2024

PhD research opportunities

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The successful candidates will receive:

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The research projects is based at AgriBio, the Centre for AgriBiosciences, Melbourne Australia

Successful applicants must meet the La Trobe University entry requirements for a Doctor of Philosophy degree.

Check your eligibility here: https://www.latrobe.edu.au/study/apply/ research/doctor

For enquiries and to apply, please forward a covering letter, your curriculum vitae (please include evidence of research writing) and academic transcripts to:

Kendra Whiteman Higher Education Manager

Agriculture Victoria Research kendra.whiteman@agriculture.vic.gov.au

Closing date for applications: until filled



Current Projects:

Forward surveillance for viral emergency animal diseases (EADs) using High Throughput Sequencing (HTS) approaches.

There are increasing threats to Australia's agricultural industry due to the recent detection of a series of EADs in neighbouring countries. The project will investigate forward genomic surveillance technologies for viral targets such as foot and mouth disease, African swine fever and lumpy skin disease to detect these significant pathogens before clinical disease occurs, providing a means to detect and stop the spread of these diseases.

PhD Project Aims -

- To investigate novel environmental viral sampling methods, to enable the detection of viral pathogens within a herd.
- Develop sampling strategies to detect viral EADs in wild or feral animal populations, which may act as reservoirs of EADs.
- Assess the stability of these viral targets from environmental samples and investigate sample preservation methods.
- To develop and apply enrichment techniques to allow genomic surveillance methods to detect a range of EADs from an environmental sample.
- Establish rapid bioinformatic pipelines to allow real-time genomic epidemiology.

This PhD will investigate methods to develop accurate and sensitive genomic-based tests to detect viral EADs before clinical disease is observed in an animal. These methodologies will be based at a herd level to enable rapid diagnostic methods that could be used to monitor for viral EADs, providing early warning systems for the industry.

