



Sainsbury Wellcome Centre

# Job Description

## Research Assistant (Duan Lab)

**Department:** Sainsbury Wellcome Centre

**Grade:** 6B

**Salary:** £39,148 - £41,833 per annum including London Allowance

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

**Reports to:** Dr Ann Duan

**Available until:** Funded for one year in the first instance



### Context

The [Duan lab](#) is recruiting two Research Assistants. Our research groups aims to understand how neural population dynamics generate flexible, and cognitive behaviours. In particular, we use freely-moving and head-fixed rodent paradigms to study the neural mechanisms underlying decision-making under risk and uncertainty and in a social context. Towards this goal, we combine theory-motivated behavioural designs, quantitative extraction of animals' internal states, large-scale, cellular-resolution monitoring and manipulation of identified neural circuits during decision tasks, and computational modelling.

Our labs are a diverse group, both in scientific training - ranging from fields such as engineering, psychology, and biology - and in cultural backgrounds, with members coming from countries all over the world, as befits a modern systems neuroscience lab located in a world-class neuroscience department in a metropolitan city.

### Main purpose of the job

We are looking for two Research Assistants to conduct experiments and data analyses investigating the neural mechanisms of strategic decision-making using head-fixed (1) and freely-moving (1) behavioural paradigms in mice.

You will work closely within a team responsible for training and monitoring mice in a streamlined, semi-automated facility for rodent training.

You will perform stereotaxic surgeries and assist in recording neural activity with high-density electrophysiology or optical imaging methods, and perturbing activity with optogenetics or pharmacological manipulations. Alternatively, your duties will focus on analysing/modelling behavioural and neural data from these types of experiments.

We seek a candidate who is quantitative, detail-oriented, conscientious, and self-motivated. Additionally, the ideal candidate must be able to demonstrate (or learn) precision and care in tasks involving fine manual/analytical skills and be able to communicate their science in a clear manner.

This position is ideal for candidates seeking additional research experience before applying to graduate degree programs in Neuroscience or related fields. We welcome applications from all qualified candidates and encourage applications from underrepresented groups in science.

The posts will be for one year in the first instance under supervision of Dr. Duan, with the possibility of extension.



## Duties and responsibilities

### Core duties

- Contribute to the overall activities of the research team and assist other members of the group with experiments when needed.
- Handling and monitoring mice.
- Train mice in behavioural tasks.
- Perform aseptic, stereotaxic brain surgeries.
- Perform in-vivo experiments including optogenetic manipulations and recordings of neural circuits in behaving animals.
- Maintain and repair experimental setups.
- Work closely with the group leader and other team members to set up experiments, gather and organise data.
- Perform analysis of collected data.

### Lab duties

- Monitor and maintain laboratory stocks of consumables and reagents.
- Maintain laboratory cleanliness and organisation of the laboratory space.
- Contribute to maintaining equipment, lab supplies, and databases, ensuring all work complies with statutory and UCL regulations.
- Maintain meticulous records of experimental results and methodologies.
- Maintain the safety manual to ensure new members of staff, visitors and students receive the appropriate induction.

### Other

- To support or be a primary worker on the given project and ensure it is carried out efficiently and in a proper scientific manner.
- Provide assistance, supervision and teaching to new staff members, visitors and students to the research group in surgical

techniques and general laboratory work practices.

- 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, or a shifted work week (for example, working Thursday–Sunday with Monday-Wed off).
- Actively participate in UCL networks, meetings and committees relevant to the role, as required.
- All staff are expected to act professionally, cooperatively 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.

| <b>Essential Criteria</b>  | <b>Assessment method (Application/ Interview)</b> |
|--|---|
| <b>Qualifications, experience and knowledge</b>  |   |
| A bachelor's degree in Neuroscience, molecular biology, Engineering, Physics, Computer Science or a related field.   | Application/ Interview                            |
| Independent research experience, with evidence of achievement within the appropriate subject area.   | Application/ Interview                            |
| Experience with training rodents in behavioural tasks and related analyses.  | Application/ Interview                            |
| <b>Skills and abilities</b>  |   |
| The ability to contribute to research projects within the laboratory.  | Application/ Interview                            |
| Strong written and oral communication skills, with the ability to present complex information effectively, as evidenced by a short presentation during the interview.      | 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                            |
| Able to work effectively alone but also contribute and work well as part of a team.  | Application/ Interview                            |
| Accountable, reliable and resourceful  | Application/ Interview                            |
| Works ethically, legally, and with integrity   | Application/ Interview                            |
| <b>Personal Attributes &amp; UCL Core Behaviours</b>   |   |
| Accountable, reliable and resourceful.   | Interview   |
| Demonstrates an interest in personal development.  | Interview   |
| Having a positive and helpful approach to work.  | Interview   |
| <b>Other Requirements</b>  |   |
| 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. | Interview   |
| Able and willing to work flexibly to meet the needs of the Centre.   | Interview   |
| <b>Desirable criteria (only be scored if there is a tie break for shortlisting).</b>   |   |
| Experience in calibration, maintenance and repair of animal behavioural setups.  | Application                                       |
| Experience with rodent surgeries/ electrophysiology / optogenetics.  | Application                                       |
| Experience with programming in Python or MATLAB  | Application                                       |
| Proficiency in coding and using software for data or statistical analysis.   | Application                                       |

## How to Apply

To apply for this position visit [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](mailto:swc.hr@ucl.ac.uk)

For informal enquiries about the role please contact: [c.duan@ucl.ac.uk](mailto:c.duan@ucl.ac.uk)

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

### Probation

Appointments are subject to receipt of satisfactory references and a probationary period of 9 months.

### 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 the Universities Superannuation Scheme (USS), 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:

1. <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.

## About Sainsbury Wellcome Centre

The Sainsbury Wellcome Centre (SWC) brings together world-leading scientists to investigate how brain circuits process information to generate perception, form memories and guide behaviour. Developed through the vision and partnership of the Gatsby Charitable Foundation and Wellcome, and with substantial investment from these partners, the mission of the SWC is to generate experimentally testable theories of brain function.

The Centre comprises 12 highly interdisciplinary experimental research groups accommodated in a new, purpose-designed building, offering an outstanding and unparalleled research environment. SWC scientists use a broad spectrum of the latest advances in molecular and cellular biology, imaging, electrophysiology and behavioural techniques and enjoy state-of-the-art research laboratories, cutting-edge scientific equipment, technologically-advanced prototyping and fabrication laboratories and custom in-house high-performance computing facilities.

SWC is part of the UCL School of Life and Medical Sciences (SLMS). SLMS brings together four UCL Faculties to create one of the largest and most prestigious aggregations of academics in biomedical, life and population health sciences worldwide. The School has a global reputation for teaching, informed by cutting-edge research. SWC is most closely linked with the Faculties of Brain Science and Life Sciences, and is aligned administratively with Life Sciences. The Faculty of Life Sciences leadership team works closely with the SWC leadership to support and enable their mission and facilitate research excellence.

Further details about UCL can be found at [www.ucl.ac.uk](http://www.ucl.ac.uk).

## Work Environment

SWC offers staff an award-winning work environment in the heart of Fitzrovia with an on-site brasserie, secure bicycle storage, and access to pleasant outdoor spaces.

## Accreditations

The Sainsbury Wellcome Centre and Gatsby Computational Neuroscience Unit recently received an Athena Swan Bronze Award. Find out more about our commitment to promoting gender equality.

SWC recently received full accreditation from the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International. Find out more about our commitment to supporting a culture of care.

