

## Candidate Information

<b>Position:</b>	Research Fellow
<b>School/Department:</b>	School of Biological Sciences
<b>Reference:</b>	25/112370
<b>Closing Date:</b>	Monday 10 February 2025
<b>Salary:</b>	£39,922 per annum
<b>Anticipated Interview Date:</b>	Thursday 20 February, 2025
<b>Duration:</b>	Fixed term, available for 33 months or until 31 August 2028, whichever is soonest

### JOB PURPOSE:

To be a highly productive, ambitious and collaborative member of a research group led by Professor Eric Morgan in the School of Biological Sciences. The position will involve working as part of a research programme investigating anthelmintic resistance and parasite management in cattle on the island of Ireland.

The purpose of this project is to support a larger investigation into the emergence and attenuation of anthelmintic resistance in cattle. It will assess the current distribution and level of resistance to anthelmintics among gastrointestinal nematode populations of cattle and associated practices and attitudes among farmers, evaluate established and novel diagnostic tools to measure and monitor resistance, model refugia-based strategies to prolong the useful life of anthelmintics and apply selected model-guided strategies on study farms. Outcomes will be an improved evidence base on the current status of anthelmintic resistance in this sector and new validated tools to measure and address it, supporting sustainable livestock farming.

The successful applicant will be seeking to lead this element of the collaborative research project and will be involved with planning and delivery of the modelling, collaborations and outreach. Creativity in developing new modelling approaches as well as applying established frameworks will be encouraged. The post holder will also engage with stakeholder networks at European (SPARC and ENVIRANT), UK (COWS) and Ireland (AHI) levels, see links below, to advance the design, dissemination and application of sustainable parasite control in cattle. The post holder will benefit from training and professional development opportunities in diagnostic parasitology, data analysis, mathematical modelling, science communication, project management and stakeholder engagement.

This is a 33-month position funded by the Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA).

Further information:

<https://wormsparc.com/>

<https://www.cost.eu/actions/CA23154/>

<https://www.cattleparasites.org.uk/>

<https://animalhealthireland.ie/>

### MAJOR DUTIES:

1. Develop, plan and deliver an area of personal research and expertise, and undertake research under supervision within a research project aimed at evaluating and responding to anthelmintic resistance in cattle, supporting overall collaborative project aims.
2. Maintain up-to-date knowledge of the field of interest at the cutting edge (e.g. recent advances in disease ecology, new models and techniques) and communicate the same to the group.
3. Design, develop and refine new model applications for use in this project and beyond.
4. Carry out analyses, critical evaluations and interpretations of parasitological data and the literature using methodologies and other techniques appropriate to area of research.

5. Present regular progress reports on research to members of the research group, external collaborators and audiences nationally and internationally to disseminate and publicise research findings.
6. Prepare, in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
7. Assist grant holder in the preparation of funding proposals and applications as well as project progress reports to external bodies.
8. Actively drive own career development, e.g. through postdoctoral development activities, fellowship applications etc.
9. Carry out routine administrative tasks associated with the research project to ensure that it is completed on time and within budget.
10. Contribute as required to the preparation of project progress and final reports, present these to collaborators, project co-ordinator and funders, and participate in meetings on project milestones and deliverables
11. Carry out undergraduate/post-graduate student and visiting researcher training and supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
12. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines and engage in technical training as needed.

**ESSENTIAL CRITERIA:**

1. Have or about to obtain\* a relevant PhD in a biological field such as parasitology or epidemiology>(\*must be obtained within 3 months of commencement of employment).
2. Significant recent relevant research experience to include experience in:
  - veterinary parasitology, including diagnostic laboratory methods for nematodes in cattle,
  - mathematical and/or computational modelling,
  - sample collection on farms including safe animal handling.
3. Ability to supervise postgraduate/undergraduate students and visiting researchers in the laboratory.
4. Methodical approach to project management, data curation, and model development.
5. Must be highly ambitious, motivated, efficient, organised and show a commitment to, and an interest in the research topic.
6. Competent in maintaining and communicating knowledge of cutting-edge of field of expertise.
7. Excellent written and verbal communication skills.
8. Competent in giving effective and informative oral and poster presentations.
9. Strong ability to work from own initiative and to work independently.
10. Excellent team working skills in multiple internal and external team settings.
11. Excellent problem-solving skills and ability to use own initiative.

**DESIRABLE CRITERIA:**

1. Recent relevant postdoctoral research experience.
2. Recent experience with modelling of parasites or infectious diseases.
3. Competence in one or more computer programming languages suitable for development of decision support tools
4. Specific knowledge of parasite management in cattle and associated drug resistance issues.
5. Experience in stakeholder engagement and/or science communication.
6. Recent high quality original research publications on these subjects in reputable peer-reviewed journals, commensurate with career stage.
7. Research project management experience.
8. Practical experience and knowledge of parasite management challenges in cattle, relevant to Northern Ireland.
9. Evidence of having presented at national and international conferences (poster and oral).
10. Leadership qualities.
11. Willing and able to travel to national and international meetings and collaborative laboratories.