UNIVERSITY OF SUSSEX

PSYCH

1 Advertisement

Post Title: Research Fellow
School/department: School of Psychology
Hours: Full time considered up to a maximum of 1.0 FTE
Requests for flexible working options will be considered (subject to business need).
Contract: Fixed term for 36 months
Reference: 10750
Salary: Starting at £35,333 rising to £42,155 per annum, pro rata if part time
Placed on: 23 January 2023
Closing date: 28 February 2023. Applications must be received by midnight of the closing date.
Expected Interview date: TBC
Expected start date: 01 May 2023

A MRC-funded Research Fellow position is available in the Koya laboratory at The School of Psychology at the University of Sussex. The lab investigates the neural mechanisms of cue-evoked appetitive behaviours in motivation and reward circuits.

The aim of this project is to investigate the role of neuronal ensembles in the medial prefrontal cortex in the suppression of cue-evoked food seeking following exposure to environmentally enriched (EE) housing conditions.

Specifically, you will examine how food-seeking is modulated by shifts in the recruitment, excitability, and encoding properties of cue-activated neuronal ensembles.

These investigations will be conducted using a combination of tools, such as *in vivo* fibre photometry and *ex vivo* electrophysiology (patch-clamp) techniques (see Brebner et al. 2020, J Neurosci; PMID: 31727794).

The successful applicant will have:
• A strong background in behavioural or systems neuroscience research including experience with programming languages, such as Python or Matlab.
• A desire to work independently and collegially in a collaborative environment.
• PhD/DPhil degree in neuroscience or a related discipline (e.g. experimental psychology).
• Experience in monitoring rodent brain activity *in vivo* or *ex vivo* electrophysiology in rodents.
• Experience in conducting behavioural experiments in appetitive learning.

Since this is a short-term position, a Home Office Personal License is required.

The laboratory is part of a vibrant multi-disciplinary 'Sussex Neuroscience' research community on campus, consisting of systems, behavioural, molecular, and computational

neuroscientists. The University of Sussex campus is located just 10 minutes away from the famous seaside city of Brighton.

Please contact Eisuke Koya (e.koya@sussex.ac.uk) for informal enquiries. Candidates are encouraged to send their CV's (with the names of at least two references).

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.
Please note: The University requires that work undertaken for the University is performed from the UK.

2. The School / Division

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

3. Job Description

Job Title:	Research Fellow in Behavioural Neuroscience
Grade:	Research Fellow I, Grade 7
School:	Psychology
Location:	CRPC and BRF buildings, University of Sussex campus
Responsible to:	Principal Investigator through to Head of School
Direct reports:	Dr Eisuke Koya, Reader in Psychology
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 contribute to the research activity regarding revealing the neuronal ensemble mechanisms of attenuated cue reactivity following exposure to environmental enrichment.

2. To engage in individual and/or collaborative research activity and contribute to the production of high-quality research outputs for publications.

3. To contribute to School teaching activities, including supervision of MSc and BSc dissertation project students, as appropriate.

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 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

The post provides an outstanding opportunity for a neuroscientist to apply *in vivo* fibre photometry and *ex vivo* electrophysiology approaches to understanding how cue-evoked food seeking is suppressed at the neuronal ensemble level in the medial prefrontal cortex.

The successful applicant will be expected to have an emerging record of quality research publications and must have a PhD/DPhil degree in neuroscience or related discipline (e.g. Experimental Psychology). The applicant should also have the relevant technical skills applicable to conducting rodent behavioural neuroscience research. Experience in conducting behavioural experiments using appetitive learning procedures is desirable.

Research

The applicant will contribute to and undertake neuroscientific studies in rodents which reveal the neuronal ensemble mechanisms of cue-evoked behaviours, which require the usage of behavioural analyses, *in vivo* fibre photometry, and *ex vivo* electrophysiology. Moreover, the applicant will contribute to and undertake aspects of experimental design, data acquisition and analyses, and presentation and publication of findings.

General

Ensure the highest standard of record keeping, maintaining accurate and appropriate research record.

Attend departmental and other meetings as appropriate.

As duties and responsibilities change, the job description may be reviewed and amended in consultation with the post-holder.

The postholder will carry out any other duties as are within the scope, spirit and purpose of the job as requested by the line manager (Dr Eisuke Koya).

The postholder will actively follow Universities of Sussex policies, including Equal Opportunities policies

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

- Pursuing and developing a line of independent research within a research group.
- Publishing research (either from a recently completed PhD or new original research).
- 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 links between the University and external bodies such as business and industry, the professions, community organisations and policy-makers.
- Evidence of successful engagement in teaching or supervision.

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

. Extensive background in neuroscience or related discipline (e.g. experimental psychology) at PhD level or appropriate level of experience as appropriate to discipline.

. Experience in programming languages such as Python or Matlab.

. Track record of high-quality publication(s) in reputable journals. Commensurate with evidence of productivity

. Experience in monitoring *in vivo* brain activity or *ex vivo* electrophysiology in rodents.

. Flexibility to work outside normal hours when necessary (e.g. conducting behavioural experiments and/or monitoring animal's health on weekends)

DESIRABLE CRITERIA

. Experience in revealing neuronal mechanisms of appetitive behaviours using Pavlovian and/or operant conditioning tasks.

. Experience in calcium imaging *in vivo*.

. Experience in developing and utilising viral and transgenic strategies to monitor and manipulate select neuronal populations.

. Experience with intracranial surgeries.