



UNIVERSITY OF CAPE TOWN
FACULTY OF HEALTH SCIENCES
CARNEGIE FUNDED DEVELOPING EMERGING ACADEMIC LEADERS
AWARDS (DEAL 3)
HOSTED BY THE CENTRE FOR INFECTIOUS DISEASES RESEARCH IN
AFRICA
(CIDRI-AFRICA)

1 X 2-YEAR JUNIOR RESEARCH FELLOW (APPOINTMENT AT UCT)
VALUE: R700 000 (TAXABLE) PER ANNUM

Submission deadline: 31 JULY 2023

Reference number: E23716

The University of Cape Town's [Centre for Infectious Diseases Research in Africa \(CIDRI-Africa\)](#) invites applications for 1 x Junior Research Fellow post funded through the Carnegie DEAL 3 award scheme in the area of infectious diseases.

The Junior Research Fellow post will be awarded as a 2-year appointment at the University of Cape Town.

The value of the fellowship is R700 000 (COE including benefits, taxable) per annum.

Approved candidates should be available to take up their awards in 2023 (by the latest 1 January 2024)

Two projects are being offered by CIDRI-Africa Contributing Investigators for this position. Only one should be selected for the application.

The applicant should indicate their research project of choice on the award scheme specific application form (<https://health.uct.ac.za/media/459152>). A UCT HR201 (<https://forms.uct.ac.za/hr201.doc>) application form must also be submitted.

Investigators of CIDRI-Africa (see table at end of application) who are specifically participating in this CIDRI-Africa DEAL 3 scheme will be the supervisor/host pending the chosen project. Successful candidates will be registered in the academic departments of the host.

Project 1: PI Professor Jo-Ann Passmore	Project 2: PI Associate Professor Phumla Sinxadi
<p>Women with asymptomatic sexually transmitted infections (STIs), and bacterial vaginosis (BV) have genital inflammation and are at increased risk of HIV infection and reproductive complications. Even though these conditions are highly prevalent, these women are not being treated as there are no inexpensive but accurate diagnostics. There is an urgent need to develop inexpensive, true point-of-care (POC) diagnostics to address the massive STI and BV burden in resource-limited settings. We have identified this problem largely through our own research in South Africa. We have shown that women with genital inflammation are at 3-fold higher odds of acquiring HIV. We have also shown that asymptomatic discharge-causing STIs and BV are major drivers of genital inflammation.</p> <p>Our Genital InFLammation Test (GIFT) is a lateral flow POC test that measures three cytokines (IL-1α, IL-1β and IP-10) in cervicovaginal fluid, which are consistent biomarkers of asymptomatic inflammatory STIs, and BV. Often women with BV or STIs don't know they have these conditions because they are asymptomatic. However, even asymptomatic STIs/ BV cause high levels of genital inflammation and increase the risk of adverse pregnancy outcomes and HIV infection. Our invention could improve the health of women in Africa and other regions where syndromic management is implemented. Averting even a small proportion of HIV infections and adverse birth outcomes linked to undetected but inflammatory STIs/BV would have a massive economic and social impact.</p> <p>We are seeking to appoint a Junior Research Officer or Research Officer with skills in biochemistry and immunology through Carnegie DEAL funding to focus on GIFT device development, experience with biotechnology would be an advantage. The incumbent would also ideally work within the IDM to establish a translational research HUB, to allow easier translation of disease biomarkers into novel diagnostic tools.</p>	<p>Drug-resistant TB, especially rifampicin-resistant TB (RR-TB) remains a major public threat. Several novel and repurposed drugs have been introduced into standard treatment for RR-TB, with dramatic improvement in outcomes.</p> <p>Variable drug responses have been shown to result from polymorphisms in genes coding for enzymes involved in drug absorption, distribution, metabolism, and elimination, as well as polymorphisms in off-target genes. Data on the genetic predictors of drug exposure, efficacy, and safety of novel and repurposed drugs for RR-TB are lacking, particularly for Africans.</p> <p>Our goal is to identify polymorphisms that are associated with inter-individual differences in plasma exposure and toxicity of four key novel and repurposed drugs: bedaquiline, linezolid, clofazimine and delamanid. We will use data and specimens from South Africans who are enrolled in clinical trials and prospective cohorts that will provide high quality phenotypic data regarding both the toxicity and efficacy of these novel and repurposed drugs for RR-TB.</p> <p>We are seeking to appoint a Junior Research Officer with skills in human genetics and bioinformatics through Carnegie DEAL funding to focus on genetic analysis. The incumbent would also ideally work within the Division of Clinical Pharmacology, and the newly established SAMRC Extramural unit- UCT Platform for Pharmacogenomics Research & Translation (PREMED), whose main goal is to translate findings from the African population, bringing us closer translating genetic laboratory test results into actionable prescribing decisions for affected drugs.</p>

Requirements

- Applicants should hold an appropriate doctoral degree
- Preference will be given to Black/Coloured/Asian males from South Africa and the rest of Africa and females of any racial group from South Africa and the rest of Africa
- Valid work visas are required
- Applicants for the Junior Research Fellowship should have a minimum of 2 years and a maximum of 5 years relevant postdoctoral experience. As the intention is to provide opportunity for researchers who have completed a postdoctoral fellowship but are not yet independent PIs in their own right, past experience as a postdoctoral fellow is expected. In its absence, a motivation will be considered.

Responsibilities:

- The candidate should have skills in human genetics and bioinformatics or biochemistry and immunology, depending on the project selected
- An annual mid-year and end-of-year progress report will be required from each awardee, to be submitted to their supervisors and Amanda.Bessick@uct.ac.za (Carnegie Project Administrator)
- Participate in teaching and postgraduate (co-)supervision, provided it advances the independence of the Fellow and provided this is not at the detriment of the research project. Postgraduate (co-) supervision is limited to a maximum of two students.
- Lead a research project under the supervision / mentorship of a senior academic.
- Participate in a collaborative research project with an African university external to South Africa and/or other international universities or research institutes.
- Publish research outputs in accredited journals and / or scholarly books.
- DEAL 3 expects Fellows to publish at least 2 papers in academic journals within the 24-month grant period (at least 1 paper per year).
- DEAL 3 expects Fellows to conduct 1 international university visit or 1 conference presentation per year, with at least 1 international conference presentation during the tenure.
- Assist in the identification of research funding opportunities, and co-author research grants.
- Assist with the organisation and running of networking events.

The University of Cape Town's policies will be adhered to.

An application form is attached. Enquiries and completed applications should be addressed to:
cidri-africa.recruitment@uct.ac.za

The University of Cape Town reserves the right to: disqualify ineligible, incomplete and/or inappropriate applications; change the conditions of the award or to make no awards at all.

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 <https://hr.uct.ac.za/policies/employment-equity> "