



## POSITION DESCRIPTION

**Centre for Cancer Research**  
Faculty of Medicine, Dentistry and Health Sciences

### Data Integration Manager

<b>POSITION NO</b>	0042493
<b>SALARY</b>	An attractive salary package will be negotiated including superannuation
<b>SUPERANNUATION</b>	Employer contribution of 9.5%
<b>WORKING HOURS</b>	Full-time
<b>BASIS OF EMPLOYMENT</b>	Fixed-term for 4 years Fixed term contract type: Research
<b>OTHER BENEFITS</b>	<a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/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 Staff' or 'Prospective Staff'), then find the position by title or number.
<b>CONTACT FOR ENQUIRIES ONLY</b>	Oliver Hofmann Tel +61 466 366 501 Email <a href="mailto:oliver.hofmann@unimelb.edu.au">oliver.hofmann@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)

## ***Position Summary***

The University of Melbourne Centre for Cancer Research (UMCCR) seeks to improve cancer patient outcome through cancer genome discovery, translation and personalized medicine. The UMCCR is hiring a (Genomics) Data Integration Manager to organize data flow throughout the Centre, coordinate with local and national initiatives on storage and disseminations of genomics data, and to work with researchers and clinicians on genomic data analysis and reporting.

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

The Data Integration Manager will lead the planning, implementation and growth of our data management workflows. The incumbent's tasks include the maintenance and development of a commercial Laboratory Information Management System (LIMS) to support clinical and research projects that utilize next-generation sequencing technologies. The incumbent will work with the Australian Genomics Health Alliance to evaluate data warehouse options such as CuroVerse's Keep for genomic and clinical data. In collaboration with colleagues at UMCCR and the Australian Genome Research Facility (AGRF) the Manager will develop data dissemination to public repositories (EGA, ICGC). The incumbent will collaborate closely with bioinformaticians analyzing workflow results, devise data visualization strategies, and coordinate with UMCCR staff and VCCC clinicians on methods to summarize genomic data. Typical responsibilities include:

- ▶ Selecting, implementing, extending and maintaining the UMCCR's data storage and capture systems (LIMS, Keep or others) to support a wide range of sequencing based projects
- ▶ Working with commercial partners, open source communities, UMCCR staff and AGHA collaborators to deploy and manage data exploration portals
- ▶ Developing data management strategies and planning usage of existing resources
- ▶ Analyzing large scale genomic data and generating reports for ongoing research projects
- ▶ Coordinating with the accreditation team on quality assurance metrics and determine their appropriateness for accreditation purposes
- ▶ Working with international partners such as Genome in a Bottle to improve clinical variant calling workflows

### ***2. Selection Criteria***

#### **2.1 ESSENTIAL**

- ▶ Postgraduate degree in computer science, statistics, bioinformatics and extensive relevant experience or equivalent experience in large scale data management and reporting; or an equivalent combination of relevant experience and/or education/training
- ▶ Demonstrated expertise with Python, R or other high-level programming languages
- ▶ Working knowledge of genome biology
- ▶ Practical understanding of database design and development
- ▶ Experience with statistical data analysis
- ▶ Demonstrated understanding of best practices for software development
- ▶ Strong written and verbal communication skills

- ▶ Excellent project management and organization skills.

## 2.2 DESIRABLE

- ▶ Experience with integrating laboratory equipment with LIMS systems, managing and tracking data
- ▶ Knowledge of clinical research regulations and National Association of Testing Authorities accreditation regime
- ▶ Understanding of data management platforms such as Mediaflux
- ▶ Previous experience in software implementation and configuration with either a software vendor or professional services organisation where building relationships with internal and external stakeholders was key to success

## 2.3 SPECIAL REQUIREMENTS

- ▶ The incumbent may be required to contribute to Centre activities out-of-hours.

# 3. Job Complexity, Skills, Knowledge

## 3.1 LEVEL OF SUPERVISION / INDEPENDENCE

The incumbent will be expected to independently liaise with a range of national and international partners on data management, analysis and reporting. They will also be required to independently engage UMCCR and commercial support teams to develop data management procedures and decide on their suitability for accreditation.

## 3.2 PROBLEM SOLVING AND JUDGEMENT

The incumbent is required to exercise independent judgement and good problem solving skills to develop data storage procedures for UMCCR clinical and genomic data in collaboration with staff at the National Computational Infrastructure. They will independently interpret software problems and identify relevant parties to engage. They decide on best practices for sample tracking and data flow through the UMCCR that meet accreditation requirements. The incumbent will be self-motivated to identify bottlenecks in ongoing projects and decide where further automation can improve efficiency, implementing the required changes based on their own evaluation.

## 3.3 PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

The incumbent will be required to acquire a detailed knowledge of UMCCR laboratory procedures, understand matching workflows at VCCC partner hospitals, and engage commercial vendors to identify and apply optimal solutions. They will interact with peers at the Melbourne Genomics Health Alliance and the Australian Genomics Health Alliance; they will need to understand genomic data management on a national level. They will require a thorough understanding of best practices in software development and documentation.

## 3.4 RESOURCE MANAGEMENT

The Manager requires experience and well developed skills in time management and project planning, ensuring timely delivery of data management and reporting for current UMCCR projects. They will need to allocate commercial support resources effectively and decide on data management tasks to be prioritized.

### **3.5 BREADTH OF THE POSITION**

This position will liaise with academic, clinical, industry and professional staff both within the University of Melbourne and in external bodies nationally and internationally. The incumbent will work with partners at reference consortia (such as NIST's Genome in a Bottle consortium) to acquire information about relevant quality control metrics and determine in conjunction with UMCCR staff their local application.

## ***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 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 service for excellence and reach the targets of Growing Esteem.

## ***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:

<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.

## ***6. Other Information***

## 6.1 THE UNIVERSITY OF MELBOURNE CENTRE FOR CANCER RESEARCH

The newly formed UMCCR will be responsible for supporting a program of cancer research and education activities across the University of Melbourne in addition to managing University of Melbourne cancer research located in the VCCC facility. The UMCCR will bring together leading researchers, strengthening research capacity and enabling the interdisciplinary collaboration required to understand the complex and intersecting factors that underpin cancer research.

## 6.2 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

[www.mdhs.unimelb.edu.au](http://www.mdhs.unimelb.edu.au)

The Faculty of Medicine, Dentistry and Health Sciences (MDHS) plays a vital role in the delivery of the University of Melbourne's Strategic Plan 2015-2020: Growing Esteem by providing current and future generations with education and research equal to the best in the world. It is Australia's largest and leading biomedical research faculty. It employs more than 1,700 members of staff, has more than 8,000 students, and total revenue of \$607 million for 2015. Reflecting the complexity of today's global health landscape, the Faculty is made up of six different Schools and four Strategic Research Initiatives, and draws together all areas of human health, ranging from the most basic to the most applied areas of research. The Faculty contributes close to 50 per cent of research conducted at the University.

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.

## 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 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive

contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs.

<http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- ▶ Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- ▶ Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.
- ▶ Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

## 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 <http://www.unimelb.edu.au/governance>