UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Assistant in Cellular Trafficking, Faculty of Medicine and Health

Salary: Grade 6 (£27,511 to £32,817) A maximum salary of £31,866 p.a can be offered due to funding restrictions.

Reference: MHLCM1200

Closing date: 03 November 2019

Fixed term for 2 years

Research Assistant in Cellular Trafficking
Faculty of Medicine and Health
Leeds Institute of Cardiovascular and Metabolic Medicine

Are you an early career researcher looking for your first challenge? Do you have laboratory experience in cell biology/cellular trafficking/Super-Resolution microscopy? Do you want to further your career in one of the UK's leading research intensive Universities?

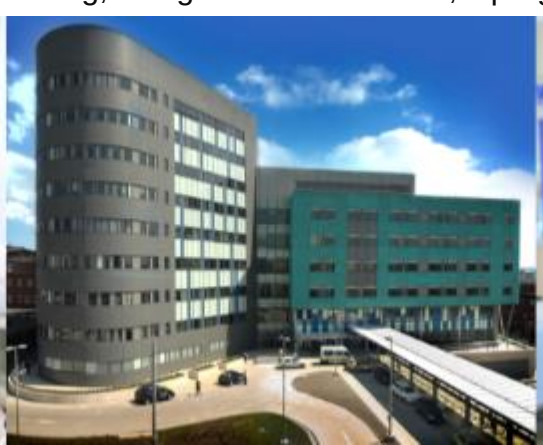
A two year position is available for a highly motivated research assistant to work with Dr Lynn McKeown on her MRC funded research grant to address a fundamental gap in our understanding of the role of perturbed cellular degranulation in inflammation.

The specific objective of this research position is to determine the mechanisms underlying mast cell degranulation in response to various stimuli, with specific emphasis on the role of Rab GTPases. First, we will use Super-Resolution microscopy in order to establish a role for Rab46 in granular trafficking. The research assistant will investigate Rab46 localisation and granular kinetics in response to human mast cell stimuli (IgE, TLR ligands, ATP, C3a and appropriate controls). Rapid kinetics will be observed in live cells overexpressing GFP-Rab46 using iSIM. In addition, overexpression of any exonic Rab46 variants (identified in corresponding patient genetic studies) will be used to analyse the effect of the mutation on granular trafficking. The research assistant will also perform quantitative immunoassays and other biochemical analyses on mast cells extracted from mouse Rab46 -/- mast cells to determine the effect of Rab46 on the selective release of granule contents. Collectively the results from this work will lead to 1) enhanced understanding of what drives mast cell degranulation, 2) novel targets to intervene to prevent perturbed degranulation and 3) further understanding of the role of mast cells in inflammatory diseases.

What does the role entail?

As Research Assistant your main duties will include:

- Working with and supporting Dr Lynn McKeown's MRC funded research grant to ensure the project is successfully completed;
- Designing and planning, along with Dr McKeown, a programme of investigation


- Working both independently and as part of a larger team of researchers and stakeholders;
- Supporting research activities, including contributing to research results and outputs and to the generation of independent and original ideas, ensuring a successful programme of investigation;
- Collating and analysing data and ensuring appropriate techniques and methods are used;
- Participating in the research group and presenting research output where appropriate;
- Contributing to the research culture of the School, where appropriate;
- Continually updating your knowledge, understanding and skills in the research field.

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 Research Assistant you will have:

- A PhD (or passed PhD with minor corrections at the point of application) in mammalian cell biology and microscopy or a closely allied discipline;
- A strong background in using Super-Resolution and Deconvolution microscopy including DeltaVision and AiryScan and knowledge of quantitative image analyses;
- Excellent cell culture techniques and the ability to extract, identify and maintain primary cells from mice;
- Demonstrate proficiency in biochemical techniques including - immunoprecipitation, immunoassays, mass spec analyses, qPCR, western blotting, ELISAs
- Good interpersonal and communication skills, both written and verbal and the ability to communicate effectively with a wide range of stakeholders;
- Well-developed analytical skills;
- Good time management and planning skills, with the ability to meet tight deadlines;



- A proven ability to work well both individually and in a team;
- Track record of presentations at National and International conferences
- Track record of publication of peer reviewed research
- The ability to work unsupervised and to use your own initiative.

You may also have:

- A track record of successful grant income e.g. small travel awards;
- Record of supervision of students (both undergraduate and postgraduate);
- Knowledge of mast cell biology.

You will report to Dr Lynn McKeown, University Academic Fellow and Principal Investigator.

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.

Contact information

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

Dr Lynn McKeown, University Academic Fellow, Principal Investigator
Tel: +44 (0)113 343 9912
Email: l.mckeown@leeds.ac.uk

Additional information

Find out more about the Faculty of Medicine and Health

Find out more about Leeds Institute of Cardiovascular and Metabolic Medicine (LICAMM).

Find out more about Athena Swan in the Faculty.



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.

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 (Exceptions) Order 1975
This post requires a basic criminal record check from the Disclosure and Barring Service (DBS), and any equivalent overseas authorities where relevant. The successful candidate will be required to give consent for the University to check their criminal record status. All applicants are required to make a self-declaration where applicable.

Any offer of appointment will be subject to the University being satisfied with the outcome of these checks, in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.