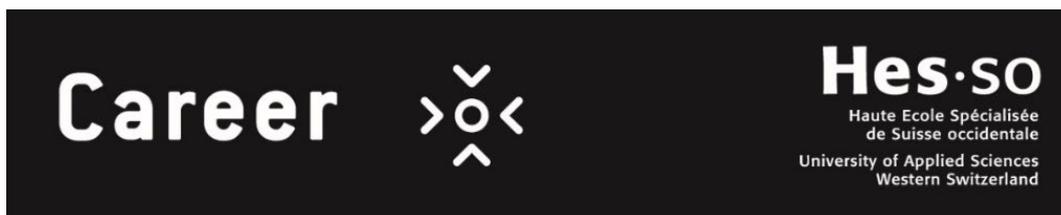


The Haute Ecole Arc Conservation-restoration (Neuchâtel, Switzerland) offers a position as

Research assistant 70%

From October 2022 to September 2026



MISSION

We are looking for a highly motivated research assistant to participate to a Horizon Europe Research and Innovation Action project, investigating metal bioremediation for the preservation of historical silver artefacts at the interface of analytical chemistry, biotechnology and art conservation.

This project focuses on innovative and eco-friendly formulations for the cleaning of altered silver surfaces, in particular of historical collections. The research team will exploit the process of metal uptake provided by naturally occurring microorganisms to remove the degradation products present on silver alloys commonly found in historical objects.

MAIN ACHIEVEMENTS

The successful candidate will investigate the use of bio-based or natural gels amended with specific strains/microbial metabolites for the removal of corrosion products from silver artefacts. Experiments will be conducted to propose alternative green biocleaning formulations that will be tested on mock-ups and real sacrificial objects. Cleaning effects of these innovative technologies will be compared to benchmark methods and historical recipes. The most appropriate methods for the removal of specific unwanted layers will be validated on real case studies. A collaboration with an industrial partner is foreseen to design and realize carrier systems for tailored application.

SKILLS REQUIRED

- Hold a university Master's degree in materials science, conservation science or microbiology
- Autonomy, organizational and very good communication skills
- Experience in dealing with microorganisms and isolation of metabolites
- Knowledge on metals (identification, corrosion) and gel formulations
- Technical analytical skills (including FTIR/Raman microscopy, XRD, SEM-EDS)
- Some knowledge of French will be an advantage

WORKING PLACE

Haute Ecole Arc Conservation-Restauration Neuchâtel (Switzerland).

With research visits at the University of Bologna, Italy and Rijksmuseum, Amsterdam, Netherlands

DOCTORAL ENROLMENT

If of interest, the successful candidate could apply for enrollment in a doctoral program.

Application deadline: July 10, 2022

Short-list selection: July 11-12, 2022

Remote interview: July 13, 2022

Final decision and communication of approval: July 18, 2022

QUESTIONS ABOUT THE POSITION: Edith Joseph, edith.joseph@he-arc.ch, project leader.

For administrative issues related to the work conditions: Isabelle Rérat, isabelle.rerat@he-arc.ch, human resources delegate.

The application file should include a letter of interest accompanied with a short research proposal related to the research project (2 pages max.), a curriculum vitae (with publications and other academic works that the applicant would like to be considered in the evaluation), copies of Diplomas/academic transcripts and work certificates (English translations if they are in another language), and two reference contacts should be sent to Isabelle Rérat, isabelle.rerat@he-arc.ch.