

THE UNIVERSITY OF MANCHESTER**PARTICULARS OF APPOINTMENT****FACULTY OF BIOLOGY, MEDICINE & HEALTH****SCHOOL OF BIOLOGICAL SCIENCES****DIVISION OF EVOLUTION & GENOMIC SCIENCES****RESEARCH TECHNICIAN IN BACTERIAL EVOLUTION/ANTIMICROBIAL RESISTANCE****VACANCY REF: BMH-018573**

Salary:	£24,174 to £27,116 per annum depending on relevant experience
Hours:	35 hours per week
Duration:	Fixed Term from as soon as possible for 2 years
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:

Name: Dr. Danna Gifford

Email danna.gifford@manchester.ac.uk

Context of the role

The research technician position is funded by a 2-year AMS Springboard grant led by Dr Danna R Gifford (DRG).

Overall, the project is aimed at understanding how antibiotic combination therapy can prevent the evolution of antibiotic resistance. The project uses experimental evolution approaches to understand how clinical *E. coli* bacteria evolve resistance to antibiotics via spontaneous mutations. We will use molecular microbiology methods and genome sequencing to determine the genetic bases of phage resistance in evolved bacteria. The research technician at Manchester will work alongside the research fellow (DRG) and postgraduate research students.

The post holder will support a wide range of research activities in the field of microbiology and molecular biology. They will provide technical support with minimal supervision, in a range of project specific research activities including: assisting in research projects and aiding experiments using the equipment, teaching staff and students how to use the instruments and performing routine maintenance. To assist team members in ensuring that staff and students operate safe working practices ensuring health and safety compliance within the laboratories. It is a specialist position requiring a dedicated individual capable of working independently and who enjoys daily technical challenges.

Main Responsibilities

Operational

- Carry out and assist postdoctoral staff and students with microbiology experimental protocols, including bacterial experimental evolution, bacterial growth and fitness measurements, and DNA extraction.
- Assist staff and students in the operation of laboratory equipment.
- Assist in the smooth running of the laboratories including general housekeeping duties.
- Collate and store accurate records using paper and computer based systems and the preparation of data for inclusion in presentations and publications.
- Contribute to the group's progression by providing feedback and input to experimental design and development.
- Assist with monitoring general consumable stock levels and procurement of consumables and equipment. Take delivery of goods and store in accordance with local and statutory guidelines.
- Carrying out risk assessments for the preparation and use of reagents, chemicals, equipment and procedures by self and others in your research group.
- Any other reasonable duties commensurate with the grade

General

Have an understanding of and commitment to promote the University's policies and procedures to support and promote Equality & Diversity.

- To maintain confidentiality of information in line with data protection requirements and University policy.
- To comply with Health and Safety requirements, including having an awareness of personal responsibilities to maintain a safe working environment.
- To contribute to the University's agenda for social responsibility, including sustainability.

Social responsibility (All Staff)

You are expected to display commitment to the University's third strategic goal of social responsibility, where the aim is to make a positive contribution to society through our full range of teaching, research, engagements and operational activities.

- Promote social responsibility.
- Contribute to the delivery of the social responsibility agenda and strategic aims.

Personal Specification

Essential Knowledge, Skills, Experience and Qualifications:

Either

- A qualification at QCF level 6 (such as a bachelor's degree) in a relevant biological science subject.

OR

- QCF level 2 passes (such as GCSE's) in English and Mathematics and at least one Science subject **and** substantial relevant experience of working in a research laboratory.
- Knowledge and experience with standard microbiology techniques (e.g. sterile technique, media preparation, culturing on solid and broth media, antibiotic minimum inhibitory concentration determination).
- Competent computer skills (e.g. data input, email, word processing, spread sheets) and an ability to work with specialised computer programmes associated with laboratory instrumentation (following appropriate training).
- Knowledge of and compliance with relevant Health and Safety regulations, the Data Protection Act, Standard Operating Procedures and risk assessments including COSHH risk assessments.
- Excellent communication skills (written and oral), demonstrating an ability to deal with a wide range of people, effectively and politely with colleagues, staff, students and visitors.
- Excellent organisational skills, ability to prioritise a variety of work activities in a busy environment and meet strict deadlines.
- Experience of working in a team environment and independently within a large organisation, demonstrating an ability to be flexible and provide support for colleagues.
- Willingness to coordinate work activities and scheduling with other group members and to contribute to research group and staff meetings.
- Demonstrates a high level of accuracy and attention to detail.
- Demonstrates numeracy, analytical and problem solving skills with the ability to identify and resolve issues effectively.
- Ability to follow instructions with minimal supervision.
- Ability to work to a high standard with good reproducibility of results.
- Willingness to undertake any necessary training.
- Demonstrable commitment to the University's strategy, vision and values.

Desirable Knowledge, Skills, Experience and Qualifications:

- Higher Education Qualification, such as a bachelors or masters degree, or a Higher National Certificate or Diploma in a relevant science subject.
- Postgraduate research degree or interest in pursuing one (e.g. MRes or PhD).
- Practical experience of working with Hazard Group 2 bacterial pathogens.
- Practical experience in one or more of the following advanced laboratory techniques: e.g. microbial experimental evolution, bacterial phenotyping, measurement of bacterial growth kinetics, PCR and DNA sequencing, genetic manipulation of bacteria.
- Background or interest in evolutionary biology and/or antibiotic resistance/antimicrobial resistance.
- Experience with specific IT packages/software e.g. R statistics, Office software packages.

Expectations and success factors

- To be a proactive team member and treat all colleagues and students with respect in accordance with the established PS Behaviours.
- To be willing to work across organisational boundaries.
- To seek new knowledge and share ideas.

- To be open and responsive to change and innovation.