POSITION DESCRIPTION

Position Title:	Research Officer in Bioinformatics/Computational Biology
Location:	SAHMRI North Terrace
Reports To:	Associate Prof. David Lynn, EMBL Australia Group Leader
Department:	Infection and Immunity

Purpose of the Position
The Research Officer in Bioinformatics/Computational Biology will work as part of a team that includes both computational biologists and wet-lab scientists investigating the immune system and cancer from a systems biology perspective.

Key Performance Indicators

- Effective and efficient contribution to research in the SAHMRI Infection and Immunity theme.
- Demonstrated ability to effectively manage multiple difference projects simultaneously.
- Research leading to high quality publications and other research outputs.

Scope of the Position
Reporting to Associate Prof. David Lynn, the position will also work closely with researchers in the Lynn Group and with other members of the Infection and Immunity Theme at SAHMRI.

Key Responsibilities

- Implement and develop efficient pipelines for the analysis of a wide range of NGS based data and where necessary develop new custom bioinformatics methods and/or pipelines for projects in the group/theme.
- Implement machine learning based approaches to identify novel biomarkers of disease based on NGS data.
- Provide collaborative support to others in the group/theme with bioinformatics components of their projects.
- Lead or assist with drafting publications relating to the projects.
- Assist in the smooth running of projects and the wider group (e.g. help to prepare project reports).
- Contribute to development of competitive funding applications.
- Participate in special projects to continuously improve processes, tools, systems and organisation.
- Take reasonable care to protect his / her own health, safety and welfare at work and avoid affecting the health and safety of any other person at work.
- Ensure that duties are performed in keeping with the principles outlined in SAHMRI's Vision, Mission and Values and the **Code of Conduct**.

Special Requirements:

- It may be required that the person works beyond regular hours on occasion to meet deadlines etc.

PERSON SPECIFICATION

Qualifications

- Honours BSc or preferably higher degree in Bioinformatics, Computer Science, Physics, Statistics or other relevant discipline.

Essential Experience, Knowledge and Skills

- Prior experience working in genomics/NGS bioinformatics
- Advanced programming skills in several of the following: Python, R, C++, Perl, SQL, Java.
- Demonstrated experience with the analysis of next generation sequencing data particularly RNAseq, microRNAseq and ChIPseq.
- Demonstrated experience in the downstream integrative analysis of this data (e.g. pathway, network analyses).
- Active collaboration and the ability to manage multiple difference projects simultaneously is essential.
- Prior experience working in a high performance computing environment.
- Knowledge of biological systems, with experience in immunology/microbiology being particularly desirable.
- Demonstrated problem solving and communication skills.
- Must be highly collaborative, be a strong team player and be able to manage multiple ongoing projects.
- Able to demonstrate the following SAHMRI Values:
    - Excellence – be the best you can be
    - Imagination – challenge conventional thinking and pursue novel, ground-breaking ideas
    - Integrity – act fairly, ethically and respectfully
    - Courage – take initiative, be adventurous, creative and bold
    - Teamwork – collaborate openly and inclusively
    - Equity and Diversity – embrace equity, diversity and reconciliation

Highly Desirable Experience, Knowledge and Skills

- Post-doctoral experience working in genomics/NGS bioinformatics.
- Prior publications in bioinformatics.
- Prior experience in machine learning/biomarker discovery and validation.
- Prior experience in microbiome analysis, metagenomics.