Position Description

Senior Flow Cytometry Scientist

Translational Research Institute, Brisbane, Australia

1. Background

The Translational Research Institute (TRI), based in Brisbane, is a leading Australian innovative medical research, development and translation facility. It is home to a range of cutting edge technology developments including interventions to prevent and treat human disease and provide diagnosis of early treatable disease. Situated on the Princess Alexandra Hospital Campus TRI combines the research intellect and capability of the University of Queensland, the Mater Research Institute, Queensland University of Technology, Metro South Health Hospitals including the Princess Alexandra Hospital as well as other private hospitals in the area. Housing up to 750 leading researchers and interfacing with the clinicians on the Hospital campus, and with the adjacent biopharmaceutical manufacturer, Patheon Biologics, TRI is one of a few places in the world where new biopharmaceuticals and treatments can be discovered, produced, clinically tested, and manufactured in one location. TRI is charged with interfacing scientific development with the commercial sector ensuring that scientific innovation is moved rapidly to improve patient outcomes. To this end TRI is at the interface of science, medicine and industry.

Details of research and current academic staff working at TRI can be found on TRI’s web site at www.tri.edu.au.

2. The Position

Reporting to the TRI Facilities Manager, the Senior Flow Cytometry Scientist will provide specialist research management advice and technical support for TRI flow cytometry research activities. This role is responsible for managing shared flow cytometry instruments such as Aria/Astrios sorters, LSRII, Fortessa, Accuri, CyAn, Cytoflex and Gallios analysis instruments, ensuring the facility equipment is properly operated and maintained, and the provision of equipment training to TRI research staff and students. A significant role of the Senior Flow Cytometry Scientist is also to provide support to researchers including: technical consultation on research/study experimental design and data processing, through to publication and prospecting for new technologies when they become available.

The Senior Flow Cytometry Scientist works closely with the other TRI facilities to provide key services in the translational research platform approach for the TRI Shareholder Institutes. The appointee is expected to follow all guidelines and regulations regarding implementation of the TRI safety management plan, WH&S audits, the maintenance of standard laboratory operating procedures, and risk assessment documentation.

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The Senior Flow Cytometry Scientist works with both TRI staff and staff from the Shareholder institutions who share the commitment to excellence in customer service. The appointee must be highly organised, detail orientated and motivated to learn new skills in a varied research setting that will benefit the researchers in TRI.

3. Key Responsibilities

Duties

The duties and responsibilities of the Senior Flow Cytometry Scientist include but are not limited to:

Facility Management
- Manage budget expenditure within delegated financial responsibility levels;
- Supervise and provide day-to-day leadership for other facility staff as required;
- Assist the Facilities Manager (“Strategic Services Coordinator” or “SSC”) in the development and implementation of the facility strategic plan;
- Liaise with the SSC and Academic Lead regarding benchmarking, standard operating procedures, equipment maintenance, equipment replacement, and grant applications;
- Assist the SSC with ensuring that facility KPI’s are met;
- Collaborate with the SSC and other Facility staff to facilitate cost effectiveness and provide value for money for all users; and
- Attend user group meetings and communicate regularly with the designated Academic Lead, and provide the SSC with information as required in a timely manner.

Operations
- Ensure the cytometers are operating effectively; at or above the QC standards set for the instrumentation by the manufacturer;
- Maintain ‘hands-on’ practical instrument operation skills for all instruments in order to maximise the service quality, efficiency and effectiveness of the equipment;
- Implement new applications, novel experiments and procedures as driven by user requirements;
- Undertake flow cytometry research that will provide enhancement of knowledge and provision of cytometric techniques to TRI researchers;
- Maintain up to date knowledge of the latest equipment, research and techniques in flow cytometry;
- Maintain equipment and the flow cytometry facilities infrastructure in compliance with regulations standards, procedures and policies, in line with TRI facilities maintenance and WHS requirements;
- Liaise with the SSC to ensure rapid resolution of any issues, incidences, breakdowns, and provide high quality communication with researchers leading to minimal down time and impact on the research/researchers; and
- Provide equitable access to facility services across shareholders.

