

THE WALTER AND ELIZA HALL INSTITUTE OF MEDICAL RESEARCH

POSITION DESCRIPTION

POSITION TITLE: Research Technician	DIVISION / DEPARTMENT: Molecular Genetics of Cancer, VBCRC Lab	DATE: 11 September, 2006
REPORTS TO: Joint Laboratory Heads, VBCRC Laboratory	POSITIONS REPORTING TO THIS ONE: None	
PRIMARY OBJECTIVES: The purpose of this position is to provide models for studying mammary epithelial cell biology and breast cancer. This will include: <ol style="list-style-type: none">(1) Cell culture and assaying gene function in mammary epithelial cells by generating expression constructs to transfect or infect mammary epithelial cells.(2) To construct new plasmid expression vectors and prepare protein from transfected cells(3) To perform immunohistochemistry on mammary cells(4) To maintain specific laboratory stocks		
KEY RELATIONSHIPS / INTERACTIONS: VBCRC Lab Heads: Overall supervision of project, and direct supervision of research Interaction with other technical staff, students and postdocs with regard to general laboratory duties	KEY CHALLENGES: <ul style="list-style-type: none">• To perform a range of cellular and molecular biology techniques to a high standard:• Molecular biology techniques to include recombinant DNA cloning,• Perform tissue culture assays (including cell line transfections) and the preparation of protein and RNA lysates from these cells	

FREEDOM TO ACT:

The research assistant would be expected to be able to work independently, using experimental protocols established in the lab with some requirement for innovation. Regular meetings with VBCRC Lab Heads (or other team members) will be required to review progress and to determine scientific direction.

KNOWLEDGE & EXPERIENCE REQUIREMENTS:

- Minimal formal qualification: Bachelor Science (Hons) Degree or equivalent.
- Demonstrated ability to perform molecular and cellular biology techniques.
- Good communication skills and the ability to work constructively within a team and meet deadlines is important.

KEY ACCOUNTABILITIES

KEY RESPONSIBILITIES	MAJOR ACTIVITIES	OUTCOMES / PERFORMANCE MEASURES
Molecular and Cell Biology	<ul style="list-style-type: none">• Recombinant DNA cloning (mini and maxipreps)• cDNA synthesis and PCR (RT-PCR)• Preparation of protein lysates; Western blots• Maintenance of cell lines (including subcloning and freezing)• Cell transfection/viral infection• In vitro differentiation of mammary epithelial cells• Immunohistochemistry	<ul style="list-style-type: none">• Efficient introduction of expression vectors (encoding oncogenes and other regulators) into breast cells• Efficient and meticulous maintenance of cell lines• Establishment of proliferation and differentiation assays• RT-PCR analysis of transfected cells• High quality gels and autoradiographs
Laboratory Duties	<ul style="list-style-type: none">• Contributing to general housekeeping in the lab - preparation of specific laboratory reagents and ordering supplies	<ul style="list-style-type: none">• Effective and efficient operation of the laboratory