1 Advertisement

**Post Title:** Research Fellow in Neuroscience  
**School/department:** School of Life Sciences  
**Hours:** full time or part time hours considered up to a maximum of 1.0 FTE. Requests for flexible working options will be considered (subject to business need). To deliver the project in the remaining time of funding we require full time hours or part time hours of no less than 0.8 FTE.  
**Contract:** fixed term for 12 months  
**Reference:** 3021  
**Salary:** starting at £33,797 and rising to £40,322 per annum (pro rata if applicable)  
**Closing date:** 19 January 2020. Applications must be received by midnight of the closing date.  
**Expected start date:** as soon as possible

The School of Life Sciences is at the forefront of research in the biological sciences in the UK, coming in the top 10 in the REF 2014. We wish to appoint a postdoctoral research Fellow. This position is available now in the laboratory of Prof Leon Lagnado in the Neuroscience Centre at Sussex University, to study calcium signalling and ion channel/receptor properties.

We have resources and experience to investigate ion channel properties and calcium signalling using molecular and cell biology, fluorescence imaging, biochemical approaches and patch-clamp electrophysiology.

Applicants must have a completed their studies in a relevant Ph.D/D.Phil. Experience in molecular and cell biological methods and in particular fluorescence microscopy methods is essential.

Enquiries should be made to Leon Lagnado and Ruth Murrell-Lagnado at (R.Murrell-Lagnado@sussex.ac.uk).

*The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds*

The School is committed to equality and valuing diversity, and currently holds an Athena SWAN Silver Award. Applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex. The School of Life Sciences welcomes applications to academic posts from candidates who wish to work part-time or as job-sharers.
The University offers various schemes to provide real benefits to parents, these can be found at Family Friendly Policies.

Applications should be accompanied by a full CV, a statement of research interests and aspirations (not more than 4 pages), and the names of three academic referees. [Optional]

For full details and how to apply see our vacancies page.
2. The School/Division

The School of Life Sciences is the largest School in the University in terms of research activity with an annual research income of over £13m, and one of the largest in terms of student and staff population. The School has a teaching and research faculty of nearly 80, over 150 research fellows and technicians, and a small professional services team. Life Sciences have played a major role in the research and teaching of the University of Sussex since 1961. The original School of Biological Sciences (BIOLS), founded by John Maynard Smith FRS, trained some of the world’s leading biologists and biomedical scientists, and was a beacon of innovation and creativity in its integrated approach to research and teaching.

The current School of Life Sciences was formed in 2009 when Professor Laurence Pearl FRS was appointed as founding Head of the new School. Under his leadership the School adopted a unified structure with no formal departments. Instead there are six research Subject Groups – Neuroscience; Evolution, Behaviour and Environment; Genome Damage and Stability; Biochemistry and Biomedicine; Chemistry and the Sussex Drug Discovery Centre. Each research subject group is chaired by a prominent scientist, who is responsible for research leadership in their subject. The School currently has six Fellows of the Royal Society (FRS) and seven Fellows of the Academy of Medical Sciences (FMedSci) on its Faculty.

Professor Sarah Guthrie was appointed Head of School in September 2017, and the School will continue to develop under her leadership.

The School admits nearly 600 undergraduates each year on to a range of BSc and MSci degrees, with around 75 students on post-graduate taught degrees in Genetic Manipulation and Cell Biology, Cancer Cell Biology and Neuroscience. Taught programmes are firmly based on our research excellence, and offer students substantial opportunities for personal research experience along with conventional lecture, seminar and tutorial teaching. We offer 3-year BSc and 4-year integrated Masters degrees (MSci) in Biochemistry, Biomedical Science, Biology, Ecology, Genetics, Neurosciences, and Zoology, and Royal Society of Chemistry accredited BSc and MChem degrees in Chemistry and Chemistry and Drug Design. We also offer a Foundation Year in Biological Sciences which is ideally suited for students whose A-level (or equivalent) qualifications don’t meet the requirements for direct entry on to our BSc/Masters degrees.

