



## POSITION DESCRIPTION

Bio21 Molecular Science and Biotechnology Institute  
Faculty of Science

### Proteomic Specialist

*(Applications from suitably qualified female candidates will be highly regarded)*

<b>POSITION NO</b>	0047602
<b>CLASSIFICATION</b>	Level A
<b>SALARY</b>	\$77,171 - \$104,717 per annum (pro rata for part time) (PhD entry level minimum of \$ 97,558.00 per annum or pro rata for part time)
<b>SUPERANNUATION</b>	Employer contribution of 17%
<b>WORKING HOURS</b>	Full-time (1.0 FTE)
<b>BASIS OF EMPLOYMENT</b>	Fixed-term position available for 46 weeks
<b>OTHER BENEFITS</b>	<a href="https://about.unimelb.edu.au/careers/staff-benefits">https://about.unimelb.edu.au/careers/staff-benefits</a>
<b>HOW TO APPLY</b>	Online applications are preferred. Go to <a href="http://about.unimelb.edu.au/careers">http://about.unimelb.edu.au/careers</a> , select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
<b>CONTACT FOR ENQUIRIES ONLY</b>	Name: Nicholas Williamson Tel +61 3 8344 2206 Email <a href="mailto:nawill@unimelb.edu.au">nawill@unimelb.edu.au</a> <i>Please do not send your application to this contact</i>

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

## ***Acknowledgement of Country***

The University of Melbourne would like to acknowledge and pay respect to the Traditional Owners of the lands upon which our campuses are situated, the Wurundjeri and Boon Wurrung peoples, the Yorta Yorta Nation, the Dja Dja Wurrung people. We acknowledge that the land on which we meet and learn was the place of age-old ceremonies, of celebration, initiation and renewal, and that the local Aboriginal peoples have had and continue to have a unique role in the life of these lands.

## ***Position Summary***

The University plan seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally under-represented. Consistent with this, the Institute is seeking to increase the representation of women in the academic workforce. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the Institute is seeking to lift the representation of women and strongly encourages applications from suitably qualified female candidates.

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

The Proteomic Specialist will support the proteomics facility's activities. These include the design, and execution of proteomic experiments such as: gel spot analysis, iTRAQ/SILAC/label free quant experiments, disulfide analysis, phosphorylation site analysis. The incumbent will also troubleshoot problems of both nano and regular flow HPLC chromatography as well as perform basic instrument maintenance. The incumbent will have the software skills required for the analysis of proteomic data sets.

The unique differentiating approach of the Bio21 Mass Spectrometry Proteomics facility is to teach users how to perform their own proteomic experiments and data analysis. As explained further here: N. A. Williamson, J Am Soc Mass Spectrom 29, 439-446 (2018) This position supports a large number of projects and will act as a supervisor to students and staff as the projects progress. A PhD. in Biochemistry or a related fields is essential.

## ***1. Key Responsibilities***

### **1.1 RESEARCH AND RESEARCH TRAINING**

- ▶ Train users in the use of a mass spectrometer, HPLC, and the general principals of proteomic mass spectrometry, for example sequencing using b and y ions, and understanding MaxQuant or other search results.
- ▶ Work with users that require more sophisticated proteomic assistance – such as iTRAQ/SILAC/dimethyl labelling experiments, MRM peptide quantitation, DIA data sets
- ▶ Keep track of the latest developments in proteomic methods and implement those that best meet the needs of the facility and its users.
- ▶ Prepare technical reports, conference and seminar papers and publications associated with research projects.
- ▶ Troubleshoot problems of both nano and regular flow HPLC chromatography.

- ▶ Troubleshoot basic problems with mass spectrometry systems and where appropriate organise maintenance in conjunction with the facility manager
- ▶ Perform general laboratory organisation and maintenance including equipment.
- ▶ Maintain a safe working environment and compliance with Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities

## 1.2 LEADERSHIP AND SERVICE

- ▶ Assist facility clients in the preparation and submission of competitive grant applications or tenders related to the MSPF's activities.
- ▶ Participate in staff and student induction and maintenance of equipment for the MSPF.
- ▶ Contribute to and participate in committees, internal and external steering groups, events and other activities at Bio21
- ▶ Contribute to a range of administrative functions, including those connected with the field of research

## 1.3 OTHER DUTIES

- ▶ Perform other tasks as requested by the supervisor or the Head of School
- ▶ Actively participate in the University Professional Development Framework
- ▶ 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

