

100% Post-doctoral Position in Chemistry / Materials Science
University of Neuchâtel, Switzerland

We are looking for a highly motivated postdoctoral researcher to participate to a research project on the conservation of waterlogged wood and archaeological iron.

This project focuses on innovative bio-based methods for the preservation of waterlogged archaeological wood and iron artifacts. The research team will exploit the unique properties of some bacteria or metabolites for anticipating the extraction of sulfur compounds from wood when it is still wet and in parallel for preventing iron artefacts from the formation of voluminous unstable corrosion products upon exposure to oxygen. To this purpose, three different strategies will be adopted: 1) oxidation of sulfur species, 2) complexation of iron species and 3) iron reduction.

The successful candidate will hold a doctorate in materials science or chemistry at the start of the project and have research skills related to the theme and activities of the project. A good understanding of the challenges and practices in conservation of waterlogged archaeological wood and of archaeological iron would be an advantage. The ideal applicant will have technical analytical skills (including FTIR/Raman microscopy, XRD, SEM-EDS, XRF and Synchrotron XAS) and experience in dealing with microorganisms and metabolites extraction.

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In addition, he/she will be able to communicate results in a multidisciplinary and multicultural environment. In particular, the candidate will assist in teaching Bachelor students, in particular for the preparation and supervision of laboratory courses in chemistry. A good knowledge of English is required and French language proficiency is desired.

Funding is assured by the Swiss National Science Foundation for a maximum of 2 years. The postdoctoral researcher will be based at the University of Neuchâtel, under the supervision of Edith Joseph.

The University of Neuchâtel is a university on a human scale, with about 4'500 students. Its small size enables it to provide high-level training and to foster relationships between students and professors. It is one of the most international universities in Switzerland, with about 100 nationalities present and more than a fifth of the student body coming from abroad. Ideally located midway between Geneva and Zürich, in the heart of Europe, it is a perfect place to study or undertake high-level research in an idyllic setting between lake and mountains.

The University of Neuchâtel is an equal opportunity employer. Please send your complete application including a letter of interest, curriculum vitae with a list of publications, copies of diplomas and work certificates, and the names and contact information of two references to Edith Joseph (edithjoseph@unine.ch).

Application deadline: October 16, 2020

Short-list selection: October 19-23, 2020

Phone Interviews: October 26-30, 2020

Final decision and communication of approval: November 2-3, 2020

PhD start: February 1, 2020.