



31 July 2022

POSTGRADUATE OPPORTUNITY AVAILABLE AT THE SOUTH AFRICAN GRAPE AND WINE RESEARCH INSTITUTE (SAGWRI) FOR 2023

The following project is available for an MSc-level study from 2023, for a suitable student with a molecular biology/genetics/plant biotechnology background.

Project Title: Using hairy root cultures to study terpene production in grapevines

Project description:

This project forms part of a NRF Bilateral project with Belgium and involves the development and use of hairy root cultures to study the production of terpenes from grapevine cultivars and rootstocks. Hairy root cultures are obtained when *in vitro* grapevine stems are transformed with *Agrobacterium rhizogenes* strains. These hairy root cultures can be multiplied and maintained to perform a variety of experiments on and have been shown to be particularly useful to study secondary/specialised metabolism in plants. We have proof of concept that grapevine hairy root systems are efficient producers of a variety of terpenes and therefore this study will focus on experiments to modulate/enhance terpene production and also to perform functional characterisation of previously isolated terpene synthases from grapevine. Terpenes have a number of important plant functions and the study will therefore contribute to our understanding of their regulation and biosynthesis in grapevine.

Contact persons for the project:

Prof M.A. Vivier (mav@sun.ac.za) or Dr Philip Young (pryoung@sun.ac.za)

Please send a CV, as well as a cover letter to Prof M.A. Vivier (mav@sun.ac.za) to indicate your interest in this opportunity.

General contacts for SAGWRI:

Prof MA Vivier: Interim Director of SAGWRI (mav@sun.ac.za)

Ms Lorette de Villiers: Postgraduate Admin officer (lorette@sun.ac.za)