

# Postdoctoral Research Fellowship in Pathogen Genomics and Genomic Surveillance (2 Positions) (1-year contract, renewable up to 3 years) (Job ID: 6508) - (2189)

Job Title: Postdoctoral Research Fellowship in Pathogen Genomics and Genomic Surveillance (2 Positions) (1-year contract, renewable up to 3 years) (Job ID: 6508)

Organizational Unit: University of the Free State -> Faculty of Health Sciences -> School of Biomedical Sciences

Contract Type: Contract

Occupational Level: Temporary

Location: Bloemfontein Campus - Bloemfontein, FS ZA (Primary)

Closing Date: 3/7/2026

Description

**The University of the Free State (UFS) invites applications from suitably qualified candidates for a postdoctoral fellowship in the School of Biomedical Sciences, UFS-Next Generation Sequencing Unit. Candidates interested in pursuing an academic or professional career in biomedical research, with special research interest in pathogen genomics and genomic surveillance, are encouraged to apply.**

**The fellowship will enable an outstanding doctoral graduate to obtain experience of research and innovation at a higher education institution under the mentorship of established researchers.**

**The fellowship is awarded on a competitive basis, taking into account the applicants' academic achievements, publication outputs and research potential, as well as the relevance of prior experience and expertise. The fellowship is available for a period of one year, renewable for up to three years subject to satisfactory performance.**

**Duties and responsibilities:**

- Assisting in wet-lab and dry-lab components of the Research Chair project, including sample processing, library preparation, NGS sequencing (Illumina NextSeq 2000), and bioinformatics analysis of respiratory and enteric viral pathogens.
- Conducting metagenomic sequencing, whole-genome sequencing, phylogenetic analysis, and profiling of antimicrobial resistance genes (ARGs).
- Integrating genomic data with epidemiological and clinical information to assess pathogen diversity, transmission dynamics, and vaccine-induced selective pressure.
- Contributing to the development and population of a centralised paediatric pathogen genomic database.
- Preparing high-impact manuscripts.
- Co-supervising postgraduate students (MSc/PhD) and supporting capacity-building activities such as DIPLOMICS workshops.
- General laboratory operations, data management, and collaboration with multidisciplinary team members.

**Eligibility requirements:**

- Open to all South African and foreign nationals for full-time research at the University of the Free State (Bloemfontein campus).

- A PhD in Medical Virology, Microbiology, Genomics, Molecular Biology or a closely related field, obtained within the last five years (or proof of fulfilling the degree requirements).
- Strong expertise in next-generation sequencing (NGS), viral metagenomics, and/or bioinformatics pipelines for pathogen identification, genome assembly, and phylogenetic analysis.
- Hands-on experience with Illumina sequencing platforms, library preparation, and tools such as Genome Detective, One Codex, or equivalent.
- Experience in antimicrobial resistance gene profiling and/or clinical/epidemiological data integration will be a strong advantage.
- Experience in paediatric infectious diseases, respiratory/enteric virology or genomic surveillance in low- and middle-income country (LMIC) settings will be a strong advantage.
- Proven track record of high-impact publications and excellent data analysis skills (including Python/R scripting where applicable).
- Ability to work independently and collaboratively in a fast-paced, multidisciplinary research environment.
- Strong organisational, communication, and problem-solving skills.
- Successful applicants may not hold full-time salaried employment during the fellowship
- Successful applicants must be able to relocate to UFS for the duration of the fellowship.
- This is a residential fellowship: the successful applicant is required to spend 80% of her/his postdoctoral period at the UFS Bloemfontein Campus.

#### Competencies

#### **Value of the fellowship:**

- R 270 000 annual fellowship.
- R 30 000 additional research expenses fund.

#### **Application:**

**To apply, please email the following documentation by 3 July 2026 to Prof Martin Nyaga at: [Nyagamm@ufs.ac.za](mailto:Nyagamm@ufs.ac.za)**

- A cover letter summarising your background, research interests, and how your skills match the requirements of the project.
- Full CV including a list of research publications, conference papers and other scholarly output.
- Full transcripts of academic record and a copy of doctoral degree certificate (if you hold foreign qualifications, please include SAQA accreditation).
- Certified copy of ID document (or copy of passport in the case of foreign applicants).
- Contact details of two academic referees who can comment on your suitability.

#### **Closing date:**

3 July 2026

#### **Commencement of fellowship:**

1 August 2026.

#### **For enquiries, please contact:**

Prof. M.M. Nyaga

Office: +27 (0)51 401 9258

E-mail: [Nyagamm@ufs.ac.za](mailto:Nyagamm@ufs.ac.za)

#### **General:**

**The University of the Free State is committed to excellence, innovation, and the advancement of impactful research that contributes to improved public health outcomes and scientific advancement.**

**The UFS is a designated employer and is committed to the pursuit of excellence, diversity, and redress in achieving its equity targets in accordance with the Employment Equity Plan of the University and its Employment Equity goals and targets. Preference will be given to candidates from the under-represented designated groups including candidates with disabilities. Our Employment Equity Plan is available at: [ufs-employment-equity-plan\\_2025.pdf](#)**

**The University processes personal information in line with its obligations under the Protection of Personal Information Act (POPIA) and any personal information provided to the University will be treated as confidential and processed in accordance with the rights provided to data subjects under POPIA.**

*The University reserves the right not to fill the post. The UFS will only consider applications of candidates who meet all the inherent requirements of the position. Applications that are incomplete will not be considered. Communication will be limited to shortlisted candidates only. Should you not be contacted within six weeks of the closing date for applications, you may assume that your application was unsuccessful.*

How to apply to this job

**To apply, please email the following documentation by 3 July 2026 to Prof Martin Nyaga at: [Nyagamm@ufs.ac.za](mailto:Nyagamm@ufs.ac.za)**