

# CALL FOR APPLICATIONS

## BACHELOR'S THESIS / RESEARCH INTERNSHIP (M/F/D)

The Werner Siemens Chair of Synthetic Biotechnology at the Department of Chemistry at the Technical University of Munich in Garching is looking for an enthusiastic student for the topic:

### **Screening, Characterization and Biomass Optimization of Cyanobacteria for Metal Adsorption and their Biotechnological Applications**

The Werner Siemens Chair of Synthetic Biotechnology focuses on the isolation, characterization, and process-oriented optimization of enzymes and microorganisms for the production of industrial platform chemicals. A key research focus is the cultivation of oil-producing microorganisms and microalgae for the biotechnological utilization of organic raw materials.

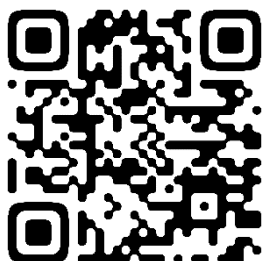
#### **Your Responsibilities:**

- **Isolation and Identification of Cyanobacterial Strains** from environmental samples
- **Optimization of Growth and Biomass Production** of cyanobacteria and other autotrophic microorganisms by adjusting light conditions, temperature, pH, salinity, and media composition
- **Up-Scaling the cultivation to Bioreactors**
- **Optional: Characterization of growth behavior and analysis of biomass composition**
- **Optional: Investigation of Metal Adsorption by Algal Biomass** for applications in metal recovery

#### **Your Qualifications:**

To tackle this complex research topic, we are looking for a self-motivated, team-oriented, and well-structured individual with experience in biochemistry, biotechnology, and/or microbiology. Suitable applicants should have laboratory experience in the safe and precise handling of lab equipment as well as in sterile working techniques. Practical experience in the cultivation of microorganisms (preferably cyanobacteria and/or other autotrophic microorganisms) and knowledge of molecular biology techniques (e.g., DNA extraction, PCR, sequencing) are advantageous.

#### **Contact Information:**



**Maximilian Lübben, M.Sc.**  
**maximilian.luebben@tum.de**

Werner Siemens-Lehrstuhl für Synthetische Biotechnologie (WSSB)  
 Department Chemie, Technische Universität München (TUM)  
 Lichtenbergstraße 4,  
 85748, Garching bei München

**Prof. Dr. Thomas Brück**

Technische Universität München  
 TUM School of Natural Sciences  
**Werner Siemens-  
 Lehrstuhl für Synthetische Biotechnologie**

Lichtenbergstraße 4  
 85748 Garching  
 brueck@tum.de  
 Tel. +49 89 289 13253

**Sekretariat**  
 Tel. +49 89 289 13250  
 Fax +49 89 289 13265

