

Postdoctoral fellowship in marine microbial community ecology

The Grupo de Oceanografía Biológica (<http://gobio.webs.uvigo.es/index.php?lang=en>, GOB) at the Centro de Investigación Mariña (Universidade de Vigo) (<https://cim.uvigo.gal/en/>, CIM) offers a **postdoctoral contract** within the project:

PID2019-110011RB-C33

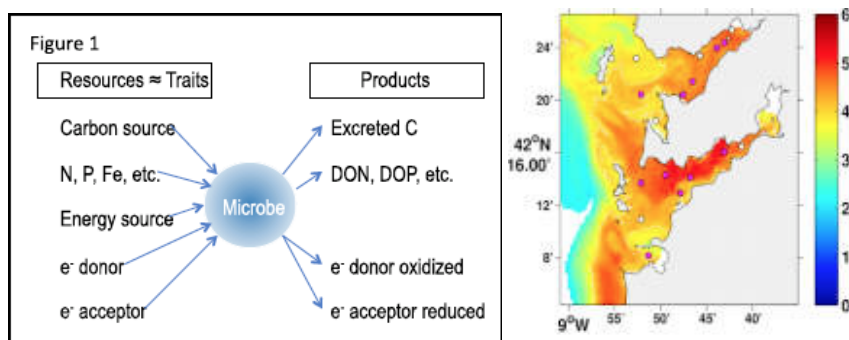
TRAITS: *Towards the identification of functional groups of marine prokaryotes in carbon and nutrient utilization*

Start date: summer 2021

Duration: 1.5 years (possibility to extend for a further 6 months)

Project TRAITS will analyze the role of guilds in the assemblage of marine microbial communities. The central idea is that microorganisms need a series of resources: source of energy, carbon electron donors, electron acceptors and basic inorganic nutrients. Each one of these resources we consider a trait. And each microorganism can fulfill each trait in a particular manner. For example, nitrogen can be acquired by fixing atmospheric nitrogen gas or by taking up ammonia among other possibilities. All the microorganisms that use one of these resources in the same way make up a guild. Members of a guild are presumed to compete among them but the guild is supposed to provide stability to the function carried out by the guild, that is, functional redundancy. In project TRAITS we will identify several guilds and analyze their composition and changes in time and space in different marine environments. The results will clarify the way in which microbial communities are built.

The intended work is related to the analysis and interpretation of marine microbial metatranscriptomics and metagenomics datasets as well as to the production of scientific publications. Work will also include the collaboration in a mesocosm experiment with natural microbial communities from the Ría de Vigo during summer 2022 that will be performed at the Toralla Marine Science Station (<https://cim.uvigo.gal/en/ecimat/toralla-marine-science-station/>)



Left: Traits used to analyse the ecology of microbes. Right: Chlorophyll concentration in Ría de Vigo, one of the environments studied

The CIM constitutes an interdisciplinary reference pole at the local, national and international levels in the generation and transfer of marine knowledge. The work will be performed in collaboration with Linnaeus University, the National Center of Biotechnology (CNB-CSIC) and the University of La Laguna. The group offers a welcoming and stimulating environment in which to develop ecological and bioinformatics skills.

Requirements

- Ph.D. degree in some biological area, with emphasis on microbiology, ecology, molecular biology or bioinformatics.
- Strong motivation for research.
- Strong background on microbial communities functioning: capability to interpret microbial biology and ecological patterns.
- Strong background on the analysis of omics datasets: knowledge of R, statistics and plotting tools
- Proficiency in English.

Contact: Send CV to

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