

Postdoctoral Research Fellow

Genetic Basis of Sexuality in *Fusarium*

Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria

Project Overview

Join our international research team studying the genetic mechanisms behind male, female, and hermaphrodite sexual identities in *Fusarium* species. *Fusarium* includes globally significant plant pathogens and emerging human pathogens. Climate change is broadening its range and increasing mycotoxin risks, making this research both urgent and impactful.

Research Goals

- Determine the sexual phenotype of 76 sequenced *Fusarium circinatum* isolates.
- Identify genetic markers for male, female, and hermaphrodite traits through GWAS and Bulk Segregant Analysis.
- Verify candidate genes with CRISPR-Cas9 genome editing.
- Analyse conservation and activity of target genes across other *Fusarium* species.

Requirements

- PhD in molecular biology, genetics, plant pathology, microbiology, or related field.
- Experience in genomics, bioinformatics, and/or molecular genetics.
- Strong publication record and collaborative skills.

Opportunities

- Work in a world-class research environment.
- Collaborate with the University of Nottingham and other leading institutions.
- Access to cutting-edge genome sequencing and bioinformatics tools.

How to Apply

Send CV, cover letter, and contact details of three referees to [Brenda.Wingfield@fabi.up.ac.za] by [30th November 2025].

Tagline: Unlocking the Secrets of *Fusarium* Love Lives – One Gene at a Time!