

Candidate Information

Position:	Research Assistant in Immunobiology
School/Department:	The Wellcome-Wolfson Institute for Experimental Medicine
Reference:	20/108184
Closing Date:	Monday 18 May 2020
Salary:	£28,331 per annum
Duration:	Available for 24 months or until 30 June 2022 (whichever is sooner)

JOB PURPOSE:

To join the inflammasome biology research team led by Dr Rebecca Coll in the Wellcome-Wolfson Institute for Experimental Medicine. We study the fundamental biology of inflammasome signalling pathways in order to inform the development of novel treatments for inflammatory diseases. This two-year position involves developing human induced pluripotent stem cell (hiPSC) models of macrophages and other myeloid cells. CRISPR/Cas9-mediated gene-editing will be employed to investigate the regulation of the NLRP3 inflammasome in these cells. 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. Carry out analysis, critical evaluation, and interpretation using methods and techniques appropriate to area of research.
4. Maintain up-to-date knowledge of the field.
5. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
6. Prepare, in consultation with supervisor, material for publication in national and international journals and presentations at national and international conferences.
7. Carry out school/undergraduate/post-graduate student and visiting researcher training and supervision under the guidance of a member of academic staff.
8. 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.

Planning and Organising:

1. Plan for practical and specific aspects of the research programme.
2. Plan for access to, and use of, research resources, laboratories and workshops where appropriate.
3. Plan own day-to-day activity within the framework of the agreed research programme as well as communal activities (e.g. meetings) where appropriate.
4. Plan in advance to meet deadlines for progress reports, journal publications and presentations for conferences.
5. Coordinate and liaise with other members of the research group and collaborative research groups regarding work progress.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner including liaising with vendors, and routine ordering of research consumables through P2P.
2. Provide guidance as required to support staff and any postgraduate/undergraduate students and visiting researchers who may be assisting with research work within the group.

Internal and External Relationships:

1. Liaise on a regular basis with supervisor and other members of the research team.

2. Make internal and external contacts to develop knowledge and understanding and form relationships for future collaboration.
3. Attend and contribute to relevant meetings.

ESSENTIAL CRITERIA:

1. Degree in immunology, biochemistry, cell biology, molecular biology, or a relevant biomedical science.
2. At least 2 years recent and extensive hands-on experience in at least two of the following:
 1. Culture of iPSCs and/or stem cells.
 2. Genetic modification of iPSCs or other mammalian cell types.
 3. Isolation and culture of primary human cells.
 4. Assays for measuring innate immune 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.