



RESEARCH OFFICER - MICROINJECTION

DEPARTMENT/UNIT World Mosquito Program Institute of Vector-borne Disease (IVBD)

FACULTY/DIVISION Provost and Senior Vice-President

CLASSIFICATION HEW Level 5

WORK LOCATION Clayton campus

ORGANISATIONAL CONTEXT

Monash is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit www.monash.edu.

The **Provost and Senior Vice-President** is the Chief Academic Officer of the University and is responsible for: setting the University's academic strategy and priorities with a view to improving the education and research performance of the University; oversight of faculties, academic related portfolios and University-wide centres and institutes, oversight of academic staffing including recruitment, development, reward and recognition, policies and procedures; strategic leadership for the delivery of academic programs; identifying and cultivating interdisciplinary areas of excellence and collaboration.

The Institute of Vector-Borne Disease (IVbD) located within Monash University's Provost Portfolio brings together scientists and experts across multiple disciplines to address the global burden of mosquito-borne diseases. A key focus of the Institute's research portfolio is the World Mosquito Program (WMP) (worldmosquitoprogram.org), a global not-for-profit initiative that works to protect the global community from mosquito-borne diseases such as dengue, Zika and chikungunya. Known until recently as Eliminate Dengue, the WMP uses naturally occurring bacteria called *Wolbachia* to reduce the ability of mosquitoes to transmit these diseases.

Following years of laboratory research and field trials with promising results, the WMP has expanded to 12 countries around the world and has widespread support from communities, governments and regulators.

Long-term monitoring shows that *Wolbachia* is self-sustaining at high levels in the majority of the WMP's international project sites up to six years after release. In areas where high levels of *Wolbachia* are present, there has been no evidence of local spread of dengue.

The WMP's Wolbachia method has also been recommended by the World Health Organisation for further pilot deployments.

POSITION PURPOSE

The Research Officer is a self-driven position that provides a variety of high-quality services to support the activities of the World Mosquito Program (WMP). This includes the rearing and preparation of mosquitoes for the generation of new lines, as well as molecular and experimental work to characterize the fitness of these lines as required. Working with a small dedicated team, the Research Officer is an effective communicator able to build relationships and rapport quickly to ensure that peak workloads are effectively managed in accordance with standard operating practices.

Applying theoretical and technical knowledge to perform a range of tasks, the Research Officer will innovate tasks to improve efficiency while providing high-quality work in a fast-paced environment. While undertaking these activities, the Research Officer must maintain a compliant and safe research environment, communicating effectively with coworkers and key stakeholders to ensure goals are achieved in a timely manner.

The Research Officer operates with a focus on excellence in process and judgment and provision of sound and timely support to the other members of the Production, Diagnostics and Mechanism Teams and the WMP as a whole.

Reporting Line: The position reports to the Microinjection Manager under general direction

Supervisory Responsibilities: Not applicable

Financial Delegation: Not applicable

Budget Responsibilities: Not applicable

KEY RESPONSIBILITIES

- 1. In accordance with existing policy and procedure, maintain a safe and consistent laboratory environment to ensure all projects are performed with appropriate scientific rigor
- **2.** Support and perform the rearing and establishment of new *Ae. aegypti lines* infected with the bacteria *Wolbachia pipientis*, under controlled conditions for research purposes
- **3.** Support the production of mosquito eggs ready for their microinjection with *Wolbachia* as required to respond to changing demand
- **4.** Support the fitness characterisation of newly established *Wolbachia*-infected *Ae. aegypti* as part of the development of new mosquito candidate lines for field deployment
- **5.** Support technical staff to deliver on project requirements through maintenance of laboratory standards and driving process optimisation through innovation
- **6.** Provide support to the operation of the World Mosquito Program Insectary and laboratory ensuring scientific standards are applied and upheld
- 7. Comply with established research methodology, policy, protocols, OHS and regulatory requirements

KEY SELECTION CRITERIA

Education/Qualifications

- 1. The appointee will have;
 - A tertiary qualification in biological science, science, or similar; or
 - substantial relevant skills and work experience in a controlled laboratory environment; or
 - an equivalent combination of relevant experience and/or education/training

Knowledge and Skills

- 2. Experience working with living organisms, ideally mosquitos, in a controlled environment
- 3. Knowledge of mosquito biology and rearing practices
- 4. Excellent attention to detail in protocols and instructions
- 5. Skilled to adapt to changes in work plans and priorities
- **6.** Highly developed communication skills, including the ability to address and interact with audiences from various backgrounds and cultures.
- 7. Demonstrated ability to work well as part of team in a high-pressure environment
- **8.** Excellent problem-solving abilities, including through the application/use of analytical and diagnostic skills, discretion, innovation and professional expertise to solve problems
- 9. Computer literacy, including the ability to learn and adopt new software packages as required

OTHER JOB RELATED INFORMATION

- Shift work, overtime and out of hours work (including evenings, weekends and public holidays) may be required
- There may be peak periods of work during which the taking of leave may be restricted
- This position could require domestic and international travel
- It is an inherent requirement of the role that the incumbent will be working with, or have risk of exposure to, blood feeding insects. Unless otherwise agreed by the University in writing, it is a requirement that at all times during employment in this position the incumbent must maintain up-to-date vaccinations in accordance with the Australian Government Department of Health National Immunisation Program Schedule. Evidence of vaccination status must be provided prior to commencement of employment and on request by the University at any time during employment in this position

LEGAL COMPLIANCE

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.