



THE UNIVERSITY OF ARIZONA
COLLEGE OF MEDICINE TUCSON

Physiology

Seminars in Translational & Advanced Research (STAR)

Friday, November 14
Arizona Health Sciences Center
Room 8403
11:00am - 12:00pm

<https://arizona.zoom.us/j/85062222452>



Carlotta Ronda, PhD

*Principal Investigator,
Innovative Genomics Institute
UC Berkeley*

Hosted by: Maya Kaelberer

"Academic Drug Discovery: Pitfalls, Patents, and Promise"

Dr. Carlotta Ronda is a Principal Investigator at the Innovative Genomics Institute at UC Berkeley, who pioneered targeted in situ microbiome editing tools to engineer microbes within their native ecosystems. Her lab integrates systems biology, synthetic biology, multi-omics, and computational modeling to decode and reprogram host-microbiome interactions. Combining high-throughput organoid assays, precision microbiome editing, and computational approaches, her team maps microbial signaling networks and develops strategies to modulate them. Beyond microbiome engineering, her group advances CRISPR technologies and organoid-microbiome co-cultures to study host-microbe communication and enable functional modulation in microbial and eukaryotic systems.

She earned her BSc degree in Molecular Biology from Padua University, her M.Sc.Eng. in Biotechnology from the Technical University of Denmark (DTU), and her Ph.D. in Systems Biology from DTU and the Novo Nordisk Foundation Center for Biosustainability. She began developing her approach to editing complex microbial communities at Columbia University and continues this work at IGI.