

Candidate Information

Position:	Research Fellow
School/Department:	Wellcome-Wolfson Inst for Experimental Medicine
Reference:	22/109837
Closing Date:	Thursday 23 June 2022
Salary:	£34,304 - £40,927 per annum
Anticipated Interview Date:	Monday 4 July 2022
Duration:	This post is available on a fixed term contract for 36 months or until 31 March 2026, whichever is soonest.

JOB PURPOSE:

This position is for a postdoctoral researcher to join the influenza molecular virology research team led by Dr David Courtney in the Wellcome-Wolfson Institute for Experimental Medicine. We study post-transcriptional regulation of influenza viruses through generous funding from the European Research Council (ERC), project 949506. We have an exciting project aimed at uncovering the role of host post-transcriptional regulatory mechanisms in the viral life cycle of influenza A virus. Our lab has a particular focus on RNA modifications and RNA-binding proteins (PMID: 34066974).

We have previously published on the role of m6A modification of RNAs in influenza A replication (PMID: 28910636), as well as the importance of other RNA modifications for a range of RNA viruses (PMID: 31415754 & 31186331). The successful candidate will use this work as a starting point to better explore the RNA modification landscape of viral and host RNAs during infection, while also characterising the molecular mechanisms by which these modifications elicit their effects on viral replication. There is ample scope within this project for the postdoctoral researcher to also develop their own ideas and explore avenues of interest in relation to viruses and RNA regulation.

The successful candidate will be an integral part of the team and will contribute to the wider ethos of the lab to perform exciting, novel and robust research in the area of molecular virology. This position is suited to a highly ambitious, productive, and collaborative individual and would be an excellent opportunity for a researcher to expand their knowledge of RNA biology and virology.

MAJOR DUTIES:

1. To be actively involved in the existing research programme as directed by Dr Courtney and to ensure adequate planning and progression of the investigation so that the overall research objectives for the project are met.
2. Develop, plan and deliver personal research outcomes under supervision within a research programme aimed at understanding the role of post-transcriptional regulation in the influenza virus replication cycle.
3. Undertake experimental protocols to ensure delivery of experimental data in a timely and rigorous manner and within budget. Where possible, these should be done according to existing Standard Operating Protocols (SOPs) and Good Laboratory Practice-like standards.
4. Prepare and maintain clear laboratory records of methods, sample details and results, both in lab books and in appropriate electronic forms and databases.
5. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
6. Maintain up-to-date knowledge of the field of interest at the cutting edge and communicate this to the group.
7. Provide training to and supervision of other members of the Courtney group in related projects, as required, including PhD, MSc and BSc students.
8. Prepare, in consultation with Dr David Courtney, material for publication in national and international journals and presentations at national and international conferences.
9. Assist Dr Courtney in the preparation of funding proposals and applications to external bodies.

10. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
11. Carry out school/undergraduate/post-graduate student training and supervision under the guidance of a member of academic staff.
12. Carry out routine administrative tasks associated with the day-to-day running of the research group 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.
13. Comply with Health and Safety procedures affecting self and other and ensure Health and Safety practices and abidance to SOPs by lab members are maintained to the highest standards.
14. Carry out any other duties appropriate to the post, as may be reasonably requested by the supervisor.

ESSENTIAL CRITERIA:

1. Have or about to obtain a PhD in Virology, Cell biology, Immunology, or equivalent subject.
2. At least 3 years recent and extensive hands-on lab experience that includes the following:
 - Molecular virology including infection of cell cultures with mammalian viruses then subsequent analysis by Western blotting, qPCR or other molecular methods.
 - A wide range of laboratory techniques appropriate to study host/pathogen interactions.
 - Significant experience with RNA handling.
 - Have led original research that has resulted in a first-author paper in a peer-reviewed journal.
3. Well-developed understanding of relevant regulations and procedures including Health and Safety requirements and of COSHH regulations.
4. Training in respiratory virus laboratory practice and handling.
5. Ability to communicate complex information clearly.
6. Ability to build contacts and participate in internal and external networks.
7. Ability to prioritise own work within a general plan to meet deadlines.
8. Ability to carry out practical laboratory tasks to a consistently high standard.
9. Ability to keep accurate records and provide reports on project progress.
10. Ability to train junior staff and allocate work.
11. Analytical and problem-solving skills.
12. Ability to work in a team and independently.
13. Open to working irregular hours when experiments dictate.

DESIRABLE CRITERIA:

1. PhD in virology, molecular cell biology, virus/host interactions, innate immunity, or similar subjects.
2. Experience of imaging proteins or RNAs in virus infected cells by fluorescent microscopy.
3. Experience researching the role of RNA modifications.
4. Genetic modification of mammalian cell types using CRISPR/Cas9 systems.
5. Experience preparing NGS libraries and analysing raw data.