## VuyoLab

VuyoLab is dedicated to developing innovative antimycobacterial agents and targeted therapies for the treatment of tuberculosis. The group's primary focus is on the development of metallodrugs, specifically using bimetallic magnetic iron oxide nanoparticles and metal complexes. These metallodrugs are overlaid with bioactive agents derived from marine bacterial sources to target *Mycobacterium tuberculosis*, the causative agent of TB.

The group's research is supported by bioprospecting approaches, which involve exploring marine environments for novel antimicrobial compounds. They utilise bacteria associated with marine sponges, ascidian, and marine sediments to discover new bioactive molecules as sources of endless intricate bioactive agents. These molecules are then optimised through photochemical reactions to create more complex and potent antimycobacterial agents. Using all these approaches, VuyoLab is actively involved in the development of magnetic drug-targeted therapy as an alternative approach to dealing with *Mycobacterium tuberculosis* infections.



MARINE DYNAMICS TOURS interns recently had a unique opportunity to learn about magnetic nanoparticle synthesis at VuyoLab. They experienced hands-on training in a highly engaging and immersive environment, which helped them learn new technical skills and gain valuable insights. At VuyoLab, we are dedicated to sharing our vast knowledge and expertise with everyone. We firmly believe in promoting a culture of innovation and curiosity.