1   Advertisement

Post Title: Research Assistant in Neuroscience
School/department: Life Sciences/Neuroscience
Hours: part-time considered up to a maximum of 0.5 FTE / 18.25 hours
Requests for flexible working options will be considered (subject to business need).
Location: Brighton, United Kingdom
Contract: fixed term 12 months
Reference: 20977
Salary: starting at £32,411 to £36,333 per annum, pro rata if part-time
Placed on: 26 June 2023.
Closing date: 31 July 2023. Applications must be received by midnight of the closing date.
Expected Interview date: To be confirmed.
Expected start date: 01.09.2023 (flexible)

The Schroeder Lab at the University of Sussex, UK, offers a part-time position (50%) for a Research Assistant funded by the BBSRC for the duration of 1 year.

The lab's goal is to determine how the brain integrates visual information with information about behaviour and internal states like arousal. Ultimately, we want to understand the purpose of integrating visual with behavioural and internal state information and how it benefits visual processing and the animal's behavioural demands. In our studies, we use mice as animal model and focus on visual processing in the superior colliculus, the retina and visual cortex. We use two-photon imaging and electrophysiology with silicon probes (Neuropixels probes) to record activity of hundreds of single neurons in awake mice. At the same time, we measure the behaviour of the mice and relate it to the neural activity.

In your role, you will primarily support team members in the lab to conduct their research activity, but you will also be able to develop your own skills and experience. The support role includes:

- the management and care for our mouse colonies (breeding, health checks, data management)

- keeping stock of lab consumables and managing purchase orders depending on the needs of lab members

- training mice in behavioural tasks

- assisting in the performance of experiments with mice including the recording of neural activity using two-photon imaging and electrophysiology

- assisting and performing lab work like histology, imaging brain tissue, preparing solutions

Depending on your interests and skills and on available time, you may learn and take on further tasks such as performing brain surgery on mice, processing and analysing experimental data, developing and building experimental equipment, and performing small

research projects.

The integration of the lab within [Sussex Neuroscience](#) gives you the opportunity to collaborate and benefit from the excellent expertise of other labs in fields like the visual and other sensory systems, mouse behaviour, techniques of two-photon imaging and electrophysiology, and computational neuroscience.

The Schroeder lab is located just outside the vibrant city of Brighton at the coast of South East England, one hour away from London. The campus of Sussex combines award-winning architecture with green open spaces and is surrounded by the South Downs National Park.

Please contact Dr. Sylvia Schröder (s.schroeder@sussex.ac.uk) for informal enquiries.

The University is committed to equality and valuing diversity, and 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.

Please note that this position may be subject to [ATAS clearance](#) if you require visa sponsorship.

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 / Division

Please find further information regarding the school/division at
http://www.sussex.ac.uk/lifesci/ and http://www.sussex.ac.uk/lifesci/neuroscience/

3.   Job Description

Job Description for the post of: Research Assistant in Neuroscience

Department: Neuroscience

Section/Unit/School: Life Sciences

Location: CRPC building, University of Sussex

Grade: Research Assistant, Grade 6

Responsible to: **Dr. Sylvia Schröder (Principal Investigator)**

Responsible for: Research Assistant is a pre-Doctoral 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 observe and assist with individual and collaborative research activity and contribute to the production of research outputs for publications.

KEY RESPONSIBILITIES

1. Research & Scholarship

1.1 Liaise with research colleagues to assist them with their research activity.

1.2 Conduct research activity, for example by preparing, setting up, and conducting experiments, under supervision of the Principal Investigator and in collaboration with others.

1.3 With support from the Principal Investigator, develop research objectives and contribute to the planning of research projects.

1.4 Assist with the analysis and interpretation of research findings and contribute to discussions on conclusions and outcomes.

1.5 Contribute to the writing of reports and other dissemination activities under the supervision of experienced researchers.

1.6 Present information on research progress and outcomes to relevant bodies under the supervision of the Principal Investigator.

1.7 Plan own day-to-day research activity within the framework of the agreed programme. Co-ordinate own work with that of others to avoid conflict or duplication of effort.

1.8 Learn about the publication process and contribute to research outputs for publication in monographs or recognised high-quality journals, or performance/exhibition, as appropriate.

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

1.10 Actively participate as a member of the research team. Attend and contribute to relevant meetings of the team.

2. Teaching & Student Support

2.1 Assist in the supervision of student projects and provide guidance to those assisting in the research.

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   Hold primary responsibility for in-house breeding, management, and care of the lab's mice. This task includes liaising with the PI and lab members to plan animal breeding, setting up breeding, liaising with staff of the animal unit, keeping track of animal colony (data management), and assisting in taking care of mice.

4.2   Keep stock of lab consumables and make and manage purchase orders depending on the needs of lab members.

4.3   Assist with preparing mice for experiments. This includes handling the animals, acclimatising them to the experimental apparatus, and training mice to perform behavioural tasks.

4.4   Assist with performing experiments with mice. This includes recording behavioural data and neural data using two-photon imaging and electrophysiology with silicon probes (Neuropixels).

4.5   Perform lab work including histology, imaging of brain tissue, preparing solutions, and preparing surgeries and experiments.

4.6   Undertake training and skill development activities to enhance research skills (as needed).

4.7   Carry out any other duties commensurate with the grade and purpose of the post.

The following tasks are optional and depend on the postholders' skills and interests:

4.8   Carry out analyses of behavioural and neural datasets, which may include programming in Python.

4.9   Contribute to the writing and preparation of manuscripts for publication of the project findings.

4.10   Undertake training and skill development activities to enhance research skills (as needed).

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or level of responsibility entailed.

INDICATIVE PERFORMANCE CRITERIA

- Higher education: BSc (or equivalent degree) in Neurosciences or other relevant area.

- Experience in conducting research projects.

4.   Person Specification

ESSENTIAL CRITERIA

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

2.   Excellent organisational, time management, and administrative skills.

3.   Excellent communication and interpersonal skills to liaise with PI, lab members, and other colleagues involved in the lab's work.

4.   Ability to prioritise and meet deadlines.

5.   Ability to work independently (under supervision by the Principal Investigator), and as part of a team.

6.   Ability to work at a high level of precision and reliability.

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

8.   Good presentation skills, with the ability to communicate effectively, both orally and in writing, with colleagues and external audiences.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1.   Have a degree level in a relevant area, such as neuroscience.

2.   Excellent IT skills, in particular in the use of Microsoft Excel and Word, OneDrive, Outlook (email, calendar), Windows OS, Zoom.

DESIRABLE CRITERIA

1.   Knowledge of relevant research techniques and scientific literature.

2.   Good presentation skills, with the ability to communicate effectively, both orally and in writing, with colleagues and external audiences.

DESIRABLE ROLE-SPECIFIC CRITERIA

1.   Experience in working with mice.

2.   Experience of collecting experimental data in neuroscience.

3.   Experience in statistical analysis and coding (e.g., in MATLAB, R or Python).

3.   Experience of preparing data for publication.