CALL FOR APPLICATIONS: 2 MASTER THESIS

The Chair of Werner Siemens for Synthetic Biotechnology at the Department of Chemistry at the Technical University of Munich in Garching has 2 openings for a Master Thesis position

Towards Improving the Genetic Accessibility of C. oleaginosus

Microbial oils have been extensively investigated as a renewable platform for biofuel and oleochemical production. One prominent yeast strain in this field is Cutaneotrichosporon oleaginosus. To increase the economic viability of C. oleaginosus oil process, one strategy involves genetic engineering efforts to improve substrate uptake and direct the metabolic flux into lipogenic pathways, thereby improving lipid productivity and tailor process specific FA profiles.

Responsibility and Tasks:
Genetic manipulation of C. oleaginosus for enhanced lipids titers.
- Transcriptomic analysis
- Utilize established protocols of transformation
- Utilize and optimize established protocols of homologous recombination
- Establish new selection markers
- Identify and manipulate new target genes
- Apply and optimize screening techniques including lipid staining and cell sorting
- Lipid extraction using previously established methods

Requirements:
Suitable candidates should have strong background in yeast culturing techniques and genetic engineering, including pcr, primer design, transformation and selection techniques. Suitable candidates have a Bachelor in biochemistry, molecular biology, biotechnology or equivalent fields. High team spirit and communication skills, and a high level of self motivation are key to accomplish the set tasks. Previous experience is an advantage. Please note that email applications should reference DAWAD1 in the Subject.

Contact Information:
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