Position title: Research Officer

Classification:

Division/Department: Cell Signalling and Cell Death

Work location: Parkville

Position reference: WEHI/CAJM

Employment type: Contract, full time

Remuneration range:

Further information: James Murphy, jamesm@wehi.edu.au

Position reports to: James Murphy

Closing date: 20 March 2015

Positions reporting to this one: none

Position overview

The Murphy lab is focused on the cellular signalling functions of a group of proteins related to protein kinases, called pseudokinases, which are believed to lack catalytic activity. In particular, we are interested in understanding their functions as molecular switches and how toggling these switches, whether by endogenous protein interactors or by small molecule modulators, regulates signalling pathways. A deeper understanding of these switch mechanisms will seed development of novel therapeutics to combat cancers and inflammatory diseases. The postdoctoral scientist will drive our efforts to characterise poorly-understood pseudokinases, including the necroptosis cell death effector MLKL, at a biological and molecular level.

Organisational environment

The Walter and Eliza Hall Institute of Medical Research

The institute, established in 1915, currently houses 14 research divisions, containing around 76 laboratories and 800 staff, with an annual budget of approximately A$100 million.

The institute’s research focuses on cancer (breast, cancer, leukaemia, lymphoma, multiple myeloma, lung cancer, colon cancer, and ovarian cancer), infectious disease (malaria, tuberculosis, HIV, and hepatitis) and chronic inflammatory and immune diseases (coeliac disease, type 1 diabetes, rheumatoid arthritis and transplantation) and continues a strong tradition of collaboration and interdisciplinary programs. The institute has a strong national and international reputation for performing highly influential research and for translation that leads to long term improvements in disease, diagnosis and treatment.

The institute’s main laboratories are located within the Parkville precinct, a vibrant hub for life science research, education and healthcare provision. In addition, the Walter and Eliza Hall Institute Biotechnology Centre is located 30 minutes from Parkville at La Trobe University’s R&D Park in Bundoora. The Biotechnology Centre features facilities for high-throughput chemical screening, medicinal chemistry, antibody production and malaria containment. The centre also functions as an incubator for the institute’s biotechnology companies.
Organisational objectives

Discovery
To make discoveries in medical biology that shape contemporary thinking and paradigms and enhance the understanding and treatment of disease.

Translation
To convert our discoveries into improvements in disease diagnosis, prevention and treatment.

Education
To develop and enrich the skills and experience of students and staff, allowing each person to realise their potential and contribute to a vibrant campus.

Engagement
To engage with the community and develop support for medical research generally and the institute’s mission specifically.

Sustainability
To build an infrastructure, funding and research capacity that enables the institute to fulfil its mission in a sustainable manner.

Organisational values

- Excellence in science, innovation, education and communication
- Creativity and inventiveness
- Diversity of thought
- Integrity
- Collaboration
- Mutual respect
- Honesty and transparency
- Ethical and social responsibility
- Equality of opportunity
- Continual improvement
Position description – Research Officer

**Key responsibilities**

The research officer will initially drive the biological and molecular level characterisation of poorly-understood pseudokinases, including the necroptosis cell death effector, MLKL. These studies will utilise molecular and cellular biology techniques, expression and purification of proteins (principally from insect cells), biochemical, structural and biophysical analyses, and proteomics.

**Key selection criteria**

**Personal qualities**

- Ability to drive a research project independently
- Ability to work collaboratively as part of a multidisciplinary team
- Ability to learn and develop new techniques methodically and rapidly
- Rigorous attention to detail

**Knowledge and skills**

- PhD or equivalent and laboratory experience
- Experience in cell culture techniques, including flow cytometry, immunoprecipitation, immunoblot
- Experience in protein crystallography including crystallisation, data collection and structure determination is preferred
- Experience in molecular cloning techniques and designing expression constructs
- Experience using gene editing methodologies in cultured cells would be advantageous
- Experience with protein expression and purification; demonstrable expertise using the Bac-to-Bac and/or MultiBac baculovirus/insect cell protein expression system would be viewed especially favourably

**Occupational Health and Safety**

- Comply with institute Health and Safety Policies and Procedures.
- Take reasonable care of own safety and the safety of others around.
- Use Personal Protective Equipment (PPE) and safety devices appropriately.
- Report all hazards, incidents and injuries.
- Attend training programs as documented in individual training needs matrices.
How and where to apply
Applicants are encouraged to submit a cover letter, current resume and three referees to jobapplications@wehi.edu.au quoting the position number.

Please address each of the key selection criteria separately in a written document.

Diversity
The Walter and Eliza Hall Institute is an Equal Opportunity Employer.
The institute encourages and welcomes interest from Aboriginal and Torres Strait Islanders for roles within the institute.

Privacy notification
The collection and handling of declarations and personal information relevant to your employment will be consistent with the requirements of the Privacy Act 1988.