Position Description

NAME:	**Incumbent**
JOB TITLE:	**Research Officer – High throughput *in vitro* drug screening (HTS)**
DEPARTMENT:	**Zero Childhood Cancer Program**
THEME	**Personalised Medicine**
DIVISION:	**Research**
REPORTS TO (TITLE):	**Zero Preclinical Drug Testing Core Senior Scientist**
LAST DATE REVIEWED:	**August 2020**

JOB SUMMARY

The Zero Childhood Cancer national personalised medicine Program (ZERO), a joint initiative of Children's Cancer Institute and Kids Cancer Centre, Sydney Children's Hospital, Randwick, was established to identify improved treatment options for paediatric cancer patients. Strategies to identify personalised treatment options include full molecular profiling of tumour biopsies, high-throughput *in vitro* drug testing on patient-derived model systems and *in vivo* drug validation in patient-derived xenograft models. ***To elevate the in vitro drug testing pipeline to the highest level of clinical translation, you are a highly enthusiastic and motivated Research Officer with a great interest in improving treatment options for children with cancer using high-content data.*** The Research Officer will support the Zero Preclinical Drug Testing Core Senior Scientist with the design and implementation of methods and (laboratory) technologies to improve the *in vitro* drug testing pipeline, data analysis and interpretation and data sharing with clinicians and other team members involved, and will contribute to the design and performance of strategic research projects to enhance the testing platform and accelerate improved treatment options for children with cancer. This position requires excellent teamwork and communication skills, adaptability, meticulous attention to detail, and close adherence to deadlines so that test results can be provided in a timely manner.

PRIMARY TASKS / RESPONSIBILITIES

- Update and maintain a drug information database containing all relevant information for *in vitro* testing (i.e. compatibility with solvents, active metabolites) and clinical translation of drug testing results (i.e. targets, blood-brain barrier permeability, maximum tolerated plasma concentrations, development phase, availability of paediatric doses)
- Have knowledge on and be able to perform all steps involved in high-throughput screening of small molecule libraries for *in vitro* drug efficacy testing on patient-derived cells from haematologic and solid tumours
- Support with data analysis and interpretation
- Support with organising and leading drug curation meetings to share and discuss drug screening results with treating clinicians and other team members involved in the Zero Childhood Cancer national precision medicine trial
- Support with the design of drug combination screens for implementation in the preclinical drug testing pipeline

- Design and implement other methods or (laboratory) technologies to improve the *in vitro* drug testing pipeline
- Design and carry out research projects with high strategic priority as agreed
- Contribute to and develop relevant manuscripts
- Guide and support the Research Assistants/Technicians working on *in vitro* drug testing as part of the national precision medicine trial
- Supervise undergraduate and/or higher degree students
- Participate as a team member within the Preclinical Drug Testing Core team, working with other Research Officers, Research Assistants, team coordinators and other members of ZERO and the Personalised Medicine Theme as needed, and report on HTS progress
- Compliance with OH&S requirements for handling of human samples and according to Institute policies
- Compliance with privacy legislation, ethics guidelines and the legal requirements for research involving human material
- Compliance with relevant legislation and Australian standards

MINIMUM REQUIREMENTS

Qualifications

- Minimum PhD degree in relevant scientific field or related area

Experience and requirements

- 5+ years laboratory experience
- Experience with cancer cell biology
- Experience with *in vitro* drug testing including drug combination testing is highly desirable
- Experience with primary cell cultures is highly desirable
- Experience with supervising students and/or Research Assistants/Technicians is highly desirable
- Experience with writing manuscripts
- Advanced computer skills
- Experience with PC2 and WHS standards and behaviour highly desirable
- Commitment to conducting experiments involving humans, animals & GMOs under strict ethical and regulatory guidelines

KEY SKILLS

- Demonstrated initiative
- High level technical skills
- Highly developed interpersonal skills
- Excellent listening, verbal, and written communication skills
- Advanced analytical skills
- Ability to quickly respond and adapt to situations as they arise
- Excellent attention to detail
- Flexible attitude to work and ability to work to deadlines
- Ability to maintain confidential information
- Advanced organisational skills
- Ability to work independently and as part of a team as necessary

EXPECTED OUTPUTS

- *In vitro* drug sensitivity data with an improved clinical value and generated in a timely manner for an increased number of patients enrolled in the national trial
- Clinically relevant reference efficacy datasets for single drugs and drug combinations to support drug hit calling and prioritisation for individual patients enrolled in the national trial
- Knowledge on the molecular similarity between *in vitro* model systems and matching tumour biopsies
- Novel biomarker-drug efficacy associations
- A more advanced *in vitro* drug testing platform with novel integrated methodologies and technologies contributing to an improved clinical translation
- Reproducible, high-quality research data
- Collaborations with research teams and stakeholders in the Zero Childhood Cancer program to assist in the generation and integration of *in vitro* drug efficacy data into personalised treatment recommendations for children with cancer
- Contribute to the planning and completion of scientific manuscripts arising from the work

Children's Cancer Institute policies applicable

- Code of Conduct/Ethics
- Whistle-blowing
- Use of Electronic Resources
- Workplace Health & Safety
- Appropriate Workplace Behaviour
- Privacy
- Any other policies not listed here but are available on the Children's Cancer Institute Intranet Policies pages

SERVICE STANDARDS AND GENERAL EXPECTATIONS

- Respond to phone calls and emails within 48 hours
- Read internal communications within 48 hours
- Maintain up to date personal information in the HRIS (ConnX - Self Service) at all times

OUR VALUES

A is for **Accountability** and **Integrity**

C is for **Camaraderie**, **teamwork** and **Sharing**

E is for **Excellence** and **Success**

S is for **Satisfaction. The result of living our values everyday**

COMPLIANCE AND CODE OF ETHICS AND CONDUCT

Staff members are responsible for ensuring that they are familiar with and comply with their conditions of employment as stated in their individual contract, all Children's Cancer Institute Policies and Procedures and relevant ethical and regulatory guidelines. Staff must be aware that breaches by individuals will not be tolerated or condoned and may be subject to the Disciplinary Action Policy.

Your knowledge and awareness of Children's Cancer Institute Policies and Procedures (including the Code of Ethics and Conduct), will be monitored from time to time to ensure that our compliance program is effective.

Part of compliance adherence involves the use of standardised forms, checklists, and other aids (as appropriate) to ensure that important compliance issues are not overlooked. All forms must be used in accordance with instructions and the procedures as outlined in the relevant policies and procedures to ensure that compliance to the laws and regulations occurs.

WORK HEALTH & SAFETY

- Must adhere to all WHS policies and procedures including reporting incidents within 24 hours
- Take reasonable care for their own health and safety and the health and safety of other people who may be affected by their conduct in the workplace
- Actively participating in health and safety meeting, training and induction programs
- Complying with all safe work procedures and instructions
- Use equipment in compliance with relevant procedures, without wilful interference or misuse
- Ensure that any hazardous conditions, near misses and injuries are reported immediately to the supervisor and in the WHS reporting system (Myosh)
- Must not wilfully or recklessly interfere with or misuse anything provided in the interest of environment health and safety or welfare

REPORTING STRUCTURE

Position reports direct to: Senior Scientist – Preclinical Drug Testing Core – *in vitro* HTS

Departmental Structure: See Organisation Chart

Note: *Reporting structure may change subject to management decisions and business requirements.*