Postdoctoral positions
“Gut microbial ecology and evolution”

The research group *Microbiota & Infections* within the Max von Pettenkofer Institute at the Ludwig Maximilian University (LMU) of Munich offers two positions of a Postdoctoral research associate (m/f/d) to work on an ERC-funded project. We are an interdisciplinary team bridging between molecular microbiology, ecology and infection research with the focus to understand mechanisms of host-microbe and microbe-microbe interaction in the gut.

**Background:**

Mammalian gut-associated microbial communities form metabolic networks that are essential for dietary breakdown, production of bioactive metabolites and resistance to infections. Bacterial lineages making up these networks evolve rapidly to adapt to the microbial, metabolic and immune environment of the gut. In this project, we use synthetic microbial communities to study how a native bacterial consortium evolves in its autochthonous host. We aim to identify environmental and host factors that shape the genetic potential of microbial communities in the gut as well as their interaction with the mammalian host. Our lab has a broad expertise in employing synthetic microbial communities, gnotobiotic mouse infection models as well as in molecular microbiology of enteric pathogens. We are part of the Collaborative Research Center 1371 “Microbial Signatures – Functional Relevance in the Digestive Tract” (https://www.sfb1371.tum.de/) and have access to core facilities microbiome analysis, metabolomics and gnotobiology.

One candidate will be involved in experimental evolution and genomic and metagenomic analyses as well as metabolic modelling of gut microbial communities. The other candidate will conduct functional screens and develop genetic systems for model gut bacteria.

**Requirements:**

- PhD in microbiology, microbial ecology, bioinformatics, genomics or related disciplines.
- Previous experience in microbiology/bioinformatics/bacterial genetics would be desirable.
- Knowledge of a scripting language and R is a plus.
- Candidates should have published in peer-reviewed journals and have a strong interest in mechanisms of microbial interactions.
- Excellent English communication skills (written and spoken)

**Payment:**

The positions (100%, TV-L E13) are available immediately and funded for up to 36 months after evaluation. The LMU Munich is committed to increase the number of women in research and teaching. Therefore, the university explicitly encourages qualified female scientists to apply. Applicants with disabilities will be given preference to other candidates with equal qualifications.

Applications, including a letter of motivation, CV, certificates, list of publications, and names of previous supervisor/referees with e-mail addresses and phone numbers should be sent as single pdf via e-mail to: stecher@mvp.lmu.de.

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