UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Membrane Protein Structural Biology

Faculty of Biological Sciences

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

Reference: FBSBM1119

Closing date: 14 July 2019

Available for a fixed-term of 3 years

Research Fellow in Membrane Protein Structural Biology
School of Biomedical Sciences

Are you an ambitious researcher looking for your next challenge? Do you have an established background in structural biology of membrane proteins? Are you interested in ion channels and mechanical sensing? Do you want to further your career in one of the UKs leading research intensive Universities?

Applications are invited to conduct research investigating the structure and function of mechanosensitive ion channels. These systems form pores in the cell membrane and allow the passage of molecules in response to membrane tension.

A multi-disciplinary approach combining molecular/chemical (cloning, recombinant expression and purification), structural (CryoEM and PELDOR/DEER spectroscopy), functional (Electrophysiology) and computational (MD simulations) methods will be employed to investigate gating of these systems and characterise their unique states. CryoEM facilities in the Astbury Centre at University of Leeds are state-of-the-art, including 2 x Titan Krios 300keV electron microscopes. The project will also involve trips to the St Andrews and Manchester EPR facilities for PELDOR/DEER experiments.

We are seeking a highly motivated and talented individual interested in undertaking a challenging and exciting 3 year BBSRC-funded post in the laboratory of Dr Christos Pliotas. The project aims at obtaining and solving novel CryoEM structures of mechanosensitive ion channels in distinct conformational states. Dynamics will be interrogated by PELDOR/DEER and MD within lipid/native environment and function will be assessed by single molecule electrophysiology.

You should have a PhD (or close to completion) in Molecular/Structural Biology, Biochemistry, Biophysics or a closely allied discipline; with significant experience in expression, purification and structural biology of membrane proteins and ion channels.

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 Christos Pliotas;



- Generating independent and original research ideas and methods in structural biology and biophysics of ion channels with an aim to extend the Pliotas Group 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.

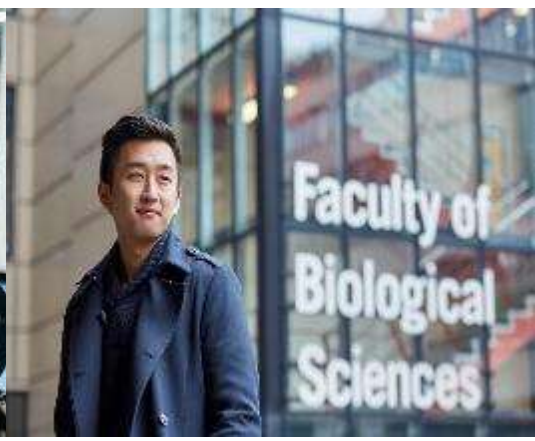
These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow you will have:

- A PhD (or close to completion) in Molecular/Structural Biology, Biochemistry, Biophysics or a closely allied discipline;
- Experience in expression and purification in structural biology of membrane proteins;
- A developing track record of peer reviewed publications in international journals;
- Strong analytical skills, with the ability to work accurately and carefully, designing, executing and writing up research independently;
- Excellent communication skills, both written and verbal and the ability to communicate your research at national and international conferences;
- The ability to work well both independently and as part of a team;
- Strong initiative and a pro-active approach, with excellent organisational, planning and self-management skills, including the ability to prioritise workloads to meet deadlines/demand and deliver high quality under pressure;
- A strong commitment to your own continuous professional development.





You may also have:

- Experience in patch-clamp electrophysiology;
- Experience in EPR (PELDOR/DEER) spectroscopy;
- Experience in CryoEM;
- 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 Christos Pliotas, Lecturer in Integrative Membrane Biology
Tel: +44 (0)113 343 1229
Email: C.Pliotas@leeds.ac.uk
University Profile
Twitter: https://twitter.com/PliotasGroup

Additional information

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.

Find out more about the Faculty of Biological Sciences and the School of Biomedical Sciences

Find out more about the Astbury Centre for Structural Molecular Biology

CryoEM facilities in the Astbury Centre for Structural Molecular Biology, University of Leeds are world-leading, with a recent £17 million investment within the centre for advanced structural biological research equipment, including 2 x Titan KRIOS 300keV electron microscopes for CryoEM. The project will also involve trips to the St Andrews and Manchester EPR facilities, which are truly world-leading (Bruker E580 pulse X-Band, Bruker E580 pulse X/Q-band and a home-built pulse W-band (HIPER/St Andrews).

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.