

CALL FOR APPLICATIONS

Research internship / Master's Thesis

The Werner Siemens Chair of Synthetic Biotechnology at the Department of Chemistry at the Technical University of Munich in Garching focuses on the isolation, characterization, and process-oriented optimization of enzymes and microorganisms for the production of industrial platform chemicals. A key research area is the fermentation of filamentous fungi with the aim of producing extracellular proteins, natural products and pigments for a variety of industrial applications. The chair is now looking for a motivated student for this topic:

Screening and characterization of nonconventional fungi for enzyme and natural product production

Your responsibilities:

- Cultivation and characterization of nonconventional filamentous fungal strains
- **Option 1:** Process optimization of cultivation parameters (e.g. media, temperature) for efficient enzyme and natural product production (50 ml – 1 L); possibility to include proteomic analysis (LC-MS/MS)
- **Option 2:** Development and optimization of quantitative spectrophotometric enzymatic assays
- **Option 3:** Upscaling of fermentation processes as well as downstream processing and execution of analytical methods (50 ml – 50 L)
- **Option 4:** High-molecular weight DNA isolation and preparation for whole genome sequencing (PacBio)
- **Option 5:** Extraction of natural pigments (HPLC) and fragrance compounds (GC-MS) and their analysis

Your qualifications:

We are looking for a self-motivated, team-oriented, and well-structured individual with experience in biochemistry, biotechnology or microbiology. Previous experience in cultivation of microorganisms and with molecular biology methods are advantageous. We look forward to receiving your application documents.

Contact information:



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