Engineer/Data-Scientist in Metabolomics and Lipidomics
Institute of Cardiometabolism and Nutrition (ICAN)
in Paris/FR

Position details

- Employer: Institute of Cardiometabolism and Nutrition (ICAN)
- Location: Pitié-Salpêtrière Hospital in Paris, France
- Compensation: depending on skills and experience
- Job Type: permanent position
- Term of Position:
- Application Deadline: Open until filled
- Starting: ASAP
- Posted:

Environment

ICAN (www.ican-institute.org) is a new institute created in 2011 dedicated to research, translational care and training in the context of cardiometabolic and nutritional diseases. One of the Institute's main clinical goals is to develop efficient tools to clearly stratify patients, and to discover new biomarkers and disease predictors based on clinical and multi-omics data for precision medicine in cardiometabolic disorders. ICAN staff is composed of 70 employees and groups 13 different research teams associated with INSERM, APHP and the Pierre & Marie Curie University (UPMC) which are also founders of the Institute. ICAN is located on the medical campus of the Pitié Salpêtrière Hospital within the academic quarters in Paris.

ICANalytics, including metabolomics and lipidomics core facilities of ICAN, was created to support the translational research mission of the Institute. It aims to phenotype, at the molecular scale, preclinical and/or clinical samples from the institute and partners' institutes. Strong emphasis is placed on analysing large scale biological data sets generated by 'omics' high-throughput technologies from ICANalytics.

Job Description

The applicant will be involved in interdisciplinary studies on cardiometabolic and nutritional diseases to help analyse and/or combine lipidomics/metabolomics data with clinical and other high-throughput "omics" data that are generated by ICAN platforms and/or partners. Main tasks of the applicant will be to perform data preprocessing (peak alignment, peak picking, filtering...) on targeted and non-targeted lipidomics and metabolomics analysis as well as normalisation, peak annotation and biostatistics. Applicant will also be involved in omics data integration (transcriptomics, metagenomics, lipidomics and metabolomics) with other bioinformatician/biostatician from ICAN. S/he will work in interaction with Integromics Unit to perform data integration.

Background and skills

- An Engineering or a PhD degree in Biostatistics, Bioinformatics, Systems Biology or related fields.
- Working experience with data analysis in the bioclinical field and other high throughput "omics" data.

- Experience with omics data processing, diagnostic testing, causal inference, and longitudinal data analysis.
- Knowledge in metabolomics and lipidomic databases: KEGG, HMDB, LipidMaps...
- Knowledge in software packages dedicated to metabolomics/lipidomics data processing: XCMS, Camera
- Skills data in visualisation and representation
- Strong coding skills : R, visual basic, matlab, Perl, Java, C and/or C++, python ...
- Experience in data processing platforms (Hadoop, spark, Galaxy) would be appreciated
- Experience in database design and modelling: Oracle, SQL/PLSQL langages would be appreciated
- Knowledge in the fields of host biology, microbiology, immunology or nutritional and cardiometabolic diseases would be appreciated

- Good spoken and written English
- Excellent written and oral communication skills : project reports, papers, presentations
- Mature and motivated as well as a pro-active attitude and multitasking
- Intellectual curiosity

How to apply?

Applicants are asked to send to recruitment@ican-institute.org

- a detailed CV (with publications would be appreciated)
- a cover letter describing their research interests as well as their motivations
- three references (including contact information)