

Postdoctoral Fellowship

Scope of Research

Two postdoctoral fellowships are available in the Department of Microbiology at Stellenbosch University, funded by the SAMRC-UKRI project “Discovery of Novel Antifungals from Natural Environments (DONE)” under the supervision of Prof Karin Jacobs.

The project aims to develop a high-throughput fungal screening (HTFS) platform to discover new antifungal compounds from soil and aquatic microbes, including myxobacteria, actinomycetes and fungi. Fellows will focus on uncultured and difficult-to-culture microorganisms, antifungal screening, and metabolite characterisation, in collaboration with Rhodes University, University of the Western Cape, UK Health Security Agency (UKHSA), and University of Plymouth.

Key Responsibilities

- Isolation and characterisation of uncultured or difficult-to-culture microbes from soil, freshwater, and marine environments.
- Development of HTFS assays.
- Genome sequencing (Oxford Nanopore or Illumina) and bioinformatics (SPAdes, PROKKA, KEGG, etc.) for resistance profiling and pathway analysis.
- Comparative genomics, phylogenetics, and metabolite profiling in collaboration with international partners.
- Contribution to postgraduate student supervision, publications, and dissemination of results.

Requirements

- PhD in Microbiology, Biotechnology, Molecular Biology, or related field (obtained within the previous 5 years).
- Publication record in microbial ecology, antimicrobial resistance, or natural products research.
- Strong expertise in microbial isolation, molecular biology (PCR, qPCR and sequencing), and bioinformatics.
- Experience with myxobacteria, actinomycetes, or other challenging taxa; and fungi, lab management; postgraduate supervision.
- Valid driver’s licence.
- Ability to communicate in English.

Advantages

- Ability to communicate in Afrikaans.

Fellowship Conditions

Duration: 2 years (November 2025 to December 2027), renewable annually based on performance.

Value: in line with SAMRC-UKRI funding.

Preference will be given to South African citizens.



Stellenbosch

UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

forward together
sonke siya phambili
saam vorentoe

Commencement Date
November 2025

As soon as possible, preferably on the 1st of

Closing Date

17 October 2025

Application Process

Send a single PDF to Prof Karin Jacobs (kj@sun.ac.za) containing: a letter of application outlining research interests, motivation, and relevant expertise; a comprehensive CV including a publication list; the names and contact details of at least two referees; and a PhD certificate or proof of submission.

Enquiries

Prof Karin Jacobs

Department of Microbiology, Stellenbosch University

Email: kj@sun.ac.za