

## Research Associate in Cell Culture and Protein Production

Job Ref: REQ190418

**As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.**

### Job Description

A EPSRC funded Research Associate position in biotechnology, biochemical engineering, biomanufacturing and biocrystallization is available within the Department of Chemical Engineering, associated with The Centre for Biological Engineering (CBE), at Loughborough University. The successful candidate will work on an ambitious EPSRC project, Regenerative BioCrystallisation.

This is an opportunity for ambitious and enthusiastic candidate to work within multidisciplinary areas. The candidate will have a good opportunity to discover new discipline, lead challenging research, initial collaborations, and to present the research in UK and international conferences.

The successful candidate will carry out novel and adventurous research on cell culture, protein expression production, and relevant research fields to build connections in interdisciplinary research fields: protein producing and purification of therapeutic proteins, such as immunoglobulin antibody.

Candidates from biochemical engineering, biotechnology, biopharmaceuticals, biomaterials, and biomanufacturing and the candidates from structural biology or interdisciplinary subjects are all welcome to apply. It is desirable that candidate has experience in one or more of the following areas: cell culture, protein / antibody expression, protein / antibody production, protein concentration, protein characterization, protein purification and separation, protein characterisation, optimisation of protein stability, and protein crystallization.

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

### Job Purpose:

The Research Associate will be responsible for undertaking research on the EPSRC project, Regenerative BioCrystallization, and report to PI. Regenerative BioCrystallisation ensure deliver biopharmaceuticals with high purity, high quality and high efficiency to benefit the patients. The Research Associate will develop new biotechnology to produce the proteins, such as antibodies, and purify the proteins in a simple way. The target is to transform biomanufacturing processes by directly growing biocrystal / protein crystals inside cells.

### Job Duties

#### **Research**

The Research Associates will be primarily based in the Department of Chemical Engineering closely associated with The Centre for Biological Engineering (CBE) at Loughborough University.

The work entails, primarily, the following activities;

- To conduct scientific and technological research on cell culture to produce and purifying proteins
- To build connections between upstream biomanufacturing and downstream biomanufacturing
- To set up experimental platforms, design and perform high quality experiments to deliver the project
- To develop novel or interdisciplinary technologies and demonstration the applications
- To assist initial collaboration with industrial partners and academics in UK and internationally
- To lead, plan, manage and conduct the work to agreed deadlines
- To identify new opportunities for IP generation and new ideas for research proposals
- To write up academic papers for publication in the project
- To prepare research posters and presentations, presenting in UK or international conferences

### **Teaching**

Teaching is not the primary purpose of this post, candidate have chance to take trainings and gain teaching experiences in the School, with the agreement of the Head of Department.

### **Other Related Activities and Functions**

- To engage in training programmes in the University (e.g. through Professional Development) and elsewhere as required.
- 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.
- To undertake such other duties as may be reasonably requested 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 project PI.

## Person Specification

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

3 – Interview

### Essential Criteria

Area	Criteria	Stage
Experience	Expertise and specific experience in cell culture	1,3
	Knowledge of producing proteins and purifying proteins	1,3
	Experience in design and setting up platforms / experiments	1,3
	Track record in conducting of original research and producing publications	1,3
	Experience in scientific presentations at conferences	1,3
Skills and abilities	Ability to use microscopes and other observation equipment	1,3
	Ability to adopt new knowledge, to master and apply new technologies	1,3
	Skills in analysis of cell growth and control cell growth	1,3
	Research management skills with a focused drive for deliverables	3
	Excellent communication skills - both written and oral	1,3
	Excellent IT and relevant software skills	1
	Excellent team-working skills	1,3
	Highly-motivated with the ability to set and meet deadlines	1,3
	Ability to solve problems and issues	1,3
	Qualifications	A good honours degree (2:1 or above) in (bio)chemical engineering, (bio)technology, bioengineering, biology, or relevant subjects.
PhD degree or near completion related to the above areas.		1
Other	Commitment to observing the University's Equal Opportunities policy at all times.	1,3

### Desirable Criteria

Area	Criteria	Stage
Experience	Experience in some of the following areas: cell line development, cell crystallisation, purifying protein, biology structure	1,3
	Budget management, consumable and equipment purchasing	3
	Writing and publishing in high quality journals	1
	Project planning / management / leadership experience	1,3
	Experience of collaborations with other researchers or industry partners	1,3

Skills and Abilities	Ability to develop a programme of original research, persuade others of its importance and thus secure funding from external sources	3
	Ability to characterise proteins	1,3
	Skills in optimising protein stability	1,3
	Skills in processing concentrate proteins	1,3
	Ability to demonstrate the scientific ideas to public audiences	3

## Conditions of Service

The position is full time and fixed term for up to a maximum 24 months, ending no later than 30th Sep 2021.. Salary will be on Specialist and Supporting Grade 6, £30,395 to £36,261 per annum, at a starting salary to be confirmed on offer of appointment. Subject to annual pay award.

The appointment will be subject to the University's normal Terms and Conditions of Employment for Academic and Related staff, 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 are available at <http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html>.

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

Applications should be made online. Closing date is 19<sup>th</sup> Jun 2019, interviews will take place w/c 24<sup>th</sup> June 2019.