Job Description

Position Title	Research Assistant/Research Officer	**Level**	A
Reports to (role)	The Professor Fiona Stanley Chair in Child Health Research	**Career Stream**	Research
Team	Global Disease Modelling		
Location	The Kids Research Institute Australia, Perth Children's Hospital, 15 Hospital Ave, Nedlands		

PURPOSE OF POSITION

The Research Assistant or Research Officer (level defined by experience) will be responsible for supporting the conceptualisation, development, optimisation and application of cutting-edge mathematical and statistical methodologies to estimate health impact and understand the role of existing and novel malaria interventions to support malaria burden reduction and elimination. This role will support Research and Development (R&D), policy and implementation decisions on existing and next-generation malaria tools, their combined use, and their use-cases to reduce or eliminate disease.

This role will work collaboratively with Global Disease Modelling (GDM) team members, various scientists, funding bodies, global health partners and policymakers working in and with malaria-endemic countries. You will also contribute to the preparation of scientific reports for stakeholders and preparation of publications in open access journals.

KEY RESPONSIBILITIES

Key Responsibilities	Tasks required to achieve Key Responsibilities	Measures
Research Activities	• Utilising modelling approaches to support the optimisation and implementation of modelling analysis, new mathematical and statistical and machine learning models, and workflows related to addressing questions on malaria intervention impact for different stakeholders. • Contribute to building innovative tools that support automation for the collection, quality assurance, manipulation, analysis, interpretation and dissemination of data and modelling inputs. • Contribute to extending and refining existing models to include new data sources and add new functionality. • Work closely with team members to design and implement scalable, efficient solutions to	• New methodologies are developed and applied. • Quality of model inputs, workflows and analysis. • Effective dissemination of research outcomes. • Data collation, archiving and analysis are of the highest quality. • Research is conducted using best practice, ensuring the reusability and scalability of code within teams. • Model/analysis outputs are delivered to stakeholders

	support disease models and address questions on disease dynamics and intervention impact. • Contribute ideas for new research projects for generating research income and contribute to and, as appropriate, lead in the preparation of scientific reports and journal articles for publication of research findings in open access journals.	while meeting reporting and output deadlines. • Authorship in peer-reviewed publications. • Confidential data is securely maintained. • Project timelines are met. • Formal and informal feedback from internal and external stakeholders.
Research Management	• Maintain rigorous data-and code-management practices, including thorough documentation and version control, to ensure data replicability and cross-compatibility with past and future group products. • Manage own coding, research, deliverables, and administrative activities, including small-scale project management to co-ordinate multiple aspects of the work. • Manage own academic research and administrative activities.	• Confidential data is securely maintained and not disclosed. • Project conducted in line with ethics and governance requirements. • Project deliverables executed on time and open communication if timelines are not possible.
Stakeholder Engagement and Collaboration	• Work closely with community partners to coordinate research projects. • When appropriate, present or support the presentation of research findings from this work at selected national and international meetings or conferences. • Contribute to communications with our model users, including via open-source documentation and webpages. • Collaborate with the team's software developers and modellers in Perth and at other locations (e.g., Basel, Switzerland). • Liaise with internal and external collaborators and provide timely updates to the project team.	• Open-science and code are core of the research, including effective communication with users internally and externally. • New ideas explored with senior team members. • Research is represented accurately in meetings. • Formal and informal feedback from internal and external stakeholders. • Attendance in internal and external seminars and events. • Engagement with GDM peers and collaborators.
Development and Team Membership	• Establish and maintain clear lines of communication and ensure team members are informed of project progress. • Undertake professional development training as required for specific projects. • Stay updated with advancements in disease modelling, AI-assisted modelling, and health data science, contributing innovative ideas to the team's research and development efforts.	• Acknowledged as working collaboratively and effectively. • Deliver expected work within project timescales. • Continuous self-training in appropriate technologies, scientific and research related disciplines, and actioning administrative tasks related to role.

Workplace Safety	• Take reasonable care for your own safety and health and avoid harming the safety and health of others through any act or omission at work. • Identify and assess workplace hazards and apply hazard controls. • Report every workplace injury, illness or near miss, no matter how insignificant they seem. • Abide by Institute policies and procedures.	• Responsibilities are embedded in work practices. • Hazards are effectively • managed or reported. • Accidents and incidents are reported in a timely manner. • All applicable safety policies and procedures are sought, understood and implemented.

ESSENTIAL CRITERIA

Qualifications:	PhD or Masters thesis or equivalent experience in mathematics, mathematical modelling, epidemiology, statistics, public health or a similar quantitative discipline.
Essential Skills, Knowledge & Experience:	• Statistical/mathematical skills, especially one or more fields relevant to diseases modelling (ODEs/PDEs; simulation models; Bayesian statistical modelling; Gaussian processes). • Demonstrable ability to think abstractly about real-world systems and design mathematical/statistical models answering questions about them. • Programming skills in at least one of R/Python, or another statistical/mathematical programming language. • Experience in statistical modelling, data analysis and machine learning. • Ability to use numerical analysis methods to develop algorithms and perform computations. • Ability to work independently and as part of a collaborative team to initiate, plan and deliver research projects through from conception to publication. • Fluent with asynchronous communication and working in a hybrid environment. • High level written and verbal communication skills with a demonstrated proficiency in scientific writing. • A high attention to detail and willingness to diligently self-scrutinize deliverables and coordinate with other team members. • Highly developed interpersonal skills including demonstrated negotiation and conflict resolution skills.
Desirable Skills, Knowledge & Experience:	• Experience building mathematical models of disease, including individual-based models. • Strong interest in the epidemiology of malaria and/or other infectious (vector borne) diseases and health systems research in local and global contexts. • Experience with high performance computing. • Knowledge of Linux scripting/commands. • Experience in infectious disease modelling. • Experience of Git or a similar source control.

DIRECT REPORTS	0

Approved by:	Melissa Penny
Date approved:	18th September 2025
Reviewed by P&C:	26th September 2025