Position description

Research Technician

Position title: Research Technician
Classification: HEW 5
Division/Department: Chemical Biology Division
Work location: L5E
Position reference:
Employment type: Full-Time
Remuneration range: $63,618 – 73,074
Further information: Ethan Goddard-Borger (03) 9345 2720 or goddard-borger.e@wehi.edu.au
Position reports to: Laboratory Head
Closing date: April 2016
Positions reporting to this one: None

Position overview

The Research Technician will provide technical and organisational support for the protein science research conducted within the laboratory of Ethan Goddard-Borger. The major focus of this laboratory is to understand how carbohydrate-containing molecules in biological systems are involved in the development and propagation of disease. We are actively developing small molecules to inhibit these processes with the ultimate goal of developing new therapeutics. The appointee will primarily be responsible for recombinant protein expression/purification as well as cloning and assembly of DNA constructs.

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.
Position description – Research Technician

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

Key responsibilities
1. Cloning of expression constructs
   • Routinely assemble DNA constructs to enable the recombinant expression of proteins in E. coli, yeast, insect and mammalian cells. This will involve tasks such as PCR, endonuclease digestion, ligation, LIC and Gibson cloning, gel electrophoresis, preparation of competent cells, transformation, DNA isolation and quantitation, preparing samples for sequencing etc.

2. Protein expression and purification
   • Routinely express and purify protein in E. coli, yeast, insect and mammalian cells (experience in asceptic technique required). This will involve tasks such as preparation of competent cells, transformation, transfection, harvesting and lysing cells, affinity purification, ion exchange, size exclusion and hydrophobic interaction chromatography, gel electrophoresis, CD spectroscopy, Bradford assays etc.

3. Maintaining clean, organised and well stocked laboratory
   • Organise and maintain the laboratory in a clean, well-stocked and orderly state. Ensure that the Laboratory Head is informed of items that need to be ordered and assist in sourcing the required reagents and consumables.

Key selection criteria
Personal qualities
• A strong work ethic, capacity to interact well with other lab members, ability to trouble-shoot and meticulous attention to detail are required.

Knowledge and skills
• Bachelor of Science (Honours)
• Extensive experience in protein expression and purification using E. coli systems (eg. preparation of competent cells; transformation; growing, inducing, harvesting and lysing cells; purifying protein using affinity methods, ion-exchange, hydrophobic interaction and size-exclusion chromatography; assessing protein samples by electrophoresis, western blot, Bradford assay etc).

• Experience in basic cloning techniques (PCR amplification, endonuclease digestion and ligation of DNA, LIC, Gibson cloning etc) to prepare expression constructs.

• Experience in protein expression using eukaryotic systems (eg. yeast, insect and/or mammalian cells) is highly desirable.

**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*. 