



University College Dublin
Ireland's Global University

PhD Opportunity

Bovine-adapted *Staphylococcus aureus* virulence traits and impact on mastitis

Ref 2022031

An exciting research opportunity is available, comprising a four-year Ph.D. scholarship. The project is part of an international collaborative network to target mastitis between Teagasc, University College Dublin, University of Nottingham and The Leibniz Institute for Agricultural Engineering and Bioeconomy.

Staphylococcus aureus is a major mastitis pathogen with significant economic impact on the dairy industry. Intramammary infection is associated with a number of bovine-adapted clonal lineages of this bacterium and significant differences between these lineages have been identified in both *in vitro* and *in vivo* virulence traits. This project will test the hypothesis that strain genotype influences mastitis epidemiology and that strains from the globally distributed bovine-adapted *S. aureus* lineages CC97 and CC151 have different modes of virulence, with CC151 strains highly pro-inflammatory due to host cell toxicity and CC97 strains immune evasive due to host cell internalisation.

In addition to research training in microbiology, molecular biology and infection biology, the successful candidate will be encouraged to participate in the comprehensive training opportunities offered by Teagasc and UCD and are expected to attend national and international meetings.

Applicants should have a 2.1 degree or higher in microbiology, molecular biology, immunology, agricultural or natural science, veterinary science or a related subject. Candidates must be enthusiastic and willing to work as part of a multidisciplinary team of scientists. The stipend is valued at €24,000 per annum from which fees (approx. €6,000 for EU citizens) must be paid. The position will be based at the Animal & Bioscience Department, Teagasc, Dunsany, Co. Meath and UCD, Belfield.

The closing date for applications is **27th May 2022**.

For informal enquiries please contact Dr Orla Keane or Dr Kieran Meade. Interested candidates should forward a letter of interest and CV, including the contact details of at least two referees.

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