

Job Description

Research Fellow / Senior Research Fellow

Department: Sainsbury Wellcome Centre

Grade: 7 or 8

Salary: G7: £43,981 - £54,019 p.a. inclusive of London Allowance
G8: £56,431 to £66,437 p.a. inclusive of London Allowance

Hours: 36.5 per week (full-time, 1.00 FTE)

Reports to: Professor Sonja Hofer



Context

We are looking for an excellent Postdoctoral Research Fellow for a project in the lab of Sonja Hofer at SWC. The project aims to determine the neural circuit mechanisms of predictive sensory processing.

The [Hofer Lab](#) uses a wide range of multi-disciplinary methods: *in vivo* two-photon imaging and other imaging approaches, high-density acute and chronic electrophysiological recordings (such as next-generation Neuropixels technology), a large array of behavioural tasks and circuit modelling, together with molecular and genetic approaches to identify different cell types, record and manipulate their function and trace specific pathways.

The Role

The post is for studying predictive computations during sensory processing, as part of a research effort that aims to identify canonical predictive computations in the brain, including where and how sensory prediction errors are computed, what is their function, how are sensory internal models and predictions instantiated in neural circuit, and what are the circuit mechanisms of how they are learned and updated by experience.

In the role, you will design and implement independent research projects, and be involved in a

range of activities both independently and in collaboration with others. Activities may include recording and/or imaging from identified neural populations, perturbation of specific neural circuit elements, animal behavioral training, setting up experimental equipment, data analysis, and scientific communication, including writing up manuscripts for publication and grant writing.

Crucial for the post are research experience in rodent work, neural circuit dissection techniques, neural recordings, and sophisticated data analysis and coding.

This post is funded for 2 years in the first instance with the possibility of extension.

Appointment at Grade 7 is dependent upon having been awarded a PhD; if this is not the case, initial appointment will be at Research Assistant Grade 6B (spine points 26 - 29) with payment at Grade 7 being backdated to the date of final submission of the PhD thesis.



Duties and responsibilities

- To design and conduct independent research projects, with input and feedback from the Laboratory Head.
- Work closely with the Laboratory Head and other lab members to set up, gather, collect, analyse and model data.
- To contribute to the induction, training, and supervision of staff members, students and visitors to the lab, in order to develop their skills and/or to achieve collaborative scientific goals.
- Write and contribute to the preparation of scientific manuscripts, reports, grants, presentations and records of experimental plans and results.
- Communicate lab results within divisional meetings to keep team members and other colleagues informed of developments and progress of the project.
- Maintain lab equipment, lab supplies and databases to ensure functions at the correct levels and that all work is carried out in accordance with statutory and UCL regulations as appropriate.
- Maintain the lab cleanliness and organisation of the laboratory space, including monitoring and maintaining levels of consumables within the laboratory and ensuring adequate stock control of reagents; organising servicing and maintenance of laboratory equipment.
- Set-up, calibrate and repair behavioural equipment to ensure it functions at the correct levels.
- Adhere to good laboratory practice at all times and observe all required health and safety procedures.

- Write and update laboratory SOPs and risk assessments and record these appropriately.
- Keep up to date with current ethical and legal requirements in relation to the use of animal models in research.
- Keep up to date with current required 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 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.
- 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

Essential Criteria	Assessment method
Qualifications, experience and knowledge	
Hold a PhD in neuroscience or a related field, or have submitted your thesis before commencing in post.	Application
Expertise in rodent handling, stereotaxic surgery and behavioural training.	Application/Interview
Experience in rodent neural circuit dissection and manipulation techniques.	Application/Interview
Computer programming and data analysis (Python, R or MATLAB).	Application/Interview
Experience of in vivo electrophysiological recordings or imaging techniques with single-cell resolution.	Application/Interview
Ability to contribute ideas for new research projects and research income generation.	Application/Interview
Grade 8 only: Evidence of successful supervision and mentoring of MSc and PhD students.	Application/Interview
Grade 8 only: Experience of supervising a small team of researchers.	Application/Interview
Grade 8 only: Strong track-record of research (e.g. publication record) that demonstrate clear advances in knowledge.	Application/Interview
Skills and abilities	
Strong written and oral communication skills, along with good presentation skills.	Application/Interview
Excellent analytical skills and understanding of statistics.	Application/Interview
Able to prioritise, manage your own time, and multi-task and integrate the demands of a range of different activities and deadlines in parallel.	Application/Interview
Works ethically, legally and with integrity.	Application/Interview
Accountable, reliable and resourceful.	Application/Interview
Other requirements	
An understanding and appreciation of the mission and research environment of the SWC, and a commitment to the establishment of the SWC as a world-leading research centre.	Application/Interview

Desirable Criteria	
Experience in multi-photon imaging, microscopy and advanced optical methods	Application
Experience in building and fixing experimental setups, including hardware/software interactions, data acquisition etc.	Application

Apply

To apply for this position, please visit:
www.ucl.ac.uk/work-at-ucl/search-ucl-jobs and
search for vacancy reference: B02-11130.

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 criteria for the role.

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

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.

Pre-agreed overtime will be offered as equivalent time off in lieu.

Probation

Appointments are subject a 9-month probationary period.

Pension

Post-holders will be eligible to join the Universities Superannuation Scheme (USS), subject to the Scheme's rules and eligibility conditions.

Other Benefits

UCL is a dynamic, global university based in one of the most exciting capital cities in the world, offering competitive terms, conditions and [benefits](#) to its staff.

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](#). 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.

As part of the UCL community you can access free lunch hour lectures, exhibitions, museums and collections.