



POSITION DESCRIPTION

Melbourne Bioinformatics
Faculty of Medicine, Dentistry and Health Sciences

Academic Specialist – Bioinformatics – Melbourne Bioinformatics

POSITION NO	0038643
CLASSIFICATION	Academic Specialist Level A or B (depending on qualifications & experience)
SALARY	Academic Specialist Level A \$73,669 – \$99,964 Academic Specialist Level B \$105,232 - \$124,958
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time (1 FTE)
BASIS OF EMPLOYMENT	Two positions available: Fixed-term to 31 December 2021, possibility of extension subject to funding
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	Fiona Kerr Tel +61 3 9035 3445 Email fiona.kerr@unimelb.edu.au <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

Position Summary

Melbourne Bioinformatics operates at the Parkville Campus of The University of Melbourne and supports researchers who recognise that life science research is fast becoming a data science. Our experts assist with research design and grant applications, advise on computing options, engage in deep research collaborations, develop bioinformatics algorithms and software, create and deliver both online and hands-on bioinformatics training, and deliver the MSc (Bioinformatics) course, as well as supervising PhD and Masters research projects.

Melbourne Bioinformatics collaborates on a range of national and international platform development and digital research infrastructure projects and hosts the Australian BioCommons, a \$20m NCRIS-funded digital research infrastructure program for life science research (2019-2023).

This is one of two exciting positions, representing an opportunity for a talented bioinformatician to forge a career in this new frontier. Melbourne Bioinformatics creates an environment for bioinformaticians to work on a range of high-impact research projects, share their expertise and develop their teaching and training skills, all in the company of a team of dedicated experts across computer science, data sciences, biology and research infrastructure bioinformatics. We perform a very important function in the precinct; creating a pipeline of talent and building up bioinformatics capacity-building at a time of great skills shortage in this specialised area.

The preferred candidate will enjoy teaching, have strong analytical and programming skills and possess demonstrable personal qualities in the areas of communication, collaboration and organisation. As a member of the Melbourne Bioinformatics expert team it is also expected that the role will involve contributing to our teaching and training program and community skills development activities.

1. Key Responsibilities

- ▶ Collaborative research engagement with key stakeholders from The University and affiliates – providing bioinformatics expertise and analytic support
- ▶ Subject Coordination and teaching into the Master of Science (Bioinformatics) course
- ▶ Development and delivery of bioinformatics training workshops
- ▶ Consultation – providing advice to life scientists about best-practice workflows and methods of implementation across diverse projects. This will vary in form, including contexts such as at the research-group level, individual researcher -level and input to research funding applications.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ Degree in a relevant discipline, such as Bioinformatics, Computer Science, Software Engineering, or equivalent industry experience
- ▶ Outstanding interpersonal and engagement skills, with an ability to build and maintain relationships with key stakeholders (internal and external) and to work collaboratively.

- ▶ Significant experience with a range of data analysis methods
- ▶ Demonstrated experience in and development of programming skills, particularly with Python
- ▶ Proven experience in working to industry standards of reproducible research
- ▶ Evidence of high-level writing skills and demonstrated ability to produce formal project reports
- ▶ Demonstrated independence and effective time-management skills to meet tight deadlines
- ▶ Excellent communication skills both written and verbal, and the ability to work effectively in a team
- ▶ Evidence of significant contribution to independent and team-based research
- ▶ Ability to develop practical solutions in complex social logistical environments

2.2 DESIRABLE

- ▶ Demonstrated understanding of bioinformatics tools, methods, data analyses, data management and analysis platforms across several specialist areas
- ▶ Familiarity with current tools and methods in bioinformatics or an enthusiasm to learn
- ▶ Demonstrated proficiency in teaching within a classroom and online environment
- ▶ Experience with high performance computing including an understanding of the hardware requirements associated with a variety of life sciences analyses.

2.3 OTHER JOB-RELATED INFORMATION

- ▶ This position requires the incumbent to hold a current and valid Working with Children Check.

2.4 LEVEL OF SUPERVISION / INDEPENDENCE

The successful applicant will report to the Academic Lead, Melbourne Bioinformatics. They will be expected to work towards specified tasks with set deadlines, in a collaborative manner, demonstrating a high-level of initiative and motivation. They will actively engage with other members of the Melbourne Bioinformatics team and will seek guidance from senior team members where necessary. They are expected to attend and contribute to team meetings and other collaborative formal, or informal team discussions.

