

Position Description

Postdoctoral Research Scientist Storr Liver Centre

The Institute

The Westmead Institute for Medical Research is one of the largest medical research institutes in Australia with over 600 staff and students across 11 research centres. Its research spans infectious and immune diseases; cancer and leukaemia; liver and metabolic diseases; eye and brain related disorders and heart and respiratory disorders.

Closely affiliated with the University of Sydney and Westmead Hospital, the Institute's research extends from the laboratory to the patient using the basic tools of molecular and cell biology, genetic epidemiology, imaging technology and clinical research. Biomedical research in the Institute extends into clinical research programs across a wide range of disciplines which may interface with the many clinical trials in progress at any one time. This "bench to bedside" approach enables greater translation of research from biomedical discovery to the development of new prevention strategies, diagnostics and more effective treatments.

Position

The Postdoctoral Research Scientist will be responsible for the provision of scientific expertise in relation to a NSW Cancer Council funded research grant. The role involves supervision and training of junior team members and students as well as hands-on laboratory research both in vitro and in small animals.

This is a full-time, fixed term appointment with the potential of extension depending on funding availability and mutual agreement.

Reporting to: Liang Qiao, Associate Professor and Principal Research Fellow, Storr Liver Centre

Major Responsibilities

The Postdoctoral Research Scientist is responsible for the following:

- Direct, perform and troubleshoot laboratory bench work (including maintaining accurate written & electronic records).
- Perform in vivo experiments in small animals (rats, mice).
- Supervise and support junior staff and students to ensure they perform their daily responsibilities to satisfaction.
- Analyse and graph data, perform bioinformatic and statistical analysis on results.
- Present research findings at departmental, national and international meetings as required.
- Write abstracts for conferences;
- Write manuscripts for publication including preparation of figures, tables, and other required documents.
- Assist in grant writing of all levels.
- Be accountable for consumable expenditure, ordering in a timely, cost effective manner.

Selection Criteria

Experience

- PhD in Molecular Biology, Cell Biology, Biochemistry, Medicine, Pathology, Virology, or related fields and subsequent laboratory experience in the field of solid cancers, particularly in liver cancer.
- Desirable experience: grant writing, manuscript preparation.

Skills/Knowledge

Essential:

- Small animal handling skills (mice, rats).
- Basic and practical knowledge with aptamers (design, characterization, and applications in in vitro and in vivo studies).
- Tissue culture (primary cancer cells, cancer cell lines).
- Isolation of primary tumor cells from human cancer tissues.
- Confocal microscopy, live cell imaging.
- Flow cytometry, cell sorting
- Human and animal tumor tissue processing (cryosectioning, sectioning, H&E staining), immunohistochemistry,
- Molecular biology (e.g., transfection, cloning, subcloning, plasmid construction, siRNA gene knockdown)
- Skills in culture, identification, and characterization of cancer stem cells is essential.
- Knowledge and experience in the field of gene regulation and signal transduction
- Data analysis by the commonly used statistic tools.

Highly desirable:

- 3D/organoid culture;

Behaviours/Attributes

- Ability to work in a cooperative/collaborative environment;
- Good communication skills (oral and written);
- Be reliable and honest.

Key Relationships

The Postdoctoral Research Scientist reports directly to the Director of the Storr Liver Centre and the Principal Research Fellow with regard to research progress. In addition, the Postdoctoral Research Scientist may have a research assistant directly reporting to them who would require daily research direction and supervision. The Postdoctoral Research Scientist needs to effectively and harmoniously interact with students, visiting scholars, and other postdoctoral fellows in the group.

Written by:

Signature:

Date:

Approved by:

Signature:

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Acknowledged By:

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