

Candidate Information

Position: Research Fellow in Molecular Ecology (MosquitoNI)
School/Department: School of Biological Sciences
Reference: 26/113136
Closing Date: Monday 23 February 2026
Salary: £41,519 - £49,536 per annum
Anticipated Interview Date: Wednesday 18 March 2026
Duration: 4 years

JOB PURPOSE:

The School of Biological Sciences is currently seeking to appoint a Research Fellow. The appointee will join the Environmental Change Biology Laboratory on a project focused on mosquito-borne disease risks under anthropogenic environmental gradients. They will work in a multidisciplinary team that includes ecologists, virologists, and mathematical modellers in collaboration across Queen's University Belfast, the University of Glasgow, and the UK Centre for Ecology and Hydrology.

The successful candidate will work within the new 4-year "MosquitoNI: Mosquito-borne disease risk to Northern Ireland under environmental change" project, funded by BBSRC's New Investigator Award scheme. The project focuses on understanding the implications of climate and land use changes for mosquito-borne disease risk, while addressing regional paucities in knowledge around arthropod vectors and their viruses in Northern Ireland. The successful candidate will be expected to work with wider governmental, charitable, and industrial stakeholders, alongside the general public, to translate project outcomes and achieve effective engagement and outreach.

The candidate will lead the research and deliver reports/publications thereafter in a timely and professional manner. Priority will be given to candidates with research interests in vector-borne disease, and particularly the use of molecular approaches to identify arthropod species, detect potential pathogens, and construct viromes. It is also essential that the candidate has experience in conducting fieldwork to collect ecological samples, as well as experience in advanced statistical modelling to analyse project data.

MAJOR DUTIES:

1. To lead research under supervision of the principal investigator.
2. Design and implement ecological field surveys, laboratory molecular assays, and controlled environmental experiments in line with the hypotheses asked and ensure timely delivery of data and reports.
3. Undertake project-specific research activities, including national-scale mosquito sampling in various habitats, molecular identification, and pathogen/virome assessments.
4. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to the area of research.
5. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings. This will include written and oral formats.
6. Prepare, in consultation with supervisors, material for publication in national and international journals and presentations at international conferences.
7. Assist in the preparation of future funding proposals and applications to external bodies.
8. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, and risk assessment of research activities.
9. Supervision of Research Assistant(s) associated with this and other projects.
10. Help supervise the PhD student complementing this project as a named supervisor, whilst aiding other PhD students as appropriate.

11. Carry out occasional undergraduate and postgraduate 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.

ESSENTIAL CRITERIA:

1. BSc in Ecology, Molecular Biology, Biology or relevant life sciences subject.
2. Have or about to obtain a PhD in a relevant area of Ecology, Molecular Biology, or similar (*must be obtained within 3 months of commencement of employment).
3. Demonstrable relevant research experience in conducting molecular analyses of arthropod vectors and/or viruses.
4. Demonstrable experience in arthropod vector ecology and morphological identification.
5. Evidence of peer-reviewed publication in a relevant area of research.
6. Demonstrable experience in molecular methods, such as PCR or RNA sequencing.
7. Demonstrable bioinformatic skills, including comparative genomics and/or viromics.
8. Ability to contribute to broader management and administrative processes.
9. Demonstrable methodical approach to project management and meticulous in regard to experimental procedures and record keeping.
10. Demonstrable practical experience in good data management and performing statistical analysis.
11. Ability to communicate complex information clearly.
12. Demonstrable ability to work from own initiative and to work independently within the context of a research team.
13. Willingness to occasionally work irregular hours, including evening, weekend, and other out-of-hours work as appropriate.
14. Willing to travel to national and international meetings and collaborative laboratories as required on an ad-hoc basis.
15. Has a full driving licence and can travel efficiently and effectively to multiple sites across Northern Ireland.

DESIRABLE CRITERIA:

1. Demonstrable experience in pathogen detection and arthropod virology approaches.
2. Demonstrable experience in conducting controlled environmental experiments under climatic gradients.
3. Willingness to contribute to the School's outreach programme by links with industry, community groups etc.
4. Demonstrable ability to independently build contacts and participate in internal and external networks.
5. Evidence of having presented at conferences (poster and/or oral presentations).