UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Senior Research Technician in Membrane Protein Proteostasis, Faculty of Biological Sciences

Salary: Grade 6 (£32,296 - £37,999 p.a. pro-rata)

Part time: 15 hours per week (0.4 FTE)

Reference: FBSBM1216

Available on a fixed-term basis up to 24 months (to complete specific time limited work)

We are open to discussing flexible working arrangements

Senior Research Technician in Membrane Protein Proteostasis
Faculty of Biological Sciences

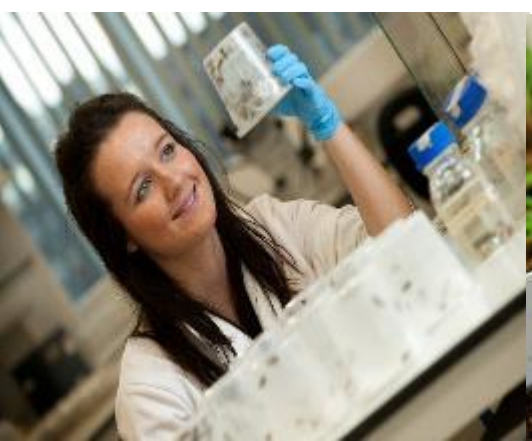
Are you an early career researcher looking for your first challenge? Do you have a background in membrane protein proteostasis research? Do you want to further your career in one of the UK's leading research intensive Universities?

This position provides an exciting opportunity to advance research into the SGTA/BAG6 complex, a key regulator of membrane protein homeostasis. This pathway is crucial in determining whether membrane proteins are properly targeted or degraded, with dysregulation linked to diseases like Alzheimer's, cystic fibrosis, and cancer. The successful candidate will explore the molecular mechanisms governing proteostasis, with a focus on protein triaging, stability, and interactions. Key responsibilities include designing and conducting experiments using advanced molecular biology techniques such as cloning, mutagenesis, and mammalian cell culture, including knockout and knock-in cell line generation. You will investigate protein dynamics using methods like co-immunoprecipitation, pulse-chase assays, and quantitative Western blotting.

Additionally, you will analyse protein stability and interactions through biophysical techniques (e.g., circular dichroism, dynamic light scattering) and utilize mass spectrometry-based approaches (e.g., BioID2) to study protein interactomes. Advanced imaging techniques, such as confocal microscopy, FRAP, and super-resolution methods like PALM, will be employed to visualise cellular processes. The role demands strong organisational skills to ensure data integrity, as well as effective communication abilities for preparing reports and collaborating within a multidisciplinary team. Applicants should have an MSc (or equivalent) in Biochemistry, Molecular Biology, or a related field, with expertise in proteostasis pathways and hands-on experience in protein purification, expression systems, and cell biology techniques. This is an opportunity to contribute to cutting-edge research with significant implications for understanding and treating major diseases.

What we offer in return:

- 26 days holiday (pro-rata) plus approx.16 Bank Holidays/days that the University is closed by custom (including Christmas)·



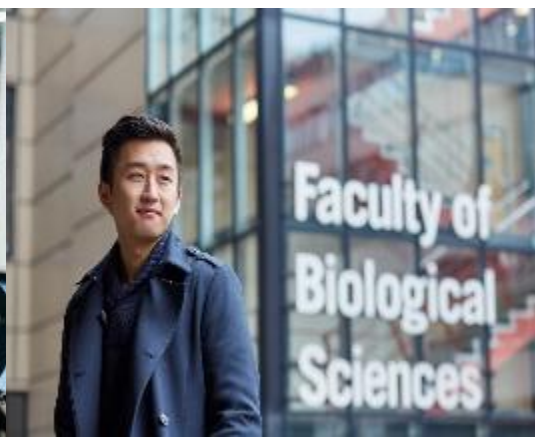
- Generous pension scheme options plus life assurance.
- Health and Wellbeing: Discounted staff membership options at The Edge, our state-of-the-art Campus gym, with a pool, sauna, climbing wall, cycle circuit, and sports halls.
- Personal Development: Access to courses run by our Organisational Development & Professional Learning team.
- Access to on-site childcare, shopping discounts and travel schemes are also available.

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 awarded a Silver award in 2020. 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.

