

VACANCY	
Job title:	Senior Researcher (Smart Data Integration) 12 Months contract
Division	Wastewater Genomics
Type:	Permanent ☐ Fixed Term ☒ Temporary ☐
Main purpose of the job:	To develop and implement advanced statistical, bioinformatics, and artificial intelligence (AI) methods for integrated pathogen surveillance using wastewater, clinical, and other public health data streams for data integration, analysis, visualization, and open dissemination, with the ultimate goal of strengthening public health decision-making and global health surveillance.
Location:	NICD, Sandringham
Closing date:	06 October 2026
Submit detailed CV to:	Vacancies32@witshealth.co.za
Advert reference number:	Senior Researcher:01
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.	

Key performance areas

- Develop statistical, bioinformatics, and AI tools for integrated pathogen surveillance.
- Implement analytical tools for integrated pathogen surveillance across wastewater, clinical, and public health data streams.
- Leveraging existing analytical resources in collaboration with computational scientists, and epidemiologists.
- Develop and manage integrated surveillance data systems.
- Lead and/or contribute to manuscript drafting for peer-reviewed publications, research reports, conferences, and grant applications.

Required minimum education and training

- PhD in computational biology/ Epidemiology/ Biostatistics/ Computer science/ Machine learning/ Bioinformatics/ Data science/ Applied mathematics, or Public Health with a strong quantitative focus.
- Proficiency in:
 - Coding/scripting in major programming languages (e.g., Python, R, etc.).
 - Bioinformatics pipeline tools/workflow managers (e.g., Bash, Nextflow).
 - Proficiency in developing APIs (REST/FastAPI) and building computational pipelines for graphical user interfaces (GUIs) and dashboards.
 - Git version control, Docker/containers, cloud/HPC computing environments, and automated data pipelines.

Required minimum work experience

- Minimum 1 years' relevant experience in a research environment.

Desirable additional education, work experience and personal abilities

- Take ownership and accountability for tasks & activities.
- Demonstrate effective self-management, ensuring that quality and productivity standards of own work are maintained

-
- Possess good management skills.
 - Demonstrate high emotional intelligence skill with strong conflict resolution and interpersonal skills
 - Ability to be flexible and willingness to learn.
 - Maintain a positive attitude and respond openly to feedback.
 - Ability to work under pressure and maintain confidentiality.

Should you be interested in applying for this vacancy, please send an email to vacancies32@witshealth.co.za
The subject heading of the email must include **Senior Researcher:01**. Please include the following documentation:

- A cover letter (maximum one page) that clearly states which vacancy you are applying for.
- A Detailed CV with two contactable references