



Post-doctoral and Engineer fellowships

The **Laboratory of Oceanology and Geosciences** (UMR 8187 LOG - Centre National de la Recherche Scientifique – Université du Littoral Côte d'Opale – Université de Lille) of Wimereux (northern France), proposes an **Engineer** and a **Post-doctoral** fellowship, in the frame of regional, national and international projects aiming at implementing/using **automated platforms** for **observing, characterizing and understanding phytoplankton dynamics at high spatial and temporal resolution**, in coastal/marine waters.

The Engineer (MSFD Pelagic Habitats project, 1 year CNRS contract, possible extension) will:

- participate in performing *in vivo* analysis of phytoplankton by applying innovative automated optical techniques (pulse shape-recording flow cytometry, image analysis and multispectral fluorometry) on fixed platforms and/or on research vessels, for discriminating phytoplankton functional types (size, pigmentary and/or optical groups),
- analyze the data by applying and participating to the improvement of automated software tools,
- report on the results obtained from the implementation and inter comparison of techniques/tools

An **Engineer** or **M.Sc. degree in aquatic microbial ecology/biological oceanography** is desired. Skills in using bio-optical sensors (fluorometers, flow cytometry), data management and/or in computer science and programming will be appreciated.

The Post-doctoral fellow (CPER MARCO project, 1 year ULCO contract, possible extension) will:

- seek for characterizing and understanding the drivers of main changes within phytoplankton communities (from pico- and nano- to microphytoplankton) in coastal and marine temperate systems at different time and spatial scales, by defining and targeting different functional groups.
- participate in the application of innovative automated optical measuring techniques, based on optical properties (single-cell and bulk) and image analysis
- perform data analysis by a combination of different manual/automated specific software tools

He/she will benefit from both short-term/high-frequency field studies on fixed/moored coastal stations and on dedicated cruises, as well as of inter annual regular monitoring data from coastal locations combining phytoplankton optical measurements as well as biogeochemical and hydrological reference measurements.

A **Ph.D. in aquatic microbial ecology/biological oceanography** is desired. An experience in phytoplankton studies (diversity, ecology, dynamics) applying and analyzing results from automated *in vivo/in situ* techniques for monitoring phytoplankton (at single-cell/particle and bulk levels) will be appreciated, as well as evidenced writing skills.

Both fellowships will benefit from the expertise within the LOG laboratory, the CPER MARCO and the JERICO-Next (JERICO-RI) projects and research infrastructures, as well as from previous DYMAPHY Interreg IVA “2 Seas” results. Information about the laboratory and related projects at: <http://log.cnrs.fr>, <http://resomar.cnrs.fr/>, www.dymaphy.eu, <https://marco.univ-littoral.fr/>, www.jerico-ri.eu.

Moreover, they will be in connection with the MSFD HP scientific coordination team (supported by the French Ministry of Ecology and involving CNRS, IFREMER and the French Agency of Biodiversity) for the further use of methods, tools for data analysis and results, for defining new monitoring strategies and testing/improving diversity indicators of ecological state of pelagic habitats in the frame of ICG COBAM.

The two contracts are expected to start by mid-September-October 2018 (dates to be defined).

Applicants should send *Curriculum Vitae* stating academic and professional degrees, experience and skills, a list of publications as well as a letter of interest, in a single pdf file, no later than August 30th to the following addresses: Felipe.Artigas@univ-littoral.fr and Felipe.Artigas@cnrs.fr

