



MSc and PhD Opportunities 2026



Institute for Microbial Biotechnology and Metagenomics

University of the Western Cape

The Institute for Microbial Biotechnology and Metagenomics (IMBM) seeks to offer MSc and PhD research opportunities to exceptional and dynamic individuals to commence in 2026. The Institute focuses on recent advances in (meta)genomics and bioinformatics for the identification of genes or biosynthetic pathways and their heterologous expression to produce natural and novel high-value biochemicals.

PROJECT DESCRIPTION

Projects will focus on two research themes: i) Discovering novel lanthipeptides from marine invertebrate endosymbionts; ii) Diversification of ornithine lipids for application in cosmetic formulations, wastewater treatment, human therapeutics and for various agricultural applications. The candidates will employ a range of microbiological, molecular biology, genomic and analytical chemistry techniques to develop expression strains for compound production and enzyme/compound characterization. The produced compounds will be assessed using a range of bioactivity assays. These projects offer students training in a wide array of techniques and an opportunity to conduct research in a highly equipped and state-of-the-art facility.

FUNDING AND SUPERVISION

The projects will be supervised by Dr Nompumelelo Ikegwuoha and Prof Marla Trindade who holds the NRF SARChI Research Chair in Microbial Genomics. The project running costs will be provided; excluding the student bursary. Successful candidates who have completed, or are currently finishing, their Honours or Masters degrees will be assisted with their NRF bursary applications for 2026. The application process will follow the current NRF Postgraduate Funding Policy and eligibility criteria, and students will be nominated on the SARChI research chair.

ELIGIBILITY

- Must hold a postgraduate degree in Microbiology or related field and employed molecular biology techniques in their previous research project(s)
- Must be available to commence with the program by February 2026
- Must be South African citizens or hold a permanent residence permit

APPLICATION SUBMISSION

All applications must be submitted by E-mail to Dr Ikegwuoha: nikegwuoha@uwc.ac.za no later than **5th June 2025**.

The application must include a CV, full study record and a cover letter that gives clear motivation for why they deserve this opportunity and provide evidence of meeting all the eligibility criteria.



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a place to grow, from hope
to action through knowledge