

# STANDARD TEACHING AND RESEARCH POSITION DESCRIPTION



<b>Position</b>	Research Fellow
<b>Level/ Classification</b>	ACLEA
<b>Reports to</b>	Professor of Microbiology
<b>Division</b>	MMFS
<b>College</b>	Environmental and Conservation Sciences

## Position Purpose

An Associate Lecturer Level A is expected to carry out activities to develop scholarly research and professional expertise relevant to the profession or discipline. This position contributes to the teaching effort of the Discipline, particularly at the undergraduate level, and is also expected to perform a limited range of administrative functions.

## About Murdoch University

Murdoch University is a young and dynamic university with a foundational commitment to the environment, social justice and inclusion, and making education accessible to more people. Founded as Western Australia's second university in 1974, today, Murdoch has more than 21,000 students and 1,700 staff across campuses in Perth, Singapore and Dubai. With more than 90,000 Alumni, Murdoch graduates can be found all over the world, making a positive difference.

Our Strategy – Ngala Kwop Bididi. Building a brighter future, together – guides the University's direction and reaffirms our shared purpose to change lives and society for the better through accessible education and research.

The Strategy is focused on three key themes:

- Sustainability: Be a leading university in education, teaching and translational research in sustainability.
- Equity, Diversity, and Inclusion: Build a welcoming, diverse and inclusive community.
- First Nations: Become the University of first choice for First Nations peoples.

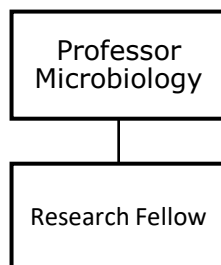
Murdoch is also committed to building engagement with our local community, State, nation, and global society with a track-record in creating strong partnerships with business, government and industry.

## About the Work Area

The Centre for Biosecurity and One Health recognises the linkages between health, biosecurity and the environment. It comprises research across themes including One Health, antimicrobial resistance, biosecurity of environmental and production systems, vector and water borne diseases, epidemiology, food safety and zoonotic diseases.

Policy, legislation and social science perspectives for each of these areas are a feature of our research outputs, with a transdisciplinary approach taken to address complex problems that relate to the health of animals, wildlife, plants, humans and ecosystems.

### Reporting Relationships



### Key Responsibilities / Duties

1. Whole genome sequencing of antimicrobial resistant bacteria.
2. Sequence data interrogation and meta data analysis.
3. Perform Enzyme Linked Immunosorbent Assay (ELISAs)
4. Developing robotic assays for isolation and antimicrobial resistance in Australian livestock.
5. Perform microbroth dilution assays to determine the minimum inhibitory concentration of each isolate using custom designed Sensititre plates.
6. Develop bioinformatics platforms.
7. Contribution for research grant application preparation and report writing.
8. Develop Novel approaches for reducing antimicrobial resistant and pathogenic Gram-negative bacteria in the porcine gut.
9. Assist with DNA sequencing and antimicrobial susceptibility testing on robotics using pre-set protocols.
10. Supervision of postgraduate and undergraduate students.
11. Assists with preparation of grants and research manuscript.
12. Participate in applications for competitive grant funding.
13. Consult with, and provide advice to, undergraduate and postgraduate students.
14. Participate in the University's Academic Contribution Development Review (ACDR).
15. Undertake such other duties as determined by the Supervisor.
16. Support the development and optimisation of automated diagnostic workflows for Aquila Azure™ and SmartView™, including AST, PCR, and ELISA platforms, to improve performance, throughput, and routine usability.
17. Undertake validation and proof-of-concept studies for Aquila diagnostic platforms and assays, including generating comparison data, testing real-world applications, and supporting performance assessment across One Health settings.
18. Assist with preparation of quality, regulatory, and technical documentation, including SOPs, validation records, and supporting materials required for technology transfer, compliance, and commercialisation activities.
19. Contribute to routine project delivery and operational support, including maintaining accurate records, supporting milestone completion, and assisting with implementation of activities required under the CRC-P agreement with Aquila Scientific.
20. Contribute to NATA and ISO accreditation activities for Aquila projects and the AQ testing laboratory, including method validation, SOP development, performance verification, proficiency testing, internal audits, and preparation for external assessment as per CRC-P agreement with Aquila Scientific.
21. Perform routine diagnostic testing to support grant delivery and the continued development of Aquila Azure™, including laboratory testing in AST, PCR, and ELISA to generate data for validation, optimisation, and accreditation of Aquila's diagnostic platforms.

