UNIVERSITÉ DE GENÈVE
FACULTÉ DES SCIENCES

The laboratory of Environmental Biogeochemistry and Ecotoxicology, Department F.-A. Forel for environmental and aquatic sciences, Faculty of Science, University of Geneva, Switzerland invites applications for:

Two PhD positions
in environmental chemistry and nanoecotoxicology

Funding from the Swiss National Science Foundation (SNSF) is available for two PhD students to **begin in the spring of 2022** for a project on deciphering the role of freshwater phytoplankton on the fate and transformation of silver nanoparticles in freshwater environment. Opposite to the extended knowledge on the toxicity of nanoparticles to the aquatic organisms, including phytoplankton, studies dealing with how such organisms affect the fate of nanoparticles are rather scarce

A PhD student 1 will characterize the secretome of phytoplankton and study the role of the secreted biomolecules in nanosilver transformations.

A PhD student 2 will work on uptake dynamics, metabolic perturbations and cellular transformation of nanosilver by phytoplankton species.

Both sub-projects are experimentally-oriented, at the frontiers of environmental chemistry, analytical sciences, and nanotoxicology. They involve experimentation in the lab with controlled conditions and use of several phytoplankton species. High-end analytical techniques to characterize the diversity of metabolites and biomacromolecules, as well as different spectroscopic techniques to study the interactions of nanosilver with phytoplankton species will be employed. The project will be developed in active collaboration with the University of California, Santa Barbara (Prof. Arturo Keller) on phytoplankton metabolomics.

We are looking for independent and highly motivated candidates with a strong background and skills in environmental chemistry and biochemistry, biology, ecology or environmental sciences, as well as a strong interest in scientific research and the aquatic environment. Good experimental skills in analytical chemistry, metabolomics, experience with phytoplankton species or nanoecotoxicology could be an advantage. Applicants must hold, or will obtain prior to starting the project, a diploma/master degree, or an equivalent level of education. Excellent knowledge of spoken and written English is essential.

The successful candidates will benefit from working within a young, dynamic and collaborative multidisciplinary team of the laboratory of Environmental Biogeochemistry and Ecotoxicology and the Department F.-A. Forel for environmental and aquatic sciences, Faculty of Science, University of Geneva.

The successful candidates will prepare a doctorate thesis in environmental sciences, publish scientific articles related to the research project and participate in the teaching of lab training for the Master of Environmental Sciences (MUSE). The salary will be in accordance with the SNSF and University of Geneva regulations for academic personnel.

Interested applicants are requested to send in a **single PDF file** the CV, academic transcripts, a description of motivation and experience relevant to the project, and the contact information for 2 potential references by email to **vera.slaveykova@unige.ch.**
Closing date for applications: December 15, 2021 or until the position is filled.

For further information about the Environmental Biogeochemistry and Ecotoxicology and Department F.-A. Forel for environmental and aquatic sciences please visit our website pages:
https://www.unige.ch/ecotox/en/
https://www.unige.ch/forel/en/