



**Postdoctoral position in isotope metallomics**  
**Funded by the French National Research Agency's (ANR)**

A 2-years postdoctoral scholar position is available at the University Clermont Auvergne (UCA, France) in isotope metallomics with application in volcanic health hazard assessment (starting date: January 2026). Applicants should submit by Dec. 31<sup>st</sup> 2025, a cover letter, a CV, and (optional) 3 letters of recommendation.

At the interface of volcanology, biology and isotope geochemistry, the candidate will work primarily with Dr. Lucie Sauzéat on an interdisciplinary and collaborative project (ANR JCJC) conducted at the Laboratoire Magmas et Volcans (LMV, <https://lmv.uca.fr/fr/>) and the Institut de Génétique, Reproduction et Développement (iGReD, <https://www.igred.fr>). The aim is to explore the medical applicability of using redox-sensitive isotopes as biomarkers of diseases, including, but not limited to, hepato-testicular disorders developing under volcanogenic pollutions. The 2-years project will involve developing and measuring non-traditional redox-sensitive isotopic proxies on biological samples. The first part of the post-doc will be dedicated to analytical development in clean lab and on mass spectrometers (MC-ICP-MS). The second part will consist in analyzing biological reference materials as well as natural murine samples (wild-type isogenic male mice) to apprehend the natural biological variation. Finally, the tracer will be used on a large collection of organs collected on mice chronically exposed to volcanic particles. In comparison with other isotopic proxies and organ-specific proteomic/transcriptomic markers, the novel redox-sensitive isotopic tracer will help us refining diagnostic/prognostic markers of pathological disorders operating in volcanic environments. In perspective of future non-invasive and isotopically-monitoring human volcanic-related disorders, these measurements will thereafter be extended to human samples in collaboration with international medical partners (INEN, Peru and HUNSC, Spain).

We are seeking candidates with demonstrated interest in isotope metallomics and/or analytical chemistry along with advanced scientific biological skills. Although different backgrounds will be considered, the candidate must have a doctoral degree in isotope geochemistry or biology/analytical chemistry as well as a robust experience in clean laboratory procedures and multi-collector inductively coupled plasma mass spectrometry (MC-ICPMS) techniques, including double spike analyses. Notions of molecular biology would be greatly appreciated. The postdoctoral researcher will have access to the cutting-edge facilities of the LMV and iGReD, which include among other instruments, a Thermo Neptune Plus MC-ICP-MS, an Agilent QQQ-ICP-MS, state-of-the-art clean laboratory (Class 100), as well as bioinformatics, Anipath histology and laboratory animal facility platforms.

**Methods:** Clean lab chemistry, ion chromatography, mass spectrometry (QQQ-ICP-MS, MC-ICP-MS), double spike isotopic analyses

**Application:** To apply, please send a cover letter, a CV and the names of three references in a single PDF document to Dr. Sauzéat Lucie ([lucie.sauzeat@uca.fr](mailto:lucie.sauzeat@uca.fr)). Review of applications will begin Dec. 31<sup>st</sup>, 2025. The cover letter (<2pages) should outline research interests, previous research, and how your experience aligns with the position summary and requirements.