



Stellenbosch

UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

SCIENCE

EYENZULULWAZI NGEZENDALO
NATUURWETENSKAPPE

Department of Biochemistry | Isebe i-chemistry
yobomi | Departement Biochemie

Postdoctoral Fellowship (Department of Biochemistry)

A postdoctoral fellowship is currently available in the field of TB drug discovery and development. The candidate will form an integral part of the *in vitro* enzyme biology team in a multidisciplinary project focussed on establishing an African-based TB drug discovery platform across four Southern African sites. The project will be performed under the auspices of the **Grand Challenges Africa** initiative of the Bill and Melinda Gates Foundation, co-funded by the UK charity LifeArc.

Applications from suitable candidates are invited for this post for an initial period of one year, which may be renewable for a further two years (three years total) based on satisfactory performance (annual performance reviews will be held) and the availability of funds. Appointments will be made at R300 000 per annum, being a non-taxable award.

The successful applicant will be involved in the development and execution of biophysical, spectrophotometric and immunological assays to determine the *in vitro* binding and interaction of high-value *Mtb* proteins with target engaging ligands as well as their potential degradation by the *Mtb* protein degradation machinery.

The major focus of the incumbent's project is the design and implementation of protein binding and interaction assays (such as DSF, ITC and SPR), SDS-PAGE, Western-Blot and other immunological assays for protein identification and quantification and spectrophotometric assays such as reporter assays and proximity assays (FRET, BRET, AlphaScreen). The preferred incumbent will need to have a strong skillset in enzymology and protein assay development and must be prepared to invest building those skills that they might be lacking. The incumbent will also be required to be involved in general laboratory operations and in the training and supervision of postgraduate students.

Host: Department of Biochemistry at Stellenbosch University, Stellenbosch, South Africa.

Requirements: A **PhD degree** in Biochemistry/Chemical Biology, Microbiology or Immunology, obtained within the last five years (or proof that the requirements for the degree has been satisfied). Candidates with PhD degrees in other fields but with appropriate experience might also be considered. The successful candidate will have **demonstrable experience** in enzyme characterization, including heterologous protein expression, protein purification, conducting and developing enzyme assays towards the biophysical characterization of proteins and advanced data analysis using Excel or Python (preferred). **Experience** with protein binding, immunological and kinetic characterization would be highly advantageous. **Experience** in *Mtb* drug discovery and development, BSL1 and BSL2 cell culture and protein crystallization would also be a distinct advantage.

Due to the multidisciplinary nature of project, candidates must possess **strong communication skills** to ensure the translation and effective presentation of results, progress and skills to other members of the team focussing on different research areas. **Good time management, teamwork, problem solving, independent thinking, record keeping and use of online and/or electronic platforms** to store, document and manage data, experiments and samples will also be required.

Eligibility: Applicants from South Africa in particular, but African countries will receive preference.

Deadline and starting date: Applications for the position must be received by **Friday, 15 December 2023**. The starting date will be from 15 January 2024 or as soon as possible thereafter.

Application procedure: Submit a cover letter summarising your background and interests and how your skills match those required for the project. Include a detailed CV and academic and publication record, and the names of two contactable references. Submit applications by e-mail to Prof Erick Strauss at estrauss@sun.ac.za. Enquiries can be made at the same address, or at 021-808-5866.

Note: Postdoctoral fellows are not appointed as employees and as their fellowships are awarded tax free, they are not eligible for employee benefits. The University reserves the right NOT to make an appointment if suitable candidates do not apply.