



Job Title: Research Associate in Neuroscience
Grade: 7
Salary: £34,804 to £40,322 per annum
Department: Centre for Systems Neuroscience, College of Life Sciences
Hours/Contract: Full Time, Fixed Term from 1st December for 3 years
Reference: 1393

Role Purpose

To develop and carry out own research whilst contributing as a team member to a wider research programme ('Memory formation in the human medial temporal lobe').

The project will investigate concept representations in the human hippocampus, by studying concept cells (a.k.a. Jennifer Aniston neurons) – that means, neurons that selectively fire to specific concepts, such as different pictures and the written or spoken name of a particular person (see e.g. Quian Quiroga et al, *Nature* 2005; Quian Quiroga *Nature Reviews Neuroscience* 2012; Quian Quiroga et al, *Scientific American* 2013).

You will contribute to the recording and analysis of local field potentials and multiple single-neurons in epileptic patients (implanted with intracranial electrodes for clinical reasons) while the patients perform different cognitive tasks; you will also contribute to the analysis of the collected data for publication in international journals. Recordings will be performed in hospitals collaborating on the project.

Main Duties and Responsibilities	% Time
<ul style="list-style-type: none"> Design and perform experiments in collaborating hospitals, to study different aspects of neural processing in the human hippocampus. You will help to design experimental paradigms to correlate neuronal responses with behaviour and will produce original independent research that will make a significant contribution to journal papers and international conference presentations. 	30
<ul style="list-style-type: none"> Analyse and interpret the collected data in preparation for publication of research findings. The analysis and interpretation of the data should lead to original research, adding to our understanding of how neurons in the human hippocampus are involved in memory processes. 	30
<ul style="list-style-type: none"> Contribute to the development and optimisation of methods for analysing recordings. 	15
<ul style="list-style-type: none"> Work with a team to meet common goals and write up and publish results in scientific journals. 	20
<ul style="list-style-type: none"> Undertake other duties as may be assigned by the Principal Investigator. 	5
Internal and External Relationships	
Liaison with collaborators within and outside the University of Leicester.	





Interaction with patients in NHS and other hospitals.

Planning and Organising

Plan research activity as outlined in the project proposal.

Qualifications, Knowledge and Experience

Essential

- Honours degree or significant relevant experience*
- PhD or close to completing a PhD in relevant area*
- Experience in neuroscience or strong interest in this research area*
- Experience in data processing and programming, especially in Matlab*
- Evidence of research productivity (publications)*
- Experience with neurophysiology recordings
- Experience with computer simulations

Desirable

- Track record of publications in neuroscience

****Criteria to be used in shortlisting candidates for interview***

Skills, Abilities and Competencies

Essential

- Effective written* and oral communications skills
- Able to prioritise, plan, organise and deliver a programme of work effectively and to the required standard
- Able to demonstrate accuracy and attention to detail
- Able to demonstrate research potential and enthusiasm for the subject area and to deliver high-quality research
- High level of proficiency in English, sufficient to undertake research and administrative activities utilising English-language materials in order to communicate effectively with internal and external staff and students.

Desirable

- Willingness to support other members of the Centre for Systems Neuroscience
- Willingness to attend meetings as a representative of the Centre for Systems Neuroscience

****Criteria to be used in shortlisting candidates for interview***





Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

VITAL

The University encourages all staff to live our [VITAL values](#) which are:
Valuing People, Innovators, Together, Accountable, Leaders.

Equality and Diversity

We believe that equality, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.

