



POSITION DESCRIPTION

Title:	Research Assistant
Area/Group:	Metabolism and Cancer Laboratory
Reporting to:	Kristy Brown
Date Last Updated:	20 August 2010
Current Occupant:	Cover for maternity leave

1. About Prince Henry's Institute

Prince Henry's Institute is a NHMRC accredited, not-for-profit, independent medical research institute located at Monash Medical Centre in Clayton, Victoria, Australia. The Institute employs approximately 100 research staff, 20 administration/support staff and hosts 30 undergraduate and postgraduate students.

Our research involves the investigation in the fields of reproductive health, hormone action, sex determination, cancer, obesity, cardiovascular disease and bone health. The Institute works to improve the quality of life by finding and improving methods for prevention, diagnosis and treatment of a variety of health conditions.

2. Purpose of Position

The research assistant position is located in Metabolism and Cancer group, supervised by Kristy Brown. The project involves the characterization of LKB1/AMPK and interrelated signaling pathways in metabolism, steroid biosynthesis and cancer. The studies will involve a broad range of techniques including primary cell isolation from human tissue, ex vivo tissue culture, immunohistochemistry as well as general cell and molecular biology techniques.

3. Accountabilities and Responsibilities

Undertake scientific experiments accurately and autonomously under the supervision of Kristy Brown and as part of a team including:

- Immunohistochemistry
- In situ hybridization
- Chromatin Immunoprecipitation
- Preparation of RNA and DNA from mammalian sources
- PCR, RT-PCR both quantitative and semi-quantitative
- Cloning and plasmid preparation
- Cell transfections and cell culture work including maintenance of cell lines, transfections and western blot analysis
- Immunofluorescence and imaging

General assistance with the research project

- Survey literature for scientific and methodological advances
- Assist in the conduct of novel experiments and research programs with general direction
- Conduct day to day planning and execution of experiments under the supervision of senior research staff
- Conduct routine experimental procedures autonomously
- Keep detailed and accurate records of experimental procedures and outcomes
- Provide accurate analysis and interpretation of experimental results

- Ensure all laboratory data in area(s) of responsibility is maintained daily, accurately, legibly and securely according to PHI Policy & Procedures
- Provide regular reporting and discussion of experimental outcomes as they occur
- Actively practice and promote all required safety, ethical and 'good practice' procedures
- Use of computer spreadsheet, graphical and statistical analysis programs

General Responsibilities

- Attend and contribute to research team meetings, Works in Progress and other presentations/Symposia as appropriate
- Assist in the supervision of junior staff and students as agreed with supervisor.
- Assisting and training students and junior staff in specialized laboratory techniques
- General Involvement with Institute activities and committees
- Competently operate a range of scientific equipment
- Develop new equipment or procedures to general specifications
- Conduct administrative functions connected with the research area.
- Ensure a professionally organised work area is maintained at all times
- Contribute to general housekeeping including preparation of specific laboratory reagents and ordering supplies
- Liaise with external suppliers of goods and services as appropriate

Occupational Health, Safety and Environment (General)

- Take reasonable care to ensure personal safety at work and to avoid adversely affecting the safety or health of any other person through an act or omission at work;
- Comply with the Institute's OHS policies and procedures, including reporting of incidents and near misses;
- If supervision of staff or contractors is required, promote a safe working environment by ensuring these staff or contractors are trained in matters relevant to the performance of their tasks and are aware of their obligations under OHS policies, procedures and legislation.

Equal Opportunity (EO)

Comply with the Institute's EO policies and procedures.

Legal Compliance

All staff are required to be aware of and adhere to both legislation and Institute policy relevant to the duties undertaken.

4. Working Relationships

Internal

- Kristy Bown - Supervisor
- Evan Simpson - Lab head
- Metabolism and Cancer Laboratory

5. Selection Criteria

Qualifications

Essential

- A Science degree with Honours or equivalent

Desirable

- 1 year experience as a research assistant

Knowledge & Skills

Essential

- Comprehensive understanding of steroid genesis in the context of postmenopausal breast cancer and signalling pathways
- Strong computer skills including assay analysis and MS Office suite

- Demonstrated innovative problem solving skills
- General knowledge and understanding of animal and human ethics
- Ability to ensure well documented systems are developed and implemented
- Accurate record keeping skills in accordance with good laboratory practice
- Developed problem solving, organisational and analytical skills
- Developed interpersonal communication skills
- Effective active listening skills
- Well developed written and oral presentation skills
- Demonstrated ability to perform molecular and cellular biology techniques
- Ability to develop new techniques in the laboratory, troubleshoot and interpret data
- Meticulous approach to experimental work, data collection and interpretation
- Ability to conduct work within established timelines
- Comprehensive understanding of the basis of molecular biology techniques

Experience

Essential

- Experience with cell biology, including tissue culture and transfection procedures.
- Experience with RNA extraction and real-time PCR
- Experience with Immunohistochemistry and in situ hybridization
- Experience with Western blotting
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Personal Qualities

Essential

- Ability to work independently and as part of a team
- Punctual
- Good communication skills
- Reliable
- Can take direction

6. Endorsement

Name: (Supervisor)	Kristy Brown		
Signed:		Date:	
Name: (Employee)			
Signed:		Date:	
Name: (Head of HR)	Pete Murray		
Signed:		Date:	