Technical Assistant - Metabolomics

POSITION NO 0052422

CLASSIFICATION UOM 5

SALARY $83,159 - $95,518 (pro-rata for part-time)

SUPERANNUATION Employer contribution of 17%

WORKING HOURS Full-time (1.0 FTE)

BASIS OF EMPLOYMENT Fixed term for 2 years

OTHER BENEFITS https://about.unimelb.edu.au/careers/staff-benefits

HOW TO APPLY Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.

CONTACT FOR ENQUIRIES ONLY David De Souza
Tel +61 3 8344 2487
Email desouzad@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

The Metabolomics Australia facility at the University of Melbourne (UoM) is funded by the National Collaborative Research Infrastructure Strategy (NCRIS) together with institutional funding. The UoM Metabolomics Australia facility is one of the largest of its kind in Australia and provides state-of-the-art mass spectrometry-based metabolomics services to researchers from academia, industry and government and houses a wide range of metabolomics capabilities and instrumentation.

We are looking to recruit a highly motivated individual as a Technical Assistant who will be responsible for delivering analytical metabolomics services and providing metabolomics expertise, knowledge and training to UoM researchers and external clients. This position will report to the Metabolomics Australia Facility Manager and be responsible for preparing samples, maintaining specialised metabolomics mass spectrometry instruments and general lab maintenance. The successful applicant will also be involved in the development, application, and documentation of new metabolomics capabilities and methodologies. They will work in a team environment and work closely other MA analytical and bioinformatics staff, usually under the direct supervision of an Analytical Team lead, as well as the Academic Lead (who oversee the strategic directions of the Facility). They will be involved in ensuring the efficient use of resources, identifying future capability requirements, and will be proactive in increasing the client base for the facility. They will also interact with staff and contribute to knowledge transfer at other Metabolomics Australia nodes at the Australian Wine Research Institute, the University of Western Australia and the University of Queensland.

1. Key Responsibilities

Under general direction from senior staff contribute to MA project delivery, services and its aims of meeting deadlines and key milestones, through the provision of research support activities, including assisting with experiment designs, sample preparation, data acquisition, analysis/interpretation, presentation and documentation.
Operate and maintain advanced metabolomics-based liquid chromatography/gas chromatography - mass spectrometers (LC/GC-MS) and/or imaging MS laboratory instruments.

In collaboration with other MA colleagues, actively contribute to the maintenance of the facility to ensure optimal operations.

Provide high-level technical expertise, advice, assistance and training to clients in the use of MA metabolomics methodology (including experiment design, protocols, equipment and software tools).

Develop a clear understanding of the analytical service delivery role of the Metabolomics Australia and actively participate in the delivery of these services to all MA clients by producing and documenting protocols and high-quality data around metabolomics research and analytical methodologies, through working closely with Team Leads and other MA staff, reading relevant literature and attendance at meetings and seminars.

Under general direction from senior staff contribute to the development, application and documentation (eg SOPs) of advanced metabolomics techniques in order to build/expand metabolomics capacity and capability at MA and to validate these for service provision and delivery to all MA clients.

Work closely, collaboratively and productively in a team setting with members of the MA Team to develop metabolomics methodology and deliver high quality metabolomics analysis to client and disseminate metabolomics methodology across MA.

Contribute to reports and preparation of research work and actively participate and contribute to regular meetings.

Collaborate with different research personnel of the other Metabolomics Australia nodes to develop and implement metabolomics technologies across the various nodes as well as coordinate the promotion of the facilities amongst potential users, and in so doing, ensure the successful operation of Metabolomics Australia.

Foster partnerships to advance research by performing and having direct input into clients’ metabolomics research projects, as defined by the lead investigators and to liaise as required with the broader research community utilising the Metabolomics Australia facilities.

Ensure that accurate records of all experiments are kept in accordance with Metabolomics Australia ISO9001 quality management processes, as well as the expectations of the UoM and Commonwealth Government NCRIS funding body; resulting in the production of detailed reports for clients as required, in a timely manner.

Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5

---

2. Selection Criteria

2.1 ESSENTIAL

- Tertiary qualification with relevant work-related experience in analytical chemistry and biochemical assays, or equivalent in a related discipline
- Demonstrated knowledge and experience in setting up instrumentation (for example LC/GC-MS and/or imaging-MS) as well as development, application, and
documentation of new methods and capabilities to deliver high quality metabolomics analysis.

