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## Postdoctoral Research Fellowship

### **Project Title: *Consortia-based biocontrol agents for management of grapevine pathogens***

**Scope of Research:** For most of the 20th century grape production relied heavily on the use of chemical fertilizers and pesticides include the application of different fungicides throughout the grape berry development. While these practices are necessary to ensure good quality crops, they have over time become environmental and health risks due to accumulation of unwanted chemicals in the soil and reduction in soil health and soil quality. Consequently, there is an increasing need for biological alternatives. Our project uses microbial consortia to control the development of critical grapevine pathogens (e.g. *Botrytis cinerea* and *Erysiphe necator*). We are looking for an enthusiastic, focused and self-motivated postdoctoral fellow with experience in microbial ecology or plant pathology. The postdoctoral candidate will have the opportunity to work on an individual research project focusing on using omics technologies to unravel genetic signatures underpinning microbial interactions within consortia. The fellow will be involved in co-supervision of postgraduate students studying for their Masters and Honours degrees, and will be expected to initiate and/or participate in outreach programmes.

An amount of 220,000 ZAR (top-up will be discussed) will be awarded to the postdoctoral fellow for a period of 12 to 16 months.

**Host:** This project is hosted by the South African Grape and Wine Research Institute, Department of Viticulture and Oenology, at Stellenbosch University.

**Requirements:** *PhD (must have graduated within the last five years)*

- Experience in either of the following is necessary:
  - Cultivation and enumeration of microbial consortia
  - Transcriptomics and gene expression analysis
- Familiarity with the following will add value:
  - Multivariate data analysis
  - Plant-microbiome interactions
- Fluency in English and good organizational skills

### **Responsibilities**

- ✓ Research (70%): Design and conduct experiments and field sampling campaigns, data collection, data analysis, and manuscript preparation.
- ✓ Training (15%): Training of BScHons students and co-supervision of MSc students
- ✓ Laboratory management (10%): Assist with the day-to-day operations in the lab
- ✓ Outreach (5%): Science communication to industry or civil society

Please note that postdoctoral fellows are not appointed as employees and their fellowships are awarded tax free. They are therefore not eligible for employee benefits.

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### **South African Grape and Wine Research Institute**

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<https://sagwri.sun.ac.za/>

**Commencement of duties:** ASAP

**Enquiries:** Send a letter of application, accompanied by a comprehensive curriculum vitae, including list of publications and the names and contact details of at least two referees, to Prof. Setati at [setati@sun.ac.za](mailto:setati@sun.ac.za). Applicants should request their referees to forward confidential reports by the closing date direct to the same address.