## Selection Criteria

### Essential

1. Completion of a relevant postgraduate qualification, and/ or an equivalent qualification and combination of experience in an area relevant to the appointment.
2. Demonstrated experience in teaching in discipline or profession, or two or more years of postdoctoral or equivalent professional experience.
3. Knowledge and understanding of animal and medical health research and processing large scale data.
4. Demonstrated technical laboratory skills, and ability to maintain accurate laboratory records.
5. Demonstrated general knowledge of laboratory procedures, including laboratory safety.
6. Well developed interpersonal skills and a demonstrated ability to contribute and work collaboratively in a team environment.
7. Demonstrated ability to work under broad direction only, exercise initiative in undertaking responsibilities and work effectively as a team member.
8. Demonstrated ability to engage in high quality independent research.
9. Demonstrated capacity to generate research funding (either independently or as part of a research team).
10. Demonstrated ability and commitment to successfully supervise honours, postgraduate and HDR students.
11. Demonstrated knowledge of contemporary approaches to curriculum and pedagogy.
12. Well-developed interpersonal skills and the ability to work effectively as a member of an interdisciplinary and collegial team.
13. Demonstrated high levels of written and oral communication skills in English.

### Desirable

1. A PhD in microbiology and bioinformatics, veterinary science, biotechnology or closely related field, or an equivalent combination of qualifications, skills and experience.
2. Previous experience in robotics and genomics platforms.
3. Expertise in working with bioinformatics pipelines and preparation of research manuscripts.
4. Experience in working in an infectious disease's laboratory.
5. Experience in working with multi-disciplinary team.
6. Expertise in microbiological media preparation, E. coli and Salmonella isolation, antimicrobial susceptibility testing, use of Tecan robotics for DNA extraction and library preparations.

## Work Requirements

1. Australian permanent residency or possession of a valid visa with work entitlement in Australia.

## Probationary Review

This position may be subject to a probationary period, during which time the academic staff member is required to meet set probationary objectives and pass a probationary review. Probationary objectives are set following appointment to the position and confirmed at the first Academic Contribution Development Conversation (ACDC).

## General Obligations

While at work, an employee must:

- take reasonable care for their own health and safety and ensure that their acts or omissions do not adversely affect the health and safety of other persons;
- report incidents, injuries and hazards;

- comply with any reasonable instruction that is given by Murdoch University; and
- comply with Murdoch University policies and procedures.

## Guiding Principles and Values / Code of Ethics and Code of Conduct

### Our Values

- Authenticity
- Integrity
- Respect
- Inclusivity
- Openness

### Our Principles

- Act with justice, respect and responsible care.
- Be collegiate and respectful of other points of view.
- Protect academic freedom.
- Be agile, flexible and resilient.
- Make decisions at the most appropriate level.
- Be transparent in decision-making and with information.
- Adopt common approaches to common tasks.
- Be careful stewards of our resources.

All staff will comply with the University's Code of Ethics and Code of Conduct and demonstrate a commitment to its Equity, Diversity and Safety principles and the general capabilities of personal effectiveness, working collaboratively and demonstrating a focus on results.

All Staff undergoing a probation period are required to set probationary objectives with their leader within 3 months of commencement.

*We acknowledge that Murdoch University is situated on the lands of the Whadjuk and Binjareb Noongar people. We pay our respects to their enduring and dynamic culture and the leadership of Noongar elders past and present. The boodjar (country) on which Murdoch University is located has, for thousands of years, been a place of learning. We at Murdoch University are proud to continue this long tradition.*