Post-doctoral position in genetics and molecular biology of a metal-tolerant green microalga

A 2-year post-doctoral position funded by the French National Research Agency (ANR) is available starting September 2023 at the Laboratory of Plant & Cell Physiology (LPCV) in Grenoble, France (https://www.lpcv.fr/en). The candidate will work in the MetalStress team to develop molecular and genetic tools to analyze the response and adaptation to metals of a newly isolated metal-tolerant green microalga.

Pollution of ecosystems by trace metal elements is a major and ever-growing threat to environmental and human health. A better understanding of the effects of metals on plants and microalgae is critical to develop approaches for treating contaminated environments using phytoremediation and phycoremediation. The characterization of organisms that tolerate and accumulate metals is essential to reach this objective as these organisms evolved sophisticated molecular mechanisms to cope with toxic elements. The DemoniaCo project funded by the ANR aims at deciphering the molecular mechanisms underlying the tolerance and bioaccumulation of metals in a newly identified metal-hypertolerant green microalga of the Coelastrella genus.
In this context, the successful candidate will have to set up the molecular and genetic tools to manipulate the genome of this alga. He/she will generate loss- and gain-of-function mutant lines to characterize candidate genes putatively involved in the uptake, sequestration or release of toxic metallic elements.

Environment
The MetalStress team in the Plant & Cell Physiology lab has a recognized expertise in the study of cellular and molecular mechanisms evolved by plants and microalgae to cope with metals and radionuclides (https://www.lpcv.fr/en/Pages/MetalStress/Presentation.aspx). The lab hosts about 120 scientists, engineers, technicians, international postdocs and students, in a friendly and dynamic working environment. It is located on the CEA scientific campus with access to cutting edge facilities. Grenoble is a very pleasant city in the French Alps with a unique and privileged environment, in the top 5 of cities to live and study in France.

Candidates
We are seeking a highly motivated scientist with up to 2-year experience after PhD, a solid scientific activity supported by a good track record (with at least one first-author research paper in top scientific journals), and a strong commitment to research. Strong expertise in molecular biology and genetics of microalgae is required. Additional skills in cell biology and bioinformatics will be appreciated. The successful candidate should be able to work independently and cooperatively as part of a team, and is expected to interact with other teams in the lab working on microalgae. Gross salary will be around 2500-2700 €/month according to experience.

Applications should contain (1) a cover letter, (2) a short summary of past research activities, (3) a CV with contact details for 2-3 referees.

Deadline: The position will remain open until it is filled.

Starting date: September to December 2023

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