

Postdoctoral Fellow at the INERIS (France) – QSAR modeling of toxicological endpoints for PMT chemicals (12 months)

Who we are:

The French National Institute for Industrial Environment and Risks (INERIS) is an industrial and commercial public establishment under the aegis of the French Ministry of the Environment.

INERIS contributes to the prevention of risks caused by economic activities to health, environment, and the safety of people and goods. At INERIS, we believe that it is of the foremost importance to conduct research programs with the aim of improving our understanding of the phenomena that are likely to lead to risk situations or damage to health and the environment, and of further developing its expertise in prevention. The institute works to expand its scientific and technical capabilities in the fields of accidental risk, chronic risk, and ground-level / subterranean risks (mining), and makes them available to public authorities, local authorities, and businesses to help them make the decisions best suited to improving environmental safety.

The Position

In the framework of the recently launched EU Green Deal project “PROMISCES – Preventing Recalcitrant Organic Mobile Industrial chemicals for Circular Economy in the Soil-sediment-water system, we are proposing a fixed term contract of twelve months for a postdoc in QSAR (Quantitative Structure-Activity Relationships) modeling. The appointed candidate will develop and implement state-of-the-art QSAR methodologies and models for the prediction of toxicological properties of Persistent, Mobile and Toxic chemicals (PMT substances) as a function of their chemical structure. The appointed person will be working in close collaboration with project partners working on the toxicological characterization of PMT chemicals and with partners working on regulatory requirements for this chemical category.

In this position you will:

- Develop new QSAR models and/or chemical categories to help predicting the toxicological behavior of PMT chemicals.
- Assess existing QSAR models predicting properties of interest.
- Interact with toxicologists, chemists, and regulators to match requirements with scientific innovations by videoconferencing and/or face-to-face meetings.
- Deploy your tools, train users, and transfer of knowledge to other partners when required.
- Publish your achievements in peer-reviewed journals and present your work at conferences.

Who you are:

A motivated scientist with experience in QSAR modeling, processing chemoinformatic data, multivariate data analysis and R programming. Knowledge in (eco)toxicology would be a plus. Your experience allows for an independent work and a focused and constructive communication and dialogue with your supervisor. You have prominent interpersonal and communication skills and the habit to work within a multidisciplinary project.

Requirements:

A PhD characterized by the development and application of QSAR tools. Candidates with a PhD employing other computational/optimization methods applied to biology or chemistry can apply provided they clearly highlight their level of knowledge in QSAR modeling. Experience in quantitative techniques such as statistical modeling and data science. Knowledge on grouping of chemicals (i.e. Chemical Categories and Read-Across) is an important know-how that the candidate would, preferably, already have or demonstrate to have clearly understood.

Fluency in written and spoken English is mandatory given the international context of the fellowship.

All applications need to include a CV and a motivation letter. Please clearly indicate your earliest availability for this position.

Contact: enrico.mombelli@ineris.fr