# PARTIAL PhD & MSc SCHOLARSHIPs

Cyanotoxins are a diverse group of natural substances produced by several species of cyanobacteria. One of the groups of cyanotoxins of most concern to human health is Microcystins (MCs) which are present in a wide range of habitats. There is high possibility of exposure to MCs via skin contact or by ingestion of contaminated food and water. Current research is geared towards understanding Molecular mechanisms and roles played by MCs in cancer epidemiology in order to come-up with mitigating measures. In this regard, we intend to recruit postgraduate students on partial scholarship which will cover only research work. The applicant is expected to join a team of seven eminent researchers to achieve this goal. Qualified applicants will be expected to:

a) Ensure that the Standard Operating Procedures are adhered to while in the laboratory

b) Determine genetic diversity of cyanobacteria in the study area

c) Analyze the microcystin variants using gene expression studies

d) Quantify the levels of Glutathione- S- transferase (GST) activity in the samples

e) Determine bioaccumulation, biomagnification and biodilution levels of microcystins in the study area

f) Register for a PhD and MSc programme in the related fields of study within the next three months of acceptance

Applications are invited from qualified individuals in the field of Molecular genetics and Bioinformatics/Molecular Microbiology/Cell and Molecular Biology/Conservation Genetics to fill 1 PhD and 2 MSc positions in a research project: Molecular Application of Protein Phosphatase 2 A in Cyanobacteria microcystin quantification and degradation in water purification systems.

Qualified applicants should submit their current CV and support letter and must have knowledge on DNA Amplification Fingerprinting (DAF), Selective Amplification of Microsatellite Polymorphic Loci (SAMPL) for comparative survey of the genetic diversity of various cyanobacteria; Sequence-tagged microsatellite sites (STMS); be able to perform gene expression studies; Have knowledge on Next Generation Sequencing (NGS).

**Applications should be send to donyango@maseno.ac.ke or ckowenje@maseno.ac.ke not later than 24th August 2018 at 5.00pm.**