

MSc (Bioinformatics and Computational Biology) opportunity

Project is jointly hosted by the Grape and Wine Research Institute and Centre for Bioinformatics and Computational Biology at Stellenbosch University

Project title: Network analysis and modelling of grape berry metabolism during ripening

Supervisors: Dr Justin Lashbrooke and Prof. Hugh Patterton

Project outline: The aim of the project is to elucidate molecular regulatory mechanisms controlling the switch to ripening in grape berry development. To that end a computational approach is planned, whereby network analysis and modelling of a multilevel dataset will be performed. The selected student will perform metabolic and gene expression QTL analysis in a grapevine cross population, thereby integrating genetic, transcriptomic and metabolomic information in order to describe the metabolic changes occurring during ripening, and potentially identifying important regulators.

Student background: The selected student should have a strong interest in computational biology. Should the student be interested, an opportunity also exists to perform some wet bench work.

The selected student will receive a bursary and will have the opportunity for international travel in order to work in our collaborator's laboratory. For more information please contact Dr Lashbrooke (jglash@sun.ac.za) or Prof Patterton (hpatterton@sun.ac.za). Applications should be sent to Dr Lashbrooke by 31th October 2019, and should include your CV, a brief motivation letter, and the contact details of two references.