

**Job Description**

Job Title	Senior Research Technician
Department	School of Life Sciences
Grade	5

<b>Job Description</b>	
Job purpose (a brief summary of the role)	<p>This research project, funded by Race Against Dementia, aims to determine novel molecular mechanisms that underlie tau-induced neuronal and network dysfunction.</p> <p>You will utilise a combination of molecular biology and imaging-based techniques to characterise potential interactions between aggregated tau protein and targets such as voltage-gated ion channels. Prior practical laboratory experience, an existing skill set in molecular biology and a keen interest in neurodegeneration research are essential.</p> <p>As part of the role, you will also provide technical support to PhD and Undergraduate students within the group and have the opportunity to contribute within the wider neuroscience community.</p>
Duties and responsibilities	<p><b>Research</b></p> <ol style="list-style-type: none"> <li>1. Support, plan and execute experiments to characterise interactions between tau protein and specific ion channels.</li> <li>2. Undertake fundamental molecular biology techniques e.g. cloning, PCR, western blotting, co-immunoprecipitation as well as cell culture to express the target channels in cell lines.</li> <li>3. Utilise a combination of molecular biology and imaging-based techniques to characterise interactions between tau protein and various ion channels.</li> <li>4. Contribute to management of this project on a day-to-day basis including:             <ol style="list-style-type: none"> <li>a. Management of core equipment, monitoring purchasing and storing lab consumables.</li> <li>b. Providing proactive day to day support with ongoing projects, provide training if necessary and ensuring a safe and productive lab working environment.</li> <li>c. Monitoring progress and advising the PI of any issues likely to lead to a delay in projects or impact laboratory dynamics or productivity.</li> </ol> </li> </ol> <p><b>Health and Safety</b></p> <ol style="list-style-type: none"> <li>1. Ensure compliance with health and safety in all aspects of work.</li> <li>2. Upholding the correct waste disposal stream as governed by School and regulatory body policy for laboratory, recycled and general waste.</li> </ol> <p><b>Administration and Other Activities</b></p> <ol style="list-style-type: none"> <li>1. Keep clear records of laboratory work, experimental results using an online lab book and store electronic data on shared lab drives.</li> <li>2. Communication including attending weekly research group meetings and sharing/contributing ideas, communication with other research groups both inside and outside of the Department (exchanging information, seeking and advising on techniques etc)</li> <li>3. Drafting results of experiments for input into scientific publications</li> </ol>

The duties and responsibilities outlined are not intended to be an exhaustive list but provide guidance on the main aspects of the job. The postholder will be required to be flexible in their duties.

### Person Specification

The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.

Essential Criterion No.	Essential Criterion Description	Measured by
E1	Honours degree or equivalent in a relevant field, examples include Neuroscience or Biomedical Science and a keen interest in Neurodegeneration research.	A & C
E2	Practical laboratory experience with an existing skill set in fundamental molecular biology and cell culture.	A & C
E3	Experience of planning and undertaking of experiments, capturing relevant data, analysis and storing data in an accessible format.	A & C
E4	Evidence of successful project management and ability to communicate results and work to project milestones.	A & C
E5	Demonstrate the motivation to lead a project on a day-to-day basis.	A & C
E6	Ability to work well independently and harmoniously as part of a team.	A & C
E7	Ability to take an active role in laboratory and project meetings, including giving presentations on your own work and communicating progress.	A & C
E8	Experience of supervising PhD/MSc/undergraduate students and providing support to the wider lab group.	A & C

Desirable Criterion No.	Desirable Criterion Description	Measured by
D1	Knowledge of (or prior experience in) evaluating protein-protein interactions using molecular or advanced imaging techniques.	A & C
D2	Experience of planning and undertaking experiments independently and identifying/evaluating possible challenges.	A & C
D3	Prior experience in common laboratory management tasks, eg. procurement of group consumables, maintaining laboratory inventories, preparing standard reagents and contributing to compliance with local health and safety regulations.	A & C
D4	Prior experience drafting project results for input into scientific publications.	A & C