



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Structural Biology, Astbury Centre for Structural Molecular Biology, Faculty of Biological Sciences



Salary: Grade 7 (£33,199 – £39,609 p.a.) Due to funding limitations, it is unlikely an appointment will be made above £33,199

Reference: FBSAS1027

Closing date: 03 July 2019

Fixed-term for up to 3 years (external funding)

Available from: 1 October 2019

We will consider flexible working arrangements

Research Fellow in Structural Biology, Astbury Centre for Structural Molecular Biology, School of Molecular and Cellular Biology

Are you looking to apply your skills in Structural Biology or in Molecular Virology to gain a new molecular understanding of how influenza virus pandemics emerge? Are you keen to develop new skills in cutting edge electron microscopy and cell imaging techniques?

We are looking for an outstanding postdoctoral research fellow to join the Fontana lab at the University of Leeds. The fellow will be part of a Human Frontier Science Program team that aims to unravel the molecular mechanisms of influenza ribonucleoprotein (RNP) transport from the nucleus to the plasma membrane and assembly into RNP bundles, a process that is critical for reassortment of the viral genome and the emergence of influenza pandemics. This project is a collaboration between experts in the molecular biology of influenza viruses (Naffakh, Institut Pasteur, France), biophysicists (Cisse, MIT, USA), and electron microscopists (Fontana, University of Leeds). The fellow will take advantage of a cellular system, which resembles the natural respiratory tissue targeted by influenza virus (developed by the team at Pasteur) to image influenza virus RNP transport, using cryo-focused ion beam combined with cryo-electron tomography and subtomogram averaging. The fellow will also develop electron microscopy *in situ* hybridization (EMISH) methods to identify individual vRNPs inside the infected cell. The information gathered from these approaches will be combined with dual-colour single molecule fluorescence *in situ* hybridization (FISH) in live cells (developed by the team at MIT).

You must have a PhD (or near to completion - meaning after you have submitted your initial version of your thesis) in molecular virology and/or structural biology and experience in molecular biology of RNA viruses and/or cryo-electron microscopy of macro-molecular complexes.

The University of Leeds and the Faculty of Biological Sciences are committed to providing equal opportunities for all and offer a range of family friendly policies. The University is a charter member of Athena SWAN (the national body that promotes gender equality in higher education), and the Faculty of Biological Sciences was reawarded a Bronze award in 2017. We are proud to be an inclusive Faculty that values all staff, and are happy to consider job share applications and requests for



flexible working arrangements from our employees. Our Athena SWAN [webpage](#) provides more information.

What does the role entail?

As a Research Fellow your main duties will include:

- Designing, planning and conducting a programme of investigation, in consultation with [Dr Juan Fontana](#);
- Generating independent and original research ideas and methods in influenza virus imaging using both visible light and electron microscopy;
- Contributing to scientific discussions within the research team during group meetings, journal clubs and project meetings;
- Keeping up-to-date with relevant literature and attending seminars;
- Making a significant contribution to the dissemination of research results by publication in leading peer-reviewed journals, and by presentation at national and international meetings;
- Working independently and as part of a larger team of researchers, both internally and externally to develop new research links and collaborations and engage in knowledge transfer activities where appropriate;
- Attending courses and workshops to improve skills and personal development;
- Contributing to the supervision of junior researchers and PhD students and acting as a mentor to less experienced colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own research;
- To contribute to, and to encourage, a safe working environment.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.



What will you bring to the role?

As a Research Fellow you will have:

- A PhD (or be near to completion - meaning after you have submitted your initial version of your thesis) in molecular virology and/or structural biology or a related discipline;
- Experience in molecular biology of RNA viruses and/or cryo-electron microscopy of macro-molecular complexes;
- Imagination, creativity and ambition to drive new areas of science and learn new skills and techniques;
- Good data management, analytical and computer skills together with previous experience of using software for analysing data;
- The ability to design, execute and write up experimental work independently as well as a proven ability to work effectively and responsibly without close supervision;
- Experience of successful collaborations and team working;
- A developing track record of peer reviewed publications in international journals;
- Excellent communication skills, both written and verbal and the ability to communicate your research at national and international conferences;
- Good time management and planning skills, with the ability to meet tight deadlines;
- A proven ability to work well both independently and as part of a team;
- Ability to work accurately and carefully;
- A strong commitment to your own continuous professional development.

You may also have:

- Experience in cryo-electron tomography and subtomogram averaging;
- Experience in culture of mammalian cell lines and in the purification of viruses or cellular compartments to address mechanistic questions in biology;
- Evidence of pursuing external funding to support research;
- Experience in public engagement and/or outreach.



How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Your application should include:

- A supporting statement providing evidence to support each requirement listed on the 'What will you bring to the role' section of the Candidate Brief (no more than two sides of A4, minimum font size 11);
- An academic curriculum vitae, including a list of your publications.

Contact information

To explore the post further or for any queries you may have, please contact:

[Dr Juan Fontana](#), University Academic Fellow.

Tel: +44 (0)113 343 34170

Email: j.fontana@leeds.ac.uk

Additional information

Find out more about:

- [Astbury Centre for Structural Molecular Biology](#)
- [Faculty of Biological Sciences](#)
- [School of Molecular and Cellular Biology](#)
- Our [Research](#) and associated [facilities](#)
- Our [Faculty Equality and inclusion and Inclusion](#) initiatives

Working at Leeds

Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our [Working at Leeds](#) information page.



Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

