

Department of Chemical Engineering

## Research Associate in Bacteriophage formulation (Fixed Term for 6 months)

REQ211191

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

### Project Description

This project aims to develop new bacteriophage-based therapeutics for the treatment of antibiotic resistant infections. The work involves formulation development of bacteriophages to improve their storage stability. The project will involve working with a commercial industrial partner.

We are committed to achieving equality for all those who learn and work here and providing a diverse and inclusive working environment. We will consider reasonable adjustments commensurate with the project requirements.

The project is led by Dr Danish J Malik.

### Job Description

**Job Grade:** Specialist and Supporting Academic Grade 6

#### Job Purpose:

To conduct formulation research including producing and purifying bacteriophages, methods for their enumeration and their formulation to improve phage stability during storage.

#### Job Duties

- To undertake experimental work on the production of bacteriophages therapeutics including their purification, enumeration and formulation.
- To develop standard operating procedures for various formulation and facilitate their transfer to the industrial partner laboratory.
- Be responsible for conducting the day to day running of the project.
- To formulate detailed plans for the project based on broad guidance.
- To feed back to the project team on progress and to make recommendations for next steps.
- Write up regular progress reports and present outcomes to the investigators and sponsors.
- Attend meetings and make presentations within the project partners working group.
- Maintain confidentiality at all times and ensure that intellectual property (IPR) agreements are not violated.
- To perform risk assessments, develop method statements and implement safe working practices.
- To write research papers suitable for publication in high quality academic journals and for presentation at specialist scientific conferences.
- To assist the academic staff in the project team with the supervision of undergraduate MSc and PhD project work and day-to-day supervision and support of other researchers.

- To assist in the development of research proposals and grant applications for follow-on project funding.
- General team organization and coordination.
- Undertake other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.
- To work effectively with relevant administrative, technical and academic staff in the School and across the University.
- To engage in training programmes in the University (e.g. through Staff Development) which are consistent with the RA's ongoing professional development, and the needs and aspirations of the project team and those of the School.
- To support Chemical Engineering teaching delivery as required
- To carry out specific other duties as may be reasonably requested by the project leaders and that are commensurate with the nature and grade of the post.

### **Points To Note**

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

### **Special Conditions**

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

### **Organisational Responsibility**

Reports to Dr Danish J Malik, Department of Chemical Engineering.

## Person Specification

Your application will be reviewed with respect to meeting the essential and desirable criteria listed below. Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

- 1 – Application
- 2 – Test/Assessment Centre/Presentation
- 3 – Interview

### Essential Criteria

| Area                 | Criteria                                                                                                     | Stage |
|----------------------|--------------------------------------------------------------------------------------------------------------|-------|
| Experience           | Experience in molecular biology and microbiology techniques.                                                 | 1, 3  |
|                      | Experience in cloning methods.                                                                               | 1, 3  |
|                      | Experience in protein expression in bacterial/yeast systems and their purification.                          | 1, 3  |
|                      | Authoring original work for academic journal papers.                                                         | 1     |
| Skills and abilities | Ability to handle microbial and/or mammalian cell cultures.                                                  | 1, 3  |
|                      | Ability to design plasmids for cloning in bacterial/yeast systems.                                           | 1, 3  |
|                      | Ability to set up and execute a research agenda and communicate to various audiences and stakeholders        | 1, 3  |
|                      | Excellent written and oral communication skills                                                              | 1, 3  |
|                      | Self-motivated with ability to meet deadlines                                                                | 1, 3  |
|                      | Excellent interpersonal, and organisational skills                                                           | 1, 3  |
|                      | Ability to write project reports and make technical presentations to industrial and academic research groups | 1     |
|                      | Knowledge of relevant Health & Safety issues                                                                 | 1, 3  |
| Training             | Demonstrate evidence of having undertaken further training                                                   | 1     |
| Qualifications       | A good honours degree in Molecular Biology, Biotechnology, Life Sciences, Microbiology.                      | 1     |
|                      | A PhD (or near completion) in Molecular Biology, Biotechnology, Life Sciences, Microbiology.                 |       |
| Other                | Commitment to observing the University's Equal Opportunities policy at all times.                            | 1, 3  |

### Desirable Criteria

| Area       | Criteria                                                                   | Stage |
|------------|----------------------------------------------------------------------------|-------|
| Experience | Practical experience in the use of flow cytometry and confocal microscopy. | 1     |
|            | Knowledge of Crispr/Cas genome editing methods                             | 1     |
|            | Ability to plan and organise own workload effectively                      | 1, 3  |
|            | Working in a high-quality academic research environment                    | 1     |
|            | Experience of teaching and / or supervision of students in relevant areas  | 1     |

|                      |                                                                            |      |
|----------------------|----------------------------------------------------------------------------|------|
| Skills and abilities | Authoring original work, in the highest quality refereed academic journals | 1    |
|                      | Ability to communicate and liaise with other project partners              | 1,3  |
|                      | Experience of knowledge exchange related activities                        | 1    |
|                      | Skills to assist in supervising undergraduate and MSc projects             | 1,3  |
| Other                | Willing to travel and spend time working with collaboration partners       | 1, 3 |

## Conditions of Service

The position is FULL TIME and FIXED TERM for 6 months. Salary will be on Specialist and Supporting Academic Research, Grade 6, Salary Band £31,406 - £40,927 per annum,, at a starting salary to be confirmed on offer of appointment.

The appointment will be subject to the University's Terms and Conditions of Employment for STAFF GRADES 1-5/STAFF GRADES 6 AND ABOVE, details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which can be found [here](#).

The University offers a wide range of employee benefits which can be found [here](#).

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>)

In addition, the University is supportive, wherever possible, of flexible working arrangements.

We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>

## Applications

Closing date for applications: **19 November 2021**.