Position description

Infectious Disease Modeler Research Officer

Position title: Infectious Disease Modeler Research Officer	**Classification:** Academic Level A6 – A8
Division/Department: Population Health and Immunity	**Employment type**: 2 year full time contract
Position reference:	**Further information:** Prof Ivo Mueller (mueller@wehi.edu.au)
Remuneration range: Dependent upon experience	**Closing date:**
Position reports to: Joint Division Head	
Positions reporting to this one: None	

Position overview

The role of the Bioinformatics Research Officer is to contribute to and influence the laboratories research program with minimum supervision. To develop and apply mathematical, statistical and quantitative principles and techniques to solve problems and to provide advice and mentoring to Research Assistants and students.

Organisational environment

The Walter and Eliza Hall Institute of Medical Research
The Institute is one of Australia's leading biomedical research organisations, with a strong national and international reputation for performing highly influential basic and translational research.

With more than 1,100 staff and students, the Institute is addressing some of the major health challenges of our time, with a focus on cancer, infection, inflammation, immune disorders, development and ageing. We are at the forefront of research innovation, with a strong commitment to excellence and investment in research computing, advanced technologies and developing new medicines and diagnostics. And our researchers are strongly supported by Professional Services teams.

The Institute is organised around five themes; Cancer Research and Treatments; Infection, Inflammation and Immunity; Healthy Development and Ageing; New Medicines and Advanced Technologies and Computational Biology.

This Institute is committed to delivering long term improvements in treating and diagnosing diseases, with many national and international clinical trials underway based on research undertaken at the Institute.

The Institute's main laboratories are located in the world-renowned Parkville precinct, a vibrant and collaborative life science research, education and healthcare hub. The Walter and Eliza Hall Institute Biotechnology Centre is located 30 minutes from Parkville at La Trobe University's R&D Park in Bundoora and includes facilities for medicinal chemistry and antibody development and production. Additionally, based in Kew, the Clive and Vera Ramaciotti Laboratories (established in 1973) produce high quality, germ-free and specific pathogen free bioservices resources for research.

Organisational objectives

Discovery and translation

To make discoveries that shape contemporary scientific thinking, increase understanding and improve prevention, diagnosis and treatment of cancer, immune disorders and infectious diseases.

Education and training

To educate and train world class scientists and to attract, develop and retain the best and brightest workforce.

Organisational culture

To provide a vibrant and inspiring organisational culture that encourages, promotes and rewards excellence, collaboration, innovation, creativity and respect.

Engagement

To engage with our stakeholders to improve outcomes, building support and secure resources for medical research.

Sustainability

To build infrastructure, professional services and funding that sustains our research and maximises the time our scientists can spend making discoveries.

Organisational values

- Contribution to Society
- Integrity and Respect
- Collaboration and Teamwork
- Accountability
- Creativity
- Pursuit of excellence

Key responsibilities

Bioinformatics and Applied Statistics in Scientific Research:

- Develop detailed and thorough knowledge of own and related subject areas, including the latest scientific research.
- Formulate mathematical models to simulate processes and apply these to experimental observations.
- Specify the data to be collected, and the methodology to be used in analysis.
- Evaluate and Describe the reliability and utility of source information.
- Analyse and interpret data and produce relevant statistics to describe particular trends and patterns.
- Actively search for new techniques; build expertise to become the go-to person for some aspects of the research
- Plan and carry out research ethically and safely under limited supervision. This may involve experimental design, leading to the application of advanced research methods, theories, assays or resources and may be as a sole researcher or as part of multidisciplinary collaboration.
- Take a strategic view of project; prioritise and plan three to four years ahead
- Establish a profile and reputation in the discipline area and contribute to the wider scientific community.
- Engage with appropriate opportunities, networks and contacts to enhance their profile and employability including international experience.
- Develop awareness of the collection, organisation, validation, sharing and storing of information/data, new methodologies and theories. Apply copyright and IP principles to research outputs and outcomes.
- Contribute to the development of the laboratories research projects and grant proposals.

