

THE UNIVERSITY OF MANCHESTER
PARTICULARS OF APPOINTMENT
FACULTY OF SCIENCE & ENGINEERING
SCHOOL OF CHEMISTRY
MANCHESTER INSTITUTE OF BIOTECHNOLOGY
SENIOR RESEARCH TECHNICIAN (MIB)

VACANCY REF: S&E-13793

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| Salary: | £27,025 to £31,302 per annum (according to experience) |
| Hours: | 35 hours per week |
| Duration: | Fixed Term For 3 Years |
| Location: | Oxford Road, Manchester |

Enquiries about the vacancy, shortlisting and interviews:

Prof. Nigel Scrutton, Director of the FBRH

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OR

Dr. Rosalind Le Feuvre, Director of FBRH Operations

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Project Title: Senior Research Technician sought for the Future Biomanufacturing Research Hub

Project Description

The University of Manchester is leading a new **Future Biomanufacturing Research Hub (FBRH)**, funded by a major award from the EPSRC and BBSRC, which will become an UK/European Biomanufacturing Centre of Excellence, based at the University of Manchester with Spokes at Imperial, UCL, Nottingham, IBioIC, CPI, and the UK Catalysis Hub at Harwell.

The FBRH will develop new underpinning technologies based on industrial biotechnology (IB) to enable efficient, sustainable and innovative bio-based manufacturing in three key sectors – **Pharmaceuticals; Value-added Chemicals; and Engineering Materials.**

The FBRH will connect Hub and Spoke strengths in interdisciplinary industrial biotechnology (IB) discovery science with industry to stimulate innovative and sustainable biomanufacturing capabilities and position the UK at the vanguard of economic [Clean Growth](#) and the forefront of international developments in the global bio-economy.

The FBRH will be located in the Manchester Institute of Biotechnology (MIB) which is a cross-disciplinary research Centre at the University of Manchester (UoM) that brings together more than 500 researchers with expertise in the foundational sciences supporting Industrial Biotechnology,

including: molecular biology; chemistry; biochemical-engineering; materials science; synthetic biology; analytics and computer science.

We are now recruiting an expert research team who will provide the Hub with a diverse interdisciplinary resource supporting a mix of innovative **platform research themes/facilities** (*High throughput biocatalyst engineering, analytical screening, continuous flow biocatalysis, industrial host strain engineering and integrated continuous processes for large scale chemicals manufacture*) and across multiple projects supporting two complementary **Grand Challenge themes** (*Automated and integrated biocatalysis engineering for biomanufacturing, and realising the value of industrial biotechnology at scale*) working with academic and industrial partners. As a crucial part of the team we are looking for an experienced Research Technician to support the multiple science programmes and provide vital laboratory resource management including the curation and storage of our stocks/libraries/bio-parts.

Overall Purpose Of The Position

As a member of the FBRH team you will provide support for multiple projects working closely with members of the FBRH Senior Experimental Officer team and with multiple academic and industrial partners of the FBRH.

The Senior Research Technician will provide pivotal role supporting the overall delivery of the FBRH research programme and providing coordination of laboratory health and safety, and procurement. They will also work alongside the FBRH project manager to ensure smooth day-to-day research operation of the national Hub.

This position will provide key support for the storage and cataloguing of the research stocks, bio-parts and compounds that we create and ensure that they are reliable, accessible and the quality is of high standard. These parts will include DNA oligomers, thousands of synthesized DNA constructs encoding for enzymes with hundreds of variations from various engineered host organisms. In addition to the curation of research chemicals and products created the senior technician will provide key support for the general running and management of the FBRH laboratories. For this position a strong ethos for team-based working will be essential.

Key Responsibilities, Accountabilities or Duties

- As the Senior Technician you will be highly skilled with strong experience in molecular and biochemical techniques.
- Work closely with the Senior Experimental Officer team to help ensure timely and successful delivery of the research programmes
- Ensure that stocks are maintained, preparing lab reagent stocks including competent cells and large scale preparations of stock plasmids
- Provide management, storage and curation of the collections of: DNA oligos, synthesized DNA/genes/enzymes, engineered microbial strains, and chemical compounds and extracts
- Be responsible for documentation and archiving of DNA constructs and other research material generated during the course of the research project. Maintenance of an electronic database of all bio-parts generated
- Responsibility for laboratory COSHH documents, protocols and risk assessments
- Provide everyday management of the FBRH lab and equipment space
- Provide routine maintenance of equipment for the Centre

- Liaise with laboratory suppliers
- Maintenance of general laboratory chemical stocks, external procurement (iProc) and internal stores orders
- Generation of publication-quality data in support of the specific research objectives outlined above.
- Generation of figures, as well as the production of written methodologies, in support of the publication of key research findings.
- Accurate documentation of findings in lab books/eLab books, and storage of metadata, in accordance with the data management policies of the FBRH.
- Presentation of data at lab meetings.
- Provide training in techniques to other researchers (including PhD students) in areas where you as the senior research technician have expertise.
- You will support full access to the FBRH technology platforms.
- Provide technical expertise and assistance for collaborative research projects according to the needs of the FBRH.

PERSON SPECIFICATION

Essential Knowledge, Skills and Experience:

- An honours degree in Biochemistry Chemistry, Biological Sciences, or a related field from a recognised institution
- Several years' experience working as a research technician in the field of molecular biology / biochemistry
- A strong collaborative ethos for team-based working
- Good attention to detail and ability to work to a high and accurate standard
- Good communication (both written and oral) and interpersonal skills
- Good time management and organisational skills Ability to liaise confidently and effectively with a range of individuals
- A flexible approach to dealing with research problems as they arise
- An ability to meet deadlines, to work with multiple research groups and organise your workload accordingly
- The ability to work independently (as a self-motivated individual) and as part of a team
- The ability to contribute (providing technical information) to relevant research lab meetings

Desirable Knowledge, Skills and Experience:

- Experimental cell biology – cell culture techniques
- Molecular Biology – DNA cloning and mutagenesis, protein expression in E.coli,....
- Biochemistry – protein purification, SDS-PAGE, LC/GC MS, HPLC
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