Senior researcher in computational toxicology

The French National Institute for Industrial Environment and Risks (INERIS) is recruiting a senior researcher in computational toxicology. The successful candidate will be responsible for leading the development of systems biology models.

About us
INERIS (https://www.ineris.fr/) is an industrial and commercial public establishment under the aegis of the Ministry of the Environment. It conducts research programs with the aim of improving the understanding of the phenomena that are likely to lead to risk situations or damage to health and the environment following human activities such as industrial production and agriculture. The METO unit (models for ecotoxicology and toxicology) belongs to the Chronic Risks Division of the institute and it brings together ten persons (researchers, engineers, PhD students). This unit develops *in silico* approaches to characterize the toxicity and ecotoxicity of chemicals. More specifically its activities are defined by two main themes: multiscale modeling (from single-cell to population behavior) of toxicological pathways and the characterization of the human exposome using biomarkers. In toxicology, the METO unit develops quantitative structure-activity relationships (QSAR), physiologically based pharmacokinetic models (PBPK) and models for systems biology. The final goal is to predict exposure of living beings to chemicals, occurrence of biological and toxicological key-events and the mechanistic relationships among them. As such, these methods can provide crucial information to existing Adverse Outcome Pathways (AOP) which represent the unifying scientific theme of the METO unit. We are currently involved in several European projects: EuToxRisk an Integrated European 'Flagship' Programme Driving Mechanism-based Toxicity Testing and Risk Assessment for the 21st century, the H2020 European initiative on human biomonitoring HBM4EU, and the H2020 project OBERON launched in January 2019 on an integrative strategy of testing systems for identification of EDs related to metabolic disorders.

Your role
You will be in charge of the development of systems biology models at a cellular and tissue level to be applied to multiscale modeling of toxicological pathways. As a scientist, you will:

- write study reports and publish results in scientific journals
- contribute to our scientific strategy regarding multiscale modeling of toxicological pathways by suggesting innovative research concepts
- supervise young researchers (MSc and PhD students, postdoctoral researchers)
- apply for national and European research grants to develop your activities
- foster existing research networks.

As an expert in your domain, you will also:

- transfer the developed methodologies to public authorities and undertake scientific studies in collaboration with industry
- train students or people from industry about her/his field of expertise if need should arise

Basic requirements

- PhD in life sciences and proven skills in mathematical modeling or PhD in mathematics and a solid background in toxicology or biology
- At least three years' experience in the above-mentioned disciplines
- Knowledge in statistics will be an additional asset
- Experience in PhD student supervision

Other requirements:

- Ability to manage several projects in parallel
- Good communication skills
- Proven ability in teamwork and in team coordination
- Excellent level of written and spoken English.

Contract Duration: permanent position
Location: Verneuil en Halatte, France

Contact information:
Céline Brochot – celine.brochot@ineris.fr