

## CALL FOR APPLICATION

The Werner Siemens of Synthetic Biotechnology at the TUM School of Natural Sciences, Technical University of Munich in Garching, has an opening for

### Master's/Bachelor's Thesis OR Research internship

On the topic

### Optimization of biomass productivity of modified microalgae in photobioreactors

The Werner Siemens Chair of Synthetic Biotechnology is dedicated to the research revolving around microalgal research. This project involves a genetically modified microalgae with a higher growth rate. The current aim is to optimize the process parameters of cultivation of microalgae in a 2 L photobioreactor. Next, a model will be generated using the experimental data set to maximize the growth of microalgal cultures.

#### Your tasks:

- Shake flask-scale culturing of microalgae
- Cultivation of microalgae in photobioreactor and monitoring of defined parameters
- Harvesting of microalgal biomass and its downstream processing

#### Your gain:

- Familiarize with microalgal growth and its influencing parameters
- Learn about well-controlled reactor (flat panel photobioreactor) and its accessories
- Hands-on experience in reactor operation
- Get to know the diverse products from microalgae; analysis with HPLC and GC-FID

#### Your preferred qualifications:

- Background in biotechnology, chemical engineering and allied fields
- Experience in sterile handling of microbial cultures
- Intent to do laborious and strenuous work handling the reactors is essential

Looking forward to receiving your application via email.



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