



Sainsbury Wellcome Centre

Job Description

Research Assistant

Department: Sainsbury Wellcome Centre

Grade: 6B

Salary: £38,357 to £41,005 p.a. including London Allowance

Hours: 36.5 hours per week (full time 1.00 FTE)

Available until: Funded for one year in the first instance



Context

The [Branco lab](#) study the mechanisms by which neurons integrate sensory information to generate behaviour that promote survival. The lab uses various innovative techniques including behaviour, neural recordings and imaging, optogenetics, anatomy, computer science and theoretical neuroscience.

When faced with imminent threats, choosing the correct behaviour at the right time is crucial for survival. Animals have to constantly process information from the environment, and correctly identify not only potentially harmful situations, but also the defensive response most likely to succeed, for example, escape or freeze. In this project, we investigate how the brain implements defensive behavioural choices using electrophysiological recording from neurons in the mouse midbrain. To this end we developed a behavioural paradigm for awake head-restrained mice, using a floating arena, in which animals can navigate between a shelter and a threat zone, where sensory stimuli mimicking approaching predators are presented. When facing one of these threatening signals, such as looming dark shadows, mice choose between escape and freezing, depending on the parameters of the sensory stimuli and of the environment.

We use whole-cell patch clamp technique for intracellular recordings, single unit recordings with high-density Neuropixels probes, as well as optogenetic and chemogenetic stimulations and anatomical tracing.

The post is part of a Royal Society Dorothy Hodgkin Fellowship led by Dr. Yaara Lefler.

This post is funded for one year in the first instance.

The role of Research Assistant

We are looking for a Research Assistant to run training and behavioural experiments in head-fixed mice. You will work closely within a team and be responsible for the handling and care of rodents (supported by the SWC's Neurobiological Research Facility). You will be responsible for performing surgery, training, behavioural experiments, histological procedures and will be able to assist in neural recording/optogenetic experiments, help to gather and collate data, and assist with data analysis and presentation of the results.

You will be an excellent communicator, have prior experience of working within a research laboratory and handling rodents, as well as some experience in monitoring rodents and providing post-operative care.

Technical expertise in the calibration, maintenance and repair of animal behavioural setups is desirable, as well knowledge of surgical procedures and some basic programming skills in python or MATLAB environments.

You will be expected to work under your own initiative in a collaborative and multidisciplinary research environment.



Duties and responsibilities

- Handle and monitor mice.
- Run training of head-fixed mice.
- Perform surgical and post-operative care of recovering animals.
- Run behavioural experiments in freely moving and head-fixed mice.
- Perform histological procedures.
- Provide support for maintenance of equipment, lab supplies and databases to ensure that all work is carried out in accordance with statutory and UCL regulations as appropriate.
- Maintain a meticulous record, and write up results, maintaining a permanent record of the methodologies and the experiments.
- Ensure the experiments are carried out efficiently and in a proper scientific manner.
- Maintain the lab cleanliness and organisation of the laboratory space.
- Adhere to good laboratory practice at all times and observe all required health and safety procedures.
- Observe all ethical and legal requirements in relation to the use of animal models in research.
- To participate in weekly group meetings.
- Adhere to good laboratory practice at all times and observe all required health and safety procedures.
- Observe all ethical and legal requirements in relation to the use of animal models in research.
- Observe all data protection and security requirements.

General

- Carry out any other duties within the scope, spirit and purpose of the job as requested by the line manager.
- Actively follow and promote all UCL policies including those on Equality, Diversity and Inclusion.
- Maintain an awareness and observation of Fire and Health & Safety Regulations.
- There may, on occasion, be a requirement to work extended hours.
- Actively participate in UCL networks, meetings and committees relevant to the role, as required.
- All staff are expected to act professionally, co-operatively and flexibly in line with the post.
- Adhere to UCL's Sustainability policies and objectives, attend management meetings and undertake such training and development as may be required for the post.
- The post holder, like all academic, research and teaching staff, is expected to demonstrate their ongoing commitment to excellence in line with the Academic Career Framework.
- Meet UCL's expectations set out in UCL's Core Behaviours Framework .
- The above description is not exhaustive, and the post-holder will be required to undertake any other duties as may reasonably be requested within the scope, spirit, and purpose of the post.

Person Specification

Selection Criteria

Applicants will be selected based on how well they demonstrate that they meet the essential, and if appropriate, desirable criteria for this particular role. They should give examples of how they meet each criterion.

Essential Criteria	Assessment method (Application/ Interview/Practical Test)
Qualifications, experience and knowledge	
A bachelor's degree in Neuroscience, molecular biology or a related field.	Application
Experience of working in a research laboratory.	Application/ Interview
Experience of handling, monitoring health and caring of rodents including post-operative medication.	Application/ Interview
Experience in behavioural experiments with mice.	Application/ Interview
Understanding of animal cognition or experience in the field of neuroscience.	Application/ Interview
Skills and abilities	
The ability to contribute to research projects within the laboratory.	Application/ Interview
Strong written and oral communication skills, with the ability to work collaboratively in a multidisciplinary setting.	Application/ Interview
Able to prioritise, manage your own time, and multi-task to integrate the demands of a range of different activities and deadlines in parallel.	Application/ Interview
Computer literacy, including experience of a range of software packages	Application/ Interview
Works ethically, legally, and with integrity	Application/ Interview
Personal Attributes & UCL Core Behaviours	
Accountable, reliable and resourceful.	Interview
Demonstrates an interest in personal development.	Interview
Having a positive and helpful approach to work.	Interview
Desirable criteria (only be scored if there is a tie break for shortlisting).	
Understanding of animal cognition or experience in the field of neuroscience.	Application
Home Office Personal Licence Holder	Application
Technical expertise in calibration, maintenance and repair of animal behavioural setups.	Application
Proficient with Python/MATLAB.	Application

Apply

To apply for this position visit:
ucl.ac.uk/work-at-ucl/search-ucl-jobs

Please complete the online application form and use the supporting statement section to outline your interest in joining SWC and how you meet the essential and desirable criteria for the role.

If you have any queries regarding the application process, please email: swc.hr@ucl.ac.uk

For informal enquiries about the role please contact: y.lefler@ucl.ac.uk

All candidates will be notified of the outcome of their application.

Annual leave

Annual leave is 27 working days for a full-time member of staff + 6 UCL closure days in addition to 8 Bank Holidays.

Pension

Post-holders will be eligible to join SAUL (Superannuation Arrangements of the University of London) subject to the Scheme's rules and eligibility conditions.

Hours of Work

UCL's full time working week is 36.5 hours per week. SWC is willing to consider flexible-working arrangements, subject to discussion and agreement with your line manager.

Other benefits

UCL is a dynamic, global university based in one of the most exciting capital cities in the world. Not only does working at UCL offer the opportunity to work with some of the greatest intellects in the world, it also offers competitive terms, conditions and benefits to its staff.

As part of the UCL community you can access free lunch hour lectures, exhibitions and museums and collections. On campus UCL has the Bloomsbury theatre hosting a range of performances and a series of bars, cafes, and other facilities, which UCL staff can use.

In addition to 41 days annual leave (inclusive of public holidays and closure days) and generous pension schemes, UCL provides a number of other staff benefits which are linked from the page below:

✓ <https://www.ucl.ac.uk/human-resources/pay-benefits/staff-benefits>

UCL benefits and policies apply equally, whatever the sexual orientation and/or gender identity of employees. Benefits and policies relating to employees partners, includes both different sex and same sex partners.