- Produce publishable material of high standard, aiming for strategic and significant authorship positions where appropriate. Collaborate and contribute generously to other papers to support the development of students and mentees, and the research of colleagues at the Institute and externally.
- Engage with stakeholders and users of research to extend influence and impact of research within and beyond the Institute.

People development and management

- Manage own continuing development of scientific and technical skills.
- Supervise research students and provide advice and/or mentoring to students.
- Advise and coach less experienced laboratory members to develop scientific, technical and research management skills and to build profiles in the scientific community.
- Recruit, lead and support staff, e.g. Research Assistants
- Work effectively as part of the research team – be reliable and approachable
- Build collaborative relationships with a range of colleagues and with stakeholders

Resources and Planning

- Independently define a manageable research project(s) and produce a comprehensive research proposal.
- Recognise the significance of income and funding generation for the laboratory and the Institute; build a broad range of relevant funding sources such as fellowships and grant schemes
- Develop grant writing skills and work towards being a named investigator on a grant
- Develop deeper awareness of research application and translation including collaboration, partnerships and commercialisation of research outcomes
- Make creative use of available resources; cultivate useful connections

Institute culture

- Build capabilities in addition to the science, eg communication, teaching, translation, policy or practice.
- Understand and act within the Institutes culture, values and behaviours; challenge inappropriate behaviours, actively support the Institute's equality and diversity goals.
- Demonstrate scientific and professional integrity, encourage these behaviours in others
- Understand and act within the Institutes compliance policies
- Participate in and contribute to Institute committees

Key selection criteria

Personal qualities

- Research experience of working with mathematical and/or statistical models.
- Excellent verbal and written communication skills. The working language of the laboratory is English.
- Excellent attention to detail, ensuring that data, new methods and theories are accurate, of high-quality and accessible to other researchers
- Proven interpersonal and collaborative skills in achieving research outcome
- Experience in communicating research findings to a non-specialist audience.

Knowledge and skills

- PhD in one of the following areas: infectious disease epidemiology, population biology, mathematics, statistics, physics, computer science or a similarly quantitative discipline.
- A strong interest in infectious disease epidemiology.
- Knowledge of a statistical programming language (preferably R).
- Programming experience in C, C++ or Java.
- Ability to collate and analyse data, interpret and present results to a high standard using a range of specialised research techniques.
- An excellent academic record and achievements

- Research experience that has resulted in publications, conference papers or reports

A safe and sustainable workplace

The Institute is committed to developing a safe and sustainable work place with rigorous risk, compliance and governance systems. As an employee you are expected to:

- Comply with Institute policies, plans and procedures.
- Take reasonable care of your own safety and the safety of others including using Personal Protective Equipment (PPE) and safety devices appropriately.
- Report all risks, hazards, incidents/injuries and near misses.
- Attend and complete training programs as documented in individual training needs matrices, within proposed time frame.
- To the extent of your role responsibilities and obligations proactively contribute to a safe and sustainable workplace.

Diversity

At the Walter and Eliza Hall Institute we embrace diversity amongst our staff and students and know the importance of an inclusive workplace culture to the success of our organisation.

We are actively committed to achieving gender equality across our workforce. The institute has a range of policies and initiatives in place to address under-representation of women at senior levels and to support people with caring responsibilities.

We have a strong commitment to the process of reconciliation and creating meaningful employment and training opportunities for Aboriginal and Torres Strait Islander Peoples.

We encourage applications from people from culturally and linguistically diverse backgrounds, Aboriginal and Torres Strait Islander Peoples, people with a disability, and people from the LGBTQIA+ community.

Privacy notification

The collection and handling of declarations and personal information relevant to your employment will be consistent with the requirements of the Privacy Act 1988.

Acceptance

I, ……. have read, understood and agree that this position description represents the key duties and responsibilities expected of me while employed in this position. I will also undertake other duties assigned to me from time to time. I understand the Walter and Eliza Hall Institute of Medical Research reserves the right to modify this position description, as required, and I will be consulted when this occurs.

**) If e-signature is used:*
I consent to providing my electronic signature below in confirmation that I have read, understood and accept the duties and responsibilities described this position description.

Employee Signature: ……. Date: …….

Supervisor Signature: ……. Date: …….

Supervisor Name: ……. Date: …….