

We are currently looking to fill

## 2 PhD positions (TV-L E13 65%)

in the project “Multi-organismic communication in beneficial tree-microbe associations”

The successful candidates will work as part of an international research team within a collaborative and interdisciplinary project between the **Professorship for Fungal Biotechnology in Wood Science** located at the **TUM School of Life Sciences Weihenstephan** in Freising and the **Research Unit Environmental Simulation (EUS)** at the **Helmholtz Zentrum München (HMGU)** in Neuherberg (Munich). The groups aim to bring together the expertise on fungal sensing and signaling (TUM) with the expertise on plant chemical ecology and ecophysiology (EUS-HMGU). Utilizing a range of molecular genetics, physiological as well as analytical techniques, such as mass spectrometry, the project aims to characterize the multi-species communication underlying the establishment of beneficial plant-fungus interactions. In particular the potential functions of volatile organic compounds (VOCs) in establishing and maintaining mutualistic interactions will be in the focus. The final goal is to improve our understanding of how positive interactions could be fostered by human interventions in the fields and forests in the future. The two PhD candidates will thereby act as a team with one focusing on the plant partner (here: Poplar, position at HMGU) and the other one focusing on the fungal partners (here: *Trichoderma* and *Laccaria*, position at TUM).

### Requirements / Your Profile

- Very good university degree (MSc., Dipl. (Univ.)) in Biology, Biochemistry, Biotechnology, Bioinformatics or similar
- Experience with microbiology or plant biology and instrumental analytics techniques preferable
- Willingness to perform work at both locations (Munich-Neuherberg and Freising-Weihenstephan)
- Familiarity with specialized data analysis software and data banks
- Ability to work independently while being motivated to perform as an active part of our project team
- Very good proficiency in English (spoken and written)

### Tasks

- Participation in a collaborative project as main scientist (but with professional supervision)
- Disseminating your project results to the public via peer-reviewed publications and talks on ntl./intl. conferences
- Participation in teaching and student supervision

### We are offering

- A three-year contract (goal: dissertation) funded by the German Research Foundation, DFG
  - Start date: 01.10.2020
  - A dynamic research environment with state-of-the-art research facilities
  - A place in one of the two graduate schools involved (either TUM or HMGU)
- Preference will be given to disabled candidates with essentially the same qualifications
- TUM and HMGU explicitly encourages applications from women (Art. 7 Abs. 3 BayGIG)

### Application / Contact

Please send applications as a single pdf-file by email including supporting documentation in German or English (letter of motivation, CV, certificates, credentials and names and addresses of two referees) until September 15<sup>th</sup> at the latest.

#### Position at TUM:

**Technische Universität München**  
TUM School of Life Sciences Weihenstephan  
Professorship for Fungal Biotechnology in Wood Science  
Prof. Dr. J. Philipp Benz  
Hans-Carl-von-Carlowitz-Platz 2, 85354 Freising, GER

#### Position at HMGU:

**Helmholtz Zentrum München**  
Research Unit Environmental Simulation  
Dr. Maaria Rosenkranz  
*For applying please use the link:*  
<https://jobs.helmholtz-muenchen.de/jobposting/853be5cbade96e9aeb27f9df99bebf5c21599ed0>

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