

Cape Peninsula University of Technology
Applied Microbial and Health Biotechnology Institute
Call for Applications
Postdoctoral Fellowship

The Applied Microbial and Health Biotechnology Institute (AMHBI) at the Cape Peninsula University of Technology (CPUT) invites applications for one Postdoctoral Fellowship commencing in 2026.

The successful candidate will work on the effect of microplastics on microbial enzymatic processes in both mesocosms and impacted marine coastal sediments, and the discovery of plastic-degrading enzymes. Candidates with strong experience in bioinformatics, metabarcoding/metagenomics, microbiology, enzyme characterisation, and biological assays are encouraged to apply.

Fellowship Details

- **Duration:** Twelve (12) months, subject to funding availability.
- **Stipend:** R250 000. The stipend is intended to be treated as a tax-exempt bursary, subject to applicable South African tax legislation.
- **Location:** Cape Peninsula University of Technology, AMHBI Biocatalysis and Technical Biology (BTB) Building, Bellville Campus.
- **Starting date:** As soon as possible following institutional approval.

Eligibility:

- Applicants must hold a doctoral degree in microbiology, biotechnology, biochemistry, bioinformatics, or a closely related field. The degree must have been obtained within the five years preceding the date of appointment, in line with the CPUT Postdoctoral Fellowship Policy.
- The fellowship is full-time, and fellows may not hold concurrent paid full-time employment.
- Applicants must demonstrate expertise in both enzymology and metabarcoding / metagenomics, as evidenced by their publication record.
- **Please note:** This full-time postdoctoral fellowship does not constitute employment at CPUT.

Research Focus Areas:

Applicants must demonstrate knowledge and research expertise in both of the following areas:

- **Metabarcoding, metagenomics, and/or genomics:** isolation of environmental DNA, and the generation and analysis of sequence data for the evaluation of microbial communities (either barcode-based or whole metagenome). In addition, DNA isolation from bacterial isolates for genome sequencing, annotation, evaluation, and mining.
- **Enzymology:** Screening bacterial isolates for plastic-degrading enzyme activity; enzyme purification; the use of enzyme assays to evaluate enzymes obtained from different sources, including sediments and isolates; and the application of enzymes in degradation studies.

Research Expectations:

The successful fellow will be expected to:

- conduct research in enzymology and marine microbiome/metagenome analyses;
- contribute to the isolation, characterisation, and evaluation of plastic-degrading enzymes and the monitoring of enzyme kinetics in marine sediments;
- support the analysis of marine microbiome and metagenome sequence data and genomes from marine bacteria;
- contribute to peer-reviewed research outputs during the fellowship period, with a target contribution of two (2) DHET-accredited research output units, calculated according to DHET output-unit principles and taking into account authorship contribution and output type;
- participate in research group activities and support postgraduate research development where appropriate.

Application Requirements:

Interested candidates should submit the following:

- A letter of motivation outlining the applicant's suitability and research aspirations.
- A current curriculum vitae.
- A copy of the doctoral degree certificate or proof of doctoral completion.
- Contact details for two academic referees.
- A two-page summary of research interests.
- A sample of academic writing, such as a published article, thesis chapter, or equivalent scholarly work.

Principal Investigator and application contact: Prof Marilize Le Roes-Hill (LeRoesM@cput.ac.za).

Subject line: Postdoctoral Fellowship Application – The Coastal Plastisphere

Please note: Shortlisted candidates will be invited for an interview (face-to-face or online) within two weeks after the closing date.

CPUT reserves the right not to make an appointment.

Closing date for applications: 14 August 2026