

## Candidate Information

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| <b>Position:</b>                   | Research Fellow   |
| <b>School/Department:</b>          | School of Pharmacy  |
| <b>Reference:</b>                  | 18/106852   |
| <b>Closing Date:</b>               | Wednesday 14 November 2018  |
| <b>Salary:</b>                     | £33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution) |
| <b>Anticipated Interview Date:</b> | week commencing 26 November 2018  |
| <b>Duration:</b>                   | Available for up to 42 months. Must be available to start by October 2018.  |

### JOB PURPOSE:

We are looking for an outstanding individual to join a leading research consortium on a major Wellcome Trust-sponsored project. The successful candidate will be an active member of the research team working on evaluation and pre-clinical translation of novel microneedle-based systems for transdermal drug delivery for the prevention of antibiotic resistance emergence in vivo. Working alongside other PDRAs in the consortium, they will assist in the planning and delivery of this research activity so that the overall research objectives of the project are met.

### MAJOR DUTIES:

1. Evaluate the effects of novel microneedle-based systems for transdermal drug delivery of antibiotics on gut microbiome and resistance emergence in vivo.
2. Prepare documentation for meetings with regulatory authorities and industrial partners
3. Design, develop and refine experimental apparatus and analytical methods in order to obtain reliable data.
4. 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, high throughput phenotypic arrays, antimicrobial susceptibility profiling, mass spectroscopy.
5. Present regular progress reports on research to members of the research group or to external audiences 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 supervisor in the preparation of funding proposals, submissions to pharmaceutical/medical devices companies and applications to external bodies.
8. Carry out routine administrative tasks associated with the research project to ensure that the project is completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.
9. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
10. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

### ESSENTIAL CRITERIA:

1. Applicants must have a degree in Pharmacy, Microbiology or Molecular Biology or a closely related discipline (Minimum standard 2.1)
2. Have, or about to obtain, a PhD in Pharmaceutical Microbiology
3. At least 3 years recent relevant research experience to include experience in molecular microbiology
4. Experience of use of molecular biology and metagenomic approaches for microbial population analysis
5. Experience of molecular cloning and expression using both bacterial and archaeal expression systems
6. Experience of antimicrobial susceptibility profiling of microorganisms
7. Hold a UK home office/NILTG personal license (animal handling)

8. Ability to contribute to administrative relevant to the research.
9. Liaison with external collaborators and sponsors.
10. Practical problem-solving skills, independence of thought and initiative are required.
11. Ability to present scientific arguments and data in a clear, concise and confident manner in both written and oral formats.
12. A calm and conscientious scientist, able to work in a disciplined manner within a team environment.

**DESIRABLE CRITERIA:**

1. Ability to register immediately with the Pharmaceutical Society of Northern Ireland or the General Pharmaceutical Council
2. Recent relevant experience in use of phenotype arrays for characterisation of microorganisms