



UCR MICROBIOME INITIATIVE 3rd ANNUAL SYMPOSIUM

September 23th, 2019

UCR Genomic Conference Auditorium

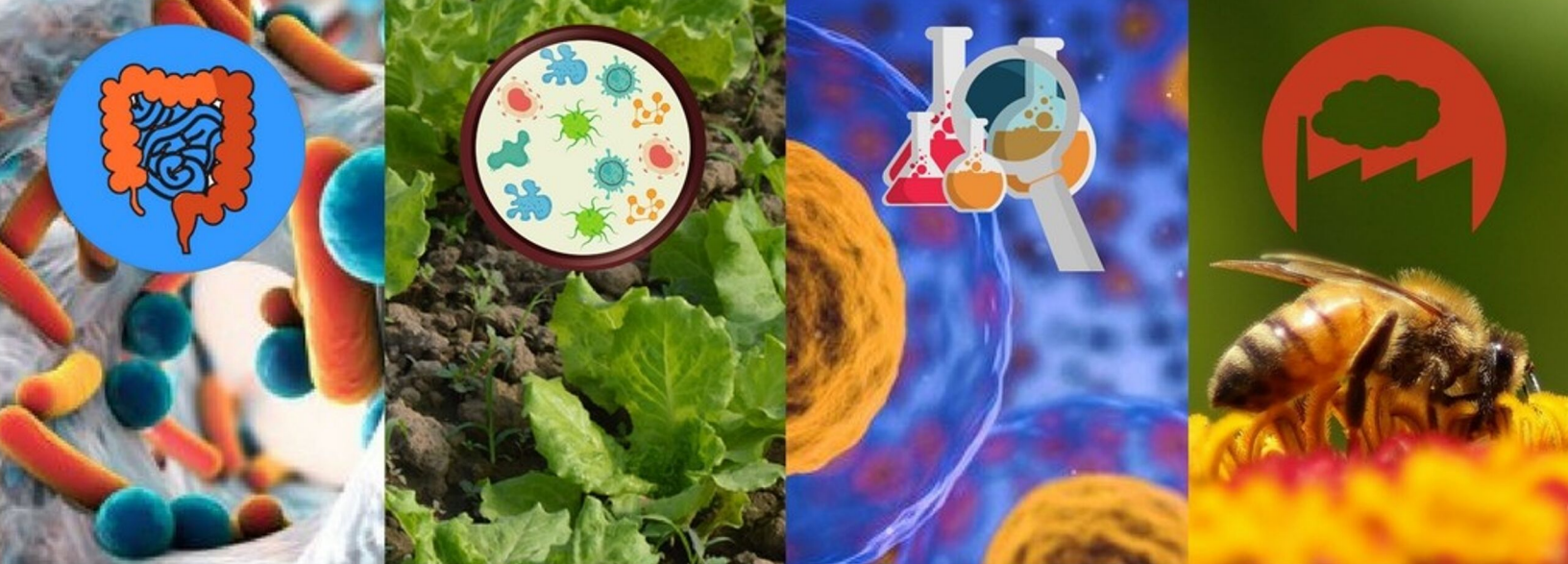
9:00 am to 6:30 pm

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 year our symposium is organized around five topics, including **i)** Ecology & Evolution of microbes in response to environmental and anthropogenic perturbations; **ii)** Cell Interface, defining core processes at the the host-microbe cellular nexus, **iii)** Genes to Function, to decipher the genetic basis of microbiome functions, **iv)** Host & Society, to improve the benefits of microbiomes to health and environmental quality, and **v)** University/Industry partnerships to create new collaborations that translate discoveries to the marketplace.

