

Candidate Information

Position:	Research Assistant
School/Department:	Wellcome-Wolfson Inst for Experimental Medicine
Reference:	23/111117
Closing Date:	Monday 21 August 2023
Salary:	£30,619 - £35,308 per annum
Anticipated Interview Date:	Monday 4 September 2023
Duration:	Fixed term for 24 months

JOB PURPOSE:

To join the infection biology team led by Prof Jose Bengoechea in the Wellcome-Wolfson Institute for Experimental Medicine. We focus on understanding how antibiotic resistant infections counteract our defences to inform the development of novel treatments.

This two-year position is a collaborative project between the Bengoechea and Coll laboratories and it involves developing human induced pluripotent stem cell (hiPSC) models of macrophages to dissect the interface between Klebsiella and NLRP3 inflammasome.

This position is suited to a highly ambitious, productive, and collaborative individual.

MAJOR DUTIES:

1. To be actively involved in the existing research programme as directed by the supervisor and to ensure adequate planning and progression of the investigation so that the overall research objectives for the project are met.
2. Design, develop and refine experimental models of using hiPSC-derived myeloid cells to investigate inflammasome signalling.
3. Develop a high throughput screen to investigate inflammasome activation by clinical isolates of Klebsiella pneumoniae.
4. Carry out analysis, critical evaluation, and interpretation using methods and techniques appropriate to area of research.
5. Support the team in collaborative work, to complete milestones of publications, and to generate preliminary data for grant applications.
6. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
7. Prepare, in consultation with supervisor, material for publication in national and international journals and presentations at national and international conferences.
8. Carry out school/undergraduate/post-graduate student and visiting researcher training and supervision under the guidance of a member of academic staff.
9. Carry out routine administrative tasks associated with the research project to ensure that project milestones are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.

ESSENTIAL CRITERIA:

1. Degree in immunology, biochemistry, cell biology, molecular biology, or a relevant biomedical science.
2. Recent and relevant hands-on experience in at least two of the following:
 - Tissue culture.
 - Genetic modification of enteric pathogens.
 - Infection of cells with bacterial pathogens.
 - Assays for measuring innate signalling pathways including Western blotting, ELISAs and cell death assays.
3. Methodical approach to project management and meticulous in regard to experimental procedures and record keeping.
4. Highly ambitious, motivated, efficient, organised and show a commitment to, and interest in, research topic.
5. Competent in maintaining knowledge of cutting-edge of field of expertise.
6. Strong interpersonal skills.

7. Ability to communicate complex information clearly.
8. Competent in giving effective and informative oral and poster presentations.
9. Demonstrable intellectual ability.
10. Strong ability to work from own initiative.
11. Excellent problem-solving skills.
12. Excellent teamwork skills.
13. Must be prepared to work irregular hours including evening, weekend and other out-of-hours work on an ad-hoc basis as required.
14. May be required to travel for training, meetings and conferences on an ad-hoc basis as required.

DESIRABLE CRITERIA:

1. Postgraduate qualification in a relevant area.
2. Experience in flow cytometry, molecular biology techniques such as cloning, immunofluorescence assays.
3. Knowledge of and training in the Human Tissue Act.
4. Original research publications in peer-reviewed journals commensurate with career stage.
5. Experience teaching/supervising undergraduate students and visiting researchers in the laboratory.
6. Research project management experience.
7. Up-to-date knowledge in the field of inflammasome and innate immune signalling pathways.
8. Ability to assess and organise resources.