AFRICAN BRAIN CHILD

Postdoctoral Fellowship (2026) African Brain Child: TBM Immunology

Purpose:

Tuberculous meningitis (TBM) is the most severe form of tuberculosis. The infection initiates secondary cerebral injury mechanisms that worsen outcome. Our understanding of these mechanisms is poor because studies of these mechanisms have relied on proxy measures, sampling from remote sites, and single-point-in-time methods, usually relying on spinal cerebrospinal fluid (CSF) samples. Recently, we developed a novel method that addresses these limitations, by accessing brain CSF and enabling the examination of dynamic immunological processes (both peripheral and resident to the brain). This is particularly noteworthy in the developing brain and immune system, which has distinct vulnerabilities and strengths. This unique method enables us to perform, for the first time, high frequency serial sampling directly from the brain to interrogate neuroimmunology in humans. Further, our position within neurosurgery creates opportunities for rare access brain tissue taken during clinical procedures, whereas research on tissue to date has focused on post-mortem or animal samples. This project focuses specifically on TBM in children.

Call for application:

The African Brain Child research group (ABC) was the recipient of the 2024 National Research Foundation Science Team of the Year Award and the prestigious Wellcome Trust Discovery Award for their work on TBM, in which this work is nested. We invite suitably qualified candidates to apply for a postdoctoral research fellowship with the African Brain Child research group to undertake research which will describe the change in immune profiles (targeted and untargeted) in response to treatment as well as clinical events, and develop a platform for brain tissue culture models, creating an opportunity to perform world-leading science, through building local capacity for neuroinflammation with strong strategic advantages.

Academic Criteria and Requirements:

Applicants should have graduated with a PhD degree in a relevant discipline including neuroscience, immunology, biochemistry, biomedical science ideally with a doctoral dissertation which focuses on immunology/inflammation and included a strong foundation in tissue culture.

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Applicants should

- have excellent tissue culture skills and experience working in a sterile environment (ideally with biosafety level 3 qualification)
- have excellent wet lab skills with experience in diverse techniques
- have excellent analytical and research skills including the use of quantitative and computational research techniques, particularly those relevant to (neuro)inflammatory/immunological data analysis
- have a strong academic track record (involvement in research project/s, publications, conference presentations, teaching and training, involvement in societies etc)
- excellent computer literacy
- have the ability to work independently and grow the knowledge base of the candidate and the broader ABC group
- have the ability to present complex issues in a readable form for both academic and non-academic audiences,
- should demonstrate competencies and skills in effective English communication, publishing, contributing to grant proposals and scholarly knowledge dissemination,
- demonstrate intellectual curiosity and ability to problem solve
- demonstrate an eagerness to learn new research methods and flexibility in response to changing research directions
- demonstrate a commitment to postgraduate supervision and teaching
- demonstrate a commitment to social outreach and community engagement
- demonstrate good interpersonal skills and a commitment to collegial modes of working

Award Conditions:

Candidates must be available to start at the beginning of 2026, must be able to reside in Cape Town and work on-site every day. Fellowships are open to South African and international candidates with a valid study permit. Successful candidates for this fellowship must register for the position at UCT and the incumbent will be required to comply with the University's approved policies, procedures, and practices for the postdoctoral sector.

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Postdoctoral research fellowships are only available to individuals who have achieved the doctoral degree within the past 5 years and have not previously held comprehensive professional or permanent academic positions.
Successful candidates will be expected to use the period exclusively for writing, to undertake the agreed research, as stipulated, as well as limited postgraduate and other assigned duties such as limited teaching and co-supervision and duties incidental thereto.
Fellows are required to attend and participate in all relevant research activities within ABC and the broader Neuroscience Institute.
Successful candidates will be required to enter into a Memorandum of Agreement with the Division of Neurosurgery, Department of Surgery.
Successful candidates will be expected to produce appropriate scholarly output or publish an appropriate number of papers (to be specified in the MoU with ABC).
Successful candidates are required to report on their progress at least 2 times in the year.

Value and Tenure:

This is a 1-year Fellowship, with the possibility of extension based on excellent performance. The value of the Fellowship is fixed at R350 000 (three hundred and fifty thousand rands) per annum (no additional relocation costs are provided).
Holders may apply for funding for research visits / conference participation.
The Fellowship carries no benefits or allowances and is compliant with the SARS regulations.

Application Requirements:

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

- A motivation letter which includes a detailed account of how the applicant is suited for the position, including evidence of research to date.
- A curriculum vitae that must have a full list of publications/research outputs.
- Contactable details from three referees (one from PhD or previous post-doc supervisor).
- Copies of all academic transcripts and diplomas.

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Selection Process:

Eligible and complete applications will be considered by senior members of the African Brain Child research group.

The closing date for receipt of applications is 9 February 2026. Please note that late and/or incomplete applications will be disqualified. Only shortlisted candidates will be contacted and will be required to undergo a competency test. ABC reserves the right to make no appointments/awards at all; to cancel the award if the conditions are not met, and to effect changes to the conditions of the award.

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