

VACANCY

Job title:	Postgraduate Research Fellow - (12 Months Renewable)
Type:	Permanent ☐ Fixed Term ☒ Temporary ☐
Main purpose of the job:	A 3-year fully funded PhD qualification opportunity will be awarded. During the training the student will develop computational tools, statistical and mathematical modelling methods for multiplexed serological data for obtaining epidemiological insights.
Location:	NICD Sandringham
Closing date:	30 September 2024
Submit detailed CV to:	vacancies41@witshealth.co.za
Advert reference number:	Postgraduate Research Fellow - CRDM
In accordance with our Employment Equity goals and plan, preference will be given to suitable applicants from designated groups as defined in the Employment Equity Act 55 of 1998 and subsequent amendments thereto.	

The Centre for Respiratory Diseases and Meningitis (CRDM) at the National Institute for Communicable Diseases (NICD) have been awarded a three-year grant (2024-2027), funded by the Bill and Melinda Gates Foundation. The project aims to build capacity for public health modelling in Africa for integrated multi-pathogen serosurveillance data through collaboration, scientific exchange and mentorship.

Infectious diseases remain a major contributor to the global burden of disease. There is increasing recognition of the value of epidemiological analysis and mathematical modelling in aiding the interpretation of research data to guide public health policy. The project aims to provide South African investigators with multidisciplinary tools needed to conduct modelling on respiratory and vaccine-preventable diseases in order to ensure that serosurveillance data can be used by decision makers to effectively guide immunisation programmes and policies.

A 3-year fully-funded PhD studentship is available at NICD. During the training the student will develop computational tools and methods for multiplexed serological data for obtaining epidemiological insights. The successful candidate will work within a newly established African modelling network together with researchers from Malawi, Kenya and other African countries. The project will provide post-graduate degree training by a multidisciplinary group of experienced mentors at the NICD and Johns Hopkins University in the USA. Trainees will have access to research training opportunities and resources available at the training sites.

We would like to invite applications from South African citizens to join us at the NICD in Johannesburg to complete a PhD (full time), registered at the University of the Witwatersrand, Johannesburg with primary supervisors/mentors located at the NICD (CRDM). Co-mentors will be located in the US, and it is expected that recipients will travel to the USA for part of their training, as well as other African countries as part of building the modelling network.

Required minimum education and training

MSc degree in mathematics, statistics or biostatistics, data science or computational science, engineering or in a subject containing a substantial mathematical component.

Essential Requirements

- Prior experience or interest in the epidemiology of infectious diseases.
- Strong programming skills in at least one coding language (such as R or Python)
- Experience working on collaborative software projects through GitHub.
- Strong organisational skills.
- Strong analytical and problem-solving skills.
- Demonstrated ability to effectively communicate scientific data orally and in writing.
- Ability to prioritise and manage multiple tasks and work well independently and with a team.
- Demonstrate reliability, integrity and attention to detail.

- Fluency in spoken and written English.
- Experience in infectious disease modelling, public health, epidemiology and serosurveillance would be advantageous.
- A record of research accomplishments as reflected in publications in peer-reviewed journals and presentations at conferences and scientific meetings would be beneficial.

Project benefits:

This highly competitive project includes funds for:

- Non-taxable student stipend
- Tuition fees and university registration fees
- Books and other educational expenses
- Laptop computer with relevant software

For local and international training opportunities:

- All travel expenses (e.g., airfare, visa, incidentals)
- Non-taxable payment for living expenses and insurance
- Course fees
- Administrative support

Should you be interested in applying for this Fellowship, please send an email to vacancies41@witshealth.co.za. The subject heading of the email must read **Postgraduate Research Fellow - CRDM**. Please include the following documentation:

- CV
- Details of exceptional academic performance including copies of academic transcripts and certificates
- Candidate's motivation letter including stated commitment to pursue public health modeling research and potential contributions to research in South Africa.
- Strong letters of recommendation and support (e.g., from previous tutors, supervisors or managers), with email addresses of at least two referees who have been directly involved in the students previous postgraduate studies.