



Stellenbosch

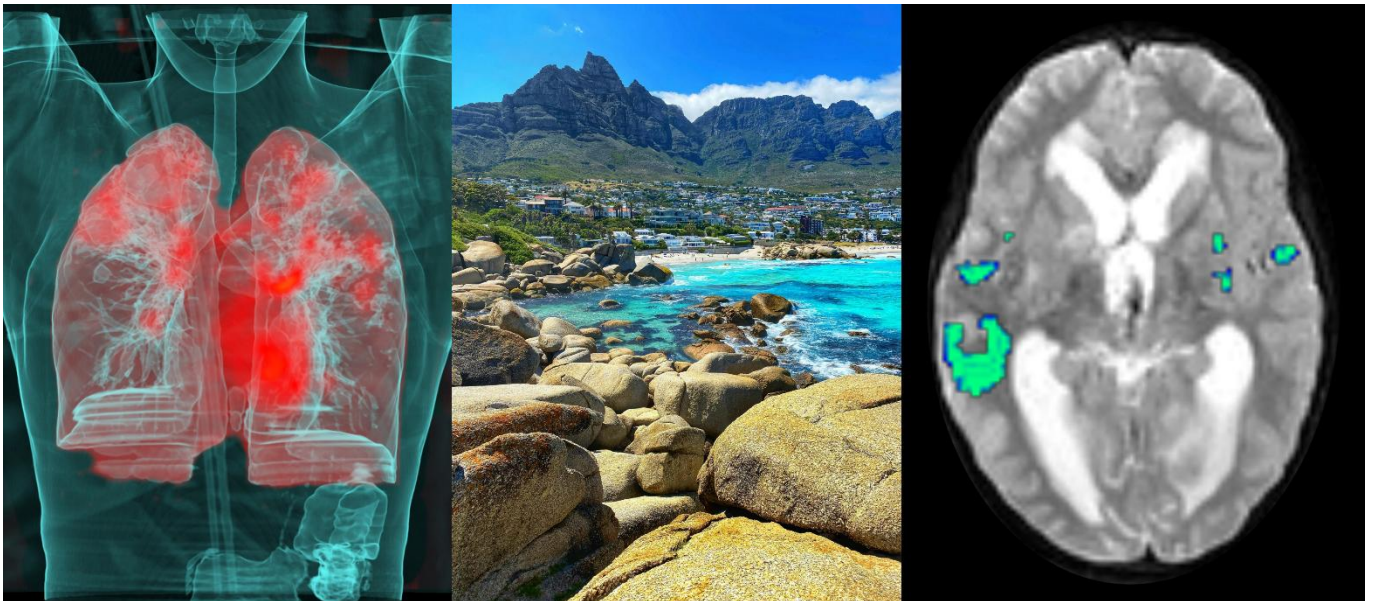
UNIVERSITY
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Medicine and Health Sciences
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Geneeskunde en Gesondheidswetenskappe

Postdoctoral Fellowship in Paediatric Infection Imaging

Division of Nuclear Medicine

Faculty of Medicine and Health Sciences, Stellenbosch University
Tygerberg Campus, Cape Town, South Africa



forward together
sonke siya phambili
saam vorentoe

Division of Nuclear Medicine,
Department of Medical Imaging and Clinical Oncology,
C10A Tygerberg Hospital,
Francie Van Zijl Drive, Tygerberg, 7505
<https://www.su.ac.za/en/faculties/medicine>

Fellowship Overview

We invite applications for a full-time postdoctoral researcher to join an NIH-funded project exploring the pathophysiology of childhood tuberculous meningitis (TBM) with a particular focus on ischemic injury (iThemba); and a Wellcome Trust-funded project exploring the immunology and morbidity of adolescent pulmonary tuberculosis (DEFIANT). The selected candidate will contribute to imaging arms of the studies, including design, acquisition, processing, analysis, and interpretation of imaging data from paediatric patients with suspected or confirmed tuberculous meningitis (TBM) or pulmonary tuberculosis. This opportunity is hosted by the Stellenbosch University Division of Nuclear Medicine.

