

Histology Research Scientist (International Brain Laboratory) Information for Candidates



Sainsbury Wellcome Centre for Neural Circuits and Behaviour at UCL

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| Vacancy Reference: | 1794612 |
| Job Title: | Histology Research Scientist (International Brain Laboratory) |
| Department: | Sainsbury Wellcome Centre |
| Salary: | £35,328 - £42,701 per annum inclusive of London Allowance. |
| Grade: | 7 |
| Hours: | 36.5 per week (full-time, 1.00 FTE) |
| Reports to: | Dr Sonja Hofer |

About the International Brain Laboratory

The International Brain Laboratory (IBL) is a new collaborative scientific research project, spanning 20 neuroscience research labs across four countries in Europe and North America. These labs are working together to study how the brain works together to make a decision. This ambitious project will involve recording the activity of hundreds of thousands of neurons in the working brain, and building mathematical models of the resulting data.

More information about the IBL can be found online here: <https://www.internationalbrainlab.com/>.

About the Sainsbury Wellcome Centre

The [Sainsbury Wellcome Centre \(SWC\)](#) commenced research operations in Spring 2016 bringing 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 and test experimentally tractable theories of brain function.

The Centre will comprise around 14 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. The full complement of scientists in the Centre is expected to reach around 150 together with circa 50 dedicated support staff.

The SWC offers staff an award-winning work environment in the heart of Bloomsbury with an on-site brasserie, access to lockers and changing facilities, secure bicycle storage, and access to pleasant outdoor spaces. The Centre also offers the full range of UCL staff benefits, including a generous annual leave entitlement, occupational pension schemes, excellent family-friendly policies such as occupational shared parental pay, a work-life balance policy, and a range of financial benefits such as a season ticket loan scheme and staff discounts. Further information can be found online: <https://www.ucl.ac.uk/human-resources/pay-and-staff-benefits>.

Background, Mission and Research Environment

Neuroscience is entering a new and exciting period in which it will be possible to decipher the neural codes underlying perception, cognition and action. The Sainsbury Wellcome Centre for Neural Circuits and Behaviour is positioned at the heart of this development

The Centre, located within University College London (UCL) and close to its main campus in central London, fosters a culture of bold, innovative research and collaboration. Experimental groups benefit from interaction with the Gatsby Computational Neuroscience Unit located within the Centre, facilitating collaborations in data analysis, computational modelling and theory.

SWC staff interface closely with academic staff within the Faculties of Life Sciences and Brain Sciences and are part of the UCL Neuroscience Domain which brings together over 450 principal investigators and offers extensive opportunities for interaction and collaboration. The Centre offers additional opportunities for collaboration, networking and intellectual stimulation through its visitor programme, regular seminar series and the hosting of world-class scientific conferences and workshops.

The Centre provides extensive conceptual and methodological bridges between areas of existing neuroscience strength at UCL, from which it directly benefits. Existing work at UCL is closely interwoven via the cross-cutting themes of development, behaviour and plasticity, and with the creation and use of transgenic models. A strong culture of close interaction between experimental and theoretical approaches is a thread running through the Centre, tying together complex phenomena at different levels of description, by linking informational and computational concepts to their circuit and cellular counterparts, all in relation to model behaviours.

Further details about the Sainsbury Wellcome Centre can be found at www.sainsburywellcome.org.

Further details about UCL can be found at www.ucl.ac.uk.

The Role of Histology Research Scientist (IBL)

The post-holder will be responsible for the maintenance and running of the histology laboratory facility on behalf of the IBL. Based in the Sainsbury Wellcome Centre, the IBL Histology Research Scientist will be responsible for managing the inventory of IBL brain samples, preparing brain samples (ex vivo) for histology, using microscopy techniques to image brain samples, and registering acquired images onto standard brain atlases. This is a new and exciting opportunity to support an innovative and collaborative research project at the forefront of neuroscience, spanning multiple institutions internationally.

The post is funded for two years in the first instance.

Main Duties and Responsibilities

Core Duties

- Maintain and ensure the smooth running of a highly dynamic shared laboratory resource for the International Brain Laboratory.
- Oversee the delivery of IBL brain samples to the imaging facility and manage the inventory of IBL brain samples.
- Prepare brain samples for histology and image brain samples using various imaging techniques.
- Register acquired images onto standard brain atlases.
- Maintenance of imaging equipment, lab supplies and databases specific to the IBL to ensure that all work is carried out in accordance with statutory and UCL regulations as appropriate.
- Be responsible for monitoring and maintaining levels of consumables within the IBL histology facility and to ensure adequate stock control of reagents.

- Write, maintain and update IBL facility SOPs and risk assessments and record these appropriately in the database (RiskNET).
- Provide assistance, supervision and teaching to IBL staff, students and visitors in histological/immunocytochemical techniques.
- Be responsible for IBL histology record keeping and maintaining accurate, complete, and up to date records.
- Set up and perform experiments in close collaboration and consultation with scientific colleagues in the research groups.
- Prepare and present findings of research activity to colleagues and at scientific meetings.
- Contribute to the preparation of grant applications, research presentations and publications as requested.

