

Candidate Information

Position: Research Assistant
School/Department: School of Pharmacy
Reference: 25/113006
Closing Date: Monday 1 December 2025
Salary: £35,136 - £40,316 per annum
Anticipated Interview Date: Monday 15th December 2025
Duration: 16 months, or until 31 March 2027, whichever is sooner

JOB PURPOSE:

Lough Neagh is becoming increasingly affected by harmful algal blooms (HABs) caused primarily by cyanobacteria (blue-green algae). The AquaPhage team have recently been selected by the Department of Agriculture, Environment and Rural Affairs (DAERA) to progress to Phase 2 of the Small Business Research Initiative (SBRI) aimed at tackling the growth of Blue-Green Algae in Lough Neagh and other affected waterbodies

(<https://www.daera-ni.gov.uk/news/four-suppliers-advance-phase-2-lough-mitigation-blue-green-algae-sbri>).

We invite applications for a Research Assistant to assist the AquaPhage research team with the collection and processing of freshwater samples for metagenomic analysis, isolation and propagation of cyanobacteria and their bacteriophages, and testing for cyanotoxins.

This is an interdisciplinary research project that would require good theoretical and practical knowledge of microbiology (including phage biology). Good understanding of freshwater ecology and previous experience with DNA isolation, ELISA, PCR/qPCR, and/or HPLC analyses would be beneficial.

The post holder will be based in the School of Pharmacy and/or the School of Biological Sciences and will work under the supervision of Dr Timofey Skvortsov (School of Pharmacy) as well as other members of the AquaPhage team as necessary.

This is a unique opportunity to advance our understanding of cyanobacterial blooms and positively contribute to the Lough Neagh remediation efforts.

MAJOR DUTIES:

1. Collect and/or process freshwater samples for downstream analyses, including metagenomic DNA extraction, isolation and propagation of cyanobacteria and their phages, cyanotoxin levels analysis using ELISA and/or HPLC, and physico-chemical analysis of water samples.
2. Design, develop and refine experimental procedures and analytical methods in order to obtain reliable data.
3. Develop standard operating protocols for sample collection and processing.
4. Ensure that all samples, isolates, and data files are properly and consistently generated, labelled, handled, and stored.
5. Contribute to the development of the documentation relevant to the project (phage deployment plans, testing and monitoring plans, data validation arrangements, containment and recovery plans scaling potential assessments).
6. Work in accordance with the agreed work plan and ensure timely and successful attainment of the previously set milestones in accordance with the project's Gantt chart.
7. Prepare and present regular progress reports both internally (to the project management team) and externally (to the DAERA/SBRI representatives and other key stakeholders).
8. Carry out routine administrative duties as requested, e.g. placing orders for reagents, consumables and equipment, organising meetings, preparing project documentation, regularly uploading the data files to a secure server for storage.

9. Read academic papers, journals, textbooks, technical reports, whitepapers, policy documents and other sources relevant to the project.
10. Carry out any other duties designated by a line manager and which fall within the general ambit of the post.

ESSENTIAL CRITERIA:

1. A degree or equivalent in microbiology, aquatic biology, ecology, or a relevant subject.
2. Experience with microbiological techniques.
3. Clearly demonstrable experience of robust data and resource management and accurate record keeping. Good sample and data management skills are crucial for this post.
4. Ability to contribute to the development of methods, and project documentation (including updates, protocols, reports, policies, guidelines).
5. Ability to interact with research colleagues and support staff.
6. Ability to analyse and communicate effectively.
7. Ability to establish and maintain working contacts both internally and externally as required for the project.
8. Ability to communicate complex information clearly both verbally and present written and scientific arguments and data in a clear, concise and confident manner.
9. Demonstrable intellectual ability, analytical and problem-solving skills.
10. Excellent time management and organisational skills.
11. Ability to work independently and on own initiative.
12. Ability to work collaboratively and effectively as part of a team.
13. Ability to act decisively and confidently, be proactive and self-motivated, take ownership.
14. High reliability, adaptability and resilience.
15. Due to the nature of this research project, irregular hours including evening, weekend and other out-of-hours working might be a component of the work at times to meet deadlines and achieve the project milestones as required.

DESIRABLE CRITERIA:

1. Have or working towards a PhD in environmental microbiology, aquatic biology, ecology, or a relevant subject.
2. Experience in working with aquatic microorganisms especially cyanobacteria.
3. Experience with phage isolation from environmental sources.
4. Experience with the development and optimisation of microbial isolation and culturing protocols.
5. Experience with PCR, ELISA, HPLC.
6. Previous experience of team management/supervision.
7. Previous experience working on a research project with tight deadlines.
8. Experience of training research staff and/or technical staff in experimental or computational techniques.
9. UK driving licence.

ADDITIONAL INFORMATION:

Informal enquires may be directed to Dr Peter Eze (p.eze@qub.ac.uk).