



INVESTIGATOR: ENZYMOLOGY

(1-year contract)

Drug Discovery & Development Centre (H3D)

Faculty of Science

The Drug Discovery and Development Centre (H3D) is an interdisciplinary, soft-funded research unit at the University of Cape Town. H3D seeks a protein biochemist with significant knowledge and expertise in enzymology and biochemical assay development. The primary job role will be to provide scientific and technical support as part of an interdisciplinary translational research team discovering and developing innovative, lifesaving medicines. Specifically, this Investigator will contribute significantly to the H3D enzymology platform supporting Malaria and Tuberculosis (TB) target-based drug discovery projects. The Investigator will work within H3D's Biosciences group at the Institute of Infectious Diseases and Molecular Medicine (IDM), interfacing closely with H3D's computer-aided drug discovery (CADD), medicinal chemistry and drug metabolism and pharmacokinetics (DMPK) teams. The Investigator will report to the H3D Head of Drug Discovery.

Requirements:

- Applicants must be South African citizens or permanent residents
- A NQF10/PhD in biochemistry, structural biology or a related discipline
- At least 2 years relevant postdoctoral industrial or academic experience in protein biochemistry, enzymology or related research
- Established expertise in the following:
 - Construct design, molecular cloning and standard molecular biology techniques
 - Recombinant protein expression
 - Protein purification using a range of purification methods
 - Enzyme kinetics
 - Establishing biochemical inhibition/binding assays
- Effective teamwork skills
- Excellent oral and written communication skills
- Relevant publication record

Advantages:

Experience in the following is highly desirable:

- Target-based drug discovery
- Malaria or TB disease biology
- Baculovirus-insect cell or other eukaryotic expression systems
- Medium to high-throughput biochemical assays using semi-automated robotic systems
- Protein crystallography and/or cryo-electron microscopy
- Molecular modelling and *in silico* docking
- Supervision of junior team members/students
- Effective leadership skills
- Strong interdisciplinary interaction and networking skills

Responsibilities will include, but are not limited to the following:

- Overseeing the day-to-day running of the H3D enzymology platform, including protein production for target-based assays.
- Planning and overseeing the development of the *in vitro* target-based screening strategies for Malaria and TB biology.
- Recombinant expression, purification and characterisation of drug targets; medium to high-throughput biochemical assays for routine compound screening and profiling.
- Supporting Malaria and TB drug discovery project activities as part of a multi-disciplinary team of biologists, biochemists, pharmacologists and medicinal and computational chemists, including national and international collaborators.
- Proactively sharing technical expertise with H3D team members and the broader UCT community.
- Provide mentorship to junior staff and postdoctoral fellows.

The annual remuneration package for 2020, including benefits is between R309 829 - R589 646.

For any further information, contact Dr Lauren Arendse: l.arendse@uct.ac.za

To apply, please e-mail the below documents in a **single pdf file** to Ms. Elaine Rutherford-Jones at elaine.rutherford-jones@uct.ac.za

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>)
- A letter of motivation
- Curriculum Vitae (CV)
- A statement of your research interests

Please ensure the title and reference number are indicated in the subject line.

An application which does not comply with the above requirements will be regarded as incomplete. Only shortlisted candidates will be contacted.

Telephone: 021 650 5495

Website: www.h3d.uct.ac.za

Reference number: E21116

Closing date: 31 January 2021

UCT is committed to the pursuit of excellence, diversity and redress in achieving its equity targets. Our Employment Equity Policy is available at <http://www.uct.ac.za/downloads/uct.ac.za/about/policies/eepolicy.pdf>.

UCT reserves the right not to appoint.