

Doctoral Fellow – Biological Synthetic Data Generation

Job Ref: REQ260490

About the Fellowship

This Fellowship offers an opportunity for a recently completed engineering PhD candidate to receive 12 months of tailored support to start to develop and establish a research career. The Fellow will have an appropriate Loughborough University academic sponsor to support and guide them; they will work as part of the Centre for Biological Engineering.

Fellows must be undertaking work derived from their own research questions and ideas, which will provide a strong underpinning for such as an external Fellowship application or full time RTE position in the future.

Candidates must have submitted their thesis, been examined, and passed before the Doctoral Fellowship begins; they must be within 2 years of their PhD examination. During the Fellowship, the holder will be encouraged to apply for an appropriate externally funded Fellowship for researchers in the early career stages, to be based at Loughborough University, and to commence at the conclusion of this Doctoral Fellowship.

Job Description

The Fellowship will be based around the development of high dimensionality multi-parametric biological synthetic cell cluster data with specific reference to the use of such data for: improving the performance characteristics of flow cytometry data analysis, developing rare disease state exemplars, and developing reference synthetic cell cluster data suitable for international measurement standards.

Job Family and Grade: Specialist and Supporting Academic Grade 6

Job Purpose

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Job Duties

- To pursue a personal research programme consistent with the School's research agenda.
- To undertake research activity to underpin high-quality applications for an externally-funded Fellowship.
- Where appropriate, to secure further external funding for their research.
- To publish high-impact independent research articles as lead author in outlets of international standing.
- To attend and contribute to major international conferences.
- To pursue opportunities to deliver impact from their research.
- To collaborate in research initiatives with colleagues within the School and across the University, and to publish as co-author.
- To collaborate in research initiatives with other HEIs, industry and other relevant bodies.

Related Activities and Functions

- To work effectively with relevant administrative, technical and academic staff in the School and across the University.

- To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.
- To undertake teaching duties as determined by the Dean and AD-ESE that are commensurate with a research post.
- To undertake training as required to fulfil the requirements of the role.

Other

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

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. Progress towards the aims/deliverables of this role will be evaluated 3-monthly; continuance will be contingent on satisfactory performance.

Person Specification

Your application will be assessed based on the essential and desirable criteria listed below.

Applicants are strongly encouraged to explicitly demonstrate how they meet each essential (and desirable) criteria at the application stage. The criteria that you need to demonstrate in your application will be listed as Stage 1 in the table below.

Stages of assessment are as follows:

- 1 – Criteria measured within the Application
- 2 – Criteria measured at Test/Assessment Centre/Presentation
- 3 - Criteria measured at Interview

Essential Criteria:

Area	Criteria	Stage
Experience	Recent active research in the development of Flow Cytometry data analysis and synthetic cell cluster data generation	1,2,3
	Experience of authoring bioscience regulatory original work, in the highest quality refereed academic journals and / or substantial technical reports for industry	1
	Experience of presenting bioscience regulatory research work at international scientific conferences	1
Skills and abilities	Ability to develop an original research programme on your own initiative and to persuade others of its importance orally and on paper	2, 3
	Knowledge of research funding opportunities in UK HE and understanding of how to secure research funding	3
	Ability to work independently and as part of a team	1
	Excellent communication skills	2,3
	Excellent IT skills	1
Training	Demonstrate evidence of having undertaken appropriate training	1
Qualifications	Bioscience / Engineering PhD viva examination pass, which must be not more than 2 years before application deadline	1
Other	Evidence a good working knowledge of equal opportunities and understanding of diversity in the workplace	1,3

Desirable Criteria: These are skills, experience and competencies that are additional extras that may be used to narrow the pool down if we receive a high volume of applications that meet the essential criteria.

Area	Criteria	Stage
Experience	Experience of work in industry or collaboration with industry specifically with External Quality Assurance agencies	1
	Tutorial or laboratory based Teaching experience	1
Skills and abilities	Ability to secure research / project funds from external / company sources	1, 3
Training	Participation in a recognised training programme for research students / staff	1

Conditions of Service

The appointment will be subject to the [University's Terms and Conditions of Employment](#) relevant to the job grade.

Shared University Responsibilities

As a member of the Loughborough community, you are expected to:

- Take reasonable care of yourself, others and the environment, and to prevent harm by your acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Sustainability Policies & Procedures.
- Support and contribute to the University's commitment to Equity, Diversity, and Inclusion (EDI), while carrying out all duties in a way that respects these principles and upholds the right to free expression. Further information about EDI at Loughborough and our strategic aims is available on our website.

Our Purpose, Vision, and Values

Our purpose, Vision and Values underpin all that we do and shape how we work together at Loughborough.

We're proud to promote our values: **Adventurous, Collaborative, Creative, Authentic and Responsible**. Our people bring these values to life every day, and they are central to the positive and supportive culture that makes Loughborough unique.

If you join us, you'll be encouraged to bring these values to life in your own work and contribute to the positive, supportive culture that makes Loughborough unique. Read more about our [vision and values](#).

Our Accreditations



We strive to create a culture that supports equity 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 career.



We are proud to be a [Race Equality Charter Member](#). The Charter aims to improve the representation, progression and success of all minority ethnic staff and students within higher education and address issues of racism within higher education institutions (HEIs).



We are proud to be a Disability Confident Employer and have adopted a proactive approach to employing disabled people and to creating a more diverse workforce. We ensure that our recruitment processes are inclusive and accessible. We guarantee to offer an interview to all applicants who have declared a disability, provided that the essential criteria for the role are met. We proactively anticipate and provide reasonable adjustments and support existing employees who acquire a disability or long-term condition to thrive in the workplace.



We are a real living wage employer, and our Living Wage Employer Mark shows our commitment to paying our staff according to the cost of living.



We are proud supporters of the [City of Sanctuary movement](#) and delighted to be recognised as a University of Sanctuary. This national network brings together, university staff, lecturers, academics, and students, who together work to make Higher Education institutions places of safety, solidarity and empowerment for people seeking sanctuary.