



Division of Pulmonology
Department of Medicine
University of Cape Town

H46.41 Old Main Building, Groote Schuur Hospital, Observatory, 7925, South Africa.
Tel: +27 21 404 7654/0 | Fax: +27 21 650 3824 | Email:
pat.wileman@uct.ac.za/laurene.viljoen@uct.ac.za
Centre Head: Prof. Keertan Dheda, MB.BCh (Wits), FCP(SA), FCCP, PhD (Lond), FRCP (Lond)
Head: Division of Pulmonology | Email: keertan.dhed@uct.ac.za
URL (Dept. Of Medicine): <http://web.uct.ac.za/depts/medicine/divisions/divisions.htm>
URL (Unit): http://www.lunginstitute.co.za/content/lung_infection.html



POSTDOCTORAL RESEARCH FELLOWSHIP VACANCY

Applicants are invited to apply for a Postdoctoral Research Fellowship based at the Centre for Lung Infection and Immunity (CLII), Division of Pulmonology, Department of Medicine, University of Cape Town. The CLII conducts various TB and other respiratory disease-related research projects at numerous sites in Southern Africa. This includes several areas of research such as diagnostics, transmission, drug resistance, and immunology, that is conducted through a network of national and international collaborators. The Centre has an exemplary track record of high-quality research and publications and only candidates with a strong track record will be considered.

Purpose: The successful candidate will be expected to contribute to various active projects aimed at novel biomarker discovery for the diagnosis of pulmonary and extra-pulmonary tuberculosis. The candidate will primarily be involved in the data analysis component of the projects encompassing the processing of raw '-omics' data, differential expression analysis and predictive modelling using machine learning algorithms. However, the candidate may also be required to do laboratory bench work. As the projects form part of CLII's Translational Biomedical Research portfolio, the successful candidate will have the opportunity to interface with product development and commercialisation, grant writing and project management.

Academic Criteria: Applicants must have completed a PhD degree in a foundational discipline relevant to the topic (e.g., PhD in Biochemistry, Chemistry, Microbiology, Immunology, Bioinformatics, Biostatistics or related field). The applicant should not have previously held any permanent professional or academic post (previous postdoctoral position at UCT or another academic institution is acceptable). Applicants should have a proven track record of scientific outputs (i.e., publication record in accredited international journals, and oral or poster presentations at recognised national or international conferences), interpersonal skills, and be able to effectively conduct research as part of a multi-disciplinary team. Candidates should meet the essential criteria outlined below and should have experience in:

- The analysis of '-omics' based data (e.g., proteomics, transcriptomics, genomics).
- Using machine learning algorithms for biomarker discovery.
- A strong background in biostatistics.
- Proficiency in a programming language (R, Python, Linux shell).
- Excellent written and verbal communication skills and a proven ability to plan with multiple stakeholders for the correct execution of experiments.

Meeting the following criteria would be desirable and count in the candidates' favour:

- Laboratory-based experience working with clinical samples (e.g., sputum, blood, urine, pleural fluid, CSF).
- Experience working with infectious pathogens (e.g., TB, SARS-CoV2) in BSL2 and 3 laboratory settings.
- Experience with proteomic and immunology-based techniques:
 - Electrophoretic separation and protein detection (e.g., SDS PAGE, Native PAGE, Western Blotting).
 - Protein quantification assays (e.g., colorimetric or fluorometric methods).
 - Proteomics sample preparation and data analysis associated with LCMS-based pipelines (hands-on instrument experience is not required but will be beneficial).
 - Immunoassays (e.g., ELISA, ELISPOT, Luminex, Olink Target assays, etc.).



Division of Pulmonology
Department of Medicine
University of Cape Town

H46.41 Old Main Building, Groote Schuur Hospital, Observatory, 7925, South Africa.

Tel: +27 21 404 7654/0 | Fax: +27 21 650 3824 | Email:

pat.wileman@uct.ac.za/laurene.viljoen@uct.ac.za

Centre Head: Prof. Keertan Dheda, MB.BCh (Wits), FCP(SA), FCCP, PhD (Lond), FRCP (Lond)

Head: Division of Pulmonology | Email: keertan.dheda@uct.ac.za

URL (Dept. Of Medicine): <http://web.uct.ac.za/depts/medicine/divisions/divisions.htm>

URL (Unit): http://www.lunginstitute.co.za/content/lung_infection.html



Conditions of Award:

1. Postdoctoral research fellowships are only available to individuals who have achieved their doctoral degree within the past 5 years.
2. The successful candidate may not have held any prior permanent academic or professional posts (previous postdoctoral position is acceptable).
3. No benefits or allowances are included in the value of the fellowship.
4. The successful candidate will be required to comply with the University's approved policies, procedures and practices for the postdoctoral sector.
5. There will be a skills assessment and tour of the research facility as a mandatory requirement of the interview process.

Value & Tenure of Fellowship:

The value of the Postdoctoral Research Fellowship will be between R 250 000 and R 450 000 tax free per annum (depending on experience post PhD) and meet the criteria as stipulated by the University of Cape Town and the South African Revenue Service. The Fellowship is tenable for 1 year, but renewable for a further 2-3 years, and is contingent on satisfactory progress and availability of funds. Applicants approaching the end of their post-doctoral tenure please make contact with the Unit Head to discuss options.

Application Requirements:

Applicants are required to submit their CV, cover letter, and contact details of two referees to Sameera Gamiet; email: uctlirecruitment@uct.ac.za (Subject Line: CLII_PD2024) by 12 August 2024. ***Only shortlisted candidates will be contacted.***

Selection Process:

Eligible and complete applications will be considered by the Head of the Unit and an internal sub-committee. Shortlisted candidates will be contacted for an in-person or online interview. Once an interview has been scheduled, the candidates' referees will be contacted.

The University of Cape Town reserves the right to:

- ***Disqualify ineligible, incomplete and/or inappropriate applications,***
- ***Change the conditions of award or to make no awards at all.***