Department of Microbiology and Immunology
School of Biomedical Sciences
Faculty of Medicine, Dentistry and Health Sciences

Technical Officer
(Food Microbiologist/Technologist) – MDU (PHL)

POSITION NO 0054124
CLASSIFICATION UOM 5
SUPERANNUATION Employer contribution of 17%
WORKING HOURS Full time
BASIS OF EMPLOYMENT Fixed term position for 2 years
Fixed term reason: Externally funded
OTHER BENEFITS http://about.unimelb.edu.au/careers/working/benefits

HOW TO APPLY Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option (‘Current Staff’ or ‘Prospective Staff’), then find the position by title or number.

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Please do not send your application to this contact

For information about working for the University of Melbourne, visit our websites:
about.unimelb.edu.au/careers
Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

Position Summary

The Microbiological Diagnostic Unit Public Health Laboratory (MDU PHL) provides a microbiological investigation, detection, enumeration, reference characterisation, challenge testing and advisory service for the public health community. This is supported by strong molecular biology, a substantial culture collection, and expertise in infectious disease epidemiology and infection control. We are committed to providing an efficient, effective, legally robust and timely public health laboratory service in the biological, medical and veterinary fields, including forensic operations. These activities incorporate the principles of ISO/IEC 17025, ISO 15189, and ISO 14001 in a Quarantine Approved Premises fulfilling the requirements of The National Health Security Act.

Technical Officers are responsible for assisting with the timely examination of samples within the varying sections in the MDU. This includes responsibility for the isolation, identification and characterisation of pathogenic organisms from a range of samples not limited to food, water, environmental and clinical specimens. Technical Officers are also required to work weekends on a rostered basis. It is anticipated that weekend work is limited to a maximum of 7.25 hours spread over Saturday and/or Sunday.

We are currently seeking a Food Microbiologist/Technologist to support the research and project activities of MDU in the Food, Environment and Outbreak Response Unit (FEOR). These units focus on the isolation and characterisation of pathogens, including Salmonella spp., E. coli and Mycobacterium spp., from a range of food, water, environmental and clinical samples in addition to detection of viral enteric pathogens such as Hepatitis A virus and Norovirus. The applicant will provide technical expertise in one of several areas of interest including sampling, biological testing of food and environmental samples and the subsequent application of phenotypic and molecular tests for strain identification and typing. Reporting to the Section Head (FEOR) the successful applicant will be expected to independently perform assigned laboratory tasks, including management of research samples and project activities, participate in the development and validation of new assays and contribute to the analysis of sample results. This position is seen as expert in the field of food and water microbiology.

MDU’s scientific scope is broad and there is ample opportunity to develop specialist skills including those which relate to investigation of foodborne and waterborne disease, as well as community and hospital acquired infections. Many aspects of these organisms are relevant to
the work of MDU, including detection, identification, presence of antimicrobial resistance
presence and nature, virulence factors, detailed characterisation and typing.

The School of Biomedical Sciences and its Departments foster a values-based culture of
innovation and creativity to enhance the research performance of the University and to achieve
excellence in teaching and research outcomes.

We invest in developing the careers and wellbeing of our students and staff and expect all to
live by our Faculty Values of:

- Collaboration
- Compassion
- Respect
- Integrity
- Accountability

1. **Key Responsibilities**

- With a focus on research and development (R&D), perform processing of samples as
  requested for the detection and isolation of microorganisms from food, water and clinical
  samples and for application of subsequent biochemical, serological and molecular tests
  for confirmation of identification or strain typing, and ensure these are done in timely
  manner and according to documented procedures.
- Prepare sampling kits and participate in the collection of food, environmental and animal
  specimens.
- Participate in the development and validation of new methodologies, including but not
  limited to rapid detection and isolation of organisms from new matrices, PCR, DNA
  sequencing and rapid typing methodologies.
- Troubleshoots and problem solves analytical methods. Identifies and facilitates
  improvements of methods for new and existing methods in accordance with regulatory
  and management system requirements.
- Assists with the analysis of microbiological results and ensure quality control procedures
  are maintained, accurate transfer of data to LIMS prior to release of results and
  investigate and report any suspect results.
- Maintain an up-to-date knowledge of ISO17025 requirements, management system
  procedures and international technical, instrumental and analytical developments.
- Perform tasks as listed in the general laboratory duty roster, including preparation of
  reagents, equipment calibration and maintaining the laboratory through good
  housekeeping.
- Collaborate with the Quality team and Section Head in the implementation and continual
  improvement of the Quality Systems that are applicable in the MDU, ensuring adherence
  to ISO17025 accreditation requirements.
- Participate in after hours and weekend work (as required) and also be willing to travel
  both within Australia and abroad to participate in work activities.
- The position may be directed to different sections within MDU PHL, including the
  Melbourne Sexual Health Clinic, and dependant on the workload needs of each section at
  the direction of the Principal Scientist.
- Undertake responsibility for selected MDU-wide activities or other tasks as required by the
  Principal Scientist, Section Leader, or the Director/Deputy Director.
2. Selection Criteria