Services
- Provide and oversee the provision of high quality cell sorting as a service for researchers in TRI;
- Assist with cell sorting and cytometric analysis using all of the cytometry facility equipment;
- Provide expert knowledge and assistance for research experimental design and data analysis/interpretation for all users.

Training

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Coordinate and provide access and training on the instruments in the facility to all researchers requiring access to the facility;

Undertake appropriate relevant training, attending meetings, workshops and conferences;

Provide training and support for researchers:
  o in the operation of the equipment in the flow cytometry facility;
  o in the preparation and handling of samples and development of standard techniques;
  o in the development of specialised techniques;
  o in the use of quantitative analysis tools and techniques; and

Provide training and support for facility staff development.

Other

Be available to work after hours, including weekends, from time to time; and

Provide support to TRI staff of other core facilities as required; and

Other duties as required by the SSC.

Communication and Customer Service

Facilitate open and effective communication with users (eg. for training, facility initiatives or service disruptions);

Liaise with company representatives and instrument engineers;

Liaise with other flow cytometry facilities in university and medical research institutes enabling knowledge exchange;

Communicate with the wider TRI community and externally about the services available in the facility and the research possibilities;

Have a high standard of customer service; and

Participate in facility open days and other marketing strategies for the facility as directed by the SSC.

Work Health and Safety

Ensure compliance with all requirements of Queensland Work Health and Safety (WHS) regulations as they apply to the role;

Ensure compliance with all other standards and regulations as they apply to TRI (e.g., OGTR, animal ethics, human ethics) and TRI policies and procedures;

Ensure any unsafe conditions, accidents or incidents are reported via the TRI Accident and Incident reporting module to the WHS Manager;

Comply with the TRI Code of Conduct and other policies and procedures;

Ensure that the flow cytometers are operated safely, emphasizing laser, mechanical, electrical and infectious agent safety;

Maintain a risk register and SOP register for the facilities equipment training and procedures; and

Assist with audits (including assets, waste disposal, WHS, DAg Biosecurity, OGTR, chemicals).

4. Reporting Relationships

The position reports to the Facilities Manager. There are two Flow Cytometry Officers that report to this position.
5. Selection Criteria

Experience, Skills and Knowledge

Essential

- Relevant experience in a scientific role within a research environment, with experience in the application of flow cytometry techniques to biomedical or preclinical research projects;
- Knowledge of and experience in cell sorting and multi-colour cell analysis technologies;
- Knowledge of and experience in flow cytometric data analysis software, DiVa, Kaluza, FlowJo, WinList, WinMDI or equivalent, for data acquisition, processing and presentation;
- Knowledge of research environment and PC2,3 awareness and requirements;
- Expertise in experimental design method implementation and documentation and data analysis; and
- Knowledge of relevant WHS, OGTR legislative requirements and other standards associated with working in this type of facility.

Desirable

- Expertise in flow cytometry experimental design, method implementation and documentation
- Knowledge of and practical experience in the development of advanced flow cytometry techniques;
- Experience in managing small teams of 1-2 staff; and
- Techniques in Molecular Biology, Tissue Culture, Hematology, Immunology and Cell Biology.

Personal Qualities

Essential

- Clear communication techniques and teaching skills, with the ability to introduce flow cytometric techniques to both experienced and novice researchers;
- Highly motivated with demonstrated initiative;
- Ability to work in a flexible, well-organised and efficient manner;
- High level of attention to detail;
- Ability to work both independently and as part of a team, including supervising others;
- Must be able to liaise effectively and relate well to research staff and students; and
- Methodical approach to problem solving.

Qualifications

Essential

- BSc (Hons)/MSc or PhD in a relevant discipline, with subsequent relevant experience, or an equivalent combination of relevant experience and/or education/training.

Desirable

- A proven research track record;
- Significant experience within a flow cytometry facility with similar equipment; and
- Member of appropriate professional flow cytometry body such as the Australian Flow Cytometry Group or the International Society for Advanced Cytometry.