CMI International Microbiome Meeting & Urobiome 2019

PROGRAM
February 26 - 28, 2019
Robert Paine Scripps Forum for Science

UC San Diego
#2019CIMM
# UROBIOIME

## SCHEDULE

### DAY 1
**Tuesday, February 26, 2019**

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| 8:00 AM| **WELCOME, INTRODUCTION**  
Overview: The Human Urobiome  
*What We Know, What We Need to Know, and What You Can Learn While You are Here*  
Linda Brubaker, MD - Conference Chair |
| 8:10 AM| Urobiome Research – From the Early Years to 2019 | David Nelson, PhD  |
| 8:30 AM| Urobiome: Microbiology Update | Alan Wolfe, PhD  |
| 9:00 AM| Characterizing Participants in Urobiome Research | Emily Lukacz, MD  |
| 9:30 AM| Sample Collection | Elizabeth Mueller, MD  |
| 9:50 AM| Sample Storage | David Pride, MD, PhD  |
| BREAK |  |
| 10:15 AM| Urinary Conditions of Interest | Linda Brubaker, MD  |
| 10:40 AM| Beyond Bacteria: Bacterial Viruses (bacteriophages) in the Urobiome | Catherine Putonti, PhD  |
| 11:00 AM| Analytic Challenges in Urobiome Research | L. Karstens, PhD  |
| 11:15 AM| Bioinformatics and the Urobiome | Q. Dong, PhD  |
| 12:00 PM| **SMALL GROUP LUNCHES** *(Advance Sign Up)*  
Understanding Clinical Disorders of Interest *(Mueller, Lukacz)*  
Low-biomass Specimen Collection, Transfer and Storage *(Wolfe, Pride)*  
Introduction to Bioinformatics in Urobiome Research *(Dong, Karstens)*  
Introduction to Timeseries analysis *(Knight)*  
Metabolomics *(Dorrestein)*  
Bacteriophage Basics *(Putonti)*  |
| 1:00 PM| Experimental Design for Microbiome Studies | Rob Knight, PhD  |
| 1:30 PM| Modern Metabolomics | Pieter Dorrestein, PhD  |
| 2:00 PM| Computational Tools | Rob Knight, PhD  |
| BREAK |  |
| 3:00 PM| “Learn More About” Small Group Sessions:  
Learn More About Computational Tools (QIIME and Qiita) *(Knight)*  
Learn More About Metabolomics *(Dorrestein)*  
Learn More About Urobiome Clinical Conditions of Interest *(Mueller, Lukacz)*  
Learn More About The Human Virome – *(Pride, Putonti)*  
Learn More About Microbial Genetics - *(Wolfe)*  |
| 4:30 PM| **ADJOURN FOR SOCIAL HOUR AND NETWORKING**  |
DAY 2  
Wednesday, February 27, 2019

8:00–8:30 AM  REGISTRATION AND BREAKFAST

8:30–8:40 AM  WELCOME REMARKS  
_Sandrine Miller-Montgomery_ | Executive Director  
UC San Diego Center for Microbiome Innovation

**IMPLICATIONS OF MICROBIOMES IN HUMAN HEALTH AND DISEASE**

8:40–9:10 AM  _Lita Proctor_ | Coordinator  
Human Microbiome Project & NIH  
_The History, Hope and Hype of the Human Microbiome Project_

9:10–9:40 AM  _Merete Eggesbo_ | Senior Researcher  
Norwegian Institute of Public Health  
_Early Events That Affect the Microbiome and Determine Later Health_

9:40–10:10 AM  _Katie Amato_ | Assistant Professor  
Anthropology, Northwestern University  
_Beyond Humans: Leveraging Primates to Understand the Role of Gut Microbes in Health and Disease_

10:10–10:20 AM  COFFEE BREAK

10:20–10:50 AM  _Chaysavanh Manichanh_ | Research Scientist  
Vall d’Hebron Research Institute (VHIR) in Barcelona, Spain  
_The Role of the Microbiome in Inflammatory Bowel Disease_

10:50–11:20 AM  _Varykina Thackray_ | Associate Professor  
Obstetrics, Gynecology and Reproductive Sciences, UC San Diego  
_Emerging Role of the Gut Microbiome in Polycystic Ovary Syndrome_

11:20–11:50 AM  _Ami Bhatt_ | Assistant Professor  
Medicine and Genetics, Stanford University  
_Modern Medicine and the Microbial Metagenome_

11:50–12:45 PM  LUNCH
12:45–1:15 PM  Elizabeth Johnson | Assistant Professor  
Division of Nutritional Sciences, Cornell University  
*Sphingolipid Production by Gut Microbiota Regulates Host Metabolism*

1:15–1:45 PM  Katie Pollard | Director  
Gladstone Institute of Data Science & Biotechnology  
*Metagenotyping and Population Genetic Analysis of Microbiome Communities*

