Candidate Information

Position: Research Assistant in Microbiome and Antimicrobial Resistance Analysis (0.8 FTE)
School/Department: Institute for Global Food Security
Reference: 26/113164
Closing Date: Monday 16 March 2026
Salary: £35,136 pro rata per annum (£28,108.80 for 0.8FTE)
Anticipated Interview Date: Wednesday 25 March 2026
Duration: 5 months & 12 days

JOB PURPOSE:

The School of Biological Sciences and Institute for Global Food Security at Queen's University Belfast is currently seeking to appoint a microbiologist with bioinformatics experience to the post of Research Assistant. The appointee will join the AMR & One Health Lab, a team of interdisciplinary researchers working in veterinary and human microbiology, animal science, and bioinformatics.

The successful candidate will primarily work within a multidisciplinary team undertaking research focused on unravelling the consequences of the withdrawal of prophylactic ZnO from pig diets on antimicrobial resistance (AMR), post-weaning diarrhoea (PWD) and the microbiome as part of a BBSRC funded project. The post holder will work with Dr. Linda Oyama, Prof Ilias Kyriazakis and Prof Chris Creevey. The Postholder will characterize probiotic isolates using molecular methods and characterize local microbiota in 16S metataxonomic and shotgun metagenomic sequencing datasets from a pig farm trial. Priority will be given to candidates with research interests and expertise in bioinformatics, microbiology and animal science.

MAJOR DUTIES:

1. To undertake research under supervision of the principal investigator and co-investigator within the specific research project.
2. Plan, execute and report on microbiological and molecular analysis related to project aims with principal investigator.
3. To implement and run the computational workflows necessary for understanding the microbial community profiles of gut microbiome samples associated with strategies for understanding antimicrobial resistance in farmed animals.
4. Design, develop and refine computation and analytical methodologies to obtain reliable data and data interpretation.
5. Carry out statistical analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
6. Communicate orally and through e-mail effectively to line manager and other partners involved in the project team.
7. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
8. Prepare, in consultation with project investigators, material for publication in high quality journals and presentations at international conferences.
9. 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, risk assessment of research activities.
10. Aid effective team working within the group led by the principal investigator.

ESSENTIAL CRITERIA:

1. Hold a Degree in a relevant area (biological sciences, microbiology, animal science veterinary science).
2. Recent relevant and demonstratable research experience in computational approaches for the analysis of high-throughput DNA sequencing data from microbial communities including shotgun metagenomic and 16S rDNA microbiome analysis.
3. Experience in antimicrobial resistance surveillance and quantification research using genomic data.
4. Demonstratable experience in the use of Linux command-line systems for bioinformatics analyses.
5. Experience in working with microorganisms and in molecular techniques.
6. Experience of using programming skills in appropriate languages and software e.g. R and R Studio.
7. Ability to contribute to broader administrative processes.

8. Methodical approach to project management and meticulousness in regard to analytical procedures and record keeping.
9. Experience of presenting to the scientific community i.e., conference talks.
10. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.
11. Ability to communicate complex information clearly.
12. Demonstrable intellectual ability.
13. Ability to assess and organise resources.
14. Experience of working in a team.
15. Irregular hours including evening, weekend and other out-of-hours work may be a component of the research at times.

DESIRABLE CRITERIA:
1. Experience in anaerobic microbial culturing, biochemical phenotyping and molecular biology analysis
2. Experience in the analysis of high-throughput DNA sequencing data for the purpose of identifying microbiome changes post intervention/treatment.
3. Experience in the handling and analysis of gut microbial communities
4. Knowledge of the challenges and approaches towards mitigating AMR burden and transmission in livestock
5. Peer reviewed publications or preprints in the area of AMR and livestock microbiome research.
6. Experience of supervising a team.