



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Mechanistic Cell Biology, Faculty of Biological Sciences



Salary: Grade 7 (£33,199 – £39,609 p.a.) Due to funding limitations it is unlikely that an appointment will be made above £35,211 p.a.

Reference: FBSMB116

Closing date: 09 August 2019

The post is available from: 01 September 2019

Fixed-term basis for 3 years

Research Fellow in Mechanistic Cell Biology

School of Molecular and Cellular Biology, Faculty of Biological Sciences

Are you an ambitious researcher looking for your next challenge? Do you have an established background in cell biology and biochemistry? Do you want to further your career in one of the UKs leading research intensive Universities? Do you have an interest in understanding the molecular basis of autophagy regulation?

Based in state-of-the-art laboratory space, and under the supervision of [Dr. Natalia Riobo-Del Galdo](#) you will work on a project which aims to understand “the molecular mechanism of regulation of autophagy by the Hedgehog pathway receptor and tumor suppressor PTCH1”, funded by a BBSRC project grant.

The project aims to uncover how PTCH1’s biochemical activity as a cholesterol transporter can impair the last stage of autophagy. This project will rely heavily in cell culture, using transfection, shRNA-mediated silencing, CRISPR/Cas9 genome editing and pharmacological treatments. This will require the generation of mutant variants of PTCH1 and other cholesterol handling proteins, as well as performing in vitro biochemical assays, expression and purification of proteins from *E. coli*, pulldown assays, western blotting (WB), adeno and retrovirus generation. Live and fixed cell confocal imaging techniques will be performed to detect cholesterol and pH changes with fluorescent reporters subcellularly in autolysosomes and lysosomes and colocalization of candidate proteins in autophagosomes.

You should have or be close to completing a PhD in cell and/or molecular biology or biochemistry of transporter proteins. You will have extensive practical experience in imaging, cell culture techniques, and biochemical assays. Previous work in autophagy and/or lysosomal storage disorders is required. Knowledge of protein purification, cholesterol handling or Hedgehog signalling is desirable, but not essential.

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 Natalia Riobo-Del Galdo](#);
- Generating independent and original research ideas and methods in autophagy regulation in cancer with an aim to extend the research portfolio;
- 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;
- 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 near to completion - meaning after the student has handed in the initial version of their thesis) in cell and/or molecular biology or in biochemistry of transporter membrane proteins or a closely allied discipline;
- A background in autophagy and/or lysosomal storage disorders;
- Experience in cancer cell biology;



- Knowledge of imaging techniques, cell culture, genome editing and/or overexpression and silencing of proteins in mammalian cells;
- Knowledge in biochemical and molecular biology methods (western blotting, immunoprecipitation, cloning, PCR-directed mutagenesis, etc.);
- The ability to design, execute and write up research independently;
- 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 protein purification, cholesterol handling or Hedgehog signalling;
- Evidence of pursuing external funding to support research.

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 Natalia Riobo-Del Galdo](#), Group Leader – The Hedgehog Lab

Tel: +44 (0)113 343 9184

Email: n.a.riobo-delgaldo@leeds.ac.uk

Additional information

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

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.

