Job opening at TUM Campus Straubing for Biotechnology and Sustainability:

PhD position (scholarship) in Biocatalysis & Enzyme Engineering

Project:
The project deals with the production of fuels and chemicals by a synthetic enzymatic cascade reaction. Four doctoral candidates from TUM and the University of Queensland (UQ) in Australia will cooperate to optimize four enzymes of a previously designed cascade reaction required to convert glucose to isobutanol. To achieve this goal, we will be using structural and mechanistic insight in combination with bioinformatics tools (molecular design and sequence reconstruction) and experimental approaches (high throughput techniques and robotics) to rationally and semi-rationally design enzymes that have increased catalytic activity and stability. Optimized enzymes will then be used to reconstitute the cascade and to design an optimal reaction setup to maximize productivity and yield. The outcome will provide a blueprint for the cell-free enzymatic conversion of renewable raw material into value-added chemicals.

Your profile
• Excellent Master’s degree (or equivalent) in biochemistry, chemistry, biotechnology, biology or related disciplines.
• Applicants with strong background in molecular biology and protein biochemistry are preferred.
• Highly motivated and keen on working in an international and interdisciplinary team

We offer
• A stipend of €2000 per month for 36 months
• Membership in the International Graduate School of Science and Engineering (IGSSE).
• Extra funding for international travel (including a research stay of 3 month at the University of Queensland in Brisbane)

• TUM is an equal opportunity employer. Qualified women are therefore particularly encouraged to apply.
• Applicants with disabilities are treated with preference given comparable qualification.
• Envisaged start of the project is the 1st of February 2019

Contact
Please send your application materials, including a cover letter, a CV, your degree including a detailed transcript of records, and contact information of two referees to bew_cbr@cs.tum.de or

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