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MSc and PhD positions available

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

Overview: MUFASA (Mapping Unseen Fungi Across South Africa) is a new national research programme, funded by the Oppenheimer Memorial Trust (OMT) New Frontiers Research Award, that aims to document, preserve, and translate South Africa's largely unexplored fungal biodiversity into societal and economic benefit. The project combines classical taxonomy, national culture collections, DNA barcoding, metabarcoding, and genomics. By sampling across South Africa's nine biomes, it will build the country's first comprehensive, genome-linked fungal reference framework. The programme includes a citizen science component in which school learners collect soil samples from their home gardens and school grounds for inclusion in the national survey, with newly discovered species named after the contributing learners.

Available positions:

- 1x PhD (3 years)
- 1x MSc (2 years)

Both projects will involve national field sampling (soil collection across multiple South African biomes and protected areas), culture-based isolation and morphological/molecular identification of fungi, and metabarcoding (ITS and beta-tubulin) of soil fungal communities, including bioinformatic analysis of the resulting sequence data.

Required Qualifications:

- PhD: MSc in mycology, microbiology, botany, or a closely related field; a genuine background in fungal biology/mycology is essential.
- MSc: BSc Honours in mycology, microbiology, botany, or a closely related field; a genuine background in fungal biology/mycology is essential.
- For both positions: practical experience or strong demonstrated aptitude in fungal culturing and isolation techniques; willingness and ability to learn and apply molecular/metabarcoding methods and basic bioinformatic analysis of amplicon sequencing data; ability and willingness to conduct physical fieldwork, including travel to national parks and reserves across South Africa; strong written communication skills; and the ability to work both independently and as part of a larger research team.

Compensation: Competitive bursary.

Duration: PhD 3 years; MSc 2 years.

Preferred start date: Early 2027, to align with MUFASA's national field sampling programme.

Review of applications will commence on 1 November 2026 and continue until suitable candidates are identified.

Application Process: Email Prof. Cobus M. Visagie (cobus.visagie@fabi.up.ac.za) with: 1) a cover letter outlining your research interests, relevant qualifications, and any fungal culturing/molecular experience; 2) your Curriculum Vitae; 3) academic transcripts; and 4) contact information for two to three referees.

Yours sincerely,

Prof. Cobus M. Visagie
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