

School of Chemistry Faculty of Science

# Research Fellow in Bioanalytical and Biological Mass Spectrometry

POSITION NO	0051474
CLASSIFICATION	Level A
SALARY	\$80,258 - \$108,906 p.a. (pro rata for part-time) (*PhD entry level \$101,460 p.a.)
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full-Time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed-Term for 2 years <b>FLEXIBLE EMPLOYMENT</b> The University of Melbourne is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Onlineapplicationsarepreferred.Gotohttp://about.unimelb.edu.au/careers, select the relevant option ('CurrentStaff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Prof. Gavin E. Reid Tel +61 3 8344 2650 Email Gavin.reid@unimelb.edu.au Please do not send your application to this contact

For information about working for the University of Melbourne, visit our website: about.unimelb.edu.au/careers

# Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners

# **Position Summary**

This is an exciting opportunity for an ambitious and self-directed early career researcher to join the Bioanalytical and Biological Mass Spectrometry Laboratory led by Professor Gavin Reid. The successful candidate will have obtained their Ph.D. in Chemistry, Biochemistry, or a related field, and have an outstanding research background in bioanalytical or biological mass spectrometry, including lipidomics, proteomics, and 'multi-omics' bioinformatic analysis. You will work individually and collaboratively with other members of the Reid lab, our internal and external collaborators, and staff within the Bio21 Mass Spectrometry and Proteomics Facility (MSPF) to apply cutting edge mass spectrometry based instrumentation and 'multi-omics' methodologies to understand the mechanisms of bacterial membrane interactions and resistance to antimicrobial peptides. You will be innovative in designing, undertaking, and interpreting experiments and solving technical problems, in critically appraising the scientific literature and maintaining meticulous laboratory records. The successful candidate will be expected to promote innovation and creativity within the group. You will prepare reports and presentations on the work and assist in the preparation of research manuscripts for publication. You will also contribute as a team member to general laboratory maintenance, and the safe and inclusive operation of the laboratory.

We encourage applicants from under-represented groups, including Aboriginal and Torres Strait Islander people. To allow us to consider performance relative to opportunity, we also invite applicants to provide a brief statement (up to 1 page) that describes circumstances that may have affected their career development or progression, including career interruptions or delays, periods of part time work, or forms of bias they have experienced.

## 1. Key Responsibilities

As with all positions, career achievements will be interpreted relative to opportunity, including career disruptions due to caring responsibilities, time in industry, illness etc.

The position description should be read alongside Academic Career Benchmarks and Indicators. A level A academic is acquiring skills and building academic achievements (oriented towards the benchmarks).

### 1.1 RESEARCH AND RESEARCH TRAINING

The appointee will be expected to:

- You are expected to significantly contribute towards the research effort of the team and to develop your research expertise with an increasing degree of autonomy.
- Under the guidance and support of Senior Academic staff conduct internationally competitive research, resulting in publications in high impact journals.
- Contribute to and publish academic papers and other scholarly outputs to a high academic standard in accordance with the research expectations of the University of Melbourne
- Actively participate in research seminars and conferences to disseminate research findings as opportunities arise.
- Contribute to the preparation, or where appropriate individual preparation of research proposal submissions to internal or external funding bodies as relevant.
- Undertake administrative functions and obligations primarily connected with the staff member's area of research.
- Contribute to and assist in the co-supervision and training of research students primarily at undergraduate level.
- Engage with relevant professional and industry bodies and stakeholders to foster collaborative partnerships.

### **1.2 TEACHING AND LEARNING**

The appointee will be expected to:

Contribute to teaching, training, scientific mentoring and supervision of students.

### 1.3 LEADERSHIP AND SERVICE

The appointee will be expected to:

- Actively participate at School meetings and with guidance, contribute to planning activities or committee work to support capacity building in the School/discipline.
- Actively participate in activities within the School and Faculty to support Diversity and Inclusion.
- Contribute to, or present research to the public to elevate public awareness of educational and scientific developments and promote critical enquiry and public debate within the community where appropriate.
- Effective demonstration and promotion of University values including diversity and inclusion and high standards of ethics and integrity.
- Actively contribute to School activities such as Open day to promote student engagement.

Involvement in professional activities including, subject to availability of funds, attendance at national and international conferences and seminars in the field of expertise

### **1.4 OTHER DUTIES**

The appointee will be expected to:

- Perform other tasks as requested by the supervisor or the Head of School
- Actively participate in the University Professional Development Framework
- Ensure an up-to-date record of University compliance courses, such as, but not limited to, Appropriate Workplace Behaviour, PDF for Staff and Supervisors, OH &S training courses.
- Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 4.

### 2. Selection Criteria

#### 2.1 ESSENTIAL

- Completion of a PhD in Chemistry, Biochemistry, or a related discipline
- Demonstrated experience in lipidomic and/or proteomic sample preparation, mass spectrometry based data acquisition, software based data analysis, and bioinformatics and biostatistics.
- A strong understanding of mass spectrometry and analytical chemistry.
- Knowledge of lipid metabolism pathways
- Demonstrated ability to prepare research reports and manuscripts for publication, with a sound publication record in relevant areas, commensurate with experience and opportunities.
- Strong evidence of ability and desire to build an academic research career trajectory.
- Demonstrated ability to develop, administer and see through to completion appropriately designed research projects with limited supervision.
- Demonstrated excellent organisational skills to meet deadlines and bring projects to a timely completion.
- Excellent ability to work co-operatively and positively in a multi-disciplinary researchbased team environment and liaise with people from diverse scientific and cultural backgrounds.
- Excellent interpersonal and both written and oral communication skills in English.
- Demonstrated ability to engage with relevant professional and industry bodies and other stakeholders to foster collaborative partnerships.

