SA Grape and Wine research Institute

Programme/Project Info for

Prospective MSc and PhD Students

# Programme: GRAPEVINE BIOLOGY/biotechnology AND IMPROVEMENT

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| Grapevine Genetics, Genomics and Metabolomics | The Grapevine Biology and Improvement programme encompasses the research of four interacting researchers at SAGWRI. Prof Melané Vivier has a strong interest in grapevine tissue cultures and transformation, Field-Omics, plant-pathogen interaction and water stress. Dr John Moore focusses on cell wall biology. Dr Philip Young is interested in secondary metabolism and aroma formation. And Dr Justin Lashbrooke is working on functional genetics and grapevine breeding. Projects in this programme may be co-supervised by several of these researchers as the projects are typically cross-cutting in their scope. In general, all research makes use of a combination of molecular tools, plant tissue culture, analytical techniques and computational approaches to answer questions surrounding grapevine cellular physiology in response to environmental and developmental cues. |

# OpPortunities for 2023

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| 1. Linkage map creation and QTL analysis in grapevine |  |
| 1. Network Analysis and Modelling of Grape Ripening |  |
| 1. Functional Genetics of Agriculturally Important Traits in Grapevine |  |
| 1. Grapevine's Response to Water Stress Using Different Scion/Rootstock Combinations |  |
| 1. Exploiting Natural Berry Waxes to Protect Grapes Against Fungal Pathogens |  |
| 1. Increasing Pinotage Diversity |  |

# general Contact information

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| Website | <http://sagwri.sun.ac.za/> <http://www.sun.ac.za/english/faculty/agri/viticulture-oenology> |