

## POSITION DESCRIPTION

<b>Position Title:</b>	<b>Casual Laboratory Assistant</b>
<b>Program (or DSG Organisation):</b>	<b>Neuroscience Research Program</b>
<b>Reports to (Title):</b>	<b>Dr Bryce Vissel Group Leader, Neurodegenerative Disease Research Group</b>
<b>Job Classification &amp; Grade:</b>	<b>Casual/Hourly Rate (depending on experience)</b>
<b>Approved By:</b>	<b>Dr Bryce Vissel</b>
<b>Date:</b>	<b>January 2010</b>

### SUMMARY

Members of the Neurodegenerative Disease Research Group are expected to work as a team towards publication of high-level research in high profile journals. Individuals in the laboratory are expected to be high achieving and self motivated.

This position ultimately reports to Dr Bryce Vissel, head of the group. Dr Vissel may appoint a secondary supervisor in the lab who will set specific goals, tasks and expectations for the person in this position. These goals tasks and expectations will need to be met at the level of performance expected by Dr Vissel and also as expected by the appointed secondary supervisor.

The position requires the flexibility to undertake experiments and any other laboratory task or responsibilities when directed by the laboratory head.

People who accept a position in the Neurodegenerative Disease Research Group do so understanding that they will be expected to work with mice and rodents in a number of paradigms including, but not limited to, behavioural, surgical, anatomical, electrophysiological studies, as well as mice euthanasia. Studies involving animals at the Garvan Institute follow accepted guidelines.

Other aspects of the work include cell and tissue culture and molecular biology. A willingness to adapt and learn new techniques is critical.

### ESSENTIAL DUTIES and RESPONSIBILITIES

Position responsibilities/requirements will vary from time to time and may include any or all of the following (*initial training will be provided where appropriate*):

- Ensuring safety for yourself and the safety of others in the group and in the Institute
- Preparation of reagents for other lab members as required
- Helping to maintain the laboratory in a tidy and orderly state
- Undertaking preparation of DNAs and PCRs
- Tissue handling tasks including:
  - Perfusion fixation of tissue and dissection of neural tissue (brain and spinal cord)
  - Cryostat sectioning of fixed and frozen neural tissue, and
  - Tissue mounting onto slides.
- Suturing for survival surgeries
- Survival surgeries
- Immunohistochemical analysis of tissue
- Handling of mice, including surgery and euthanising mice
- Cell culture and maintenance of cell culture.
- Immunocytochemistry
- Other tasks, responsibilities or projects requested by Dr Vissel or the designated secondary supervisor from time to time.
- Paying attention to safety issues within the laboratory, ensuring familiarity with safety issues prior to undertaking any work or using any equipment, and working to ensure safety is a

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foremost consideration in any work undertaken in the laboratory.

The Casual Research Assistant must be responsive to requests, and achieve set deadlines. The Casual Research Assistant is expected to have good time management and interpersonal skills; should show initiative in completing tasks with a high degree of precision and efficiency; be diligent, and have a positive attitude.

### DECISION MAKING AND PROBLEM SOLVING

The incumbent is responsible for making those decisions that have an impact on the performance of their own work.

Problems that the position is likely to encounter are those of a technical nature, which arise from developing new techniques, applying these techniques experimentally and maintaining quality control. It is imperative that if any problems or errors arise that these are immediately drawn to the attention of the relevant people in Dr Vissel's group.

### ORGANISATIONAL ENVIRONMENT

The Neuroscience Research Program conducts research into how the brain's signalling systems control an immense variety of body responses and actions. The Program's scientists use advanced molecular, cellular, anatomical and behavioural techniques to study the brain's signalling pathways. At present the Program comprises a number of laboratories including that of the Neurodegenerative Disease Research Group.

The Neurodegenerative Disease Research Group is part of the Neuroscience Research Program and aims to identify, characterise and study mechanisms believed to underlie neurological diseases such as Parkinson's and Alzheimer's disease; including mechanisms underlying the function and formation of synapses and the mechanisms underlying neurodegeneration and neurogenesis (stem cells). The group is ultimately interested in how mechanisms that regulate neural plasticity contribute to the outcomes of neurological diseases, especially movement and memory disorders such as spinal cord disorders, Parkinson's disease and Alzheimer's disease. In sum, the group studies how neural plasticity is regulated at the level of stem cells and/or synapses and aims to understand how these processes contribute to higher order brain functions and how they could potentially contribute to disease cures.

The Group uses a number of approaches, including molecular and cellular biology, gene targeting and viral mediated gene delivery in mice, as well as microscopy, electrophysiology and anatomy. Group members study mice with altered genes delivered by viral mediated gene transfer or by gene targeting (e.g. knockout) strategies. The group works to identify, characterise and understand mechanisms underlying neurogenesis, stem cell regulation, synaptic transmission and synapse function in neural cells in cell culture and in brain slices taken from the mice. Anatomy, behaviour, cell biology, neurogenesis and neurological disease models are also studied.

### FORMAL QUALIFICATIONS

The incumbent should have a Bachelor's degree in Science, preferably with either Honours or with practical experience in areas relevant to the research project.

### PERSONAL ATTRIBUTES

The incumbent should possess the following personal attributes and qualities:

- Meet deadlines
- Have a high level of personal and professional integrity;
- Be capable of carrying out duties under minimal supervision;
- Have some basic administrative abilities;
- Read current journals in the area of work and broaden knowledge by reading appropriate text books and primary papers;
- Gain thorough knowledge about neuroscience generally and in their area of work specifically;

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- Have a strong commitment to quality;
- Have adequate communication skills for written reports and oral presentations;
- Have capacity to work co-operatively with other team members;
- Be well organised and a good time manager;
- Be able to act professionally and constructively with colleagues for the benefit of the laboratory at all times.

## GENERAL

The position is also responsible for additional duties within the Neuroscience Research Program as assigned from time to time.

Paid hours of work will vary from time according to project demands, budgetary considerations and other factors. Dr Vissel must approve paid hours of work in advance. You will need to work evenings and weekends. Any work performed outside of hours of work that were approved by Dr Vissel cannot be claimed for any pay unless approved in writing

The position may necessitate monitoring of animals and performing of protocols, experiments and other laboratory tasks on weekends and evenings.

All staff:

- are required to exercise Occupational Health Safety and Rehabilitation responsibility, accountability and authority as outlined in the Garvan OHS Roles and Responsibilities Document (located on the Garvan Intranet) to ensure a safe working environment for self and others;
- are required to cooperate with and adhere to all health and safety policies, procedures and programs of the Garvan and take all reasonable care that their actions or omission of actions do not impact on the health and safety of others in the Institute;
- have a responsibility to co-operate with management and staff with nominated or elected OH&S functions;
- not misuse, damage, refuse to use, or interfere with anything provided in the interest of occupational health and safety;
- must immediately report any unsafe work conditions or equipment to management; and
- must participate in compulsory safety training.