



## Postdoctoral Fellowship in Malaria Protein Biophysics

**Location:** Africa Centre for Therapeutic Innovation (**ACTI**) in Department of Biochemistry, Faculty of Science, Stellenbosch University, South Africa

### Project Overview

The Protein Folding Research Group at Stellenbosch University invites applications for a Postdoctoral Fellowship in Biophysics, focused on malaria drug discovery. This position is part of a cross-disciplinary project investigating condensate formation in malaria parasites as potential therapeutic targets. The successful candidate will contribute to understanding the biophysical mechanisms underlying protein aggregation and its role in parasite survival, with the goal of identifying novel intervention strategies.

### Research Focus Areas

- Characterization of conformational dynamics of aggregation-prone proteins in *Plasmodium* parasites
- Optimization and application of a custom-built confocal microscope for single-molecule fluorescence studies

### Qualifications and Experience

#### Minimum requirements:

- PhD in Biochemistry, Biophysics, Physics, or a closely related field (awarded within the past 5 years)
- Proven expertise in protein characterization and biophysical techniques
- Experience with malaria parasite culture
- Working knowledge of confocal microscopy and optical systems
- Proficiency in MATLAB or equivalent image analysis coding tools

#### Desirable skills:

- Strong publication record to successful research funding applications
- Experience in protein structural analysis, or computational image data analysis
- Experience in student supervision and mentoring

### Key Responsibilities

- Conduct independent and collaborative research in biophysics instrumentation,
- Provide technical and analytical expertise to ongoing projects
- Manage laboratory equipment, reagents, and data records
- Contribute to the preparation of manuscripts, reports, and grant proposals

### Position Details

- Start Date: 1 February 2026 (or as soon as possible thereafter)
- Duration: 1 year with possibility for extension for another year based on performance,
- Stipend: ZAR 300,000 per annum (non-taxable)

### Application Procedure

Interested applicants should submit the following documents **as a single PDF**:

1. **Cover letter** outlining research experience, interests, and career goals
2. **Curriculum Vitae (CV)** including a list of publications
3. **Contact details** of at least two academic referees

Please email your application to **Dr. Tawanda Zininga** at [tzinga@sun.ac.za](mailto:tzinga@sun.ac.za) by **Friday, 21 November 2025**.