



Open position Junior Professor Chair (CPJ) 2025. CNRS EE-BIO

Station Biologique de Roscoff, France

Marine Fungi, a Phylum to Discover and Characterize

Acronym : CHaMP-MER

microorganism interactions, biogeochemical cycles, trophic networks

Hosting Institution: Centre national de la recherche scientifique (CNRS)

Partner Institutions/Organizations: Sorbonne Université

Corresponding CNU/CoNRS/CSS Sections: CoNRS 21 (ex 19), 25 (ex 23), 31 (ex 29), 32 (ex 30)

Profile: Holder of a doctorate or equivalent degree, or possessing titles and scientific works deemed equivalent by the competent body of the institution. There are no age or nationality conditions for applying. All CNRS positions are open to individuals with disabilities, with adjustments made to the assessment process as required by the nature of the disability.

Target duration: 5 years

Scientific Theme:

Environment, Agronomy, and Ecology

Biology and Health

Institution Strategy:

The presence of fungi in marine environments has long been underestimated due to methodological limitations and the lack of dedicated research. While their contribution to terrestrial ecosystems is better established, the biological and ecological functions of marine fungi in biogeochemical cycles and the functioning of marine ecosystems remain almost entirely unknown. Marine fungi are often involved in symbiotic associations (mutualistic or parasitic) with plankton (plant or animal), macroalgae, and animals, playing a major role in organic matter decomposition. They can act as antagonists to host growth when pathogenic or benefit host development by aiding nutrient uptake or stress defense through specialized metabolites. As decomposers, they are capable of efficiently breaking down organic matter, specifically the walls of algae. Although marine fungi are now recognized as key players in marine biogeochemical cycles, this group remains one of the frontiers of life to explore. The CNRS is a multidisciplinary national research organization that applies scientific excellence to advance knowledge, leading to innovations for the benefit of society. The oceans, covering 70% of our planet, are currently in danger. In France, they are studied through several marine stations, more than fifty laboratories, and large interdisciplinary research programs (PPR and PEPR). The CNRS has set itself the strategic objective of better understanding marine environments in order to protect them more effectively. In this context, the CPJ ChamP-MER will develop a research project at the interface of Ecology and Biology, focusing on the study of marine fungi, aiming to explore their ecological, evolutionary, genomic, and functional specificities in order to better understand their roles and importance in these complex environments.

CNRS

Station Biologique de Roscoff
Place Georges Teissier
29680 Roscoff
www.sb-roscoff.fr

Host Laboratory Strategy

The UMR Adaptation and Diversity in Marine Environments (AD2M, CNRS Ecology and Environment) studies species and communities inhabiting the world's oceans, their functioning, diversity, and future. This involves describing marine biodiversity, the evolutionary processes underpinning this diversity, and understanding how these species interact and adapt or modulate their environments. **The UMR Integrative Biology of Marine Models (LBI2M, CNRS Biology)** studies metazoans, macroalgae, and marine microorganisms and their biological interactions. These organisms offer new perspectives to understand the evolution of molecular and biological processes in marine lineages through functional and comparative genomics, metagenomics, genetics, functional and structural biology approaches. **The CPJ will be part of the strategy to bring the two UMRs closer together through a novel topic at the interface of Ecology and Biology, centered on an underexplored phylum of critical importance to the oceans. This new theme will strengthen the international leadership role of the Roscoff Biological Station.**

International Attractiveness Strategy:

The recipient of the chair will need to implement actions and partnerships in the thematic field and is specifically expected to submit a project under European calls (ERC, Horizon Europe Consortium, etc.) during the 5 years of her/his contract. **During this period, and following an assessment of her/his scientific achievements and professional capabilities by a tenure committee, the recipient may obtain a full-tenure position at CNRS as Research Director (DR2).** She/he will benefit from the European network of the Station Biologique de Roscoff to promote and grow their research project (EMBRC...). Her/his project may also align with the CNRS international strategy, which has established privileged links with foreign laboratories conducting research on marine environments and marine stations run by academic partners abroad (Germany, Japan, North America, South America, etc.).

The recipient's involvement in any international training related to the subject is expected when available.

Scientific Project Summary:

The biological and ecological role of marine fungi is largely neglected today. As decomposers, these marine organisms potentially play a crucial role in the ocean's nutrient cycle. They engage in various associations as parasites, saprophytes, or mutualistic symbionts. Studying them at all life stages is therefore essential for understanding the functioning of oceans and their biogeochemical cycles, the structure of marine communities, and their resilience to current changes. The recipient of the CPJ will create and lead a research program at the interface of Ecology and Biology, aiming to explore the biological, ecological, evolutionary, and functional specificities of marine fungi to better understand their ecosystemic roles.

CNRS

Station Biologique de Roscoff
Place Georges Teissier
29680 Roscoff

Teaching Project Summary:

Teaching may take place within the pedagogical team of Sorbonne University. It could be part of professional training at Roscoff, such as the Professional Bachelor's in Bio-Industries and Biotechnologies. The recipient of the CPJ may also teach in general programs like the Master's in Marine Sciences, the Master's in Biodiversity, Ecology and Evolution, and the Master's in Molecular and Cellular Biology with a specialization in Parasitology Mycology at Sorbonne University. The candidate must ensure an annual teaching load of 48 hours.

Scientific Dissemination

Dissemination of results will include scientific outputs (publications, softwares, patents, etc.) of global significance. Additionally, the project will implement communication strategies for diverse audiences, including the scientific community, media, policymakers, the general public, and students, with an adapted schedule. Specific tools may be developed, such as websites, newsletters, and international meetings, conferences, and summer schools.

Open Science:

The CNRS has a strong policy in favor of open science. Open science means making research results "as accessible as possible and as closed as necessary". In this context, the CNRS aims for 100% of its publications to be accessible, primarily through deposit in HAL. Produced data should also be made available and reusable unless restricted. Moreover, individual evaluation principles have been revised to comply with the DORA statement, focusing on qualitative assessments and considering all aspects of a researcher's career.

Science and Society:

Science-society relations are now recognized as an integral part of scientific activity. This project will develop this dimension in synergy with all partners. The research outcomes will help inform public decision-making. Citizen science initiatives may be launched with stakeholders from the socio-economic and cultural ecosystem of the project.

Indicators:

The activity will be evaluated based on scientific outputs (publications, softwares, patents, etc.), institutional and private partnerships formalized by contracts, international outreach, dissemination of results to multidisciplinary scientific communities, innovation and its transfer to society, and scientific dissemination aimed at non-expert audiences.

Contacts:

UMR7144. Laure Guillou : lguillou@sb-roscoff.fr

UMR8227. Catherine Leblanc : catherine.leblanc@sb-roscoff.fr

CNRS

Station Biologique de Roscoff
Place Georges Teissier
29680 Roscoff