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

Short Talk(s) Chosen from Abstracts
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 Eligo 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

Short Talk(s) Chosen from Abstracts

Workshop 1: Pathways to a Sustainable Antimicrobial Ecosystem (Q4)
Short Talks Chosen from Abstracts

Co-Evolution and Co-Diversification of Microbiota and their Hosts (Q3)
Andrew Moeller, Cornell University, USA
Coevolution of Hominids and their Microbiomes
Katherine R. Amato, Northwestern University, USA
Diet and the Evolution of the Human Microbiome
Ran Blekhman, University of Minnesota, USA
Human Genomics and the Human Microbiome

Short Talk(s) Chosen from Abstracts

Novel Approaches to Discover Therapeutics and Overcome AMR (Q4)
Deborah T. Hung, Broad Institute of MIT & Harvard, USA
Systems Approach to Antimicrobial Discovery
Regina Barzilay, Massachusetts Institute of Technology, USA
with
Jonathan M. Stokes, Massachusetts Institute of Technology, USA
AI-Driven Antibiotic Design: New Weapons Against Old Foes
Houra Merrikh, Vanderbilt University, USA
Blocking the Evolution of Resistance
David S. Weiss, Emory University, USA
Novel Ways to Treat MDR microbes

Short Talk(s) Chosen from Abstracts

Poster Session 1

TUESDAY, FEBRUARY 15
Controlling the Microbiome for Health (Q3)
Fredrik Bäckhed, University of Gothenburg, Sweden
The Microbiome in Metabolic Disease
Lisa Maier, University of Tübingen, Germany
Microbe-Drug Interactions
Sandrine Claus, Ysopia Bioscience, France
A New Strain of Christensenella minuta as a Potential Biotherapy for Obesity and Associated Metabolic Diseases
Jens Walter, APC Microbiome Ireland. University College Cork, Ireland
Applying Ecological Theory in Controlling Microbiomes

Short Talk(s) Chosen from Abstracts

Alternatives Approaches to tackle AMR (Q4)
Annette Vogel, BioNTech, Germany
TB vaccine based on mRNA Technology
Speaker to be announced
Kimberly Kline, Nanyang Technological University, Singapore
Biofilm and AMR
Heather Pinkett, Northwestern University, USA
Transporters in AMR

Short Talk(s) Chosen from Abstracts

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

* Session Chair † Invited but not yet accepted
Program current as of September 20, 2021. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org
Short Talk(s) Chosen from Abstracts

**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*
- **Speaker to be Announced**
  - *Modeling Interactions*
- **Kevin Foster**, University of Oxford, UK
  - *Cooperation and Competition in Microbes and the Microbiome*

**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*

**Workshop 2: Lessons Learnt from Covid19 (Q4)**

**Short Talks Chosen from Abstracts**

**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*

**Challenges and Novel Pathways to Develop Alternative Therapies (Q4)**

- **Sumathi Nambiar**, Johnson and Johnson, USA
  - *Regulatory Paths and Novel Clinical Endpoints*
- **Laura Piddock**, University of Birmingham, UK
  - *Sustaining Antimicrobial Innovation*

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