



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Ion Channel Pharmacology, Faculty of Biological Sciences



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

Reference: FBSBM1233

Available from 01 September 2026 on a fixed-term basis for a maximum of 2 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.

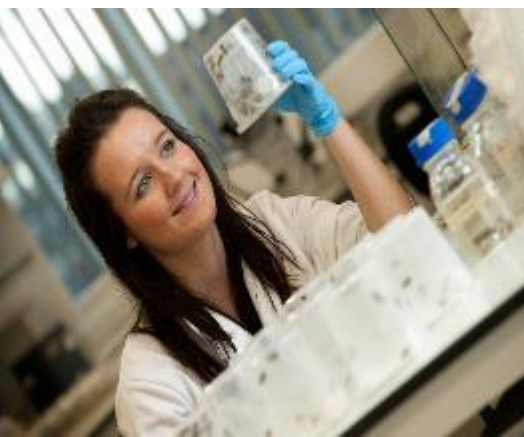
Research Fellow in Ion Channel Pharmacology School of Biomedical Sciences

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

We are researching pharmacological treatments for KCNT1-associated childhood epileptic disorders, for which there is presently no effective therapy. KCNT1 mutations cause an increase in KNa1.1 potassium channel activity and we have used protein structure-based virtual screening to identify novel potassium channel inhibitors. The research builds on our previous work in this area (see Cole et al., 2020, *iScience* and Caseley et al., 2026, *Eur. J. Med. Chem.*) and aims to progress hit candidates to lead molecules for further development as a drug. We are looking for a candidate with experience in ion channel function or pharmacology who would like to apply their expertise in the discovery of potential treatments for a rare neurological disorder. The role, funded by Great Ormond Street Hospital Children's Charity, will involve pharmacological characterisation of KNa1.1-inhibiting molecules using fluorescence microplate reader assays, manual and automated patch clamp electrophysiology. The successful candidate will play a key role in advancing our understanding of how compounds inhibit potassium channels, and which chemical properties determine their potency and selectivity. Our interdisciplinary project team includes Dr Jonathan Lippiat (ion channel biology), Dr Katie Simmons (medicinal chemistry), and Dr Martin McPhillie (medicinal chemistry).

You should have a PhD (or close to completion) in ion channel research or a closely allied discipline with experience in patch clamp electrophysiology and mammalian cell culture.

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 re-awarded a 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.



Main duties and responsibilities

As Research Fellow your main duties will include:

- Designing, planning and conducting a programme of investigation, in consultation with the supervisory team;
- Generating independent and original research ideas and methods in ion channel research with an aim to extend our 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;
- Contributing to and encouraging a safe working environment and contributing to routine laboratory housekeeping duties.

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 PhD (or close to completion) in ion channel research or a closely allied discipline;
- Experience in electrophysiology or fluorescence ion channel assays;
- Experience in mammalian cell culture;
- Experience in multi-well plate ion channel assays;
- 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;
- Ability to work accurately and carefully both individually and as part of a team;
- A strong commitment to your own continuous professional development.

Desirable

- Experience in molecular biology, transfection, or other gene-delivery methods;
- Experience in molecular modelling and compound docking;
- Experience of engaging with patient groups;
- Experience of designing outreach and public engagement events to disseminate your research to a more general audience;
- 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 Katie Simmons

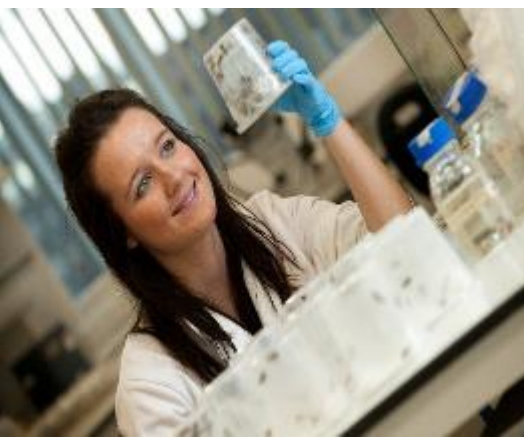
Tel: +44 (0)113 343 6551

Email: k.j.simmons@leeds.ac.uk

Dr Jonathan Lippiat

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Additional information

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

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.

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).

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.

Salary Requirements of the Skilled Worker Visa Route



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: www.gov.uk/skilled-worker-visa.

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>

Please note: 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.

