Post-doctoral position in Environmental Epidemiology – Biostatistics Inserm (Grenoble or Rennes, France)

Start date: Fall 2025 (no later than December 1st, 2025)

Contract duration: 2 years

P Host institution & location:

The candidate can choose between the **Institute for Advanced Biosciences** (IAB, Inserm U1209) in **Grenoble** and the **Research Institute for Environmental and Occupational Health** (IRSET, Inserm UMR 1085) in **Rennes**.

Over Project focus:

This postdoctoral position is centered on the **impact of early-life chemical exposure on child cardiovascular and metabolic health**. The innovative aspects of the project include the **large sample size** (1000 participants across three cohorts), the **use of novel markers of cardiovascular health** (retinography), and the **application of untargeted metabolomics**. This project has the potential to produce clear guidelines for citizens and stakeholders on which are the most harmful chemicals for cardiovascular health and how to reduce exposure to these chemicals. In practice, the candidate will be involved in two projets.

• Project 1 – Epidemiological analysis of European cohorts

You will explore associations between prenatal and **early childhood exposure to chemicals** (e.g., phthalates, phenols, PFAS, PCBs, pesticides) and cardiovascular health using harmonized data from three European mother-child cohorts: **INMA** (Spain, https://www.proyectoinma.org/), **PELAGIE** (France, https://www.pelagie-inserm.fr/), and **SEPAGES** (France, https://cohorte-sepages.fr/fr). Health outcomes include blood pressure, pulse wave velocity, and **retinal microvascular measurements** (retinography).

• Project 2 – Intervention study and untargeted metabolomics

You will contribute to the analysis of the **IRECO intervention study** (https://ireco.hypotheses.org/), in which exposure to endocrine disruptors was reduced through personal care product substitution. **Untargeted metabolomic profiling** (HRLC-MS) is ongoing in urine and blood samples. You will analyze pre/post-intervention data using **dimension reduction** and **mixture modeling** techniques to identify the impact of the intervention on health-related biomarkers.

Main activities:

- Design and conduct advanced statistical analyses (exposure mixtures, untargeted metabolomics)
- Manuscript writing and presentation of results at international conferences
- Collaborate within a dynamic, international consortium (Inserm, ISGlobal)

Required profile:

- PhD in epidemiology, biostatistics, data science, or a related field
- Strong experience in data analysis (preferably R or Python)
- Experience with exposure-health modeling and/or omics data is a plus
- Good English level required (French not necessary)

To apply, please send your **CV and a motivation letter** to:

- Claire Philippat: <u>claire.philippat@inserm.fr</u>
- Marion Ouidir: <u>marion.ouidir@univ-grenoble-alpes.fr</u>
- Charline Warembourg: <u>charline.warembourg@univ-rennes.fr</u>
- **Application deadline**: June 25th, 2025