

RESEARCH FELLOW

SCHOOL/UNIT	School of Pharmacy
SPECIALISATION	Microbiome Centre - Bioinformatics
CLASSIFICATION	Level B
WORK LOCATION	Main campus

ORGANISATIONAL CONTEXT

Monash University is a modern, global, research-intensive university, delivering education and research excellence in Australia and across the Indo-Pacific. We are making a positive impact on today's global challenges – whether by mitigating climate change, easing geopolitical insecurity or fostering healthy communities. Monash University is Australia's largest university and a member of the prestigious Group of Eight, a group of Australia's eight leading research universities. We have been consistently ranked among the world's top universities, at 42nd globally in the QS World University Rankings and 54th in the Times Higher Education World University Rankings in 2024, reflecting our strong commitment to academic and research excellence.

Monash University is a global university with four campuses in Australia and a campus in Malaysia and Indonesia. In India, Monash Research Academy is a postgraduate research and PhD training partnership with the Indian Institute of Technology Bombay, whilst Monash-Suzhou is a partnership between Monash University and Southeast University focused on world-class research and training in China. The Monash University Prato Centre meanwhile provides a European base for international research and education. Additionally, Monash has extensive international partnerships and study abroad programs with more than 100+ partner universities around the world.

Established in 1998, Monash University Malaysia is Monash's third-largest campus and one of Malaysia's most respected higher education institutions. We were awarded the prestigious "Berdaya Saing" (Competitive) status for the SETARA rating assessment by the Ministry of Higher Education Malaysia in 2022, cementing our position in the very top cohort of outstanding universities in the country. In the same year, we retained our five-star rating for research excellence from the Malaysia Research Assessment (MyRA).

We attract students from Malaysia and all over the world. More than 9,200 students representing approximately 72 nationalities are currently enrolled at Monash University Malaysia, and they enjoy a quality study experience supported by committed staff members. Since welcoming our first cohort of 417 students, we have graduated more than 26,500 students.

We pride ourselves in educational excellence, offering degrees in arts and social sciences, business, engineering, information technology, medicine, psychology and health sciences, pharmacy, and science across seven schools. New courses in emerging areas, including artificial intelligence, data science, digital business and pharmaceutical science, expand our range of internationally-recognised degrees for a changing

world. We invest in constantly upgrading our facilities to incorporate cutting-edge teaching and learning technology to enhance our students' and staff's experience.

In line with Monash University's strategic plan, Impact 2030, our research focuses on issues of national and global significance. We strive to formulate and implement solutions that could mitigate the effects of climate change, promote geopolitical security in the ASEAN region and improve health and wellbeing to enable communities to thrive. Our [research projects](#) and [researchers](#) are making long-term and sustainable impact across health, economics, policy, technology, the environment and society at large. We also offer a broad range of [world-class infrastructure and services](#) to support the needs of the research community and industry.

Our campus is located in Greater Kuala Lumpur, one of the region's industrial hotspots. We sit in the heart of the rapidly developing economic corridor linking Singapore, Kuala Lumpur, Bangkok and beyond. Our education and research are oriented towards deep engagement with this dynamic socio-economic and industrial landscape.

Monash University Malaysia is committed to delivering quality education and research to address the global challenges of our time, and we have ambitious plans to reach our goals. Join us as we make a positive difference for the betterment of communities worldwide.

For further information, please visit www.monash.edu.my.

The human gut is home to various microorganisms, including bacteria, viruses and fungi. The dynamics of gut microbes are pivotal to health as they provide critical functions such as digestion, metabolite production and immunity. Indeed, gut dysbiosis has been linked to a plethora of diseases (e.g. diabetes, inflammatory bowel disease, Parkinson's Disease, autism). It is, however, essential to recognise that the gut microbiota is highly sensitive to the diet, lifestyle and external environments. The multiethnic makeup and diverse urban-rural mix make Malaysia an ideal natural laboratory for studying the role of gut microbiome and population health. Due to its importance, the Monash University Malaysia Microbiome Research Centre is established to drive gut microbiome research in Malaysia and address its acute lack of understanding. The centre will also embark on a flagship program to study the microbiome of patients suffering from disorders of gut-brain interactions (DGBI).

POSITION PURPOSE

A postdoctoral research fellow is expected to contribute to the university's research agenda (ie. Monash Impact 2030).

The prospective post-doc will be part of various research project under the Microbiome Research Centre. The candidate is expected to work with a multidisciplinary team and use different omics tools to provide a systems biology understanding of the disease state. The project will involve sample collection at multiple collection sites across Malaysia.

Reporting Line: The position reports to the Director of the Microbiome Research Centre

Supervisory responsibilities: This position provides technical guidance to postgraduate students under the Microbiome Centre

Financial delegation and/or budget responsibilities: Not applicable

KEY RESPONSIBILITIES

1. Manage the longitudinal cohort study and coordinate the sampling effort across different sampling sites.
2. Analyse 16S and shotgun sequences and perform multivariate statistical analyses
3. Prepare research outputs in both oral and written format
4. Conduct original research, developing an active record of publication and starting to build a profile of grants and supervision
5. Participate in collaborations with other universities and with government, industry and/or civil society to drive research impact and educational excellence
6. Supervise and guide PhD students
7. Participate in the various research activities under the Monash University Malaysia Microbiome Research Centre

KEY SELECTION CRITERIA

1. A doctoral qualification (PhD) or equivalent qualification
2. Experience in gut microbiome research and a strong technical knowledge in bioinformatics (e.g. R, Python, etc).
3. Strong track record of publications in microbiome or related areas.
4. Demonstrable evidence of desire and capacity to independently learn and apply new technologies or methodologies in research.
5. Confident in performing diverse research duties, ranging from computational work to molecular biology experiments, and able to do so autonomously and be part of a team.
6. Good interpersonal skills

LEGAL COMPLIANCE

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.