

UCR MICROBIOME INITIATIVE

2nd ANNUAL SYMPOSIUM 2018

September 25th, 2018

UCR Genomic Conference Auditorium - 9:00 am to 5:30 pm

The **UCR Microbiome Initiative** brings together UCR researchers from multiple fields and across our campus. Microbiome Science is multidisciplinary by nature and spans diverse research objectives, including **i)** human health and disease, **ii)** animal microbiomes in natural systems, **iii)** environmental microbiomes, **iv)** microbiomes in agriculture and plant systems, and **v)** mathematical and computational approaches to microbiome science.

The main goal of the Microbiome Initiative is to foster interdisciplinary interactions among these fields and to leverage the existing resources here at UCR to promote Microbiome Science.

This symposium is part of a coordinated effort by CAFÉ to accomplish the above goals and create better opportunities to use and share resources among labs, enhance infrastructure, create training activities for students, facilitate funding requests for large projects, and to reach out to stakeholders outside UCR to identify research needs and gaps.



UCR MICROBIOME INITIATIVE

FROM THE ENVIRONMENT TO
AGRICULTURE TO HUMAN HEALTH

SYMPOSIUM PROGRAM

September • 25th • 2018

8:00 a.m. Registration & Breakfast

9:00 a.m. Welcome and Introduction Joel Sachs EEOB

Keynote Lecture 9:05 a.m. **Karsten Zengler**, Associate Professor University of California, San Diego; Department of Pediatrics, Division of Host-Microbe Systems & Therapeutics, UCSD . Unraveling Host-Microbe Interactions

Human Health and disease: Lead Speaker Declan McCole, SOM

10:00-10:15 a.m. The Influence of Host Gene-Microbiome Crosstalk on Intestinal Barrier Function in Inflammatory Bowel Disease

- Lightning talks**
- 10:15 a.m. **Ansel Hsiao, MPP** Gut Microbiome and Control of Cholera
 - 10:23 a.m. **Huinan Liu, BCOE** Antimicrobial biomaterials for fighting healthcare-associated infections
 - 10:31 a.m. **Poonam Deol, MCSB** Impact of Gut Microbes on Nuclear Receptor HNF4 α
 - 10:39 a.m. **Mia Maltz, MPP** Air and dust microbes and our lungs: What is the connection?
 - 10:47 a.m. **Patrick Degnan, MPP** Mobilizing Fitness Determinants in Gut Microbes

Coffee Break 10:55-11:15 a.m.

SYMPOSIUM PROGRAM

Animal Microbiomes in Natural Systems: Lead Speaker Quinn McFrederick, ENT
11:15-11:30 a.m. The effects of foraging on bacterial and fungal microbiomes of wild bees

Lightning talks 11:30 a.m. **Allison Hansen, ENT** The role of epigenetics and small RNAs in an obligate insect-microbe symbiosis
11:38 a.m. **Hamutahl Cohen, ENT** Environmental drivers of microbiome composition in the Blue Orchard Bee

Lunch Break and Poster Session 11:50 a.m.-1:20 p.m.

Partners in Microbiome Science

1:20-1:35 p.m. **Anne Runkel, Scientist, Koch Biological Solutions** Discovery and development of PGPR consortia products with yield benefits in maize
1:35-1:40 p.m. **Helen Chen, UCR-CNAS, Funding opportunities for Microbiome Science**
1:40-1:48 p.m. **Gloria Chan-Sook Kim, M&C, Microbial Unfoldings: Ethics of Being in the Microbiome**

The Environmental Microbiome: Lead Speaker Emma Aronson, MPP

1:48-2:03 p.m. Dust associated microbial communities vary with elevation in a montane ecosystem

Lightning talks 2:03 p.m. **Holly Bik, NEM** Linking molecules with morphology in the -Omics age: a case study from marine nematodes
2:11 p.m. **Sydney Glassman, MPP** Ectomycorrhizal fungal recovery after a severe forest fire
2:19 p.m. **Kurt Anderson, EEOB** Microbiomes as metacommunities: How spatial structure and connectivity influence patterns of diversity

Coffee Break 2:30-2:50 p.m.

Agricultural and plant systems:

Lightning talks 2:50 p.m. **Camille Wendlandt, BPS** If you do good you shall do well: do legume hosts vary in rewards to N₂-fixing rhizobia?
2:58 p.m. **Philippe Rolshausen, BPS** The grapevine microbiome
3:06 p.m. **Georgios Vidalakis, MPP** Huanglongbing - An existential threat to citrus drives microbiome research at UC Riverside

Lead Speaker Caroline Roper, MPP

3:14-3:29 p.m. Unraveling the Chemistry of the Citrus Phytobiome

Computational approaches to microbiome science Lead Speaker Daniel Koenig, BPS

3:29 - 3:44 p.m. Exploring the dark matter of plant genomes and what it might tell us about host-microbe interactions

Lightning talks 3:44 p.m. **Jason Stajich, MPP** Reads to Trees: Automated assembly, annotation and phylogenomics of fungal genomes
3:52 p.m. **Samantha VanSchalkwyk, STAT** Statistical Modeling and Analysis of Longitudinal Microbiome Data

Reception 4:00 - 5:00 p.m.

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SPECIAL THANKS

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Teaming Mini-Grant
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