The above description is not exhaustive and the post-holders will be required to undertake any other duties as may reasonably be requested within the scope, spirit and purpose of the post. Job descriptions are reviewed on a regular basis including at the annual appraisal. As duties and responsibilities change, the job description may be amended in consultation with the post-holders.

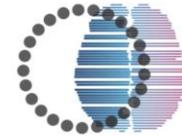
The post-holders will be expected to actively follow all UCL policies and procedures including Equal Opportunities, maintain an awareness of Fire and Health & Safety Regulations, attend management meetings and undertake such training and development as may be required for the posts.

All staff are required to act professionally, co-operatively and flexibly in line with the requirements of the posts.

Selection Criteria

The selection criteria outline the skills, knowledge and experience required in order to perform this role. Applicants will be selected based on how well they demonstrate that they meet the essential, and if appropriate, desirable criteria for these particular roles.

| | Essential | Desirable |
|---|-----------|-----------|
| Qualifications | | |
| A good undergraduate degree (2:1 or above) in Neuroscience, Bioengineering, Biology, Medical Science or a related discipline, or equivalent professional qualification or experience. | X | |
| Knowledge/experience | | |
| Experience of working in a research laboratory. | X | |
| Extensive and demonstrable practical experience in tissue staining, histology or microscopy. | X | |
| Experience of managing scientific, engineering, medical or clinical projects. | X | |
| Proficient with MS Office as well as use of email and web-based applications. | X | |
| Understanding of neurodegenerative diseases or experience in the field of neuroscience. | | X |
| Skills/ Aptitude | | |
| Excellent interpersonal skills with the ability to work collaboratively in a multi-disciplinary setting. | X | |
| Strong communication skills and the ability to coordinate with colleagues across multiple institutions and countries. | X | |
| Ability to use own initiative whilst recognising when advice and input is needed, with strong problem solving skills. | X | |
| Meticulous and accurate in all aspects of work, able and willing to work flexibly to meet the needs of the IBL. | X | |
| Interested in research and a commitment to supporting high quality research. | X | |
| Other requirements | | |
| An understanding and appreciation of the mission and research environment of the IBL. | X | |



Contact Us

If you have any queries relating to the vacancy or how to apply please contact the SWC HR team, swc.hr@ucl.ac.uk, +44 (0)20 3108 8011.

Applying for the Role

To begin the online application process, please access the advertisement by searching for it on the UCL vacancy search page (<http://www.ucl.ac.uk/hr/jobs/>) using the vacancy reference number, and click on the “Apply Now” button at the bottom of the vacancy advertisement.

Please complete the online application form, and use the supporting statement section to outline how you meet the selection criteria. Applications will be shortlisted based on the strength of the examples used to demonstrate that the applicant meets the selection criteria.

Please note that there is a limit of 2,500 words to explain how you meet the essential criteria, and a limit of 2,500 words to explain how you meet the desirable criteria.

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

Pre-employment Checks

Confirmation of appointment will be subject to receipt of satisfactory references, verification of proof of right to work in the UK and to satisfactory pre-employment health and security screening.

Salary

Starting salary will be on the Grade 7 scale according to relevant skills, knowledge, experience and achievement. Staff incrementally progress along the salary scale; the effective date of incremental progression is 01 August each year. You must have completed the period of service stipulated in your contract of employment (typically your probationary period) to be eligible to increment. Incremental progression does not include the discretionary contribution points on the salary scale. Cost of living pay awards are negotiated nationally and are normally effective from 1 August each year.

Pension

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

Conditions of Service

Conditions of Service for Research, Teaching and Professional Services Staff can be found at: <https://www.ucl.ac.uk/human-resources/conditions-service-research-teaching-and-professional-services-staff>.

Probation

Appointments are subject to a probationary period of 9 months.

Hours of Work and Overtime

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.

Annual Leave

Staff are entitled to 27 days annual leave per year (pro rata for part-time staff). In addition, staff are entitled to 8 days public and statutory holidays, and around 6 UCL closure days with pay per year.

Location

The Sainsbury Wellcome Centre is located in the heart of London around five minutes' walk from the main UCL campus. The mainline railway stations at Euston, King's Cross, St Pancras, Marylebone and Paddington are within easy reach as are the London Underground stations located at Warren Street and Gode Street.

Equal Opportunities

SWC is committed to the promotion of equality, diversity and inclusion for its staff, students and visitors and is fully supportive of UCL's policy; the full equality policy statement is available online:

https://www.ucl.ac.uk/human-resources/sites/human-resources/files/equal_opportunity_policy_statement.pdf.

SWC is currently working towards an [Athena SWAN](#) award.

The Neuroscience Environment at UCL

The UCL student community comprises 29,000 students from 150 countries. UCL currently offers 275 undergraduate programmes and more than 220 taught postgraduate programmes as well as the opportunity to carry out postgraduate research in all of its subjects.

