Chair of Chemistry of Biogenic Resources
Technical University of Munich
Campus Straubing for Biotechnology and Sustainability

Research Assistant/Doctoral Candidate (m/f/d)

in the subject area of

Microfluidics in synthetic biology

The research project and environment

Within the project, the use of microfluidic ultra-high throughput methods (FADS, AADS) for the optimization of enzymes has to be optimized, automated and applied. Specifically, the FADS and AADS systems available at the chair will be made more robust, their application automated and assay development supported. Target enzymes are to be optimized with respect to activity, stability and producibility. Another aspect therefore concerns the scaling of enzyme expression with different expression systems.

The Department of Chemistry of Biogenic Resources at the Technical University of Munich's Straubing Campus for Biotechnology and Sustainability has been active in this field for more than a decade. The Straubing Campus of TUM develops processes for sustainable and environmentally friendly chemical production. For this, natural scientists, engineers, social scientists and economists work closely together on site in teaching and research. The SynBiofoundry@TUM is also anchored at the site and is linked to the project in terms of content and instruments (https://www.cs.tum.de/forschung/synbiofoundry). The project itself runs within the framework of the activities of the TUM Green Fuel Center (www.cs.tum.de/research/green-fuel-center).

Requirements

- Excellent degree in biotechnology, bioprocess engineering or related disciplines.
- In-depth knowledge of Lab on the Chip/Microfluidics technologies.
- Knowledge of Biocatalysis, Protein Chemistry and MIcrobiology desirable
- Curiosity and interest in scientific issues.
- High level of commitment as well as teamwork and communication skills.

We offer

- As a TUM doctoral student, you are automatically a member of the TUM Graduate School and benefit from an extensive qualification and continuing education program, funding for international travel, and target group-specific services and consulting.
- Remuneration is in accordance with TV-L, level 13 (65%), and the appointment is limited to three years.
- Severely disabled applicants will be given preference in the event of otherwise essentially equal suitability.
- The Technical University of Munich aims to increase the proportion of women; applications from women are therefore expressly welcomed.

Application

Please send your detailed application by e-mail (keyword GFC) to

Technical University of Munich
Chair of Chemistry of Biogenic Resources, Prof. Dr. Volker Sieber
bew_cbr@cs.tum.de, www.rohstoffwandel.de, www.tum.de