

LABEX Diversités biologiques et culturelles : Origines, Evolution, Interactions, Devenir
Muséum National d'Histoire Naturelle, Paris (France)

Post-doc project: **Proteomic and isotopic characterization of archaeological textile fibers**
€ 30 000 per annum gross salary (2 years contract)

Advisor: Séverine Zirah (UMR 7245)

Co-advisor: Antoine Zazzo (UMR 7209)

This project involves a close collaboration with Arul Marie (UMR 7245) for the proteomic part, and with Elise Dufour and Sébastien Lepetz (UMR 7209) for the applications to archaeozoology.

Textile manufacture is older than pottery and agriculture and is now recognized as a technological revolution. Textile production was an integral part of the economy and involved local, regional and long-distance exchange. Identifying the provenance of ancient textiles is difficult because textiles travel easily and are often made with widespread and long-lasting techniques and materials. The objective of this interdisciplinary proposal is to characterize and trace the geographical origin of ancient textiles, using a combined proteomic and isotopic approach. Proteomic methods will be developed, in order to characterize the fraction of preserved proteins, yielding a molecular signature related to the taxonomy of samples. This approach, termed in this context Zooarchaeology by Mass Spectrometry (ZooMS), will be completed by the isotopic analysis of samples, generating information on the nature and local environment of the fibers used in the textile confection. These methods will be applied to different samples from two regions showing an extraordinary preservation of textiles (Peru, NW China).

The post-doc will develop ZooMS methods and will be responsible for sample analysis in the laboratory and for interpretation of the results. He/she work in close collaboration with experts for the isotopic analysis and zooarchaeological applications of the project. Applications (in French or in English) are invited from candidates with a PhD degree or expected to obtain the degree at the start of the project (1st of October 2015). Candidates specialized in mass spectrometry and/or proteomics, with experience on the analysis of ancient samples, are welcome to apply. Fluency in either English or French is required and basic level French is recommended for non-French speakers. Candidates are requested to send a full CV, minimum one letter of recommendation and a letter of motivation in a single pdf file to Dr Séverine Zirah (szirah@mnhn.fr) and Dr. Antoine Zazzo (zazzo@mnhn.fr). The closing date for the position is on 29th May 2015.

The shortlisted candidates will be interviewed in early July. The successful candidate will be expected to commence in the beginning of October. Salary is € 30 000/year (gross) and the post-doc will hold a fixed term contract with the CNRS.