THE UNIVERSITY OF MELBOURNE

School of BioSciences
Faculty of Science

Research Fellow – Biosecurity Data Science

POSITION NO	0038488
CLASSIFICATION	Research Fellow Level A or Level B
SALARY	Level A $69,148 - $93,830 p.a.
	Level B $98,775 - $117,290 p.a.
	Level of appointment is subject to the appointee's qualifications and experience.
SUPERANNUATION	Employer contribution of 9.5 %
WORKING HOURS	Full Time
BASIS OF EMPLOYMENT	Fixed term until 30 June 2019
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
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	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

Position Summary

The University of Melbourne's School of BioSciences hosts the Centre of Excellence for Biosecurity Risk Analysis (CEBRA), a research initiative jointly funded by the Australian and New Zealand governments. CEBRA will be operational from 1 July 2013 until 30 June 2021.

Biosecurity is a critical issue for Australia. With our expansive borders and proximity to Asia, implementing effective biosecurity policies and management tools is essential to protecting the health of the population and our unique ecosystems, and the viability of essential segments of the Australian economy. CEBRA is a key initiative in the Australian Government's response to biosecurity risks.

Reporting to the CEBRA Director, the Research Fellow will contribute to the administration of the research projects as directed by the sponsors, Department of Agriculture and Water Resources, (DAWR) and Ministry for Primary Industries (MPI) focused on biosecurity risk analysis. The Research Fellow supports CEBRA, DWAR and MPI researchers in their development of research projects to ensure that appropriate processes are followed, and research activities are well-coordinated.

The projects will explore the availability of data, evaluate the potential for filling critical information gaps to improve confidence in the outcome, design efficient sampling protocols for research projects and develop improved models to analyse data within the time and resource limits of the projects.

The position requires collaboration with researchers in the School of BioSciences, CEBRA and with Australian and overseas researchers and partners. The Research Fellow will contribute to the writing of reports and scientific papers, as well as preparing documents and presentations for meetings with collaborators and partners.

1. *Key Responsibilities*

For Minimum Standards for Academic Staff Level A, and B, view
http://www.policy.unimelb.edu.au/schedules/MPF1157-ScheduleB.pdf

- Process, analyse and evaluate data and interpret the results and prepare and submit written reports based on research findings / data with minimal guidance to key stakeholders.

- Design and conduct biosecurity research experiments and risk analysis, case studies and questionnaires.

- Design sampling programs (both the sampling/measuring devices and the sampling strategy) with help from AQIS, CEBRA, CEED and NERP colleagues.

- Manage communication activities among the stakeholders involved in the research projects, including face-to-face meetings, teleconferences, emails, Skype, online blogs, contribution to report etc.

- Prepare project deliverables for the funding body i.e. project proposals, ethics applications, quarterly update reports, interim and final reports.

- Prepare technical reports resulting from surveys, investigations, tests, field trials, observations and related activities

- Work with project sponsor and Centre Director to identify areas of future research opportunities, including writing business cases and proposals for consideration by steering committees

- To comply with DAWR regulations, ensure that research projects follow the specified research methodology and research activities are well coordinated.

- Undertake regular interstate travel to attend meetings and workshops with DAWR/MPI and key stakeholders and to collect research data for the various research projects.

- Remain current with material, such as published articles and government policies, in relation to biosecurity risk analysis and methodology and apply appropriately to the particular research project being undertaken.

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

- Be a good university citizen, including provision of advice within the field of expertise and mentoring to post-graduate students.

2. Special Requirements

- Undertake regular domestic and international travel to meet with key stakeholders from Government and industry.

3. Selection Criteria

3.1 ESSENTIAL

- PhD in mathematics, statistics, data science, quantitative environmental sciences, or an appropriate related field.

- Proven ability to productively undertake scientific projects and collaborations in biosecurity risk analysis or a related field.

- Proven ability to liaise effectively with a variety of people, internal and external to the University.

- Excellent interpersonal and communication abilities, verbal and written, including the preparation of written presentations and scientific publications.

- A high level of self-motivation and initiative, an ability to provide creative solutions to problems and an ability to be flexible in responding to changing work priorities.

- Ability to work in a team environment.

3.2 ESSENTIAL (LEVEL B)

In addition to 3.1, the following criteria are essential for Level B:

- A demonstrated aptitude for independent research, with a strong publication record of original research in relevant areas in peer reviewed international journals, commensurate with experience and opportunities.

- Demonstrated ability to successfully supervise and mentor higher-degree students.

- Demonstrated ability to engage with relevant professional bodies to foster collaborative partnerships.

- Highly developed organisational skills, ability to prioritise tasks, manage time effectively and to exercise appropriate judgement when required.

3.3 DESIRABLE

▸   Proficiency in the use of computers, particularly to undertake analysis of data.

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 deserve 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 SCHOOL OF BIOSCIENCES

http://biosciences.unimelb.edu.au

The School of BioSciences was formed in 2015 through the amalgamation of the School of Botany and the Departments of Genetics and Zoology thus bringing together a critical mass of 160 Academic staff and 240 Research Higher Degree students undertaking world class teaching and research in the biological sciences. Academics within the School are aligned to four research clusters: Ecology, Evolution and Environmental Science;

Genetics, Genomics and Development; Plant Science and Computational Biology. Through cross-disciplinary collaborations within the School and with external partners the School is a major recipient of grant and contract funding.

The School is a major contributor to the Bachelor of Science, Bachelor of Biomedical Science and the Environmental Science programs, its teaching program reflecting the research interests within the School.

6.2 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 seven schools: BioSciences, Chemistry, Earth Sciences, Ecosystem and Forest Sciences, Geography, Mathematics and Statistics, and Physics.

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

Science manages more than $290 million of income per annum, with a staff base in the order of 270 professional staff, and more than 580 academic staff.

We offer a range of undergraduate, honours, graduate and research degrees; enrolling over 8,600 undergraduate and 2,440 graduate students. The Faculty of Science is the custodial Faculty for the BSc (Bachelor of Science). The Faculty of Science is a leader in research, contributing approximately $70 million in HERDC income per annum. The Faculty of Science is highly research focused, performing strongly in the ARC competitive grants schemes, often out-performing the national average. The Faculty of Science is currently growing its competitiveness and standing in the NHMRC 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 $56 million. The annual income from the endowment supports more than 120 prizes, scholarships and research awards.

*Figures from the latest available data for 2015, including published international rankings data.

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