- ▶ A PhD in Biochemistry or related discipline.
- ▶ Demonstrated experience in proteomic mass spectrometry or related field.
- ▶ Demonstrated ability to engage with students and other users and where necessary teach the experimental concepts or instrument operation.
- ▶ Excellent interpersonal and both written and oral communication skills in English.
- ▶ Excellent ability to work co-operatively and positively in a multi-disciplinary team environment and liaise with people from diverse backgrounds.
- ▶ Demonstrated excellent organisational skills to meet deadlines and bring projects to a timely completion

### 2.2 DESIRABLE

- ▶ Experience with or knowledge of other proteomic techniques such as Protein Structural mass spectrometry (HDX or native mass spectrometry) or experience in the analysis of protein glycosylation would be an advantage.
- ▶ Experience with design and data analysis of quantitative proteomic experiments.

- ▶ Experience with trouble-shooting problems with instrumentation, especially HPLC or Mass spectrometers.
- ▶ Experience with or knowledge of Metabolomic or Lipidomic mass spectrometry techniques. Knowledge or experience of ICP-MS
- ▶ Computational skills such as programming in Python or another language. Knowledge and experience with R.

### 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:

<https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

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

## 5. *Other Information*

## 5.1 BIO21 INSTITUTE

The University of Melbourne's \$140m Bio21 Molecular Science and Biotechnology Institute (Bio21 Institute) is a multidisciplinary research centre, specialising in medical, agricultural and environmental biotechnology.

Opened in 2005, the Bio21 Institute improves human health and the environment through innovation in biotechnology and related areas, driven by multidisciplinary research and dynamic interactions with industry. The Institute embraces commercialisation as a facilitator of innovation, skills development and economic outcomes. A key driver of innovation is the Institute's commitment to intellectual property protection, technology transfer and business incubation.

Accommodating more than 600 research scientists, students, industry participants and administrative staff, the Bio21 Institute is one of the largest biotechnology research centres in Australia.

The Bio21 Institute is the flagship of the Bio21 Cluster project, which includes 21-member institutions recognised for research excellence and translational outcomes in medical and biomedical science and biotechnology.

Purposes are to:

- Achieve biotechnology innovation through multidisciplinary research, genomics and strategic alliances/collaboration with academia and industry
- Attract outstanding scientists and technicians
- Establish core platform technology facilities accessible to diverse scientific and industry communities
- Engage industry and nurture the commercialisation of discoveries
- Support start-up companies through business incubation and entrepreneurship skills development
- Contribute employable skills and prepare research students and postdoctoral fellows for leadership in industry
- Translate research into community benefits (educational and economic)
- Provide a forum for community debate and dissemination of information on emerging bioscience and technology issues.

Information on the Bio21 Institute can be found at: <http://www.bio21.org>

## 5.2 FACULTY OF SCIENCE

<http://www.science.unimelb.edu.au>

Science at the University of Melbourne is the most highly ranked Faculty of Science in Australia. Science is defined by its research excellence in the physical and life sciences and is at the forefront of research addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

We have over 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, which empowers our STEM students and graduates to understand and address complexities that impact real world issues and the challenges of tomorrow.

We aspire to engage the broader community with the impact that Science has on our everyday lives. Through the strength of our internships and research project offerings, our

students are provided opportunities to engage with industry partners to solve real-world issues.

The Faculty of Science has over 50,000 alumni and is one of the largest faculties in the University comprising six schools: BioSciences, Chemistry, Ecosystem and Forest Sciences, Mathematics and Statistics, Physics and the School of Geography, Earth and Atmospheric Sciences.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, the Indigenous Knowledge Institute, the Melbourne Energy Institute, the Office for Environmental Programs and home to numerous Centres.

Science manages more than \$301 million of income per annum, with a staff base in the order of 250 FTE professional staff, and more than 662 FTE academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 10,800 undergraduate and 2,500 graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science). The Faculty of Science is highly research focused, performing strongly in the Australian Research Council competitive grants schemes. The Faculty of Science is currently growing its competitiveness and standing in the National Health and Medical Research Council and health space.

The Faculty of Science provides community services and industry partnerships based on a solid foundation of research in the pure and applied sciences. The Faculty has an endowment of approximately \$100 million. The annual income from the endowment supports more than 140 prizes, scholarships and research awards, and numerous academic positions.

### 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 <https://about.unimelb.edu.au/strategy/governance>