



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in *In situ* Structural Biology, School of Molecular and Cellular Biology



Salary: Grade 7 (£41,064– £48,822 p.a.)

Reference: FBSAS1089

Available on a fixed-term basis for 3 years (to complete specific time limited work)

This role will be based on the university campus. We are also open to discussing flexible working arrangements.

Research Fellow in *In situ* Structural Biology

School of Molecular and Cellular Biology

Are you an ambitious researcher looking for your next challenge? Do you have an established background in *in situ* structural biology»? Do you want to further your career in one of the UKs leading research intensive Universities?

We seek to appoint a Postdoctoral Research Fellow to the research team led by Prof. Elton Zeqiraj in the Faculty of Biological Sciences at the University of Leeds, Leeds, UK. The position is initially available for 3 years. The successful applicant will undertake *in situ* structural analysis using advanced cryoEM, cryoET and cutting-edge correlative microscopy methods. A major aspect of the post is setting up new pipelines for *in situ* structural biology and cryoET from cell systems using modern techniques to study ribosome quality control mechanisms. In addition, you will resolve the mode of action and target engagement of signalling proteins using signal particle cryoEM and sub-tomogram averaging. The position will suit someone interested in protein structure, *in situ* imaging / structural biology and cell signalling.

The project builds on recent work from the laboratory on quality control mechanisms [1,2] and the mode of action of signalling proteins [3], which the successful applicant will extend into a native cellular context using *in situ* cryoET and correlative imaging.

You should have (or be very close to completing) a PhD in *in situ* Structural Biology, or a related discipline. You should have a strong background in cryoEM, CryoET or related methods, and experience with setting up pipelines for cryoET data processing and/or FIB milling. Experience with *in situ* structural biology is essential.

The Astbury Centre for Structural & Molecular Biology at the University of Leeds has excellent facilities for *in situ* structural biology and is fully equipped for cryo-electron microscopy (two Titan Krios 300 kV with Falcon-4 detectors and Selectris energy filters), FIB-milling (Hydra Bio plasma-FIB) high pressure freezing equipment. Computational resources with dedicated workstations are available in the Zeqiraj laboratory and through high performance computer clusters within the University.

Additionally, the centre has protein crystallography and protein production facilities with expertise in multi-subunit expression in insect cell, yeast and bacterial expression systems. Other facilities provide capabilities for biophysical interactions, including the latest Biacore, MST, Dianshus (Nanotemper), ITC and Mass Photometry instruments. The University provides state-of-the-art infrastructure for insect cell and mammalian cell culture, high-throughput screening, imaging, mammalian genetics, chemical biology and proteomics.



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 successfully renewed its Athena Swan Silver Award in 2025. 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.

References:

1. Makhoul L et al. The UFM1 E3 ligase recognizes and releases 60S ribosomes from ER translocons. *Nature* 627:437–444. [doi:10.1038/s41586-024-07093-w](https://doi.org/10.1038/s41586-024-07093-w) (2024)
2. Krishnamoorthy V et al. The SPATA5–SPATA5L1 ATPase complex directs replisome proteostasis to ensure genome integrity. *Cell* 187(9):2250–2268.e31. [doi:10.1016/j.cell.2024.03.002](https://doi.org/10.1016/j.cell.2024.03.002) (2024)
3. Chandler F et al. Molecular glues that inhibit deubiquitylase activity and inflammatory signaling. *Nature Structural & Molecular Biology* 32(9):1812–1824. [doi:10.1038/s41594-025-01517-5](https://doi.org/10.1038/s41594-025-01517-5) (2025)

Main duties and responsibilities

- Designing, planning and conducting a programme of investigation, in consultation with [Professor Elton Zegiraj](#) and other team leads;
- Generating independent and original research ideas and methods to investigate the structural basis of ribosome quality control mechanisms in vitro and in cells;
- 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;
- 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;
- Contribution to, and encouragement of a safe working environment.
- Evidence of pursuing external funding to support research;



Qualifications and skills

Essential

- A PhD (or close to completion) in Structural Biology (cryoEM/cryoET);
- Substantial experience of solving structures of proteins and protein complexes using cryoEM;
- Experience in using cryoET, or the skills to rapidly learn the techniques, to mill cell/tissue samples and analyse protein structures and cellular effects of protein complexes in situ;
- Significant skills in the use of computational methods applied to the analysis of protein complexes and protein interactions;
- Experience in working with precious samples to address mechanistic questions in biology;
- Excellent data management, analytical and computer skills including using/developing software for analysing complex and large datasets;
- The desire to learn new skills and techniques and the imagination, creativity and ambition to drive new areas of science;
- The ability to design, execute and write up research independently;
- A developing track record of peer-reviewed publications in international journals; undertaking challenging projects, or solving complex scientific questions;
- 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;
- A strong commitment to your own continuous professional development.

Desirable

- Experience of working in the field of ribosomal quality control or ribosome structural biology
- Experience in working ubiquitin signalling or related signalling biology.



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:

Elton Zegiraj, Wellcome Trust Senior Research Fellow and Professor of Structural Biology

Email: e.zegiraj@leeds.ac.uk

Additional information

Find out more about the [Faculty of Biological Sciences](#) and the [School of Molecular and Cellular Biology](#)

At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds. Whatever role we recruit for we are always striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.



Working at Leeds

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Our University

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Biological Sciences we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian, those who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our [How to Apply](#) information page or by getting in touch by [emailing HR via hr@leeds.ac.uk](mailto:hr@leeds.ac.uk)

Salary Requirements of the Skilled Worker Visa Route

If you are not a British or Irish citizen, you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen, this may be your status under the EU Settlement Scheme.

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information, please visit [the Government's Skilled Worker visa page](#).

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit [the Government's page, Apply for the Global Talent visa](#).



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.

