

TEAGASC PHD WALSH SCHOLARSHIP OPPORTUNITY

“Prevalence, etiology, control and prevention of clinical mastitis and associated antimicrobial use”

Reference: 2022034

Background

Mastitis is an inflammation of the mammary gland, most commonly caused by bacterial infection and is one of the most economically important disease affecting adult dairy cattle. It has a major impact on animal welfare and milk production, resulting in high economic losses for both farmers and processors, as udder health status greatly affects milk production and processability. Mastitis is also a significant driver of antimicrobial use in adult dairy cows. This represents a societal challenge due to the potential for the emergence and spread of antibiotic-resistant bacteria resulting from their use. The majority of mammary gland infections in Ireland are caused by *Staphylococcus aureus*, a bacterium that spreads from infected to uninfected glands mainly during the milking process, and by *Streptococcus uberis*, a bacterium found mostly in the environment. The purpose of this research project is to evaluate the prevalence, infection dynamics and disease mechanisms of the major strains of the most common mastitis causing bacteria in Ireland. Additionally, we aim to evaluate antimicrobial use, treatment efficacy, and antimicrobial resistance and to understand the factors associated with these infections and with their effective prevention and management.

Requirements

The candidate should be highly self-motivated with proven abilities in problem solving and data analysis. Applicants should have a primary degree (minimum 2.1) in an appropriate discipline (Agricultural or biological engineering, dairy or animal science or veterinary medicine). A Masters degree would be a distinct advantage. Experience of statistical software and data analysis would be an advantage. Prior experience of working in the dairy industry is desirable. The candidate must be highly proficient in both written and spoken English. A full driving licence is required. Due to the conditions of the project, only candidates from Ireland or the United Kingdom are invited to apply.

Award

This PhD is a joint research project between Teagasc Moorepark and the University of Nottingham. The successful candidate will be based in the Teagasc Research Centre at Moorepark, Co. Cork, Ireland. The candidate will have to travel to the University of Nottingham to accomplish both their academic and research objectives. The successful candidate will be registered at University of Nottingham. The PhD will commence as soon as possible after 1st September 2022.

The project provides a stipend of €24,000 per year, for 4 years, for student subsistence (including accommodation costs) and institutional fees. Auxiliary funds will be available for the student to allocate toward international travel and continued professional development.

Application Procedure

Go to: <https://www.jobs.ac.uk/job/CPT692/phd-fellowship-prevalence-etiology-control-and-prevention-of-clinical-mastitis-and-associated-antimicrobial-use> and submit the requested documents.

Additionally send a letter of interest to Dr. Pablo Silva Boloña (pablo.silvabolona@teagasc.ie) and Dr. Peter Down (peter.down@nottingham.ac.uk)

Closing date: 30 September 2022