

Offer for Master Thesis (m/w)

At **TUM Campus Straubing for Biotechnology and Sustainability**, the **Chair of Chemistry of Biogenic Resources (Prof. Volker Sieber)** deals with the development of chemical and biotechnological processes for the conversion of biomass to ground chemicals, biofuels, and fine chemicals. For this work, the focus of research is on protein biochemistry (enzyme engineering), molecular biology (cloning, mutagenesis), microbiology (biotransformation, fermentation), chemical (organic synthesis, heterogenic catalysis), & analytical methods (chromatography, spectroscopy, electrophoreses).

In the field of **Directed Evolution and Rational Engineering of Dehydratase toward Enzymatic Dehydration of D-Glycerate at Elevated Temperatures**

Goal

- Development of High Throughput Screening (HTS) in 96 or 384 plate format
- Enzyme engineering (STEP, epPCR, QuikChange®, sequence homology) towards higher activity and/or higher stability.
- Analysis of enzymes (k_{cat} , K_m , T_m , T_{50})

Requirements

- Majoring in biochemistry, chemistry, biology, biotechnology, or related science majors with prove of above average academic performance in the past
- Having experience working with enzymes
- Curiosity and interest in scientific problem solving
- Strong dedication, soft skills, and creative thinking

We offer

- Balanced supervision and weekly scientific seminars
- A young and international team of talented scientists
- Working at the new TUM Campus Straubing of Biotechnology and Sustainability
- Support for finding accommodation
- Possibility of providing a Hiwi position
- Possibility of authorship in publication

Application

I am looking forward to receiving your application. Regarding any inquiries contact me by email.

Samuel Sutiono

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For additional cap stone projects in related subjects feel also free to contact us.