2.1 ESSENTIAL

- An undergraduate degree in a food microbiology, food science and technology or similar applied science.
- Minimum of 2 years’ experience working in food product development or a food testing laboratory preferably in microbiology quality control analysis of poultry, meat, seafood, fruits/vegetables, ready to eat foods or similar.
- Good knowledge of Australian and ISO standards related to food and water microbiology.
- Proficiency in food and environmental microbiology techniques including, but not limited to, microbiological culture, colony counts, MPN, membrane filtration, environmental sampling, serial dilution, identification methods and rapid molecular detection of bacterial and viral pathogens in food/faecal matrices.
- Professional, timely and accurate completion of tasks with an attention to detail and the utilisation of effective organisational skills with the ability to adapt to periodic pressures of the workplace.
- Good communication skills and the ability to function and interact as a team member as well as the initiative and the ability to work in a self-directed manner.
- Capability to record scientific data and results in both conventional hardcopy and electronic laboratory management information systems.
- Strong computer skills with a working knowledge of Microsoft Office Suite.

2.2 DESIRABLE

- Additional qualifications as a Food Analyst or in Food Safety and Risk Management will be highly regarded.
- Previous experience in a senior technical role including method verification/validation.
- Established Food Safety troubleshooting skills and capacity.
- Relevant knowledge of microbiological and quality standards including a familiarity with NATA requirements, DA (Quarantine Accredited Premises), DoH (Department of Health), and experience in participating in NATA assessments.

2.3 SPECIAL REQUIREMENTS

- Commitment to observe, sign and abide by MDU’s confidentiality and information use agreement.
- An understanding of the need to commit to a workplace culture that is cognisant of the on-going requirements of third party audits.
- Flexibility in work patterns in the face of pressing needs.
- Requirement to work after hours, including weekends when the need arises.
- Requirement to travel and participate in field sampling activities as needed.
Undergo police and security checks as a condition of employment with the University of Melbourne.

Vaccination against relevant infectious diseases is recommended and provided.

### 3. Job Complexity, Skills, Knowledge

#### 3.1 LEVEL OF SUPERVISION / INDEPENDENCE

The position will report to the Head of the Food, Environment and Outbreak Response Unit (FEOR) with oversight by the Principal Scientist. The position under broad direction is responsible for the effective execution of analytical procedures and the accurate recording of results and control data that provide documentary evidence of the completion of a valid test procedure. They will have responsibility for maintaining appropriate standards of implementation of test methodology and data recording in a hands-on-role. Within these guidelines, the incumbent will have general independence whilst following MDU protocols and SOPs.

#### 3.2 PROBLEM SOLVING AND JUDGEMENT

The position will be required to apply the correct standard operating procedure (SOP) to the specimen and will be expected to refer to relevant SOP’s to determine guiding principles, as required, to resolve any uncertainty that circumstances may present. The position will also be required to exercise judgement on the admissibility of samples, ensure correct sample information is obtained, in the analysis and interpretation of test results and to trouble shoot in the event of test failure. In the event that existing SOP’s do not provide sufficient guidance to the circumstance in question the incumbent will seek further professional guidance from supervising staff. In these circumstances, problems relating to test integrity and safety matters should be discussed immediately with the Section Head. The incumbent will be required to take corrective action, where possible, in the event of equipment malfunction and advise senior staff accordingly.

#### 3.3 PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

The position requires at a minimum a qualification in Food Microbiology and the acquisition of relevant knowledge of microbiological procedures and molecular procedures. Central to this knowledge acquisition will be a parallel understanding of good laboratory practice, linking theoretical knowledge with practical capability. The incumbent is expected to understand and adhere to MDU Standard Operating Procedures and perform in a professional environment that is subject to independent audit practices.

#### 3.4 RESOURCE MANAGEMENT

The position will manage the daily processing of submitted specimens and associated documentation and provide status reports on the progress of analyses to the Section Head. The incumbent will ensure that there is stock rotation of consumables (test reagents) and those materials that are out of the specified use-by date or those that are in low supply are brought to the attention of senior staff.

#### 3.5 BREADTH OF THE POSITION
The position covers the Food, Environment and Outbreak Response Unit, but is not limited to this and can include laboratory wide activities of the MDU. More specifically this involves the performance of analyses, participation in proficiency evaluations, acquisition of competence in new procedures and maintaining quality systems and documentation that will meet third party audit requirements of various regulatory authorities as required.

4. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University’s People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people’s age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Growing Esteem.

5. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

http://safety.unimelb.edu.au/topics/responsibilities/

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

6. Other Information

6.1 DEPARTMENT OF MICROBIOLOGY & IMMUNOLOGY

The Department of Microbiology & Immunology is one of the departments within the School of Biomedical Sciences in the Faculty of Medicine, Dentistry and Health Sciences.

6.2 THE MICROBIOLOGICAL DIAGNOSTIC UNIT PUBLIC HEALTH LABORATORY

The Microbiological Diagnostic Unit (MDU PHL) is a public health laboratory for the Department of Health, Victoria situated within the Department of Microbiology and Immunology at the University of Melbourne. The MDU has been established for over 100 years on External State Government funding.

