EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

The Bacterial Metabolomics Group of the Cluster of Excellence "Controlling microbes to fight infections" at the University of Tübingen advertises a

PhD Position (m/f/d, E 13 TV-L, 65%) in Metabolism-Microbiome Interactions

to be filled in May 2022. The position is limited to three years.

The research group Bacterial Metabolomics headed by Prof. Dr. Hannes Link is looking for a PhD student to investigate metabolic interactions in microbiomes. The possibility to work on a PhD thesis is given. The successful candidate will develop computational methods to examine microbiomes with mass spectrometry-based metabolomics data and devise strategies to engineer microbiomes. Our group develops novel metabolomics methods with applications in various research areas such as microbiome research and metabolic engineering. You can find more information about our group at https://www.linkmetabolism.com.

Your tasks:
Identification of metabolism-microbe interactions: Development of machine learning methods that predict metabolic interactions in microbial communities based on metabolomics and gene expression data.
Mapping bacterial communities: Development of computational tools to map the structure of bacterial communities to mass spectrometry data.
Metabolomics data analysis: Convert spectral data into chemically annotated compounds. Generate spectral reference databases from in-house strain libraries.
Predict targets for microbiome engineering: Systematic analysis of large metabolomics data sets to infer novel strategies to control healthy microbiomes and prevent microbiome related diseases.

Our requirements:

- Master degree in bioinformatics, computer science, biotechnology or a related subject.
- Excellent communication skills in English, both written and spoken
- Excellent programming skills (Python, MATLAB or a related language)
- Scientific creativity and driven to address fundamental biological questions

Send your application as one pdf file by email to **hannes.link@uni-tuebingen.de** by February 15, 2022. The pdf file should contain: a cover letter, your CV and certificates.

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.