



RESEARCH FELLOW – PROTECTIVE AND ABERRANT IMMUNITY

DEPARTMENT/UNIT	Department of Biochemistry and Molecular Biology
FACULTY/DIVISION	Faculty of Medicine, Nursing & Health Sciences
CLASSIFICATION	Level B
WORK LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

Monash is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit www.monash.edu.

The **Faculty of Medicine, Nursing and Health Sciences**, is the largest faculty at Monash University, and offers the most comprehensive suite of professional health training in Victoria. We consistently rank in the top 40 universities worldwide for clinical, pre-clinical and health sciences.

We want to improve the human condition. That is our vision - it has no expiration date. Through academic health centres, other translational models and by educating the healthcare workforce of the future, our staff, students and alumni directly improve quality of life.

Setting the global health care agenda, the Faculty aspires to lead in all areas of research activity and influence local, national and international policy to improve health and social outcomes and health inequalities. We've made a major impact in the world of medical research and become globally recognised for our quality education of over 41,000 doctors, nurses, and allied health professionals.

We are ambitious and aim to maintain our position as a leading international medical research university. We're recognised for the breadth and depth of our research, for our commitment to translational research, for the quality and scale of our research capability, and as a thriving biotechnology hub.

To learn more about the faculty, please visit monash.edu/medicine.

The **Monash Biomedicine Discovery Institute (BDI)** is one of the largest and most dynamic biomedical research and teaching environments in Australia. The Institute and its cognate Departments of Anatomy and Developmental Biology, Biochemistry and Molecular Biology, Microbiology, Pharmacology and Physiology comprise over 120 research groups and deliver discipline-focused teaching into our flagship Bachelor of Biomedical Science Degree, the Bachelor of Science Degree, as well as the Medical School and various Health-related Degree Programs. We pride ourselves on an excellent and evolving teaching curriculum and provide world-class teaching and learning space for Biomedical Sciences.

The BDI comprises six inter-disciplinary health-focused research Programs, each led by a renowned leader in the field. The BDI programs include Infection and Immunity, Cancer, Cardiovascular Disease, Development and Stem Cells, Metabolism, Diabetes and Obesity and Neuroscience. The BDI works closely with clinical and drug development precincts at Monash and has a number of major industry partnerships to facilitate the translation of our research. For more information about the BDI please visit our website at www.monash.edu.au/discovery-institute.

The **Department of Biochemistry & Molecular Biology** is the largest of the five departments in the School of Biomedical Sciences. Biochemistry and molecular biology are closely-related disciplines which study the chemical components of living cells, including the genetic material, in order to understand biological processes and how these are altered in disease.

Research and teaching in the department encompasses six broad themes: cell biology, signal transduction, host/pathogen interaction, structural biology, immunology and developmental biology. Our research is highly relevant to major human diseases and pathological processes, including infection, inflammation, diabetes and obesity, developmental and degenerative disorders, cardiovascular disease, and cancer. The Department has been ranked as the premier Department in its discipline since the inception of ARC benchmarking of Australian Departments in 1998.

Further details about the department can be found at www.med.monash.edu.au/biochem/.

The **Rossjohn Laboratory**, as part of a broad collaborative network that includes lead national and international researchers, has provided profound insight into T-cell immunology, specifically defining the basis of key immune recognition events by T-cells. The laboratory has notably pioneered our understanding of lipid-based immunity by the innate Natural Killer T-cells (NKT) and the role of MAIT cells in recognizing vitamin B metabolites. The laboratory is also now exploring opportunities with industry, specifically Janssen, for the development of new therapies to treat rheumatoid arthritis.

To learn more about the Rossjohn laboratory, please visit <http://research.med.monash.edu.au/rossjohn/>.

POSITION PURPOSE

A Level B research-only academic is expected to carry out independent and/or team research within the field in which they are appointed and to carry out activities to develop their research expertise relevant to the particular field of research.

As part of a broad collaborative network that includes lead national and international researchers, has provided profound insight into T-cell immunology, specifically defining the basis of key immune recognition events by T-cells. The laboratory has pioneered the areas of lipid- and metabolite- based antigen recognition and fundamentally advanced our understanding of T cell development and different facets of T cell mediated immunity including MHC restriction, self-tolerance, alloreactivity, autoimmunity, and aberrant and protective T cell responses. The laboratory seeks to build upon current findings and ongoing research aimed at understanding the molecular interactions and mechanisms that shape T cell responses directed against viral infections (e.g. HIV, CMV, EBV).

Reporting Line: The position reports to the Head of the Infection & Immunity Laboratory

Supervisory Responsibilities: This position provides direct supervision to 2 staff

Financial Delegation: Not applicable

Budget Responsibilities: Yes, in line with Key Responsibilities

KEY RESPONSIBILITIES

Specific duties required of a Level B research-only academic may include:

1. The conduct of research either as a member of a team or independently and the production of conference and seminar papers and publications from that research
2. Supervision of research-support staff involved in the staff member's research
3. Guidance in the research effort of junior members of research-only Academic staff in their research area
4. Contribution to the preparation or, where appropriate, individual preparation of research proposal submissions to external funding bodies
5. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
6. Administrative functions primarily connected with their area of research
7. Occasional contributions to the teaching program within the field of the staff member's research
8. Co-supervision or, where appropriate, supervision of major honours or postgraduate research projects within the field of the staff member's area of research
9. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees
10. Exercise strong budget management for the project(s) managed to a value of \$50,000

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification in the relevant discipline area; or
 - equivalent qualifications or research experience

Knowledge and Skills

2. Demonstrated statistical analysis and manuscript and research proposal preparation skills; including a solid track record of refereed research publications
3. Experience in successfully supervising, mentoring and coaching to support the development of research staff and/or a demonstrated trajectory of leadership capability
4. Experience in supervising and working with major honours or postgraduate students within the discipline
5. The ability to work both independently in a research environment and as part of an inter-disciplinary research team
6. High level organisational skills, with demonstrated capacity to establish and achieve goals
7. Excellent written and oral communication skills
8. Demonstrated capability in positively contributing to laboratory meetings, seminars and journal club meetings
9. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
10. Advanced computer skills with experience using Microsoft Word, Excel and PowerPoint; specific experience in working with a range of analytical software such as Prism

OTHER JOB RELATED INFORMATION

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time

- There may be peak periods of work during which taking of leave may be restricted

LEGAL COMPLIANCE

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.