Biocatalysis for production of biosurfactants

Chemical Engineering (read more here about the programme and admission requirements)

Host: Prof. Neill Goosen

The research group of Prof Goosen is seeking an excellent research candidate at Masters level to develop biocatalytic pathways to produce biosurfactants. Surfactants are employed widely in industry, including in the agricultural, cosmetic, food and pharmaceutical industries. Applications where the surfactants end up in the human food or health systems require the use of inherently safe compounds, and certain biosurfactants adhere to this requirement. The project will develop biosurfactant production methods using safe biomaterials as building blocks, and well-define enzymes as biocatalysts. The research will equip the candidate with important skills in the bioprocessing sphere, and it will contribute toward establishing new bio-based materials and production methods to make our economy more sustainable.

Commencement: The successful candidate must assume postgraduate work in January 2025.

Bursary: Research and bursary funding has been applied for from a funder, and if successful a bursary of R135,000 will be provided. Candidates that already have their own funding for living expenses and tuition will have an advantage.

Requirements

- A bachelor's degree (BEng/BScEng or similar) in Chemical Engineering from an accredited tertiary institution. *Candidates with BTech, National Diploma, or advanced diploma qualifications will not be considered*.
- Applicants must have good academic record (preferably with a course aggregate of >65%).
- Previous experience in biocatalysis will be a definite advantage but is not required.
- Preference will be given to ***South African citizens and permanent residents*** who display academic excellence.

Application

Interested candidates must provide the following documentation: a cover letter, CV, degree certificate(s), complete academic transcript(s), and contact details of at least three academic references. Applications can be sent to njgoosen@sun.ac.za before **15 November 2024**. Candidates may consider their application unsuccessful if they do not receive any feedback within four weeks of applying.

Stellenbosch University reserves the right not to fill the position.