Computational biologist position
Proudhon lab, IRSET, Rennes, France

Circulating epimarkers for non-invasive precision oncology

An ERC-funded position for a computational biologist is available in the team of Charlotte Proudhon at the Institut de Recherche en Santé, Environnement et Travail (IRSET, U1085 INSERM).

Research project: The project is focused on the identification and optimization of non-invasive epigenetic tumor markers to improve the detection of cancer. Circulating tumor biomarkers are revolutionizing cancer care. They represent an alternative to tissue biopsies for cancer prognosis and molecular profiling, and a promising tool for real-time monitoring of treatment efficacy. However, despite remarkable progress, several technological obstacles still limit liquid biopsy widespread application. Indeed, detecting small fractions of tumor DNA released when the tumor burden is reduced remains a challenge. We are actively involved in the development of innovative approaches for improved detection and better characterization of circulating analytes – see here our publications.

IRSET is a large international inter- and multi-disciplinary research center on environmental and occupational health located within Rennes, in Brittany. https://www.irset.org/en

The ideal candidate should hold a PhD in computational biology with a background in genomics and machine learning. Knowledge in cancer genomics and/or liquid biopsies is an important asset. This project will involve statistical and bioinformatics analysis of NGS data (among which DNA sequencing, Bisulfite sequencing and RNA sequencing) and the implementation of analysis pipelines and classification models based on machine learning.

Applicants should send their CV, a cover letter and the contact of two references to charlotte.proudhon@inserm.fr