PhD Project Advertisement

Project title: Future-proofing livestock health by quantifying the burden of disease and benefits of sustainable interventions

Project No: FBS2024-022-Prada-sq

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Project description:

Parasitic worms have been infecting human and animals for a long time, causing disease, loss of productivity and, in some cases, death. This particularly affects farm animals such as sheep, cows and goats, reducing productivity and animal welfare. Changes in climate conditions are likely going to lead to increased number of worm infections in these animals. Moreover, controlling these infections relies on the use of drugs, but the worms are developing resistance to the most used deworming drugs.

In this exciting multidisciplinary project, you will extend and integrate state-of-the-art mathematical models of infectious parasitic diseases to explore the impact of different worm control strategies in farm animals in a changing climate. You will also evaluate the costs and benefits of these programmes to provide recommendations to farmers and policy makers. You will also engage with key stakeholders: farmers, industry, and government to develop these new guidelines that will support sustainable farming for the next decade.

You will be based at the University of Surrey, with options to visit our project partners at Queen's University Belfast. You will be part of the PradaLab, a young, dynamic, multidisciplinary research group based in the School of Veterinary Medicine, working across a range of infectious diseases in both humans and animals, and integrating mathematical and statistical modelling with health economics and social sciences.

Training opportunities:

You will have the opportunity to attend a wide range of courses, from writing to public speaking through a flexible Researcher Development Programme (https://research.surrey.ac.uk/guidance-and-support/researcher-development-programme). Moreover, you will be trained in laboratory, epidemiological mathematical modelling and economic evaluation techniques by the supervisory team. Opportunities for training abroad (outside the UK) will also be available. You will also have the option to carry out field work, supported by the supervisory team and other colleagues from Surrey and Belfast.

Student profile:

You have a BSc honours degree in biology, veterinary medicine, mathematics, computer science or a related discipline. You are comfortable around a computer, and either know how to code, or are keen to learn. You are interested in parasites, animals or the agricultural and food sector.

Stipend (Salary):

FoodBioSystems DTP students receive an annual tax free stipend (salary) that is paid in instalments throughout the year. For 2023/24 this is £18,622 and it will increase slightly each year at rate set by UKRI.

Equality Diversity and Inclusion:

The FoodBioSystems DTP is committed to equality, diversity and inclusion (EDI), to building a doctoral researcher(DR) and staff body that reflects the diversity of society, and to encourage applications from under-represented and disadvantaged groups. Our actions to promote diversity and inclusion are detailed on the FoodBioSystems DTP website.

In accordance with UKRI guidelines, our studentships are offered on a part time basis in addition to full time registration. The minimum registration is 50% FT and the studentship end date will be extended to reflect the part-time registration.

For up to date information on funding eligibility, studentship rates and part time registration, please visit the FoodBioSystems website.