



## 18-month postdoctoral position in Microbial Ecology / Bivalves microbiota

We are looking for a postdoctoral researcher to work on a project founded by the cluster of Excellence LabexMER “frontiers in marine research” and in collaboration with the European H2020 funded Vivaldi project (Preventing and Mitigating Farmed Bivalve Diseases). The project will take place in LEMAR, a laboratory located on the largest oceanography campus in France, with labs and researchers located both at the University of Western Brittany marine science institutes (IUEM) and IFREMER. <https://www-iuem.univ-brest.fr/en/home>.

### Scientific context

Bivalves associated with coastal marine ecosystems are confronted with changes in their habitat and a resurgence of pathogens, which leads to high mortality. It is therefore necessary to understand which factors have an impact on their health and their ability to acclimatize. Among different factors, their digestive microbiota are likely to play a major role in their physiology and resistance to infections. The establishment and structuring of these microbiotas depends on the environment, the type of food ingested, the physiological, genetic and immune characteristics of the host, and the interactions between microorganisms. There is currently no understanding of the immersion duration effect on the structuration of bivalve microbiota, while their physiology, physical condition, and infection resistance are impacted. The main objective of this study will be to characterize the effect of immersion duration on the bacterial diversity of digestive microbiota of burrowing (*Ruditapes philippinarum*) or non-burrowing (*Crassostera gigas*) bivalves positioned at different bathymetric levels on the same intertidal site (site BR08 in the Bay of Brest) using metabarcoding techniques. Physiological parameters and resistance to infections will also be studied, as well as environmental parameters (biotics and abiotics) in order to link the physiology of the host, the structuring of its digestive microbiota and its ability to withstand infection based on environmental parameters.

### Expected profile

- PhD in the field of microbial ecology (if possible on microbiotas associated with marine animals)
  - Bio-informatics and statistics (processing of metabarcoding data and use of R software)
  - Molecular biology applied to microbial ecology
  - Knowledge of classical microbiology techniques
  - Good writing and oral skills in English
- This knowledge would be a plus
- Culture of marine microorganisms
  - Knowledge of bivalve physiology
  - Histology/FISH microscopy

As per postdoctoral program requirement, the candidate should have worked 12 months outside France in the last three years. Personal qualities, such as teamwork skills, rigor and intellectual curiosity will be particularly appreciated. **French and international** applications are welcome!

### Type of contract

18 months full-time

Start between January and June 2018 (the earlier the best)

Location Laboratoire des Sciences de l'Environnement Marin (LEMAR CNRS-IRD-UBO-Ifremer), IUEM, Plouzané, France <https://www-iuem.univ-brest.fr/UMR6539/>

Gross salary : between 2300 and 2600 euros (Take home salary : 1800 and 2100 € per month) according to experience.

### How to apply

Applicant should submit a cover letter, CV and contact information for two references by email to Gwenaëlle Le Blay [gwenaelle.leblay@univ-brest.fr](mailto:gwenaelle.leblay@univ-brest.fr) and [contact-labexmer@univ-brest.fr](mailto:contact-labexmer@univ-brest.fr)