



BIOINFORMATICIAN

(2-year contract; Lecturer Level)

**Division of Neurosurgery,
Department of Surgery
Faculty of Health Sciences**

We are looking for a suitably qualified individual who is interested in analysis of large neuroscience datasets. The brain is a complex organ, and, in the past, we had limited scope to monitor real-time brain physiology and generate brain specific samples for analysis. The African Brain Child group, awardee of the NRF 2024 Science Team of the Year, received a prestigious Wellcome Discovery grant to examine high frequency data collection and sampling in patients with brain injury. In this project we are collecting hourly biological samples over several days which we will analyse using -omics techniques focused on metabolism, brain chemistry and inflammation. These data will be paired with high frequency (50Hz) multivariable intracranial data (pressure, oxygenation, electrophysiology) and brain imaging data. This enables the generation of a large and rich dataset. Examples of the analysis will include examination of temporal profiles, response to interventions, and association with clinical characteristics and outcome. This job may include complex data analysis training at collaborating institutions in the United Kingdom (Francis Crick Institute in London) or the United States (Massachusetts Institute of Technology, Boston) and PhD opportunities at UCT. Given that brain injury is the leading cause of death and disability in older children and young adults across the world, the global healthcare implications for progress in this field are significant.

There will be opportunities to:

- Author and publish papers.
- Be exposed to a dynamic research environment in clinical neuroscience.
- Attend meetings and conferences to present data.
- Participate in international research collaborations

Requirements:

- The position is available to candidates with a minimum of a Masters degree from any field related to neuroscience, bioinformatics, biomedical science, computer science, statistics and mathematics. In addition, candidates need to have a minimum of 2-3 years of work experience that is relevant to the scope of work described above.
- Candidates need to have a strong background in the analysis of large datasets.
- Competency in programming languages including but not limited to Python and R. SQL will be an advantage.
- Candidates should have demonstrated their ability to conduct meritorious research.
- Applicants should have good communication, strong team working and evidence of leadership skills.
- Candidates must have their own reliable transport and are expected to work on site full-time.

Responsibilities:

- Conduct the specified research projects, generate and analyse data within specified time frames.
- Write up research for publication and present at local and international meetings.
- Contribute to progress report and grant writing.
- Contribute to student supervision / training as required.
- Contribute to and participate in overall research group activities.
- Participate in project specified training.
- Participate in outreach and/or training activities targeting the broader community (e.g., workshops or seminars)

We are offering a 2-year contract at Lecturer level, with an annual cost of employment of R 600 000 and R 700 000 based on skills and experience. The position is available immediately. There may be opportunity for extension of the contract based on performance.

To apply, please e-mail the below documents in a **single pdf file** to at Dr Jill Combrinck at j.combrinck@uct.ac.za

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>)
- Letter of motivation that speaks to the specific requirements of the position, and
- Curriculum Vitae (CV) including a publication record and details of three contactable referees.

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 and may be required to undergo a competency test.

Reference number: E25977

Closing date: 20 November 2025

"UCT is a designated employer and is committed to the pursuit of excellence, diversity, and redress in achieving its equity targets in accordance with the Employment Equity Plan of the University and its Employment Equity goals and targets. Preference will be given to candidates from the under-represented designated groups. Our Employment Equity Policy is available at www.uct.ac.za/downloads/uct.ac.za/about/policies/eepolicy.pdf. "

When you apply for a position at UCT, we collect your personal information to assess your application, communicate with you, and coordinate interview logistics. Information such as race, gender, nationality, and disability status is used to support our Employment Equity obligations. We also verify your references, qualifications, conduct criminal and, for certain roles, credit checks. For more information about how the University of Cape Town uses personal information and your rights, please email popia@uct.ac.za.

The University reserves the right to extend the closing date for applications if deemed necessary and reserves the right to make no appointment.