

TEAGASC PHD WALSH SCHOLARSHIP OPPORTUNITY

"Economic benefit of biosecurity in pigs and poultry"

Walsh Scholarship Ref Number 2023264

Background

Salmonella originating in pigs remains the most important source of domestically acquired salmonella food poisoning in humans in Ireland and infections are commonly caused by strains of Salmonella Typhimurium resistant to multiple antibiotics. Anecdotal evidence suggests that Salmonella infection has a multifactorial nature. Cost, lack of penalties, absence of clinical disease in pigs and other issues may contribute to the lack of progress by the industry in tackling this public health concern.

This project plans to address the problem on an all-island basis (Republic of Ireland + Northern Ireland) using a collaborative approach with all stakeholders. The project will develop farm interventions that combine multiple control measures as research shows that implementation of single measures is not successful. The control interventions will be co-created for each farm with farmers and other stakeholders including specialist pig veterinarians and farm advisors. State-of-the-art microbiological methods will be used to quantify the impact of control interventions on Salmonella and on the characteristics of bacterial populations and antibiotic resistance genes in pigs and the farm environment. The economic effects will also be quantified with existing models.

This is an ambitious project with a multidisciplinary team with a combination of extensive experience in salmonella research, pig health and nutrition, genomics, behavioural expertise and well-established relationships with pig farmers to deliver real progress. It is ideal for a self-driven student that is up for the challenge.

This PhD will: I) Collaborate on the description and selection of the farms to be enrolled; II) participate in the establishment of the status of the farm for Salmonella and other diseases; III) help co-design the interventions to control Salmonella in the farms; IV) monitor implementation of the interventions and the results and analyse the microbiological and financial consequences.

Requirements

Applicants should have a good primary degree (First or Upper Second-Class Honours) or M.Sc. in an appropriate discipline (Veterinary medicine, preferably, Animal Science, or similar). The successful candidate should like challenging situations, should be highly self-motivated, be prepared to work in a wide range of situations (farms, farmers and stakeholder meetings, meetings abroad), and have some basic skills in data management and analysis and laboratory work. The PhD will be carried out mainly in Teagasc Moorepark Cork, but it also involves collaborations with Animal Health Ireland and University College Dublin. Thus, the candidate must be willing to undertake frequent travel to and stays in all locations. A full EU driving licence and fluent spoken English is required.

Award

The scholarship funding is €31,000 per annum and includes University fees of up to a maximum of €6,000 per annum and is tenable for 4 years.

Further Information

Dr. Edgar Garcia Manzanilla, Pig Development Department, Animal and Grassland Research and Innovation Centre, Moorepark, Fermoy, Co. Cork, email: egmanzanilla@gmail.com, or Dr. Nola Leonard, School of Veterinary Medicine, University College Dublin, email: nola.leonard@ucd.ie

Application Procedure

Submit an electronic copy of Curriculum Vitae and a letter of interest to:

Dr. Edgar Garcia Manzanilla (egmanzanilla@gmail.com) and Dr. Nola Leonard (nola.leonard@ucd.ie)

Closing date

29th March 2024