We have a large and vigorous post graduate research community with over 170 PhD students undertaking cutting-edge research across all our areas of interest. As well as standard PhD programmes in all the Subject Groups, we also offer a highly interdisciplinary 4-year Neurosciences PhD incorporating a first year with laboratory rotations, run in partnership with the Schools of Psychology and Engineering and Informatics, and the Brighton and Sussex Medical School.

In the REF2014 more than 96% of the School’s research was rated as ‘world leading’, ‘internationally excellent’, or ‘internationally recognised’. Our Biological Sciences research in particular was ranked 10th in the UK overall, and 8th on quality of our research outputs – putting us comfortably above the majority of Russell Group institutions.
3. Job Description and Person Specification

Job Title: Research Fellow in Neuroscience
Grade: Research Fellow I, Grade 7
School: School of Life Sciences
Location: Level 5 CRPC
Responsible to: Principal Investigator through to Head of School
Direct reports: n/a
Key contacts: Members of research group, members of faculty within the School and University.

Role description: Research Fellow I is an early career-grade research position. Post-holders will be expected to contribute to the work of the research team, and also to develop their research skills with support from more experienced members of staff.

PRINCIPAL ACCOUNTABILITIES

1. To engage in individual and/or collaborative research activity resulting in high-quality publications; and to develop research funding and knowledge exchange income individually or in collaboration with others, as appropriate, depending on the size and scope of the bid.

2. To contribute to School teaching activities.
KEY RESPONSIBILITIES

1. **Research, Scholarship & Enterprise**

   1.1 Develop research objectives and proposals for own or joint research, at acceptable levels, with assistance if required.

   1.2 Conduct research projects individually and in collaboration with others.

   1.3 Analyse and interpret research findings and draw conclusions on the outcomes.

   1.4 Produce high-quality research outputs for publication in monographs or recognised high-quality journals, or performance/exhibition, as appropriate, and contribute to the School’s REF submission at acceptable levels of volume and academic excellence.

   1.5 Contribute to the preparation of proposals and applications to external bodies, for example for funding purposes.

   1.6 Individually or with colleagues, explore opportunities for enterprise activity, knowledge exchange income and/or consultancy, where permissible.

   1.7 Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.

   1.8 Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2. **Teaching & Student Support**

   2.1 Undertake teaching duties, if required.

   2.2 Assist in the assessment of student knowledge and supervision of student projects if required.

   2.3 Assist in the development of student research skills, for example as part of a postgraduate supervision team.

3. **Contribution to School & University**

   3.1 Attend and contribute to relevant School and project meetings.

   3.2 Undertake additional duties, as required by the Principal Investigator and/or Head of School.
4. **Role-specific duties**

4.1 Design and execution of molecular cloning experiments and mutagenesis and tagging of recombinant ion channel subunits and calcium reporter proteins

4.2 Cell culture of primary neurons and transfection of cells to express recombinant proteins

4.3 Confocal and Total Internal Fluorescence Microscopy to analyse spatial and temporal patterns of calcium signalling events and ion channel localization.

4.4 Western blot experiments to analyse protein expression.

4.5 Assist with general running of the lab

**PERSON SPECIFICATION**

**Essential Criteria**

1. Normally educated to doctoral level, or other equivalent qualification, or appropriate level of experience, as appropriate to the discipline (see role-specific criteria below).

2. Evidence of engagement in high-quality research activity.

3. Excellent presentation skills, with the ability to communicate effectively, both orally and in writing, with students, colleagues and external audiences.

4. Ability to work individually on own initiative and without close supervision, and as part of a team.

5. Ability to exercise a degree of innovation and creative problem-solving.

6. Excellent organisational and administrative skills.

7. Ability to prioritise and meet deadlines.

8. Excellent IT skills.

**Essential Role Specific Criteria**

1. Design and execution of molecular cloning experiments and mutagenesis of recombinant potassium channel subunits

2. Preparation of neuronal cell cultures and transfecting neurons and mammalian cell lines using appropriate transfection reagents
3. Studying calcium signalling and receptor trafficking using confocal and TIRF microscopy

4. Western blot analysis of receptor expression and trafficking through the secretory pathway.

5. Assist with general running of the lab

Desirable Criteria

1. Emerging track record of high-quality publications in reputable journals and other appropriate media of similar standing.

2. Experience of generating research or knowledge exchange income.