



Position Title:	Senior Technician (Research Laboratory)
Position Classification:	Level 5
Position Number:	317277
Faculty/Office:	Health and Medical Sciences
School/Division:	Centre for Medical Research
Centre/Section:	Harry Perkins Institute of Medical Research
Supervisor Title:	Professor
Supervisor Position Number:	314333

Your work area

This position is based within the the Epigenetics and Genomics Laboratory, led by Professor Ryan Lister and located at the Harry Perkins institute of Medical Research and the UWA Centre for Medical Research (CMR), within the Faculty of Health and Medical Sciences. The [Lister Lab](#) is comprised of molecular, cellular and computational biologists, forming a multi-disciplinary team environment undertaking a diverse range of epigenetics and genomics research. We utilize molecular, cellular, genomic and computational approaches in multiple systems to investigate cellular mechanisms that control the usage of information encoded in the genome, and their roles in cell function and development. We have a particular interest in characterization and manipulation of the epigenome and cell identity using genomic and synthetic approaches.

Reporting Structure

Reports to: Professor

Your role

As the appointee you will, under limited direction, provide a high level of technical support to researchers with responsibility to perform experimental molecular and cellular biology work in a collaborative epigenome engineering research program. You will be responsible for following established experimental protocols and accurately recording research results. Primary experimental approaches will include molecular cloning and validation, nucleic acid purification and analysis, mammalian cell culture, lentiviral production and transduction, flow cytometry, sequencing library preparation, and a variety of related molecular and cellular analysis techniques.

Your key responsibilities

To assist in the construction, implementation and interpretation of epigenome editing experiments in human cells. The key responsibilities are as follows:

Apply molecular cloning methods to generate and validate new lentiviral / retroviral constructs

Produce research-grade lentivirus or retrovirus

Mammalian cell culture maintenance, retroviral or lentiviral production and transduction, selection of genetically modified cells by immunofluorescent sorting, and subsequent expansion and clonal selection under standard tissue culture conditions

Monitor the effectiveness of transduction and clone expansion by PCR, Western blotting, flow cytometry, and cytotoxicity assays using the genetically modified cells

Perform quality control for sterility, and assessing the presence of endotoxin, viruses, bacteria, fungi, mycoplasma and other contaminants in transduced cell lines

Maintain and order equipment and laboratory consumables

Liaise with staff to update and refine methodology and equipment

Record and analyse results

Troubleshoot any technical problems that arise, in consultation with supervisor(s)

Communicate all aspects of the project with investigators, associates and students on a regular basis

Assist in preparation of manuscripts for publication

Perform other duties as assigned by supervisor(s)

Your specific work capabilities (selection criteria)

BSc (Hons), or equivalent degree in relevant discipline (e.g. molecular biology, genetics, biochemistry, or related)

Demonstrated experience in performing relevant experimental molecular and cellular biology laboratory techniques

Considerable relevant experience in the laboratory performing relevant research is desirable

Proficiency in sterile technique and mammalian cell culture

High level competency in relevant molecular biology techniques. Experience in a wide range of molecular and cell biology techniques, including cloning, electrophoresis, PCR, nucleic acid extractions, Western blotting

Ability to follow established procedures, troubleshoot technical issues, and work to strict deadlines

Interest in learning and improving new techniques

Strong attention to detail, organizational skills, and maintenance of highly accurate and comprehensive records

Ability to work independently, show initiative and work productively as part of a team

Highly developed written and verbal communication skills

Special Requirements

Comply with Human and Animal Ethics requirements

Some out of hours work may be required

Compliance

Workplace Health and Safety

All supervising staff are required to undertake effective measures to ensure compliance with the Occupational Safety and Health Act 1984 and related University requirements (including Safety, Health and Wellbeing Objectives and Targets). All staff must comply with requirements of the Occupational Safety and Health Act and all reasonable directives given in relation to health and safety at work, to ensure compliance with University and Legislative health and safety requirements. Details of the safety obligations can be accessed at <http://www.safety.uwa.edu.au>

Inclusion and Diversity

All staff members are required to comply with the University's Code of Ethics and Code of Conduct and Inclusion and Diversity principles. Details of the University policies on these can be accessed at http://www.hr.uwa.edu.au/publications/code_of_ethics; <http://www.web.uwa.edu.au/inclusion-diversity>