



POSITION DESCRIPTION

POSITION TITLE:	Postdoctoral Research Fellow
POSITION LOCATION:	Olivia Newton-John Cancer Research Institute
CLASSIFICATION:	Postdoctoral Research Fellow
EMPLOYMENT TYPE:	Full time and fixed term

POSITION CONTEXT:

The Olivia Newton-John Cancer Research Institute (ONJCRI) is an independent medical research The Olivia Newton-John Cancer Research Institute (ONJCRI) is an independent medical research located in Heidelberg. Our mission is to discover and develop breakthrough therapies to help people live better with cancer and defeat it. Our research laboratories sit alongside patient treatment facilities to optimise collaboration between researchers and clinicians. The integration of laboratory and clinic ensures the rapid translation of scientific discoveries into clinical trials for the development of new cancer treatments. The position is within the Oncogenic Transcription laboratory, which is involved in basic research investigating the molecular basis for the development of gastrointestinal cancers.

PRIMARY RESPONSIBILITIES:

Cancers of the gastrointestinal tract, including cancers of the colon, stomach and biliary tract are a leading cause of cancer-related deaths. The loss of differentiation is a key feature of these cancers and our group has been investigating the transcriptional and signalling mechanisms which drive this process.

Broadly, the research project of the Postdoctoral Fellow will involve investigating the role of key transcription factors in driving loss of differentiation of gastrointestinal cancers. The project involves molecular approaches including over and under-expression of transcription factors and assessment of the impact on tumour cell biology in cell lines, assessment of their role *in vivo* by generating novel transgenic and knockout mouse models, and characterizing their expression in primary tumour specimens using immunohistochemistry and bioinformatics.

The project will also involve molecular and cell biology studies to determine the mechanisms by which these transcription factors act, including characterizing their genome-wide binding profiles using approaches such as ChIP-Seq, assessment of their interactions with other proteins and subcellular localization, and assessment of their regulation by signalling pathways and epigenetic processes.

Established mouse models, microarray gene expression and mutation databases, a large collection of cancer cell lines and primary tumour specimens are available to support this project.

The Postdoctoral Fellow will be expected to develop an innovative research program based on these themes, and initiate experiments and collaborations necessary to achieve the successful completion of this project. The post-doctoral Fellow will be expected to contribute directly to the preparation of grant applications and publications relating to this work.

REPORTING LINES:

This position reports to the Laboratory Head, Oncogenic Transcription Laboratory. There are no direct reports however the Postdoctoral Research fellow is expected to be involved with supervision of research staff and students.

KEY RELATIONSHIPS:

The following key relationships that are an essential component of the position include:

Internal:

Scientists and staff within the Oncogenic Transcription Laboratory
Other groups within the ONJCRI
Administration staff of the ONJCRI

External:

Major collaborators in Melbourne and overseas
Relevant hospital departments and groups
Other collaborators as warranted by the program

ACCOUNTABILITIES:*Experimentation*

- Develop a research program consistent with the overall goals of the laboratory and project described above
- Establish or access new or existing technologies and techniques applicable to the research goals
- Publication of manuscripts and application for grant funding

Supervision

- Provide support and direction to other staff and students in the laboratory

Other

- Maintain currency in the relevant scientific literature
- Attend and present data at relevant scientific conferences
- Participate in wider Institute activities

AUTHORITY:

Delegated authority is in accordance with ONJCRI policies and procedures.

CHALLENGES:

This is a position at a senior level and the applicant's intellectual input and scientific expertise will be encouraged. However, while the successful applicant will be given the flexibility to work on the projects applicable to their interests and skill base, it must be totally consistent with the goals and

directions described under *Accountabilities*.

QUALIFICATIONS:

Minimum qualification is a PhD in a relevant field. Applicants with postdoctoral research experience are preferred, however applicants who have just completed their PhD studies and submitted their thesis will be considered. Experience in a relevant field of cancer biology, cell physiology, molecular biology or with genetic mouse models is highly desirable.

EXPERIENCE & CAPABILITIES:

Generic:

- Dedicated and enthusiastic work ethic and a proven track record in cancer cell biology, cell biology, molecular biology or with genetic mouse models.
- Capability to work with drive and independence and be capable of a high standard of written and oral communication.
- The position requires strong interpersonal skills. This is a substantial position, with the potential to provide opportunities for the supervision of students and research assistants.
- The successful applicant will be responsive to the regulations stipulated by the ONJCRI's Animal Ethics and Safety Committees, the Australian Quarantine Inspection Service (AQIS) and the Office of the Gene Technology Regulator (OGTR), and other committees and regulatory bodies as applicable.

Specific:

The successful applicant is likely to be accomplished in several of the following technical areas:

- Molecular Biology (Cloning, transfection, qPCR, ChIP and RNA-Seq)
- Bioinformatic analysis of RNA and ChIP-seq data
- Mouse models of GI cancer
- Cell Biology
- Histology, immunohistochemistry
- Light and fluorescence Microscopy
- Biochemical assays (Western blots, enzyme activity assays, IP, subcellular fractionation)
- Computer skills (Word processing, Powerpoint, Excel, database use, EndNote)
- Electronic data management