Roles and Responsibilities

The successful candidate will work closely with senior investigators, with a research focus on paediatric tuberculosis. Core duties include:

- **Research Execution:** lead imaging experiments; quality control, preprocessing, and curation of imaging data; development and implementation of image processing pipelines (registration, segmentation, extraction of quantitative imaging measures) to quantify relevant pathophysiological processes and relate these to clinical, molecular, proteomic and outcome data; use these pipelines to perform, interpret, and write up experimental analyses from hypothesis formulation to data integration, visualization, and manuscript preparation; contribute to statistical modelling and multi-modal data analysis using Python, R, and/or MATLAB.
- **Mentorship and Collaboration:** Co-supervise postgraduate students and collaborate with a multidisciplinary team of clinicians, imaging specialists, immunologists, and bioinformaticians.
- **Publication and Dissemination:** Prepare scientific manuscripts, present at national and international conferences, and contribute to fellowship-relevant outputs.
- **Grant Development:** Assist in securing future funding by contributing to grant applications and the development of new project ideas.

Requirements and Qualifications

The ideal candidate will meet the following requirements:

- PhD in a directly relevant field (including biomedical engineering, medical physics, or related), obtained within the last 5 years.
- Demonstrated experience in medical imaging.
- Strong skills in medical image processing and quantitative imaging analytics (experience with tools such as SPM, ExploreASL, and custom scripts in MATLAB/Python is recommended).
- Evidence of peer-reviewed publications in their field.
- Excellent programming/statistical ability (e.g., Python, R, MATLAB), strong working knowledge of statistical modelling, and ability to integrate imaging with other 'omics or clinical datasets.
- Excellent oral and written communication skills, ability to work effectively in a multicultural, interdisciplinary team, and willingness to travel if needed for collaborations.

Fellowship and Tenure

- **Duration:** Two years initially, with potential extension based on performance and funding availability.
- **Funding:** A competitive, tax-free postdoctoral fellowship stipend as per Faculty of Medicine and Health Sciences guidelines.
- **Location:** Stellenbosch University, Tygerberg Campus, Cape Town, South Africa — 25 minutes from the Cape Town city centre.

Opportunity

Join an international research team at the intersection of advanced imaging and childhood infectious disease. You'll collaborate with investigators across Stellenbosch University, Imperial College London, and KU Leuven, working within a dynamic environment that bridges imaging data, clinical cohorts, proteomic and molecular datasets—with direct impact on paediatric neurology and infectious disease outcomes.

Your Development

This position offers genuine scope for independent research and competitive funding opportunities. You'll have support to develop your own imaging-vascular research agenda while building the foundation for your future career.

Location

Based in Cape Town, South Africa—named the world's best city by [Time Out in 2025](#). The city offers exceptional natural beauty, vibrant culture, year-round outdoor activities, and a world-class food scene, making it an inspiring place to live and work.



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Application and Enquiries

Interested candidates are invited to submit the following documents to Mrs Cari de Jager via email at ccdj@sun.ac.za, with the subject line: **Application: Paediatric Infection Imaging postdoc**

- Motivation letter outlining your research interests and how they align with this fellowship.
- A full CV, including academic qualifications, publications, relevant research experience.
- Transcripts of postgraduate studies.
- Contact details for at least 2 referees (one of whom should be your PhD/postdoctoral supervisor)
- Copy of the applicant's ID/passport photo page and visa for foreign applicants.
- PhD certificate, or
 - In the case of doctoral candidates who have submitted but not yet received their degree, a letter from their university's registrar confirming they have satisfactorily fulfilled their university's requirements for the award of the doctoral degree.

Please note that postdoctoral fellows are not appointed as employees, and their fellowships are awarded tax-free. They are therefore not eligible for employee benefits.

Closing date: 31 May 2026

Commencement date: As soon as possible, by mutual agreement.

- **Applicants should request their referees to forward confidential reports by the closing date directly to the same address.**
- **Note: Postdoctoral fellows are not appointed as employees and as their fellowships are awarded tax-free, they are not eligible for employee benefits. The University reserves the right NOT to make an appointment if suitable candidates do not apply.**
- **Note: If the contract is for two years, this will be subject to the availability of funds and satisfactory academic progress (annual performance reviews must be held).**

Contact

Prof Alex Doruyter

Division of Nuclear Medicine, Faculty of Medicine and Health Sciences

Email: doruyter@sun.ac.za