

Post-doctoral position: Functional characterisation of *Phytophthora cinnamomi* effectors

Hans Merensky Chair in Avocado Research, Forestry and Agricultural Biotechnology Institute, University of Pretoria

Phytophthora cinnamomi stands as one of the most destructive plant pathogens globally. Beyond concerns linked to the agricultural and forestry sectors, this pathogen poses a significant environmental threat and complicates efforts to combat climate change. This pathogen utilizes various effectors to subdue host plant defence mechanisms and establish successful infection. The development of a CRISPR-Cas system for *P. cinnamomi* represents a pivotal step towards advancing our understanding of this pathogen, by enabling high-throughput functional characterisation of candidate effector genes. The Hans Merensky Chair in Avocado Research is seeking a highly motivated post-doctoral fellow to lead projects focused on elucidating the molecular basis of pathogenicity.

Requirements:

- PhD degree in Biotechnology/Genetics/Microbiology, or related areas
- Experience working with oomycete or fungal pathogens
- Experience in functional characterization studies including vector construction (modular constructs for gene overexpression/knockdown/knockout); Plant/Pathogen transformation (transient and stable); and protein techniques (protein isolation and purification, *in vitro* and *in vivo* protein-protein interaction assays, Western blots)
- Strong publication record
- Excellent communication and writing skills, since this position involves preparing research progress reports
- Ability to work independently and in a collaborative multidisciplinary environment

How to apply:

The position could commence as early as May 2025. Screening will start in April and will continue until the position is filled. Salary will be competitive and commensurate with qualifications and experience. Applications should be sent to Prof Noëlan van den Berg (noelani.vandenberg@up.ac.za), by **31 March 2025**.

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; self-evaluation of research career to date with specific focus on molecular expertise;
4. The names, email addresses and telephone contact details of three academic referees who can attest to your academic and research profile.

