



Position Description

POSITION TITLE:	Research Scientist
LOCATION:	SAHMRI, North Terrace
REPORTS TO:	Head, Lysosomal Health in Ageing
DEPARTMENT:	Hopwood Centre for Neurobiology, Lifelong Health Theme

PURPOSE AND SCOPE OF THE POSITION

The incumbent will develop and validate in vivo systems of lysosomal system inhibition and activity measurement, with a focus on genetic systems of lysosome inhibition in tumour cells.

KEY RESPONSIBILITIES

The specific duties include:

- Develop in vitro protocols for lysosomal inhibition in tumour cells using transfection and lentiviral delivery of over-expression and shRNA or CRISPR/Cas9 genome editing systems.
- Develop alternative systems and technologies if inducible lysosomal inhibition cannot be achieved using conventional molecular techniques.
- Contribute to activities aimed at developing and improving measurement of the lysosomal system.
- Apply in vitro system(s) into mouse tumour models.
- Analyse, interpret and report data in a timely manner.
- Actively contribute to the conceptualisation and implementation of research directions based on experimental outcomes.
- Prepare publication-ready manuscripts, ethics applications, presentations, and reports, in a timely manner.
- Identify and resolve analytical problems.
- Maintain laboratory records and databases in a timely, accurate, legible and orderly manner, and provide these records for regular inspection.
- Prepare solutions, media, stains and reagents.
- Review, analyse and apply relevant literature to research area.
- Train staff and students in relevant techniques and methods, as required.



- Ensure that laboratory supplies are appropriately stocked to facilitate productivity.
- Acquire and maintain competence in relevant laboratory techniques and methodologies.
- Acquire and maintain competence in the use and routine maintenance of equipment, as relevant to the work area.
- Comply with relevant ethics approvals and guidelines, and intellectual property management guidelines.
- Productively participate in meetings and discussions.
- Actively contribute to the proper maintenance and functioning of the laboratory.
- Work collaboratively to identify, protect, and develop intellectual property.
- Present work at relevant scientific meetings.
- Work collaboratively to identify, forward-plan and implement Lysosomal Health in Ageing's operational and business directions.
- Prepare Standard Operating Procedures, as and when required.
- Manage activities to ensure that work is conducted within budget
- Work cooperatively and constructively with other members of the team and their collaborators
- Maintain confidentiality as it relates to aspects of the work.
- Ensure the effective and efficient use of resources [time, people, equipment, facilities]
- Participate in special projects to continuously improve processes, tools, systems and organisation.
- Take reasonable care to protect own health, safety and welfare at work and avoid affecting the health and safety of any other person at work.
- Participate in the implementation of the Institute's Work, Health and Safety Management System and related laws, regulations and guidelines.
- Ensure that duties are performed in keeping with the principles outlined in SAHMRI's Vision, Mission and Values and the **Code of Conduct Policy**.

SPECIAL REQUIREMENTS

- Some out of hours work may be required.
- Vaccinations appropriate to working with human blood.



Person Specification

QUALIFICATIONS

- BSc in Biochemistry or relevant field; PhD in biochemistry or relevant field is highly desirable

EXPERIENCE, KNOWLEDGE AND SKILLS

- Experience in cell biology.
- Experience in cell culture and biochemical techniques, such as transfection, transduction, western blotting, and fluorescence imaging.
- Working knowledge of lysosomal biochemistry is highly desirable.
- Ability and willingness to work with small laboratory animals and handle human blood.
- A level of physical health commensurate with working with small animals.
- Knowledge of relevant laboratory instrumentation, analytical procedures, data manipulation, and calculations.
- Able to develop, establish and validate methods, and accurately analyse experimental data.
- Able to utilise and apply relevant scientific literature.
- Able to plan and execute experiments in a scientifically and ethically sound manner.
- Able to apply excellent critical thinking and problem-solving skills.
- Demonstrate attention to detail.
- Proficient with the use of computers and data handling applications/software.
- Able to organise, self-direct, and prioritise work activities.
- Excellent verbal and written communication skills.
- Attention to detail.
- Sound time management skills.
- Able to maintain productivity under pressure and within time constraints.
- Able to work collaboratively and constructively within a team environment.
- Able to accept accountability and responsibility for own practice.
- Able to maintain confidentiality as it relates to aspects of the work.
- Able to function positively in a changing environment.



- Able to demonstrate the following SAHMRI Values and Culture:

- **Excellence** – Bold, Driven, Dynamic
- **Innovation** – Persistent and Focused
- **Courage** – Collaborative and Enabling
- **Integrity** – Embrace Diversity, Demand Equity
- **Teamwork** – Friendly, Fast, Flexible, Fun

LICENCES

- Nil required