Learn more at <https://microbiome.ucr.edu/>



UCR MICROBIOME INITIATIVE FROM THE ENVIRONMENT TO AGRICULTURE TO HUMAN HEALTH

SYMPOSIUM PROGRAM

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8:00 a.m. Registration & Breakfast

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

Keynote Lecture 9:05 a.m. Douglas Cook, Department of Plant Pathology, College of Agricultural and Environmental Sciences, UC Davis. "Harvesting plants, genes and microbes from the ancestors of modern agriculture"

Session 1. Ecology & Evolution:

10:00 a.m. Yan Wang, MPP Evolutionary impact of anaerobic gut fungi on their herbivorous mammal hosts

10:15 a.m. Nichole Ginnan, MPP Microbial Population Dynamics Across the Huanglongbing Disease Spectrum: A Microbiome Disease Model for Perennial Plants

10:30 a.m. Elizabeth Deyett, BPS Elusive Endophytes: A Microbial Journey Through the Grapevine

Coffee Break 10:45-11:15

BASF Networking meeting in the Genomic Boardroom

SYMPOSIUM PROGRAM

Session 2. Cell Interface

- 11:15 a.m. **Julliet Morrison, MPP** The role of pleural macrophages in influenza resolution (Invited)
- 11:30 a.m. **Dan Pers, ENT** Epigenetic regulation of an integrated animal-microbe metabolism throughout aphid development
- 11:45 a.m. **Ali Shawki, SOM** The Autoimmune Susceptibility Gene, PTPN2, Restricts Expansion of a Novel Mouse Adherent-Invasive E coli
- 12:00 p.m. **Arghavan Alisoltanidehkordi, SOM** Large scale metaproteomic analysis of young South African women: insights into the choice of database and normalization method

Lunch Break and Poster Session 12:15 p.m.-1:45 p.m.

Session 3. Genes to Function

- 1:45 p.m. **Katherine Borkovich, MPP** Signaling mechanisms involved in the response of fungi to the plant cell wall (Invited)
- 2:00 p.m. **Lauren Hale, USDA-ARS,** Environmental conditions shape the magnitude of microbial biodiversity and functioning relationships
- 2:15 p.m. **Poonamjot Deol, MCSB** Impact of Dietary Soybean Oil on Inflammatory Bowel Disease: Role of HNF4 α and the Microbiome
- 2:30 p.m. **Adam Godzik, SOM** Mining the microbiome

Coffee Break 2:45-3:15 p.m.

BAYER Networking meeting in the Genomic Boardroom

Session 4. Host & Society

- 3:15 p.m. **Deborah Pagliaccia/Sam Ying, BPS & ENSC** Two food waste byproducts selectively stimulate beneficial resident host-associated microbes
- 3:30 p.m. **Salma Alavi, MPP** Human Gut Microbiome Mediates Colonization Resistance to *Vibrio cholerae*
- 3:45 p.m. **Jonathan Mitchell, MPP** Modulation of *Vibrio cholerae* virulence by bile acids metabolism through the gut microbiome

Session 5 University/Industry Partners

- 4:00 p.m. **Joel Sachs, Microbiome Director** Updates on UCR Microbiome Initiative, Announcement of new fellowship program from Zymo
- 4:15 p.m. **Keith Booher, Service Projects Manager, The Zymo Research** "Microbiomics Portfolio: A Complete Microbiomics Solution"
- 4:30 p.m. **Rosibel Ochoa, OTP** UCR's model for catalyzing Industry-university collaborations
- 4:45 p.m. **Adil Anjem, Bayer Microbials** Product development in industry: packaging the Microbiome

Reception 5:00 - 6:30 p.m

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Posters Presentations - Genomic Building Courtyard

Fabiola Pulido-Chavez High-severity Wildfire Reduces Richness and Alters Composition of Ectomycorrhizal Fungi in Ponderosa Pine Forest

Nuttapon Pombubpa Fungal-Bacterial Diversity and Network underlying Biocrust Geographical, Soil Depth, and Crust types patterns in Mojave Desert

Xingyu Chen Creating a Circular Economy: From Food Waste to Sustainable Food Production through Microbe-Mediated Processes

Monica McNamara Early-life exposure to Western diet reduces adult gut microbiome diversity

Arafat Rahman Characterizing in planta competitive fitness of wild Bradyrhizobium strains

Tania Kurbessoian Just Deserts: Exploring the Diversity of Melanized Fungi in Rocks and Biological Soil Crusts

Yingnan Hou Plant secondary siRNAs contribute to host-induced gene silencing in oomycete pathogens

Dylan Enright Effect of a Megafire on Soil Microbial Communities

Julio Avelar-Barragan Variations in local microbiome populations in normal colorectal tissue and adenomas

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