1. Advertisement

Post Title: Research Fellow in Insect Electrophysiology  
School: School of Life Sciences  
Hours: full time or part time hours considered up to a maximum of 1 FTE. Requests for flexible working options will be considered (subject to business need).  
Contract: fixed term until 31 December 2022  
Reference: 3194  
Salary: starting at £33,199 per annum.  
Closing date: 11 February 2020  
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 are seeking to appoint a postdoctoral research fellow to work on BBSRC funded project See and be seen: Understanding trade-offs in bioluminescent signalling and how it is affected by artificial lighting at night. This is a joint project between researchers at the School of Life Sciences, University of Sussex and researchers at the Centre for Ecology and Hydrology (CEH), Wallingford. The primary aim of the project is to understand how artificial lighting at night (ALAN) affects animals at the behavioural, physiological, and population levels. We will use glow worms as an indicator species, a proverbial ‘canary in the mine’.

The post holder will be supervised by Prof. Jeremy Niven (Project Lead, School of Life Sciences), and will work closely with other members of the research team including Dr Alan Stewart, and Prof. Jörn Scharlemann. The post holder will also work closely with our collaborators at CEH and stakeholders including the Wildlife Trust and the South Downs National Park. The post may involve local travel to these and other stakeholders.

Key requirements
This post is suitable for someone who has completed a PhD/DPhil in neuroscience, physiology or an allied discipline, and has extensive experience of using electrophysiological techniques. Previous experience of working computational models of neurons would be a distinct advantage. The candidate should be able to demonstrate that they have excellent communication and presentation skills, enthusiasm for the project, experience of quantitative analysis, and the ability to organise and motivate others flexibly/confidently whilst working within an academic team setting.

For more information, please email Prof. Jeremy Niven (j.e.niven@sussex.ac.uk).

Please include with your completed application form a CV, a cover letter indicating your suitability, motivations and aspirations, and the contact details of two referees.
The School of Life Sciences 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.

For full details and how to apply see our vacancies page.

_The University of Sussex values the diversity of its staff and students and we welcome applicants from all backgrounds_
2. The School of Life Sciences

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; it has 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 five Fellows of the Royal Society (FRS) and six 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 University has committed to building a new research building, which will bring life scientists from all disciplines together. Planning for this building has been approved.

The School admits more than 600 undergraduates each year on to a range of BSc and MSci degrees, with around 80 students on post-graduate taught degrees in Genetic Manipulation and Cell Biology, Cancer Cell Biology, Neuroscience and several postgraduate degrees in Conservation and Ecology. 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 offer an MPharm degree which has passed stage 5 of accreditation. 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 160 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.

The University of Sussex is a medium sized research intensive University based on a single campus in Falmer, just outside Brighton in East Sussex.

4. Senior Leadership and Management
The Vice-Chancellor (Professor Adam Tickell) is the senior academic officer and, as Chief Executive, is responsible to the University Council for management of the University. He is supported by an executive group which includes the three Pro-Vice-Chancellors, the Registrar and Secretary, the Director of Finance and the Director of Human Resources. The Heads of the Schools of Studies at Sussex report to the Pro-Vice-Chancellors.

The Registrar and Secretary heads the Professional Services of the University. In addition, under the University Statutes, the Registrar and Secretary is Secretary to the University Council. The Director of Finance reports to the Vice-Chancellor. The Director of ITS reports to the Registrar and Secretary, and the Librarian reports to one of the Pro-Vice-Chancellors.
5. Job Description and Person Specification

Job Title: Research Fellow in Insect Electrophysiology
Grade: Research Fellow I, Grade 7 (spine point 30)
School: Life Sciences
Location: CRPC, School of Life Sciences, EBE Division, CRPC, BN1 9QG, Brighton.

Responsible to: Principal Investigator through to Head of School
Direct reports: n/a
Key contacts: Prof. Jeremy Niven, Dr Alan Stewart, Prof. Jörn Scharlemann

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

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.

KEY RESPONSIBILITIES

1. Research, Scholarship & Enterprise
   - Develop research objectives and proposals for own or joint research, at acceptable levels, with assistance if required.
   - Conduct research projects individually and in collaboration with others.
   - Analyse and interpret research findings and draw conclusions on the outcomes.
   - 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.
   - Contribute to the preparation of proposals and applications to external bodies, for example for funding purposes.
   - Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.
   - Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2. Contribution to School & University
   - Attend and contribute to relevant project and university meetings.
   - Undertake additional duties, as required by the Principal Investigator.
3. Role-specific duties

- Design and execute electrophysiological recordings from photoreceptors and compound eyes.
- Design and execute physiological recordings of whole animal metabolic rate.
- Design and execute behavioural and ecological experiments.
- Statistically analyse quantitative data.
- Assist with general running of the project.

INDICATIVE PERFORMANCE CRITERIA

- Pursuing a line of independent research within a research group.
- Presenting research linked to the project at conferences and/or workshops.
- Publishing research linked to the project in internationally recognised journals.
- Other forms of externally recognised professional practice of creative output of a standing equivalent to regular publication of original research.
- Initiating, developing or participating in the development of new applications to obtain grant funding.

PERSON SPECIFICATION

ESSENTIAL CRITERIA

1. Educated to the 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 under 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. Outstanding verbal and written communication skills.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. Design and execution of electrophysiological recordings from single neurons.

2. Analysis of recordings from single cell electrophysiology.

3. Statistical analysis of quantitative data obtained from electrophysiology.
4. Design, execution and analysis of experiments.

5. Interpretation of quantitative and qualitative research findings.

DESIRABLE CRITERIA

1. Excellent IT (word processing, database etc.) skills.

2. Prior experience of working with mathematical/computational models of neurons.

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

4. Experience of using Matlab or an equivalent programming language.

5. Experience of using R or an equivalent statistical programming language.