PhD Opportunity

Population Structure, Inbreeding, and Genetic Diversity in Australian Thoroughbreds

THE UNIVERSITY OF SYDNEY

Project Overview

Rising inbreeding in Thoroughbreds threatens fertility, performance, and genetic health; however, the breed's long history of intense selection for athletic ability may also have reduced the frequency of some harmful genetic variants. This project will use high-density genotyping and sequencing to assess genetic diversity and inbreeding within Australian Thoroughbreds. As a next step, this project will also spearhead the development of a coordinated Australian Thoroughbred health biobank that will provide a long-term national resource for understanding genetic risks and monitoring population health.

Prerequisites

- Undergraduate degree in animal, veterinary, or biological sciences (or related field)
- Honours (First Class) or Masters qualification in a relevant discipline
- Experience in genomics
- Substantial hands-on experience with horses and the equine industry

Scholarship

A PhD stipend is attached to this project ($41,753 pa, tax exempt); however, preference will be given to applicants who already hold a Research Training Program (RTP) scholarship or bring their own stipend

To apply, email a CV, academic transcripts, and a cover letter outlining your suitability to Dr Brandon D Velie (brandon.velie@sydney.edu.au) by 16 October 2026.

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