

Postdoctoral Fellowship in Computational Immunology South African Tuberculosis Vaccine Initiative, University of Cape Town

The South African Tuberculosis Vaccine Initiative performs cutting edge clinical and immunological research in TB pathogenesis, biomarker development and clinical vaccine development. We are inviting applications for a postdoctoral fellowship in computational immunology to conduct research on a large project aimed at understanding the pathogenesis of subclinical TB and identifying immune correlates of protection against TB. The project is part of an international effort to discover immune correlates of protection against TB in the context of two phase 2b clinical trials of TB vaccination that demonstrated protection. The fellow will be based in Cape Town, but the project may include activity-related travel to collaborating institutes. The successful candidate will be part of the SATVI Computational Immunology team and will contribute to design, development, and performance of computational and statistical analyses of host RNA-seq data within the context of complementary immunological outcomes. Responsibilities will include applying and developing approaches and computational models for identifying and validating candidate correlates that allow prediction of protection against TB. For more information on SATVI, visit www.satvi.uct.ac.za.

Key Requirements:

- Ph.D. degree within the last 5 years in bioinformatics, biostatistics or computational biology, or PhD in biological sciences with at least 3 years of relevant bioinformatics or computational biology experience.
- Working proficiency in UNIX/Linux and R and/or Python programming.
- Strong skills in the application of computational and statistical analytical techniques with a focus on high-dimensional and multivariate data analysis.
- Demonstrated solid scientific proficiency, creativity, critical thinking ability to collaborate effectively with others, and independent thought processes.
- Authorship of peer-reviewed publications related to bioinformatics, computational biology or immunology.
- Ability to handle multiple projects and priorities with exceptional organizational and time management skills.

Qualifications and/or previous experience in RNA-sequencing and data processing, biological sciences and especially immunology will be advantageous.

The candidate should not have held any prior permanent professional or academic positions and must be prepared to comply with the policies, procedures and practices for the postdoctoral sector at the University of Cape Town. The fellowship is initially tenable for three years, but renewal each year will be contingent on annual progress and performance reviews. The fellowship is valued between R350,000 and R450,000 per year and will depend on relevant experience and skills. The fellowship is compliant with the rules set by the SARS and is exempt from taxation and includes no benefits. No direct service will be required in return for the fellowship.

Potential applicants are encouraged to contact Dr Thomas Scriba, Deputy-Director, Immunology, or Dr Mbandi Kimbung, by e-mail thomas.scriba@uct.ac.za or (Stanley.kimbung@uct.ac.za), prior to application.

To apply, please email a letter of motivation, full CV and contact details of 3 referees, clearly indicating “**Postdoctoral Fellowship**” in the subject line, to Ms Alison September at a.september@uct.ac.za.

Closing date for applications: 15 September 2020.