In the 2014 Research Excellence Framework, which evaluates research performance in all UK universities, UCL was ranked the top higher education institution for research strength.

UCL is consistently rated among the top five universities in the UK (alongside Cambridge, Imperial College and Oxford) and in the top 25 universities in the world. The 2018 QS global rankings placed UCL seventh among the world's top ten universities.

UCL is a powerhouse in neuroscience, whether measured by published output, citations, grant income, or prizes and honours. UCL Neuroscience currently includes 26 Fellows of the Royal Society and 60 Fellows of the Academy of Medical Sciences. It has over 480 neuroscience PIs from some 30 academic departments and is ranked first in Europe (and second worldwide) for ISI citations in Neuroscience and Behaviour. UCL has an existing cadre of internationally competitive research groups in the fields of neural circuits and behaviour, and numerous strengths in related aspects of neuroscience, plus allied fields such as physics, chemistry and nanotechnology. UCL is the only institution in the UK – and one of the few in the world – with sufficient concentration and infrastructure in neuroscience and related disciplines to support the ambitious goals of the Sainsbury Wellcome Centre.

The environment at UCL will be further enhanced by the development of the Francis Crick Institute and its integration with UCL and other academic institutions including Imperial College and King's College.

UCL provides an environment of excellence for training future generations of interdisciplinary researchers in neuroscience. Graduate training programmes include; the 4-year Wellcome Neuroscience programme; two further related 4-year Wellcome programmes; the Gatsby Computational Neuroscience Unit's 4-year programme; the BBSRC London Interdisciplinary Biosciences PhD Consortium (a 4-year programme led by UCL) and the CoMPLEX PhD programme.

These surrounding strengths show UCL's capacity for bringing neuroscientists together with other biomedical scientists, plus mathematicians, physical scientists, computer scientists and engineers, to tackle the most challenging multidisciplinary problems. At the same time, UCL's unique clinical links via its major postgraduate institutes and partner hospitals facilitate eventual translation to new treatments for neural disorders.

Further details of UCL Neuroscience can be found at www.ucl.ac.uk/neuroscience

The UCL School of Life and Medical Sciences (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. A full profile of the School can be found at: <http://www.ucl.ac.uk/slms/about-us>. The School is structured into four Faculties: Brain Sciences; Life Sciences; Medical Sciences; and Population Health Sciences.

The School coordinates nine Research Domains (<http://www.ucl.ac.uk/slms/domains>), which are networks that bring together researchers regardless of their host Faculty. Colleagues engage with as many of the Domains as are relevant to their area of research activity, encouraging interdisciplinarity across the School and beyond.

The UCL Faculty of Life Sciences (<http://www.ucl.ac.uk/lifesciences-faculty/>) combines the strengths of UCL's basic biological and preclinical sciences. Some of the constituent departments have long and distinguished histories that can be traced back to the early nineteenth century and the foundation of UCL. The Faculty has been associated with seven Nobel Laureates. It presents an unrivalled environment for students and researchers in life science disciplines, ranging from neuroscience to the biology of molecules, cells and organisms. The Faculty provides outstanding opportunities for research-led and research-based study. The Faculty is home for over 500 graduate students studying on some of the UK's most prestigious PhD programmes.

The UCL Faculty of Brain Sciences (<https://www.ucl.ac.uk/brain-sciences/>) undertakes world-leading research and teaching in neurology and neural pathways, neuroscience, language, cognition, psychology and psychiatry. It takes an integrative approach to the study of mind and brain by focusing on the determinants of human perception, cognition, emotion and behaviour. The Faculty and its component parts create an outstanding and vibrant environment for study and research.

In order to make use of basic science discoveries, UCL works closely with major Hospital Trust partners to develop further its outstanding academic health science environment. UCL Partners is an academic health science partnership that brings together UCL with four of its NHS partner Trust organisations (Great Ormond Street Hospital for Children NHS Trust (GOSH); Moorfields Eye Hospital NHS Foundation Trust; Royal Free Hampstead NHS Trust; University College London Hospitals NHS Foundation Trust) in order to create Europe's leading health research powerhouse; see <http://www.uclpartners.com/>. The intention is to deliver real improvements in health for patients in London, and around the world. UCL Partners will support over 3,500 scientists, senior researchers and consultants, with a combined annual turnover of around £2 billion. By pooling resources and expertise, UCL Partners, which together treat over 1.5 million patients every year, is able to produce world-class research in key areas, each of which poses a major health challenge. These include the nervous system, children's health, heart disease, transplantation, immunology, ophthalmology, deafness and hearing impairment, dental and oral disease, cancer and women's health.

The Sainsbury Wellcome Centre for Neural Circuits and Behaviour is critical to the ambition of UCL to enhance its international leadership in neuroscience. It will deliver the conceptual and technological focus necessary for providing a causal account of how specific patterns of activity in neural circuits process information to direct behaviour to transform understanding of brain function.