Main duties and responsibilities

- Working with the appointed Research Assistant and co-investigators to plan and conduct experiments using current methodology and developing new techniques as appropriate. These would include (but are not limited to) the following: protein purification and expression in bacterial, insect, or mammalian cells; biophysical techniques such as circular dichroism and dynamic light scattering; mammalian cell culture, including generating knockout or knock-in cell lines; cell biology methods like transfection, siRNA knockdown, overexpression studies, pulse-chase assays, co-immunoprecipitation, and quantitative Western blotting (e.g., LI-COR infrared detection); mass spectrometry-based approaches for protein interactomes (e.g., BioID2); and advanced imaging techniques including confocal microscopy and Fluorescence Recovery After Photobleaching (FRAP).
- Troubleshooting any research methodology or experimental difficulties encountered within the laboratory reporting findings to the PIs.
- Acting as first point of contact for any Health and Safety matters related to the work in the laboratory developing risk assessments for new and existing protocols. This will include responsibility for the induction of new group





members, explaining local laboratory procedures and protocols.

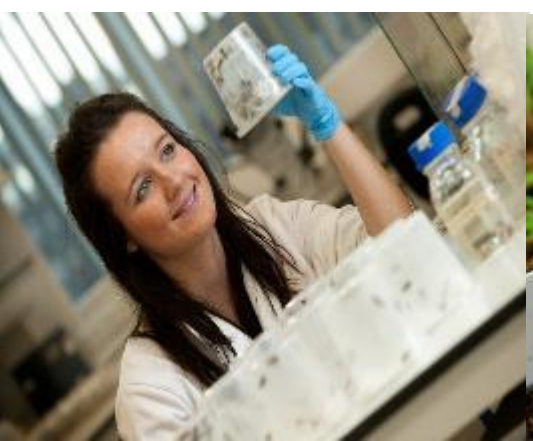
- Maintaining good laboratory records of work carried out and databases of samples held in storage.
- Providing clear understandable data to other members of the research team.
- Supplying information as required to contribute to grant applications and research papers for publication.
- Day-to-day supervision of the laboratory and any junior staff or students working in the area associated with the project.
- Responsibility for the management and maintenance of equipment specifically associated with the project. This will also include ordering of specialist services and supplies.
- Work with the appointed Research Assistant on day-to-day tasks related to running the project. This includes, but not limited to: ordering laboratory supplies, maintaining social media and web page up to date, support/organise Hub events such as seminars, annual conferences, etc.

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.

Qualifications and skills

Essential

- A degree in a relevant subject and recent relevant experience.
- Experience of working with membrane proteins with the ability to perform technically demanding tasks with care and precision.
- Excellent organisational and time management skills, with the ability to manage your own workload, working under pressure whilst maintaining a high level of accuracy.
- The ability to work pro-actively both independently and within a team.
- Demonstrable problem-solving skills and initiative.
- Good verbal and written communications skills, with the ability to clearly articulate and present information, ideas and analysis, modifying your approach to suit different audiences.
- Good IT skills, including use of MS Office software.



Contact information

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

Dr Yvonne Nyathi, Lecturer in Membrane Biology
Email: Y.Nyathi@leeds.ac.uk

Additional information

Find out more about the Faculty of Biological Sciences.

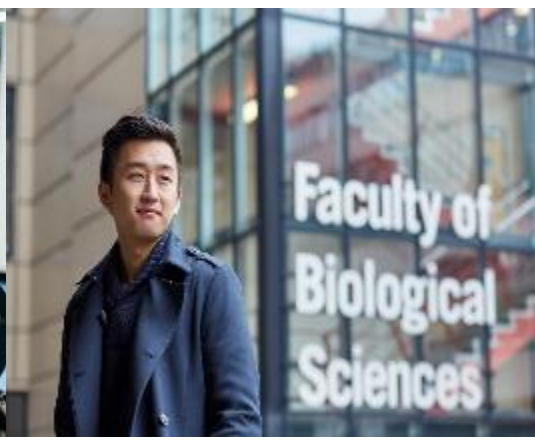
As an international research-intensive university, we welcome students and staff from all walks of life. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Biological Sciences we are dedicated to 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.

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.

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.

Salary Requirements of the Skilled Worker Visa Route
Please note: If you are not a British or Irish citizen, from 1 January 2021 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 and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Please note that due to Home Office visa requirements, this role may not be suitable for first-time Skilled Worker visa applicants due to the limited hours available. 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.

Security checks
Appointment to this post will be subject to appropriate security checks being carried out with your permission by a third-party company.

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.