



POSITION DESCRIPTION

Department of Microbiology and Immunology
Faculty of Medicine, Dentistry and Health Sciences

Research Officer (Molecular Epidemiology in Malaria) -Bio21 Institute

POSITION NO	0050287
CLASSIFICATION	Research Officer Grade 1, Level A or Research Officer Grade 2, Level B Level of appointment is subject to qualifications and experience.
SALARY	\$72,083 - \$97,812 p.a. (Level A) \$102,967 - \$122,268 p.a. (Level B)
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed term for 12 months Fixed term contract type: Externally funded employment
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 , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Professor Karen Day Tel +61 3 83447644 Email karen.day@unimelb.edu.au Please do not send your application to this contact

For information about working for the University of Melbourne, visit our websites:
about.unimelb.edu.au/careers

Position Summary

We are seeking a highly motivated post-doctoral researcher with experience in molecular genetics/molecular epidemiology/genomics/bioinformatics. The applicant will join the group of Prof Karen Day within the Department of Microbiology and Immunology. Her laboratory is at the Bio 21 Institute. The successful candidate will join a multidisciplinary team including colleagues from University of Chicago and Institutions in Ghana. They will be engaged in molecular epidemiology research focussed on monitoring and evaluating various malaria interventions in a field study in Northern Ghana funded by the NIH NIAID as part of the NSF Ecology and Evolution of Infectious Disease Program. The research is to be carried out under the strategic supervision and mentorship of Prof Day, in a well-supported research program that fits within the larger research theme of the Day Laboratory studying human, parasite and anopheline variation in malaria endemic areas. Prof. Day has a dual appointment in the Departments of Microbiology and Immunology (Doherty Institute), and Bio21 Institute, of the University of Melbourne. The applicant will have the opportunity to co-supervise PhD, Masters and Honour students, financial support for research activities, and access to all the resources and facilities of the Doherty and Bio21 institutes. More information on the research directions of the Day laboratory can be found at:

<https://biomedicalsciences.unimelb.edu.au/sbs-research-groups/microbiology-and-immunology-research>

<https://www.bio21.unimelb.edu.au/day-group>

The position requires a motivated individual with a strong interest in global public health and a background in genomics, molecular epidemiology and or bioinformatics. The position will involve combining expertise in genomics, epidemiology and bioinformatics to better understand malaria control in high transmission settings. While the research in the Day laboratory is centred on malaria, researchers with interest in microbial genomics/ infectious disease epidemiology are encouraged to apply.

The applicant should have a PhD in molecular genetics, molecular epidemiology, genomics or bioinformatics or related field. Previous experience in genomics is essential. Researchers are expected to be self-motivated, to operate with minimal supervision under the general direction of the Laboratory Head and to provide significant input on scientific direction of their projects. The appointee will also have the opportunity to contribute to collaborative research projects and the research training of students and junior staff. Applicants should have demonstrable experience preparing and publishing manuscripts, presenting at scientific conferences, and applying for research fellowships and grants an advantage.

We foster a values-based culture of innovation and creativity to enhance the research performance of the University and to achieve excellence in teaching and research outcomes.

We invest in developing the careers and wellbeing of our students and staff and expect all our leaders to live our values of:

- Collaboration and teamwork
- Compassion
- Respect
- Integrity
- Accountability

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- ▶ Independently plan and carry out experiments focused on completion of research project aims
- ▶ Maintain accurate and detailed records of all experiments conducted
- ▶ Develop effective timelines and milestones based on goals of the research programme
- ▶ Be responsible for qualitative and statistical analysis of research data and to communicate this information to the Laboratory Head and collaborators in a timely manner
- ▶ Collaboration with team members in order to work as a team and further the laboratory's research output

1.2 LEADERSHIP AND SERVICE

- ▶ Assist in preparation and submit competitive grant applications relating to the research program

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

1.3 TEACHING AND LEARNING

- ▶ Contribute to teaching, training, scientific mentoring and supervision of students

Supervise and training of junior research staff in the appointee's area of expertise

1.4 ENGAGEMENT

- ▶ Contribute to the preparation of manuscripts related to the research project of the successful candidate and assist with preparation of other manuscripts from the laboratory

- ▶ Attend and contribute to Laboratory and Departmental meetings
- ▶ Present experimental results at local, national and international forums
- ▶ Attend and actively participate in departmental seminars, meetings and/or committee memberships

1.5 IN ADDITION TO THE ABOVE, A LEVEL B APPOINTMENT WILL BE REQUIRED TO

- ▶ Provide leadership in the supervision of research graduate students, post-doctoral fellows and/or research assistants.
- ▶ Provide excellent supervision and mentoring for research higher degree students.
- ▶ Oversee training of staff and students in laboratory, safety and research methods as required.
- ▶ Lead the preparation of manuscripts related to the research project
- ▶ Lead the preparation and submission of fellowships and competitive grant applications.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ A PhD in molecular genetics, molecular epidemiology, genomics, bioinformatics or related field
- ▶ Primary authorships on scholarly publications such as journal research articles and or demonstrated skill in preparation of research manuscripts
- ▶ Demonstrated skills in genomic data collection, curation and analysis
- ▶ Excellent ability in analysing data, problem solving and maintaining accurate research records
- ▶ Experience in Next Generation Sequencing and Analysis Techniques
- ▶ Experience in working with Python and R programming languages
- ▶ Ability to prioritise tasks to achieve project milestones within timelines
- ▶ Demonstrated experience in using initiative and working with minimal supervision
- ▶ Excellent written and verbal communication skills, demonstrated by presentation of research results at conferences, internal forums and through publication of manuscripts
- ▶ Demonstrated ability to work as a member of a research team and interact in a courteous and effective manner with academic, administrative and support staff

2.2 DESIRABLE

- ▶ Interest in global public health
- ▶ Experience in microbiology and/or infectious diseases.
- ▶ Experience in pathogen genomics and epidemiology/population health/public health.

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:

<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.

5. Other Information

5.1 DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY

The Department of Microbiology & Immunology is one of the departments within the School of Biomedical Sciences in the Faculty of Medicine, Dentistry and Health Sciences. Further information is available at <http://www.microbiol.unimelb.edu.au/> and <http://bsac.unimelb.edu.au/>.

5.2 THE PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY

The Doherty Institute is a world-class institute combining research in infectious disease and immunity with teaching excellence, reference laboratory diagnostic services, epidemiology and clinical services. It is a joint venture between the University of Melbourne and Melbourne Health.

A new, purpose-built building for the Doherty Institute was completed in early 2014. The members of the Doherty include the Department of Microbiology and Immunology and the Microbiological Diagnostic Unit Public Health Laboratory of the University of Melbourne, the Victorian Nosocomial Infection Surveillance System, The Victorian Infectious Diseases Reference Laboratory, The Victorian Infectious Diseases Service, and The World Health Organisation Collaborating Centre for Reference and Research on Influenza.

Further information about the Doherty Institute is available at:

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.

5.5 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>.

5.6 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.

5.7 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>