MANCHESTER 1824
The University of Manchester

Job Description

Research Associate in Chemical Biology	
Grade	6
Department	Department of Chemistry, School of Natural Sciences, FSE

Overall Purpose

This PDRA position will be based in the Manchester Institute of Biotechnology (MIB) under the supervision of Dr Yi Jin, Wellcome Trust Sir Henry Dale Fellow.

The candidate will conduct research in the laboratories and manage the Jin group. They will lead the design, development and implementation of the experiments to study a bacterial pathway called sulfoglycolysis, as well as plasmid design and cloning, enzyme production and purification, and BSL2 organism handling. Whilst a number of aspects of this project have been established and implemented in the group, an essential part of this role will be to communicate and further develop the project with other group members and collaborators. This post will be last part of 6-year long project and bring a conclusion by publishing the impactful results in high-impact journals.

About the Team

MIB is a cross-disciplinary research centre that brings together more than 400 researchers with expertise and skills supporting industrial, environmental and clinical biotechnology, including chemistry; chemical biology; engineering biology; biochemical-engineering; materials science; synthetic biology; advanced analytics and computer science.

The Jin group is located in Manchester Institute of Biotechnology (MIB), currently consisted of 7 PhD students. Her group has expertise in fluorine chemistry, structural biology and mechanistic enzymology enables her to drive transformative research into the enzymes and pathways involved in bacterial persistence and antibiotic resistance. This role is funded by the Wellcome Trust Fellowship, involving working in both MIB and Michael Smith Building.

Key Accountabilities

- Conducting individual and collaborative research projects according to the overall needs of the research program.
- Writing up research work for publication.
- Continually updating knowledge and understanding in the field.
- Translating knowledge of advances in the subject area into research activity.
- Liaising effectively with project partners, colleagues and students.
- Communicating complex information, orally, in writing and electronically.
- Using initiative and creativity to identify areas for research, develop new research methods and extend the research portfolio, analyse, interpret research data, and draw conclusions on the outcomes.
- Planning and managing their own research activity in collaboration with others.
- Balancing the competing pressures of research and administrative demands and deadlines.

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• Providing training and support to postgraduate or undergraduate project students and assist in the development of their research skills.	
Person Specification	
Knowledge	
	The successful applicant should have a strong background in microbiology and molecular biology with the knowledge of bacterial pathways, in especially Salmonella and E.coli.
Experience	
	• Practical experience in carbohydrate compounds handling and capsule extraction, natural product separation and purification. • Molecular biology (protein production and purification) • Structural biology (protein X-ray Crystallography or Cryo EM) • Microbiology (Salmonella culturing and assaying) • Experience of supervision and support of PhD or undergraduate project students. •
Skills	
	• Good computer skills – word processing/spreadsheets/presentations/figure making. • Good bioinformatics skills - Sequence Similarity Network web tools • A flexible approach to working with the willingness to travel and work outside normal business hours (if occasionally required). • Ability to work collaboratively and independently towards defined goals with minimal supervision. • Good writing skill for academic publications
Education	
	Candidates should have or expect to attain a PhD (or equivalent) and have a thesis submitted prior to taking up the position.
Other	
Key Behaviours	
One University: A 'One University' approach, whereby we break down silos and work collaboratively towards furthering the University's strategic goals, vision and values.	

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Freedom of Speech and Academic Freedom: Support the University's commitment to securing and actively promoting the importance of free speech and academic freedom within our community.

Service Excellence: Committed to prioritising service excellence and high performance to deliver great people-centred experiences.

Agility: Demonstrate a commitment to agility and continuous improvement by embracing change, championing innovation, and being flexible and forward thinking to adapt.

Sustainability: A sustainable approach that safeguards the University of the future by championing environmental practices, advancing digital capability, and supporting financial stability and philanthropic initiatives.

Inclusion: Support the University's ambition to create an inclusive place to work where every person matters, demonstrating a commitment to non-discriminatory conduct and respect for others, and fostering a University where people feel deeply connected to each other, to Manchester, and to the wider world.

Social Responsibility: Promote and champion the University's social responsibility ambitions to advance social inclusion, prosperous communities, better health, and cultural engagement.