RESEARCH FELLOW

DEPARTMENT/UNIT        Department of Biochemistry and Molecular Biology

FACULTY/DIVISION       Faculty of Medicine, Nursing and Health Sciences

CLASSIFICATION       Level B

DESIGNATED CAMPUS OR LOCATION Clayton campus

ORGANISATIONAL CONTEXT

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You’ll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you’ll need to publish your work. We’re a university full of energetic and enthusiastic minds, driven to challenge what’s expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at 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 www.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/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 encompass 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.

For more information about the BDI please visit our website at www.monash.edu/discovery-institute/departments/biochemistry-and-molecular-biology.

**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.

The increased incidence of microbial resistance to antibiotics and antifungals (so-called AMR) drives poorly treatable and untreatable infections that threaten lives. These infections present a significant problem for patients in oncology, surgical and COVID-19 wards, as well as those in intensive care. Improved solutions to this pervasive problem require new thinking, interdisciplinary collaborations and the training of a future generation of AMR researchers.

In response, the Monash-Warwick Alliance has established an interdisciplinary AMR Training Program in Emerging Superbug Threats, led by Professor Ana Traven (Monash) and Professor Greg Challis (Warwick/Monash). The Program will deliver promising new approaches to AMR by combining approaches from infection biology, chemical and synthetic biology, materials science, biophysics and pre-clinical testing.

We are seeking to attract (and retain) outstanding Research Fellows to work collaboratively with the Program Leaders on joint Monash-Warwick projects to develop and characterise new antimicrobial drug leads to treat the most devastating bacterial and fungal infections and tackle emerging superbugs for which there are few or no solutions. Research Fellows will be provided with interdisciplinary training needed to effectively tackle AMR, including translational skills for engagement with industry and clinical partners.

The Alliance-funded Monash Fellow will be appointed for a duration of three years and is anticipated to have one “main home” but work in the laboratories of other members of the Research Leadership Team, as their training needs and the scientific requirements of the project dictate. The Fellow will also be expected to participate in meetings, workshops and symposia for the Program and collaborate with colleagues at the University of Warwick. In this section, prepare a short statement (2–3 sentences) explaining the primary purpose of the position, key components and broad accountabilities. This section helps place the duties and key selection criteria in the context in which it operates: where it fits, its scope and impact on the University, and the level of decision making inherent in the role.

**Reporting Line:** The position reports to Co-Head: Biomedicine Discovery Institute Infection and Immunity Program.
**Supervisory Responsibilities:** This position provides direct supervision to PhD students, Honours students and Research Assistants in the Traven lab working on related projects.

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

### 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. Co-supervision or, where appropriate, supervision of honours or postgraduate research projects within the field of the staff member's area of research

8. 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

9. Completion of required training as prescribed by the University and project needs, including relevant Biosafety, OH&S, Gene Technology and Animal Ethics training

10. Contribution to the preparation or, where appropriate, individual preparation of Gene Technology and Animal Ethics applications related to their project

11. Other duties as directed from time to time

### KEY SELECTION CRITERIA

#### Education/Qualifications

1. The appointee will have:
   - a doctoral qualification in Biochemistry and Molecular Biology or a related field

#### Knowledge and Skills

2. Demonstrated ability to conduct and troubleshoot experiments independently with high analytical and laboratory skills and keep meticulous research records

3. Demonstrated statistical analysis and manuscript and research proposal preparation skills; including a solid track record of refereed research publications

4. Trajectory of leadership capability in supervising, mentoring and coaching to support the development of research staff

5. Trajectory of leadership capability in supervising and working with major honours or postgraduate students within the discipline
6. Demonstrated ability to work both independently in a research environment and as part of an interdisciplinary research team

7. High level organisational skills, with demonstrated capacity to establish and achieve goals

8. Excellent written and oral communication skills

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 and figure preparation software

11. Expertise in fungal pathogenesis and infectious diseases

12. Expertise in antimicrobial drug discovery and characterisation

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

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.