- Proven ability to set up, monitor, maintain, as well as demonstrate and train others in the proper use of instruments/equipment/facilities and related methods for metabolomics analysis
- Excellent interpersonal and communication skills and proven ability to provide support for research staff through conducting quantitative and qualitative experiments, processing, collating and analysing data, assisting in interpretation of results and preparing reports.
- Ability to undertake research projects and maintain high quality records and documentation under the guidance of senior staff
- Demonstrated ability to work with a high level of independence and within a collaborative team research environment in a support role, with staff from diverse backgrounds
- Excellent organisational and time management skills with a proven ability to meet deadlines and manage multiple tasks and competing priorities.

### 2.2 DESIRABLE

- Demonstrated knowledge and experience in metabolomics/lipidomics using LC/GC-MS and/or imaging-MS- techniques including in the context of working with biological material, independent use of instrumentation and processing/analysis of associated data.
- Advanced computer skills relevant to metabolomics analysis such as the ability to use relevant database searches.
- Demonstrated commitment to the delivery of quality service to clients and to continuous improvement of the standard of service.

### 2.3 OTHER JOB RELATED INFORMATION

- Occasional work out of ordinary hours, travel, etc.
- Working with Children’s Check will be required

### 3. Job Complexity, Skills, Knowledge

#### 3.1 LEVEL OF SUPERVISION / INDEPENDENCE

The Technical Assistant is expected under general direction to work autonomously to plan and determine priorities to ensure timely completion and delivery of projects.

#### 3.2 PROBLEM SOLVING AND JUDGEMENT

The Technical Assistant is expected to apply knowledge and experience of GCMS, LCMS and/or imaging-MS and small molecules in biological samples to solve problems arising in the metabolomics analysis of projects, the development of new metabolomics methods and the training of users of the facility. Complex issues would be referred to senior staff. The Technical Assistant is also expected to prioritize day-to-day workload and to assess and make decisions regarding quality of data.
3.3 PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

The Technical Assistant is expected to have good knowledge in the metabolomics workflow, from experiment design, sample preparation, instrument data collection/processing, data quality assessment, data analysis, documentation and presentation. Demonstrated extensive experience and excellent working knowledge of biological sample preparation as applied to the field of metabolomics as well as in the key metabolomics methodologies (GCMS, LCMS and/or imaging-MS) at MA.

3.4 RESOURCE MANAGEMENT

The Technical Assistant will have responsibility for the maintenance of instruments in the MA Facility at Bio21 Institute.

3.5 BREADTH OF THE POSITION

The Technical Assistant is expected to have a high level of competence and experience with several metabolomics instrument platforms and procedures. They will be expected to perform various analyses and develop research projects within the Facility under the supervision of senior personnel. It is expected that they will be involved in the development and application of metabolomics methods that involve the use of different types of mass spectrometers relevant to small molecule analysis.

4. 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.
5. **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.

6. **Other Information**

6.1 **BIO21 INSTITUTE**

The University of Melbourne's Bio21 Molecular Science and Biotechnology Institute (Bio21 Institute) is a multidisciplinary research centre, specialising in biomolecular science and medical 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 800 research scientists, students, industry participants and administrative staff, the Bio21 Institute is one of the largest biotechnology research centres in Australia.

The Bio21 strategic priorities are to:
- Foster multidisciplinary research in the molecular sciences and biotechnology.
- Lead the development of open access, integrated molecular technologies and expertise.
- Enhance molecular sciences research translation and impact through industry and precinct engagement, collaboration and partnership. To support the development of an entrepreneurial molecular scientist and biotechnologist workforce.
- Contribute to community engagement with sciences in collaboration with industry.

Information on the Bio21 Institute can be found at: http://www.bio21.unimelb.edu.au

6.2 **FACULTY OF SCIENCE**

https://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, & Ecosystems 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 six of the University’s seven campuses – Parkville, Dookie, Burnley, Creswick, Shepparton 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.

We are the highest ranked science faculty amongst all Australian universities and are ranked amongst the top science faculties in the world. The Faculty is host of the Bio21 Molecular Science and Biotechnology Institute, Office for Environmental Programs, Australian Mathematical Sciences Institute (AMSI), Melbourne Energy Institute, the Biodiversity Institute, the Indigenous Knowledge Institute, the Oceania Institute and home to numerous Centres.

6.3 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

6.4 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.

6.5 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