1:45–1:55 PM  COFFEE BREAK

1:55–2:25 PM  Hayat Mousa, MD | Clinical Director  
Rady Children’s Hospital, San Diego  
*Brain-Gut Interaction in Health and Disease*

2:25–2:55 PM  Lisa Eyler | Professor in Residence  
Psychiatry, UC San Diego  
*The Microbiome and Severe Mental Illness*

2:55–3:25 PM  Margaret McFall-Ngai | Director  
Pacific Biosciences Research Center, University of Hawaii  
*Daily Rhythms Reflected in the Patterns of Host-Symbiont Molecular Dialog*

3:25–3:40 PM  BREAK

3:40–4:10 PM  Hannah Carey | Professor  
School of Veterinary Medicine, University of Wisconsin  
*Host-Microbe Interactions in a Natural Model of Extreme Dietary Change: Insights from Bacterial Metabolite Tracking*

4:10–4:40 PM  Susan Erdman | Assistant Director  
Division of Comparative Medicine at Massachusetts Institute of Technology  
*TBA*

4:40–5:10 PM  Jessica Metcalf | Associate Professor  
Department of Animal Sciences, Colorado State University  
*CSI Microbe: Developing a Microbial Clock to Estimate Time Since Death*

5:10–5:20 PM  SPONSOR PRESENTATION - Eppendorf | Christiane Honisch

5:20–5:30 PM  CLOSING REMARKS

5:30 –6:30 PM  COCKTAIL HOUR
Day 3
Thursday, February 28, 2018

8:00–8:30 AM  REGISTRATION AND BREAKFAST

MICROBES AND THE ENVIRONMENT

8:30–9:00 AM  Kim Prather | Distinguished Chair
Atmospheric Chemistry, UC San Diego
CAICE Insights into the Influence of Ocean Microbes on Clouds, Climate, and Precipitation

9:00–9:30 AM  Rita Colwell | Distinguished University Professor
University of Maryland
Environment and Human Health: Cholera Paradigm for Water Borne Diseases

9:30–10:00 AM  Amy Apprill | Scientist
Marine Chemistry & Geochemistry, Woods Hole Oceanographic Institution
Whale Microbiomes: Insights from Skin, Blow, and Guts and Potential Use in Health Monitoring

10:00–10:15 AM  COFFEE BREAK

10:15–10:45 AM  Laura Parfrey | Professor
Botany and Zoology, University of British Columbia, Canada
Microbial Community Assembly on Seaweeds and Seagrass

10:45–11:15 AM  Susan Golden | Distinguished Professor
Division of Biological Sciences, UC San Diego
The Wild Behaviors of a Domesticated Model Cyanobacterium

11:15–11:45 AM  Nicole Dubilier | Director
Department of Symbiosis, Max Planck Institute for Marine Microbiology
Why Diversity Matters: Deep-Sea Mussels Benefit from Hosting Multiple Symbiont Strains

11:45–12:45 PM  LUNCH
12:45–1:15 PM  Lena Gerwick | Research Scientist  
Scripps Institution of Oceanography, UC San Diego  
The Cyanobiome Project: Expanding the Cyanobacterial Universe

1:15–1:45 PM  Elizabeth Wellington | Professor  
Life Sciences, University of Warwick  
Anthropogenic Impacts on the Riverine Microbiome

1:45–2:15 PM  Xochitl Morgan | Senior Lecturer  
Microbiology & Immunology, Otago University, New Zealand  
Agricultural Origins of a Highly-Persistent Clone of Vancomycin-Resistant Enterococcus Faecalis in New Zealand

2:15–2:30 PM  COFFEE BREAK

MICROBIOME BEYOND NGS: NEW DATA GENERATION AND ANALYSIS INTEGRATION

2:30–3:00 PM  Stephanie Fraley | Professor  
Bioengineering, UC San Diego  
Rapid Microbial Fingerprinting with Digital Microfluidics

3:00–3:30 PM  Emily Troemel | Professor  
Biological Sciences, UC San Diego  
Intracellular Pathogens Response in C.Elegans

3:30–4:00 PM  Paula Olsiewski | Program Director  
Alfred P. Sloan Foundation  
The Microbiology of the Built Environment—a Funder’s Perspective

4:00–4:30 PM  Susan Prescott | Professor  
Pediatrics, University of Western Australia  
From Microbial Ecology to Planetary Health—the Importance of Integrated Systems Approaches to Our Global Challenges

CLOSING

4:30–5:30 PM  BONUS DISCUSSION PANEL  
Jonathan Eisen | UC Davis  
Rob Knight | UC San Diego  
Lita Proctor | NIH  
Linda Brubaker | UC San Diego  
Breaking the Glass Ceiling: How do we solve the gender imbalance in STEM?
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