2.5 RESEARCH & RESEARCH TRAINING

- ▶ Participate in research independently and as a member of a research team
- ▶ Preparation of research proposal submission to external funding bodies to obtain external research income
- ▶ Involvement in professional activities including attendance and presentations at conferences and seminars
- ▶ Produce quality conference and seminar papers and scholarly publications in peer reviewed journals
- ▶ Successful management of research projects, including financial management
- ▶ Significantly contribute to research projects and research teams or management of projects, leading to publications in peer reviewed journals.

2.6 RESEARCH SUPPORT

- ▶ Subject Coordination and teaching towards the Master of Science (Bioinformatics) course
- ▶ Analyse high-throughput biological data utilising best practice bioinformatics and biostatistical techniques
- ▶ Develop and deliver materials and resources for training and education in bioinformatics
- ▶ Develop and implement best practice workflows to analyse genomic, proteomic and metabolomics data
- ▶ Interact and collaborate with researchers to establish appropriate research approaches and provide advice and support for other research projects as required
- ▶ Provide appropriate advice to researchers and students
- ▶ Contribute to the preparation of research grants and project plans.

2.7 SERVICE & LEADERSHIP

- ▶ Continually develop skills in accordance with new technologies and apply these to existing datasets
- ▶ Contribute to the day-to-day activities of Melbourne Bioinformatics within areas of expertise
- ▶ Participate in community and professional activities related to the relevant disciplinary area including attendance and presentations at conferences and seminars.

2.8 BREADTH OF THE POSITION

- ▶ Academic Specialists are expected to apply considerable technical skills to projects in new domains and to grow their capacity to work on larger projects and with greater autonomy where required. This role requires the incumbents to extend their skills into the bioinformatics domain, interact and work with experts in this field. Given the work may involve collaboration with interstate and overseas partners, some interstate and international travel may be required.

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 University's People Strategy 2015-2020 and policies that address 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 Growing Esteem.

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 ORGANISATION UNIT

<http://www.melbournebioinformatics.org.au>

Melbourne Bioinformatics is hosted at the University of Melbourne within the Faculty of Medicine, Dentistry & Health Sciences in Parkville. Experts in software development and bioinformatics support researchers who recognise that life science research is fast becoming a data science helping them with research design and grant applications, advising on computing options, engaging in deep research collaborations, developing bioinformatics algorithms and software, creating and delivering both online and hands-on bioinformatics training, and running the MSc (Bioinformatics) course, as well as supervising PhD students.

Melbourne Bioinformatics is host to the Australian BioCommons, a \$20M NCRIS-funded research infrastructure program for life science research (2020-2023). It is the mission of the Australian BioCommons to:

- ▶ sustain strategic leadership in the provision and use of bioinformatics and bioscience data infrastructures at a national scale
- ▶ actively support life science research communities with community-scale digital infrastructure developed and maintained in concert with international peer infrastructures
- ▶ provide access to platforms and services that:
 - provide sophisticated analysis capabilities, including software and hardware platforms that underpin world class science
 - support digital asset stewardship and management, retention, integration and publication solutions as they evolve
 - enable researchers to observe best-practice data standards, management, interoperability and publication approaches as they evolve

- provide enduring access to digital techniques, data and tools that are needed by world-class environmental, agricultural and biomedical research:
- provide training and support solutions that enable the rapid and broad-based adoption of the above.

Go to biocommons.org.au for more information.

Melbourne Bioinformatics is located in the heart of Australia's biomedical and biotechnology precinct offers to:

- ▶ solve academic and industrial bioinformatics, computational biology and bio-engineering problems
- ▶ speed up research through direct access to high-end computing systems, software and computational biology experts in one centre
- ▶ skill-up teams in new computational biology techniques and tools through a comprehensive training program
- ▶ give further advice regarding data handling and management and system administration
- ▶ collaborate on any outreach programs aimed at building the life sciences computation community in Australia.

Since its establishment in 2009, Melbourne Bioinformatics (ex-VLSCI) has enhanced Victoria's international standing in life sciences by positioning researchers at the cutting edge of this growing discipline, nurturing future leaders in these fields and creating a magnet to attract industry to Victoria. The benefits for the broader Victorian community are coming from the generation of new knowledge which is leading to improved medical and health outcomes, better food and agriculture and novel developments in engineering.

5.2 BUDGET DIVISION

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

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is \$630m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia's first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty's Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty's RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

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>