

POSITION DESCRIPTION

Position Details

Position Title	Molecular Biologist
Centre/Department	Centre for Infectious Diseases and Microbiology
Reports To	Professor Jon Iredell

The Institute

The Westmead Institute for Medical Research is one of the largest medical research institutes in Australia with over 600 staff and students across 11 research centres. Its research spans infectious and immune diseases, cancer and leukaemia, liver and metabolic diseases, eye and brain related disorders and heart and respiratory disorders.

Closely affiliated with the University of Sydney and Westmead Hospital, the Institute's research extends from the laboratory to the patient using the basic tools of molecular and cell biology, genetic epidemiology, imaging technology and clinical research. Biomedical research in the Institute extends into clinical research programs across a wide range of disciplines which may interface with the many clinical trials in progress at any one time. This "bench to bedside" approach enables greater translation of research from biomedical discovery to the development of new prevention strategies, diagnostics and more effective treatments.

Position Description/ Primary Function

The role of the **Molecular Biologist** is to provide experimental support for an NHMRC-funded project studying natural conjugative plasmids found in clinical isolates, with the aim of developing therapeutic plasmids that can be used to rid bacterial isolates of plasmids carrying important antibiotic resistance genes.

Primary duties are to assist with genetic engineering of plasmids and carry out plasmid stability and host range experiments, as well as experiments to test plasmids in mice. This will require skills in molecular biology and molecular genetics bench work including DNA/RNA extraction and analysis, PCR analysis, bacterial conjugation, cloning, mutagenesis experiments, next generation sequencing and sequence data analysis. The role will also involve assisting with processing and storage of clinical samples and maintaining databases.

Major Responsibilities

		Frequency
1.	Perform laboratory experiments assigned by supervisors	Ongoing
2.	Support the achievement of project goals by undertaking a range of research and administrative support tasks including data collection, recording and analysis; and preparing and documenting results in accordance with established research objectives, timeframes and protocols	Ongoing
3.	Assist in preparing research reports and other documentation, including undertaking literature reviews and data analysis	Ongoing

4.	Comply with established research methodology, ethics, policy, protocols, and other regulatory requirements	Ongoing
5.	Maintain effective communication with supervisors, colleagues, and collaborators to support and facilitate research objectives	Ongoing

Selection Criteria	Essential	Desirable
1. A PhD in Molecular biology/Biotechnology/Microbiology or a related area; or A tertiary qualification in biomedical sciences and substantial relevant skills and work experience	X	
2. Sound knowledge and practical working experience in advanced molecular biology techniques, including gene cloning, mutagenesis, sequencing	X	
3. Sound analytical, technical and data analysis skills and a demonstrated capacity to apply effective technical methods	X	
4. Proven organisational skills and attention to detail, with a demonstrated ability to prioritise own workload and to work effectively both independently and as part of a team, meeting competing deadlines and delivering high-quality outcomes	X	
5. Demonstrated effective interpersonal skills and verbal and written communication skills, including the ability to draft various research related papers	X	
6. A background in microbiology/bacteriology/plasmid biology		X
7. Experience in handling small animals		X
8. Knowledge of next generation sequencing technology and sequence data analysis		X
9. Experience in using statistical software		X

Key Relationships	
Internal	External
<ul style="list-style-type: none"> • Research scientists in WIMR • Clinicians in CIDM • WSLHD, University of Sydney 	<ul style="list-style-type: none"> • Collaborating academic institutions and hospitals

Decision Making and Delegation of Authority
<p>The Molecular Biologist will work under the supervision of Prof. Jon Iredell, Dr. Muhammad Kamruzzaman and A/Prof Sally Partridge. The incumbent is expected to work with a range of staff across clinical and research teams.</p> <p>The incumbent has responsibility for exercising authority in accordance with WIMR's Delegations Manual.</p>

Position Dimensions

STAFF DATA

DIRECT REPORTS:	Muhammad Kamruzzaman
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INDIRECT REPORTS:	Sally Partridge, Jon Iredell
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FINANCIAL DATA

SALARY BUDGET	N/A
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NON-SALARY BUDGET	N/A
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GRANT AMOUNTS / BUDGET	N/A
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OTHER AMOUNTS	N/A
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Key Challenges

This position will require attention to detail, excellent record keeping and clinical sample management, the ability to communicate effectively with multiple levels of seniority in multiple disciplines, and a sound knowledge of both molecular biology and microbiology. The ideal applicant has PhD in bacteriology and/or molecular biology or tertiary degree in biomedical science, with experience in antimicrobial resistance and plasmid research and with animal models. They will be self-sufficient and prepare carefully for experimental work in consultation with the CIs, and report regularly on progress.

Organisational Capabilities

<p>Achieving Results</p>	<ul style="list-style-type: none"> • Achieve results through efficient use of resources with a commitment to quality outcomes • Plans work to achieve prioritised outcomes and can respond flexibly to changing circumstances • Thinks, analyses and considers the broader context to develop solutions to problems • Demonstrates a responsible and accountable approach to own work, adheres to legislation and policy and proactively addresses risks.
<p>Collaborative Relationships</p>	<ul style="list-style-type: none"> • Interested in sustaining productive working relationships, collaborative problem solving, and providing input in a thoughtful, considerate manner, listening to the others and responding with respect. • Collaborates with others by sharing knowledge to facilitate the flow of information and accelerate innovation. • Has a positive and proactive approach to building networks, alliances and partnerships • Has the ability to negotiate with others to resolve differences and settle conflicts effectively.
<p>Professionalism</p>	<ul style="list-style-type: none"> • Champions and acts as an advocate for the highest standards of ethical and professional behaviour. • Complies with relevant legislative and/or policy requirements and acts in accordance with the principles of good governance, social, economic and environmental sustainability. • Makes a positive contribution to the reputation of the organisation. • Has the capacity to consider alternative views and negotiate mutually satisfactory outcomes wherever possible.

Cultural Commitment

All staff are expected to make a positive contribution to WIMR as a workplace that is free from discrimination and harassment and a work environment that embraces and appreciates diversity. WIMR is a workplace where fair decisions are made on the basis of non-discriminatory criteria. In the situation where behaviour is witnessed that breaches our policies all staff are expected to raise and refer such a matter in a timely, respectful and confidential manner to either their supervisor or human resources.

Working With Children

This position does not involve working with children

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Work Health and Safety (WHS) Statement

All employees are expected to:

- Be familiar with WIMR's Work Health & Safety Policy and Safe Working Practices to ensure awareness of personal responsibility for workplace health and safety (WHS).
- Engage in safe work practices, taking reasonable care for your own health and safety and that of others who may be affected by your acts or omissions. Cooperate with the Institute to ensure compliance with WHS legislation.
- Report to your supervisor all incidents and injuries, and hazards or WHS issues of concern.
- Seek WHS information or advice from your supervisor where necessary, particularly before carrying out new or unfamiliar work.
- Participate in discussions and consultation on the management of WHS risks that may affect you.
- Follow Institute policies and procedures with respect to WHS.
- Wear appropriate clothing, footwear and protective equipment for the work being done and properly use relevant safety devices.
- Do not willfully place at risk the health, safety or wellbeing of others or misuse safety equipment.
- Familiarise yourself with local and Institute wide emergency procedures and cooperate with directions from emergency wardens.