



JUNIOR RESEARCH FELLOW (2-year contract)

**Biomedical Engineering Research Centre
Department of Human Biology
Faculty of Health Sciences**

The Biomedical Engineering Research Centre within the Department of Human Biology in the Faculty of Health Sciences seeks to employ a Junior Research Fellow to conduct interdisciplinary research in one or more of the areas listed below (project leaders are indicated in brackets).

- Frameworks to develop and implement low-cost devices for spinal cord rehabilitation (Dr Yumna Albertus)
- Multi-channel surface electromyography to evaluate pathological neuromuscular activation patterns in patients with stroke and spinal cord injury (Dr Yumna Albertus)
- Design, implementation and evaluation of a secure digital health testbed based on 5G mobile network technology (Prof. Tania Douglas)
- Physical cellular biomarkers to advance diagnosis of and therapy for cancers prevalent in Africa (Prof. Thomas Franz)
- 3D reconstruction of articulating statistical shape and intensity models from 2D X-ray images (Dr Tinashe Mutsvangwa)
- Machine learning for cross-modality 3D image synthesis (Dr Tinashe Mutsvangwa)

The incumbent is expected to develop the following capabilities during their tenure: securing research funding; developing international research partnerships, collaborations and network ties; undertaking independent research; and mentoring postgraduate students. Candidates who are committed to establishing academic or research careers in Africa are encouraged to apply.

*Applicants who are **South African citizens and citizens of other African countries** will be considered. The latter should be in possession of a valid work permit.*

Requirements

- A PhD in a field related to the above research areas.
- A maximum of 5 years of relevant post-PhD experience.
- A track record of publications related to the research areas outlined above.
- Ability to work in an interdisciplinary environment.
- Experience in postgraduate student mentorship.

In addition to the above, the following would be advantageous

- Experience in writing research grant proposals.
- Evidence of independent conceptualisation and leadership of research projects.
- At least 2 years of postdoctoral experience.

Responsibilities

- Independent interdisciplinary research in one or more of the areas outlined above.
- Publishing research findings and delivering seminar and conference presentations.
- Conceptualising and preparing funding proposals for local and international funding agencies.
- Co-supervision of postgraduate students.
- Providing research support in areas of expertise.
- Research administration.
- Contributing to the activities of the Department of Human Biology.

The annual remuneration package for this full-time contract position is **R651,323**.

To apply, please e-mail the documents below **in a single pdf file** clearly indicating "BME Junior Research Fellow" in the subject line to tania.douglas@uct.ac.za:

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

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

Website: www.humanbiology.uct.ac.za

Closing date: 11 December 2020

UCT reserves the right not to appoint.