The MDU PHL is concerned with provision of services for the laboratory diagnosis of diseases of public health importance, the application of typing methods, use of computer-based data collection systems for epidemiological purposes, and provision of expert opinion. In addition, the Unit undertakes the microbiological examination of foods and water for compliance with regulatory and voluntary codes and standards. MDU PHL is NATA accredited for Biological testing, including Forensic Operations, NATA/RCPA accredited for Medical testing and performs selected Veterinary testing.

6.3 THE PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY
doherty.edu.au

The Doherty Institute is a world-class institute combining research, teaching, public health and reference laboratory services, diagnostic services and clinical care into infectious diseases and immunity. It was officially opened in September 2014 and is a joint venture between the University of Melbourne and Melbourne Health. The Doherty Institute has a major focus on diseases that pose serious public and global health threats such as influenza, tuberculosis, HIV, viral hepatitis, Ebola and drug resistant bacteria. The Doherty’s activities are multi-disciplinary and cross-sectoral, placing great emphasis on translational research and improving clinical outcomes. Teams of scientists, clinicians and epidemiologists collaborate on a wide spectrum of activities - from basic immunology and discovery research, to the development of new vaccines and new preventative and treatment methods, to surveillance and investigation of disease outbreaks.

6.4 SCHOOL OF BIOMEDICAL SCIENCES
https://biomedicalsciences.unimelb.edu.au/

As part of the Faculty of Medicine, Dentistry and Health Sciences since 2015, the School comprises three Departments, Departments of Anatomy and Physiology, Biochemistry and Pharmacology, and Microbiology and Immunology. It has 85 research groups across the three departments, awarding-winning teachers and more than 2500 equivalent full-time student enrolments each year.

Our Mission

Create an innovative and inclusive academic environment building on a strong legacy of world-class excellence and lay the foundation for new generations of biomedical researchers to create new knowledge and lead the revolution in biomedicine, and realise their dream of advancing human health locally and globally.

Our Vision
• Promote collegiality and an inclusive academic environment through the engagement of partners, institutes, hospitals, industries, government and the community at large.
• Cultivate the highest level of excellence in research and education.
• Attract and develop a diverse and talented academic workforce.
• Lead the revolution in biomedicine and translate research outcomes into life transforming healthcare.
• Strengthen our intellectual and technological environment through interdisciplinary interactions, integration of resources and creative thinking.
• Seize all opportunities to create the conditions for sustainability.
• Observe the highest standards of ethics and integrity.

6.5 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

www.mdhs.unimelb.edu.au

The Faculty of Medicine, Dentistry and Health Sciences (MDHS) is Australia’s pre-eminent medical, health sciences and biomedical faculty and is recognised for its research, teaching, training, and policy leadership across all these fields.

The Faculty employs more than 3,000 staff, attracts more than 8,300 students each year and comprises six schools; 37 departments, centres and institutes; and 160 courses.

A large portion of our workforce work in hospital-based departments. We also have over 5,000 honorary staff including hospital-based staff and those in partner research institutes. Our people publish more than 10,000 peer reviewed publications every year and more than 50% of these include an international co-author.

In 2021 our research income was approximately 400M, comprising over 62% of research income for the University of Melbourne and conducting approximately 47% of all research across the University.

We are Australia’s overall leader in clinical and health, ranked 14th globally in 2022 by the Times Higher Education World University Rankings. The 2023 Academic Ranking of World Universities ranks the University of Melbourne as first in Australia in clinical medicine (14th internationally), public health (12th internationally), human biological sciences and medical technology.

The University educates more health professionals, graduates, research and higher degree students and attracts more national competitive funding than any other Australian university. The Faculty offers a suite of professional entry masters level graduate programs, including the Doctor of Medicine (MD), the Doctor of Dental Surgery (DDS), and the Doctor of Physiotherapy (DPT) in addition to a range of graduate level programs such as the Master of Public Health, Master of Primary Health Care, Master of Social Work, Master of Clinical Audiology, Master of Speech Pathology, Master of Clinical Optometry, and many more in nursing, social work, health sciences and psychology.

Over 1,400 graduate research students conduct research supervised by over 2,300 staff and honoraries across the Faculty’s six schools and in affiliated health services and research institutes. University departments are embedded in a range of health services including the Austin Hospital, Northern Hospital, Royal Melbourne Hospital, St Vincent’s Hospital, The Royal Women’s Hospital, Royal Children’s Hospital, Western Hospital, Mercy Hospital and rural partners such as Goulburn Valley Health.
Our strategic plan, Advancing Health 2030, sets out a unifying vision for the Faculty to meet the challenges of a changing world and continue to make an impact on the health and wellbeing of our communities. The strategy has been designed to support and bring to life the University's overall Advancing Melbourne strategy. Read more at: https://mdhs.unimelb.edu.au/advancing-health-2030

6.6 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia’s premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at http://about.unimelb.edu.au/careers.

6.7 ADVANCING MELBOURNE

The University’s strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University’s commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.

We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.

We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.

We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne’s academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes: place, community, education, discovery and global.

6.8 GOVERNANCE
The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at http://www.unimelb.edu.au/governance