Candidate Information

Position:	Research Fellow
School/Department:	Pharmacy
Reference:	22/109653
Closing Date:	Monday 28 March 2022
Salary:	£34,304 - £40,927 per annum
Anticipated Interview Date:	Thursday 7 April 2022
Duration:	Available until 28 March 2023

JOB PURPOSE:

We are looking for a motivated individual to join a multidisciplinary Wellcome Trust funded programme which aims understand the effects of antibiotic delivery route on gut microbiome and resistance development in vivo. The Postdoctoral Research Assistant will be an active member of the research team working on the evaluation and pre-clinical translation of novel microneedle based systems for novel transdermal drug delivery for the prevention of antibiotic resistance in vivo. They will conduct research and related activities in all aspects of the work, focusing primarily on molecular biology, metagenomic sequencing and bioinformatic analysis aspects of the collaborative research programme, working alongside other PDRAs in the consortium to ensure the overall objectives of the project are met.

The position will be based at the School of Pharmacy at Queen's University in Belfast, Northern Ireland.

MAJOR DUTIES:

1. Evaluate the effects of microneedle-based systems from transdermal drug delivery of antibiotics on the gut microbiome and resistance development in vivo.
2. Assist with in vivo animal experiments and analyses, critical evaluations, and interpretations using appropriate methodologies and techniques. Such techniques will include PCR, RT-PCR, metagenomics, antimicrobial susceptibility profiling, bioinformatic analysis.
3. Undertake basic research for example by preparing, setting up, conducting and recording the outcome of experiments and field work, the development of appropriate methods.
4. Undertake research under supervision within a specific research project or as a member of a research team.
5. Assist in the commercialisation of technology research being conducted in the research group.
6. Carry out prescribed analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
7. Write up results of own work and contribute to the production of research reports, publications and proposals.
8. Prepare, in consultation with supervisor and industrial partner, material for publication in national and international 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, financial control, risk assessment of research activities.
10. 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.
11. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

ESSENTIAL CRITERIA:

1. At least a 2.1 Honours degree in Pharmaceutical Sciences, Microbiology, Molecular Biology or a closely related discipline.
2. Have or be about to obtain a PhD in the field of Pharmaceutical Microbiology or Molecular Microbiology or a closely related discipline.

3. At least 3-years recent relevant research experience to include significant experience in molecular microbiology or microbiome analysis.
4. Demonstrate substantial experience in use of molecular biology and/or metagenomic approaches for microbial population analysis.
5. Ability to contribute to broader management and administrative processes.
6. Contribute to the School's outreach programme by links with industry, community groups etc.
7. Ability to effectively manage material resources within budget for the project.
8. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within the research programme.
9. Ability to communicate complex information clearly.
10. Ability to build contacts and participate in internal and external networks.
11. Demonstrable intellectual ability.
12. Ability to assess and organise resources.

DESIRABLE CRITERIA:

1. Experience, evidenced by relevant output in peer-reviewed academic journals or conference presentations, commensurate with career stage of microbiome analysis.
2. Hold a UK Home Office/NILTG personal licence.
3. Experience in antimicrobial susceptibility analysis.
4. A demonstrated willingness to take on leadership roles in supervision of laboratory researchers.