Post-doctoral position

Whole-genome resequencing of South African *Phytophthora cinnamomi* isolates to assess pathogenicity and adaptive potential

Phytophthora cinnamomi ranks among the world's top 10 most destructive oomycetes and 100 worst invasive species (http://www.issg.org/database). It is a soil-borne oomycete that poses a severe threat to global avocado production. Its adaptability stems from a complex life cycle and high genomic plasticity. This project seeks to utilise whole-genome resequencing of South African isolates, combined with transcriptomics, to identify genes involved in pathogenicity, host interaction, and fungicide resistance; as well as mapping recombination events, gene duplications, and structural variation. This integrated genomic approach will facilitate our understanding of the evolutionary capacity of *P. cinnamomi* and will provide critical tools for developing effective, sustainable disease management strategies in avocado and other high-value crops.

Requirements:

- PhD degree in Biotechnology/Genetics/Microbiology, or related areas
- Experience working with oomycete or fungal pathogens
- Experience in comparative genomics
- Strong publication record
- Excellent communication and writing skills
- Ability to work independently and in a collaborative multidisciplinary environment

How to apply:

Screening will start in November 2025 and will continue until the position is filled. Salary will be competitive and commensurate with qualifications and experience. Applications should be sent to Prof Noëlani van den Berg (noelani.vandenberg@up.ac.za).

Applications should include:

1. A comprehensive curriculum vitae;
2. Certified copies of qualifications;
3. A cover letter providing reasons for your interest in the project and a self-evaluation of research career to date;
4. The names, email addresses and telephone contact details of three academic referees who can attest to your academic and research profile.