POSITION DESCRIPTION
Senior Research Officer
Musculoskeletal Genomics Group

Position Title	Senior Research Officer (Postdoctoral Research Fellow)
Division	Musculoskeletal Genomics Research Group
Position Purpose	The Senior Research Officer is responsible for a range of research tasks including **to undertake internationally competitive statistical genetics research** in the **Musculoskeletal Genomics Group at Mater Research**. The research focus of this group is **to combine statistical and molecular genetics methods to identify cellular and genetic determinants of musculoskeletal disorders and their co-morbidities**
Location	Translational Research Institute, Woolloongabba
Occupational Category and Level	MR Academic R2 (Academic Level B)
Reporting Relationship	Reports to Dr John Kemp, Group Leader, Musculoskeletal Genomics Group
Review Date	May 2023
Next Review Due	July 2024

Staff Member		**Signature**	**Date**
Direct Supervisor		**Signature**	**Date**

1. OVERVIEW

Mater Group

As a Catholic not-for-profit ministry of Mercy Partners, Mater Group is committed to meeting the healthcare needs of our community through an integrated approach to our health education and research services, which is focused on delivering the highest quality care for our patients. For more than a century in Queensland, Mater has been defined by an abiding commitment to meeting the healthcare needs of the community.

Today, our Mission and Mercy Values continue to guide Mater people in making appropriate decisions for a sustainable, socially relevant healthcare service that is genuinely committed to the community it serves. Mater Group comprises Mater Health, Mater Education, Mater Research and Mater Foundation.

Mater Research

Mater Research (MR) is a world-class institute that is committed to conduct, enable and translate clinically relevant health research. With more than 300 laboratory and clinical researchers working across Mater's hospitals and the world-class Translational Research Institute (TRI), Mater Research is committed to working closely with Mater Health, Mater Education and our growing network of partners to turn scientific discovery into the best possible treatment, care, and outcomes for patients and our broader community.

Mater Research Institute – The University of Queensland

MRI-UQ is an alliance between Mater Research and UQ, providing strategic benefits to both partners. Mater Research brings to the alliance considerable clinical collaboration opportunities and UQ brings all its expertise as a research, education and teaching institution. Mater Research employees, through an affiliation to MRI-UQ have access to world-class research infrastructure and systems.

Translational Research Institute (TRI)

Focusing on a wide range of health and medical research areas, the Translational Research Institute (TRI) is a joint venture between Mater Research (MR) The University of Queensland Diamantina Institute (UQDI), Queensland University of Technology's Institute of Health and Biomedical Innovation (IHBI), and the Princess Alexandra Hospital's Centres for Health Research. The Translational Research Institute brings these research facilities together with the aim to improve and accelerate the translation of medical research into greater patient care.

2. HOURS

This is a full time appointment. Working hours need to be agreed with one's supervisor. As with all scientific institutes, we acknowledge the need for flexibility in working hours in order to undertake the experimental procedures appropriate to individual projects.

3. PURPOSE OF POSITION

The Research Officer is expected to undertake internationally competitive statistical genetics research in the Musculoskeletal Genomics Group. The research in this group is focused on combining statistical and molecular genetics approaches to identify cellular and genetic determinants of musculoskeletal disorders and their co-morbidities

The principal investigator and Research Group Leader is Dr John Kemp. The group's research program concerns the use of statistical genetics and molecular approaches to identify cellular and genetic determinants of musculoskeletal disorders (and their co-morbidities). The focus of this position will be on identifying genetic and lifestyle determinants of abdominal aortic calcification that predispose to cardiovascular and related disorders. The Research Officer will also contribute broadly to other Projects in the lab and be supported to develop new research directions.

In general, at Mater Research, a Senior Research Officer at Level R2 / Academic level B is expected to develop a coherent research program, to work within a research group, supervise students and junior staff where appropriate, participate in applications for competitive research funding, support and publish or exhibit in high-quality outlets (often in collaboration with colleagues) in a manner consistent with disciplinary practice. This work is conducted under the guidance and leadership of the Research Group Leader.

4. POSITION DESCRIPTION

4.1. Research

- Develop a coherent research program and an emerging research profile in the areas of musculoskeletal genomics research, that involves and multi-omics analysis of complex traits and diseases including (but not limited to) osteoporosis, osteoarthritis, and cardiovascular disease
- Acquire and maintain familiarity with relevant scientific literature and participate in regular meetings to discuss project objectives, methodology and outcomes
- Assist in the preparation of research papers for publication and presentation at conferences and workshops, and in the writing of research grant applications, ethics, and compliance documents
- Assist in the supervision of junior staff and students and contribute to the smooth running of a laboratory
- Attend, as appropriate, research related and organisational events.

4.2 Administration

- Prepare regular written reports in keeping with the requirements of funding and organisational guidelines as requested.

4.3 Safety in the Workplace and Human Resources

- Observe all occupational health and safety, security and equal employment opportunity initiatives to contribute to a safe, healthy and ethical workplace
- Report any potential hazards to the reporting officer
- Ensure compliance with Workplace Health and Safety (WHS) Standards.

4.4 Expression of the Mater Values

- Promote and demonstrate the Vision, Mission, and Values of Mater Research Limited as well as the Mercy Values:
    - We honour and promote the dignity of human life and all creation
    - We act with compassion and integrity
    - We strive for excellence

- Demonstrate personal attentiveness, sensitivity and non-judgemental manner when interacting with team members, collaborators, and research participants
- Act with integrity, speak with good judgement, and demonstrate respect for others
- Demonstrate values based decision-making and leadership.

5. PRIMARY DELEGATIONS AND ACCOUNTABILITIES

- The Research Officer will be accountable to the Group Leader
- Develop a strong working relationship with the Principal Investigators and Co Investigators to ensure effective and timely implementation of clinical research
- Demonstrated understanding and commitment to following guidelines, codes, or regulations is required:
    - Australian Code for the Responsible Conduct of Research
    - NHMRC National Statement on Ethical Conduct in Research Involving Humans
    - Australian Code for the Care and Use of Animals for Scientific Purposes
- Research activity will be undertaken according to the guidelines established by the Institute's Executive Team
- The use of Institute property, equipment and technical support facilities will respect the guidelines established by the Institute
- Preparation of applications for funding, commercial interactions and financial management of grants shall adhere to the process established by the Institute.

6. INTELLECTUAL PROPERTY

Mater Research will require the assignment of all rights, in and to all discoveries, and inventions made, developed, or devised while working at or under the guidance of the Mater Research, during the term of the appointment.

7. SELECTION CRITERIA

The successful candidate will possess the following knowledge, experience, or attributes:

a) Strong academic track record, including a PhD (or nearing completion) in the area of statistics, statistical genetics, bioinformatics, or a related discipline,
b) Demonstrated skills in statistics, statistical genetics, or bioinformatics with least one high quality publication relating one of these disciplines
c) Experience conducting genetic association studies, including genome-wide, whole exome, or whole genome studies and associated downstream analysis including Mendelian Randomization.
d) Expert knowledge and experience in analysing large datasets using specialist software and bespoke scripts written using appropriate programming languages (i.e., bash/Perl/Java/R/Python/C)
e) Rudimentary understanding of computer vision technologies, and associated software
f) Rudimentary understanding of single-cell technologies, and associated software

8. REVIEW

The position will be subject to regular check-ins through Mater's LEAP career development module.