



# RESEARCH ASSISTANT / RESEARCH FELLOW

DEPARTMENT/UNIT	Institute of Vector-Borne Disease
FACULTY/DIVISION	Office of the Provost and Senior Vice-President
CLASSIFICATION	Level A
WORK LOCATION	Clayton campus

## ORGANISATIONAL CONTEXT

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Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at [www.monash.edu](http://www.monash.edu).

The **Provost & Senior Vice-President** is responsible for: setting and implementing the university's research strategy, improving the academic and research performance of the University; oversight of faculties and university-wide centres and institutes; development of academic staff employment policies and procedures that enable a high performance culture; identifying and developing new research opportunities and clusters, expanding international research collaborations and interdisciplinary areas of excellence.

The **Institute of Vector-Borne Disease (IVBD)** falls within the Office of the Provost and Senior Vice-President. The primary purpose of the Institute is to spearhead the University's research efforts in eliminating diseases such as dengue fever and Zika. The Institute is home to dedicated laboratory facilities, including a large BSL2 and BSL3 insectary. The Institute houses the World Mosquito Program (WMP) within Monash University, an international collaborative research program designed to prevent the transmission of arboviral diseases threatening the health of people living in tropical and subtropical regions and aims to improve global health whilst significantly reducing the financial burden on local health systems in these regions. The WMP currently operates in 10 countries and is expanding.

## POSITION PURPOSE

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A Level A research-only academic is expected to contribute towards the research effort of the University and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

The Research Assistant/ Fellow provides a variety of high-quality research services to support the operations of the Institute of Vector Borne Disease. The Research Assistant/ Fellow performs a range of complex research activities that play a critical role in supporting the delivery of Genomics and Mechanism program outcomes. This includes undertaking the management of all high throughput sequencing data production for the Mechanism and

Vector Genomics teams: the preparation of high-quality sequencing libraries; the active development and improvement of novel library preparation methods; the design of novel extraction and amplification protocols; the development of sequence-based diagnostic assays for an array of vector-borne pathogens and the handling and primary preparation of generated sequencing data.

The Research Assistant/ Fellow works closely with researchers, staff and students to understand the research requirements and operates with excellence in process and judgement to provide efficient research services in accordance with research protocols and standards.

**Reporting Line:** The position reports to Senior Research Fellow – Pathogen and Vector Genomics under general direction

**Supervisory Responsibilities:** Not applicable

**Financial Delegation:** Not applicable

**Budgetary Responsibilities:** Not applicable

## KEY RESPONSIBILITIES

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Specific duties required of a Level A research-only academic may include:

1. The generation of genomic sequence for a wide range of vector and pathogen species under limited supervision, either as a member of a team or independently, and the production of high quality genomic data in accordance with the research objectives of the Mechanism and Vector Genomics groups
2. Developing novel or improved methods of library preparation or sequencing that are appropriate to the particular demands of vector and pathogen genomes
3. Implementing amplification and extraction methods, such as selective amplification or hybridisation-based pulldown, appropriate for vector and pathogen genomes
4. Development and implementation of novel sequence-based and molecular assays for pathogen species and strain detection
5. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees
6. Advice within the field of the staff member's research to postgraduate students; including dissemination of novel standard operating procedures or newly developed techniques, overseeing compliance with technical or research standards
7. Limited administrative functions primarily connected with the area of research of the academic

## KEY SELECTION CRITERIA

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### Education/Qualifications

1. The appointee will have:
  - An honours degree or higher qualifications in the relevant discipline and/or progress towards a doctorate in the relevant discipline; or
  - a doctoral qualifications in the relevant discipline or a closely related field

### Knowledge and Skills

2. Significant experience with Illumina library preparation and the proper handling of DNA/RNA samples, including quantification, size and purity assessments
3. Experience in developing sequencing / molecular / PCR-based assays

4. Experience with the implementation of known molecular biology protocols; experience of novel protocol development preferred
5. Demonstrated analytical and manuscript preparation skills; including a track record of refereed research publications
6. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
7. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
8. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents

## **OTHER JOB RELATED INFORMATION**

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- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted

## **LEGAL COMPLIANCE**

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Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.