Senior Postdoctoral Position in the Hans Merensky Chair in Avocado Research

We seek to hire an experienced postdoctoral research fellow to conduct functional characterisation of avocado defense genes.

Significant progress has been made in unravelling the avocado-*P. cinnamomi* interaction by utilising omics data to characterise defence-related genes, such as the NPR (non-expressor of pathogen related) genes, callose synthase genes and a suit of *R* (resistance) genes. Functional characterisation within the avocado - *P. cinnamomi* pathosystem is becoming increasingly important. Avocado is however recalcitrant to genetic transformation, which makes functional characterisation exceptionally challenging. A *Nicotiana benthamiana* – *P. cinnamomi* pathosystem can be utilised for preliminary functional studies, which allows for relatively fast assessment of candidate defence genes during *P. cinnamomi* infection, prior to undertaking avocado transformation experiments.

Qualifications: PhD in biotechnology, genetics or a closely related field; with demonstrated experience in functional characterization studies, vector construction (modular constructs for gene overexpression/knockdown/knockout), plant/pathogen transformation, protein techniques (protein isolation and purification, *in vitro* and *in vivo* protein-protein interaction assays), plant tissue culture; demonstrated analytical and writing skills; ability to work independently and as part of a team; and a strong publication record. Preference will be given to candidates with previous research experience post PhD.

Responsibilities: The postdoc will be responsible for: 1) contributing to the design of the study and future proposals; 2) analysis and publication of the results of the project; 3) supervising postgraduate students; 4) engagement and support of related research projects; and 5) presenting results at professional and stakeholder meetings.

Compensation: The compensation package for this position is very competitive and is dependent on experience.

Duration: 12 months, full-time initial appointment with the possibility of two years additional support, conditional on satisfactory performance (evaluated annually) and the availability of funds.

Preferred start date: As soon as possible.

Application Process: Email to Prof Noëlani van den Berg (<u>noelani.vandenberg@up.ac.za</u>): 1) a cover letter that includes your research interests and qualifications and analytical and writing experience; 2) Curriculum Vitae; 3) representative publications, and; 4) contact information for three referees. Review of applicants will commence on 1 August 2023 and continue until a suitable candidate is identified.

