



Call for PhD Students in Structural Bioinformatics (Opportunity to apply for NRF-grant holder linked bursaries)

University of Cape Town (UCT), South Africa

We are looking for motivated PhD students to join an interdisciplinary research program in structural bioinformatics and computational biology.

Our research focuses on understanding gene regulation through modelling protein-protein and protein-RNA interactions.

Projects are available in two main research areas:

1. Gene regulation and protein interaction networks dysregulated in the brain
2. Protein-protein interactions in fungal pathogens, with a particular focus on mechanisms underlying stress adaptation, antifungal resistance, and transcriptional regulation

Research projects may involve:

- Structural modelling of protein-protein and protein-RNA interactions
- Molecular dynamics simulations
- Transcriptomics and regulatory network analysis
- AI-driven computational biology approaches
- Integrative multi-omics analysis

We particularly encourage applications from students with strong computational or quantitative backgrounds, including computer science, mathematics, physics, statistics and computational biology. Experience in programming, Linux/HPC environments, machine learning, or structural modelling is recommended.

Students may apply for NRF bursary funding through the NRF-grant holder linked funding stream (through NRF-CSUR grant or NITheCS Centre of Excellence).

The position will be in Dr Caroline Ross's Group in Molecular and Cell Biology Department, UCT.

Interested candidates should contact Dr Ross (caro.ross@uct.ac.za)