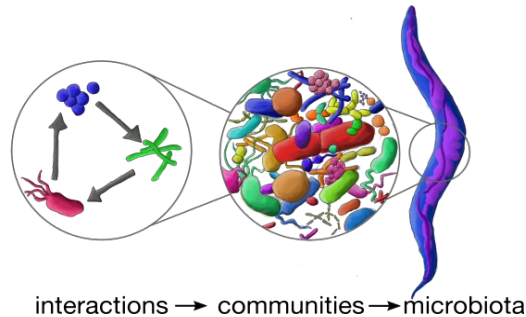




Postdoc (d/f/m) in Systems Biology of Microbial Communities



What is the role of “unculturable” microbes in microbial communities?

Microbes usually live together in large communities. Unfortunately, most microbes cannot be cultivated in the lab, and accordingly, microbial communities studied in the lab represent only a tiny fraction of the natural biodiversity. This situation causes a massive knowledge gap and raises doubts about whether lab experiments on microbial communities are informative about natural communities at all. This project aims to develop a method to “isolate” unculturable microbes in high-throughput and investigate their impact on experimental communities. The interdisciplinary project combines establishing and engineering novel cultivation methods, microbiology, systems biology, and computational biology, particularly genomics and machine learning. For more information about our group, please visit www.cratzke.de.

The position is fully funded for 3 years by a grant of the VW foundation and should be filled as soon as possible. Salary is paid according to TV-L, E13 (100%). An initial one-year contract will be provided, with the expectation of extension.



Requirements

- Excellent PhD in systems biology, biophysics, microbiology or related fields. This is a very interdisciplinary project that will require wet lab as well as dry lab work. Candidates should have demonstrated the ability for interdisciplinary work as well as scientific productivity during their PhD.
- Critical and independent thinking, creative problem-solving skills, and high intrinsic motivation - this project is relatively “high-risk/high-gain”.
- Experience in some but not necessarily all the following techniques: high-throughput measurements, microbial culture techniques, 3D design and printing, microbial ecology, genome sequencing, genomics, programming and machine learning.

If you have further questions about the project, group, or position please don't hesitate to informally contact Christoph Ratzke (christoph.ratzke@uni-tuebingen.de). For the application, please submit a CV, a motivation letter, and reference contacts to the above email. The review of applications will begin in February 2024 and continue until the position is filled.

The university advocates equal rights for all genders and therefore urges women and gender-diverse people to apply. Equally qualified applicants with disabilities will be given preference. The hiring process is carried out by the central administration of the university.