michigan Medical School, USA
The Bacteroides Capsule in Microbiome Interactions

Tamia Harris-Tryon†, University of Texas Southwestern Medical Center, USA
Short Talk: Small Proline-rich Proteins (SPRRs) are Epidermally Produced Antimicrobial Proteins that Defend the Cutaneous Barrier by Direct Bacterial Membrane Disruption

Challenges and Novel Pathways to Develop Alternative Therapies (Q4)
Sumathi Nambiar, Johnson and Johnson, USA
Regulatory Paths and Novel Clinical Endpoints

Jennifer Schneider, Global Antibiotic R&D Partnership, USA
Talk Title to be Announced

Timothy Jinks, Wellcome Trust, UK
Novel Antimicrobials to Patient: Creating Sustainable R&D and Marketplace for Antimicrobials

Short Talk(s) Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q3)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q4)

THURSDAY, FEBRUARY 17

Departure