1st Young AMICI Symposium:

The first Young AMICI Symposium on environmental and host-associated microbiomes is taking place on **May 25-26th, 2021**. We have put together an exciting line-up of speakers from Austria and beyond and are looking forward to stimulating discussions in the breakout sessions. Join us to connect with the Austrian community of early career microbiome researchers. The symposium is organized by and mainly intended for PhD students and early career researchers, but everyone is welcome to join!

ONLINE via ZOOM

Registration is free!

Please sign up here in order to receive the zoom link for the symposium:

https://www.medunigraz.at/center-for-microbiome-research/symposia/young-amici-symposium/

Program

Start: 25th May, 2021 at 13:00 (Central European Time)

Innovative techniques for microbiome research (Chair: Mathias Flieder): Microbiome research has been driven by technological advancements in recent years. Novel technologies continue to allow us to dive deeper into some key questions of microbial ecology. What are the microbes that inhabit specific ecosystems and what functions do these microbes perform? Learn about state-of-the-art techniques from some young pioneers in the field.

- **13:00 - 13:30:**
  Lauren V. Alteio, PhD: Post-Doc at University of Vienna, TER:
  "*The Future is Mini: Expanded Insights into Complex Microbial Communities with Mini-Metagenomics*"

- **13:30 - 14:00:**
  Fatima C. Pereira, PhD: Post-Doc at University of Vienna, DoME:
  "*Probing microbiome function using next-generation Raman-FISH*"

15 minute breakout session

Evolution and ecology of microbial populations (Chair: Cameron Strachan): An important step towards understanding the microbiome is to map units of sequence similarity onto specific ecological roles. Indeed, factors that influence spatial and temporal variation, stability in response to perturbation, and community-wide changes can then be correlated with ecologically meaningful units. In this light, work to improve the identification of microbial populations and explore those often neglected is highly important.

- **14:15 - 14:45:**
  Annie Yu, PhD: Post-Doc at University of Vienna, DoME:
  "A reverse ecology framework for microbial populations in the human gut"

- **14:45 - 15:15:**
  Alexander Mahnert, PhD: Post-Doc at Medical University Graz:
  "The human archaeome, a neglected component of our microbiome"

15 minute breakout session

Food to gut to host (Chair: Julia Krasenbrink): Our diet plays a major role in shaping the gut microbiota community structure and function. Complex interactions between nutrients and microorganisms can affect the development of the immune system, nutrient absorption, and host metabolism.

- **15:30 - 16:00:**
  Johanna Rohrhofer, MSc: PhD student at Gastrointestinal Immunology group at the Center for Pathophysiology, Infectiology, and Immunology, MedUni Wien:
  "Prevention of food allergy induced anaphylaxis by systemic administration of sphingosine-1-phosphate"

- **16:00 - 16:30:**
  Anna Weiß, MSc: PhD student at LMU Munich:
  "It takes a village - exploring how bacterial interaction networks facilitate microbiome function"

- **16:30 - 17:00 pm:**
  Buck Hanson, PhD: Senior Scientist at Los Alamos National Lab, New Mexico:
  "Sulfoquinovose is a select nutrient of prominent bacteria and a source of hydrogen sulfide in the human gut"

30 minute breakout session plus get together (virtually)

Start: 26th May, 2021 at 13:00 (Central European Time)

Bioinformatics - From coding to application (Chair: Benjamin Zwirzitz): Advances in sequencing and computational biology have drastically increased our capability to explore the taxonomic and functional compositions of microbial communities. Here we present valuable computational tools and their application for genomic analysis that can be of use for many early career researchers with limited experience in bioinformatics.

- **13:00 - 13:30:**
  Michael Predl, MSc: PhD Student at University of Vienna, CUBE:
  "Python essentials for bioinformatics – a little scripting goes a long way"

- **13:30 - 14:00:**
  Narciso M. Quijada, PhD: Post-Doc at University of Veterinary Medicine Vienna, Unit of Food Microbiology:
  "User-friendly solutions for complex analyses: Whole bacterial genome sequencing"

- **14:00 - 14:30:**
  Francesco Asnicar, PhD: Post-Doc at University of Trento, Segata lab:

“Large-scale phylogenetic analysis of known and unknown microbial members of the human microbiome with PhyloPhlAn”

- **14:30 - 15:00:**
  Athina Gavriilidou, MSc: PhD Student at University of Tübingen, Ziemert lab:
  “A global survey about secondary metabolite diversity in bacteria”

30 minute breakout session

Clinical Microbiome Research (Chairs: Alexander Mahnert, Christina Kumpitsch): The microbiome has a substantial impact on human health, with the capacity to promote health or to cause disease. Understanding the integral role microbes play in our digestion and immune system, is pivotal to develop novel diagnostics and applications that target the human microbiome to maintain and restore human health.

- **15:30 - 16:00:**
  Sean Gibbons, PhD: Distinguished Investigator & Assistant Professor at the Washington Research Foundation, Seattle, USA:
  “Harnessing our inner ecology to track and treat disease”

- **16:00 - 16:30:**
  David Seki, MSc: PhD at the University of Vienna, DoME:
  "*Aberrant gut microbiota-immune-brain axis development in premature neonates with brain damage*"

- **16:30 - 17:00:**
  Jakob Thannesberger, PhD: Post-Doc at Medical University of Vienna:
  "*The human gut virome - shepherds of the bacterial flock?*"

30 minute breakout session plus get together (virtually)

Organising committee
Alexander Mahnert, PostDoc, Medical University of Graz
Benjamin Zwirzitz, PostDoc, University of Veterinary Medicine, Vienna
Cameron Strachan, PhD student, University of Veterinary Medicine, Vienna
Christina Kumpitsch, PhD student, Medical University of Graz
Julia Krasenbrink, PhD student, University of Vienna
Mathias Flieder, PhD student, University of Vienna