## Oceanus Seminar **Series**



Porto de Leixões Cruise Terminal (Boca da Baleia)

## Rafaela P. Mendes (CIIMAR)

Bioremediation of oil spills with autochthonous

hydrocarbon-degrading bacteria: a work in progress

Oil spills from anthropogenic sources pose a serious threat to marine ecosystems, requiring adequate mitigation measures. Bioremediation has proven to be an eco-friendly and promising remediation technique, especially when using autochthonous microorganisms.

A consortium, composed by 5 bacterial strains previously isolated from a sandy beach (Cabo do Mundo), was enriched with different carbon sources and the best performing enrichment, was then tested in a microcosm study, for their ability to degrade petroleum hydrocarbons.

The optimized consortium proved to be efficient in the degradation of hydrocarbons. In the line of the SpilLess project, the consortium went through a lyophilization process and growth optimization, aiming the development of a bioremediation product.





