

Job Title: Research Technician - JPIAMR
Grade: 5
Salary: £26,338 to £30,805 pro rata
Department: Genetics, Genomics and Cancer Sciences
Hours/Contract: Full-time, fixed term contract for 27 months
Job Family: Technical and experimental
Reference: 11594

Role Purpose

The post-holder will be based within the Centre for Phage Research at the University of Leicester.

Multidrug-resistant (MDR) bacterial infections constitute a major challenge, resulting in significant morbidity and mortality. One of the cornerstones of the management of AMR infections is development of antimicrobials. Bacteriophages are viruses that selectively target bacteria and phage therapy has emerged as a potential tool to mitigate the effects of AMR. The possibility of using phages in combination with antimicrobials is largely unexplored although our evidence, and that of others, suggests that phages can improve the efficacy of antibiotics. However, there is limited knowledge about how to combine them.

The aim of this project is to generate pivotal information on how to optimally combine phages and antimicrobials in order to direct roadmaps for clinical use. The work will focus on phage efficacy testing and phage synergy testing using phages to target E-coli and Klebsiella. You will also produce phage stocks for the use by other consortium members of the project across the globe.

Main Duties and Responsibilities

- To perform specialised laboratory experiments to test phage efficacy against *E-coli* and *Klebsiella* in a range of in vitro models
- To perform specialised laboratory experiments again in in vitro settings to determine optimal combinations of phages and antibiotics
- To produce and preserve phage stocks at small and large scale
- To accurately record, present and discuss experimental data with the Project leads.
- To assist with preparation of data that may be subsequently used for publication in scientific papers, grant submissions and presentations at local, national, and international conferences.
- To produce and standardise protocols and assist with the development and validation of new web-based techniques to support the research work, under the guidance of the Project leads.
- To ensure the lab and subsequent lab work is in adherence to Health and Safety regulations
- Assist with any other lab duties as and when required



Internal and External Relationships

- Daily contact with staff at all levels about the execution of duties
- Contact with members of the team based at the University of Leicester for services and collaboration
- Regular contact with supervisor to review and plan research activity
- Communication with other academics, staff, postdocs, PhD students, and technicians within the laboratory and to liaise daily regarding availability of equipment and materials and to exchange information
- Liaise with external collaborators and consortium members to explain progress and milestones

Planning and Organising

- Plan and prioritise research objectives in consultation and under the direction of the Project Lead to meet deadlines
- Plan and conduct own research on a daily and weekly basis and in collaboration with other members of the group.
- Adapt daily and weekly plans to accommodate new developments

Qualifications, Knowledge and Experience

Essential

- Technical or Scientific education to ONC or NVQ3 level*
- Previous laboratory-based experience in working with phages*
- Previous laboratory experience of microbiology*
- Well-developed understanding of good laboratory practice (GLP) and Health and Safety regulations and procedures*
- Maintenance of comprehensive and confidential records, and a methodical approach to working

Desirable

- Experience of working with pathogenic bacteria*
- Experience of testing phage antimicrobial synergies
- Experience of preparing phage stocks
- Specialist knowledge of microbial research field





Skills, Abilities and Competencies

Essential

- Good Laboratory and Microbiological skills*
- Good IT skills to include experience in the use of Microsoft software*
- Excellent analytical and problem-solving skills *
- Excellent written and verbal communication skills *
- Team player who can support the broader research group*
- Ability to prioritise tasks within agreed work schedules*

Desirable

- Experience in working with genomic data and use of basic Bioinformatic tools

****Criteria to be used in shortlisting candidates for interview***

Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

Supporting University Activities

As a University of Leicester citizen, you are expected to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.





University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.