### 2.2 DESIRABLE

- Experience in bacterial cell culture
- The ability to attract external funding through grant applications and/or support in funded joint projects with others internal or external to the university.
- Experience in assisting with supervision of students undertaking undergraduate or higher degree research projects.

### 2.3 OTHER JOB-RELATED INFORMATION

• Occasional work out of ordinary hours, travel, etc.

### 3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

### 4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

http://safety.unimelb.edu.au/topics/responsibilities/

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

## 5. Other Information

### 5.1 ORGANISATION UNIT

#### www.chemistry.unimelb.edu.au

The School of Chemistry at The University of Melbourne is one of the largest and oldest in Australia with a distinguished history in teaching and research. The first lectures in chemistry in The University of Melbourne were given in 1856, only three years after the University was founded. Since then the School has grown and developed and there are presently over 2500 undergraduates enrolled in Chemistry subjects, with more than 150

BSc (Hons), MSc and PhD research students. Teaching and undertaking research in the School are 23 continuing research and teaching staff, and over 30 research only staff, supported by a team of technical and administrative personnel.

The School has an excellent international reputation in research and an outstanding record of achievement in attracting external research funding. There is an ongoing program to keep its research facilities at world standard and to focus our research efforts. This has involved progressive upgrading of the School's laboratories, the purchase of state-of-the-art instrumentation and recruitment of academics with a strong research profile. The successful candidate would be located in the Melbourne Centre of Theoretical and Computational Chemistry and will be eligible to access to the University's high-performance computing infrastructure.

The School of Chemistry is a key participant in the Bio21 Institute, a major world-class biotechnology initiative in Victoria. New purpose-built research laboratories for research groups in the School are housed in the Chemistry Building and the Bio21 Institute of Molecular Science and Biotechnology. In addition, we are building stronger links with other disciplines within the University and with other research institutions locally and internationally.

Research in the School of Chemistry covers a wide spectrum from the design, synthesis, and properties of new materials through to protein structure and chemistry. Many research programs sit at interdisciplinary boundaries with physics, engineering, and biology. The School has a collegial environment, where the contributions of all academic, research and professional staff are valued equally. The School values Diversity and Inclusion deeply and has an active and visible D&I committee, which reports directly to the School Executive.

The Reid lab is located within the Bio21 Institute, and is closely involved with The Bio21 Mass Spectrometry and Proteomics Facility (MSPF) which provides open access mass spectrometry to research groups within the University of Melbourne and other surrounding research institutes. The facility currently supports over 300 chemists and biochemists working across a variety of research themes (e.g., cancer, immunology, Alzheimer's) that require support for lipidomic and proteomic analysis.

### 5.2 FACULTY OF SCIENCE

#### http://www.science.unimelb.edu.au

Science at Melbourne is a global leader across fundamental and impactful scientific research and education. Science begins with curiosity, and we are dedicated to understanding the universe from the level of sub-atomic particles to the solar system. We aim to be leaders who positively impact the community locally and globally, addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

Our strength is our breadth of expertise. We are the second largest faculty in the University comprising seven schools: Agriculture, Food & Ecosystem Sciences, BioSciences, Chemistry, Geography, Earth & Atmospheric Sciences, Mathematics & Statistics, Physics and Veterinary Science.

This depth of knowledge positions the faculty to better understand, explore and impact our world and humanity, within a truly comprehensive Faculty of Science.

We have more than 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly

relevant research. We aim to train students with the knowledge and intellectual flexibility to drive the industries of tomorrow and lead across all levels of society.

We offer a range of undergraduate, honours, graduate and research degrees, enrolling more than 11,500 undergraduate and 3,750 graduate students.

We are dedicated to delivering leading transformative educational outcomes, underpinned by research, and an inclusive and inspiring student experience.

Excellence comes in many forms and diversity of thought, perspective and disciplines is essential to deliver globally leading science. At the core of our success is our focus on an inclusive environment for all in our community. Our Faculty's focus on equity, inclusion and belonging is grounded in our endeavour to ensure we are best placed to advance research, teaching and serve diverse national and global communities.

As a Science community we sit across five of the University's campuses – Parkville, Dookie, Burnley, Creswick and Werribee. This reach provides us with a unique perspective that is beneficial to our teaching and research. It also means we can offer our students a greater variety of learning experiences and internships to engage with industry partners to solve real-world issues.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Melbourne Energy Institute, Melbourne Biodiversity Institute, Office for Environmental Programs, Australian Mathematical Sciences Institute (AMSI) and the Indigenous Knowledge Institute and home to numerous Centres.

### 5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at http://about.unimelb.edu.au/careers.

### 5.4 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

- We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
- We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.

- We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
- We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes: place, community, education, discovery and global.

### 5.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at http://www.unimelb.edu.au/governance