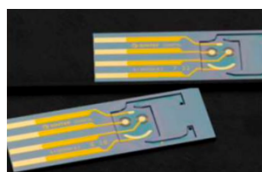


Presso il Laboratorio di Biologia delle Alghe coordinato dalla prof.ssa Roberta Congestri è disponibile 1 posto per tirocinio in Biologia Ambientale nell'ambito del progetto

Evaluating environmental drivers of toxin biosynthesis in target cyanobacteria: integrating ecophysiology and advanced sensing for enhanced public health risk management

The increasing occurrence of harmful cyanobacterial blooms in freshwater ecosystems poses a serious risk to human health and environmental quality due to the release of potent cyanotoxins such as microcystins and saxitoxins. The project aims to cultivate the most important toxic cyanobacteria to investigate the chemical environment of their culture medium leading to the production and release of toxins in controlled photobioreactors. Abiotic and biotic parameters will be modulated to identify triggers of toxin (microcystin and saxitoxin) production *via* monitoring the culture medium through an innovative, miniaturized sensing platform for the rapid, on-site detection of these toxins, this last part of the project will be carried out in collaboration with Prof Larisa Lvova Lab at the dept of Chemical sciences and technology of this University in the frame of the EU Project MISSION (Water4All 2024-N°101060874)



Miniaturised sensor chip development and fabrication



Toxin-specific membrane synthesis and on-chip



Microfluidics integration and assay



Fast, on-site measurements of CyanoHABs toxin data