



CNRS • SORBONNE UNIVERSITÉ

Station Biologique de Roscoff

Employment offer: Research Engineer in Experimental Microbiology

We are offering a 24 months CNRS Research Engineer position to work at the Roscoff Marine Station (France) on a R&D project funded by the Symbiosis in Aquatic Systems initiative of the Gordon & Betty Moore Foundation.

Contact: fabrice.not@sb-roscoff.fr & probert@sb-roscoff.fr

Application deadline: **August 28th 2020**

Send CV and motivation letter to both contact

Context

The Roscoff Marine Station is a research and teaching institute situated in Brittany on the north-west coast of France (70km from Brest). The Roscoff Marine Station (<http://www.sb-roscoff.fr/en>), which is jointly run by the CNRS (French National Centre for Scientific Research) and Sorbonne University (Paris), hosts over 100 resident researchers and students in 3 research departments: Adaptation and Diversity in the Marine Environment, Integrative Biology of Marine Models, and Evolutionary Biology and Ecology of Algae. The core service department of the Roscoff Marine Station provides logistical support for fieldwork (research vessels, scientific diving team), experiments (aquarium and culturing facilities), data acquisition (microscopy, sequencing, mass spectrometry and crystallography platforms), and data analysis (bioinformatics platform).

The Gordon and Betty Moore Foundation's (GBMF) Symbiosis in Aquatic Systems initiative is investing \$19 million over the next three years to support 42 international teams of scientists working collaboratively to develop tools and methods to advance model systems in aquatic symbiosis. The Initiative's funding aims to equip the scientific community with infrastructure such as new genetic tools, cultivation methods, and nanoscale microscopy to improve experimental capabilities in aquatic symbiosis research over the coming decade (<https://tinyurl.com/y3t8ajbw>).

The main objective of the GMBF grant awarded to an international consortium led by Dr. Fabrice Not (Director of the Adaptation and Diversity in the Marine Environment department at the Roscoff Marine Station, <https://tinyurl.com/y3erq9ej>) is to develop a portable microfluidic lab-on-chip system to facilitate experimentation on single cell photosymbiotic marine plankton. Photosymbiotic plankton, such as Radiolaria or Foraminifera, are abundant and ecologically important components of marine ecosystems but are not currently amenable to long-term multi-generational laboratory culture, hence the need to develop a system for conducting controlled *ex-situ* experiments on individual live cells freshly collected from the marine environment, with subsequent harvesting for high resolution electron microscopy, molecular genetics, and/or metabolomics analyses on the same individual cells.

Missions

The Research Engineer will be tasked with designing, constructing, testing and optimizing the portable microfluidic lab-on-chip device for *ex-situ* experimentation on individual live

photosymbiotic plankton cells. R&D will be conducted at the Roscoff Marine Station in collaboration with consortium members from the Bigelow Laboratory for Ocean Sciences (microscopy and molecular biology), the CEA Grenoble (electron microscopy), and the Friedrich-Schiller University Jena (metabolomics). Testing of the system will be conducted during regular field missions at the Villefranche-sur-Mer marine station and/or other locations in the Mediterranean Sea.

Qualifications

Master or Ph.D. in biological or engineering science.

Skills and experience

- expertise in biological and/or engineering science;
- significant experience in design/construction/automation of small-scale experimental systems with relevance to biological sciences;
- experience of microscopy and/or flow cytometry techniques and technologies;
- willingness to work at remote field locations;
- exceptional communication / teamwork skills;
- experience of project implementation (organizational skills, budget management, report writing, etc.);
- fluent English (spoken, written).

Employment conditions

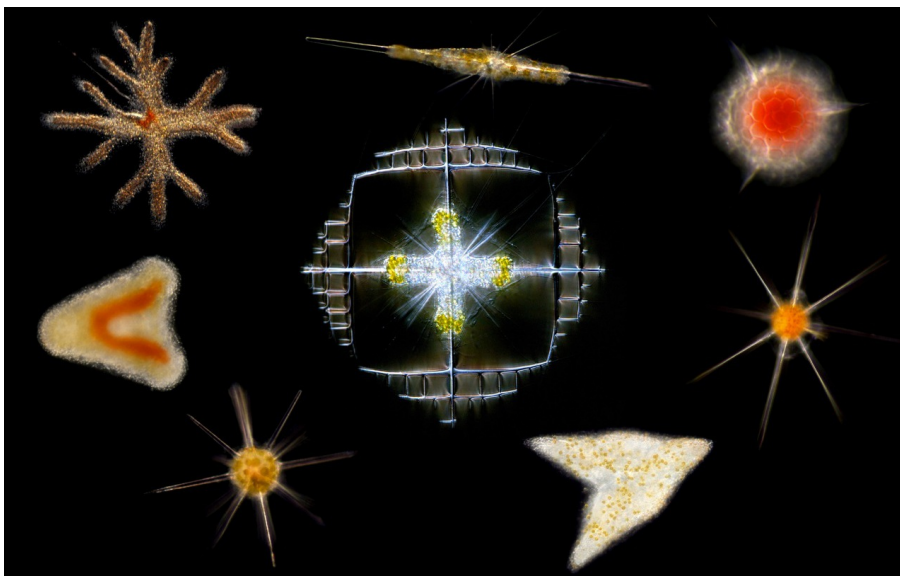
Position: Full time CNRS Research Engineer

Duration: 24 months (12 month renewable)

Special conditions: frequent national/international trips (fieldwork, consortium meetings, conferences).

Equal opportunities

We seek candidates whose experience has prepared them to contribute to our commitment to engagement and inclusion of culturally diverse audiences in higher education, and particularly in the field of ocean microbiology. The CNRS committed to follow the Human Resources Strategy for Researchers (HRS4R, <https://euraxess.ec.europa.eu/jobs/hrs4r>) and received the HR Excellence in Research award.



Pictures of various Photosymbiotic plankton belonging to the Radiolaria taxa