





# Post-doctoral fellowship in mass spectrometry data processing

## **About MetaboHUB**

MetaboHUB (MTH) is the national French metabolomics and fluxomics infrastructure. Launched in 2013, MTH is a leading international infrastructure serving more than 700 scientists worldwide. MetaboHUB gathers 5 regional facilities including more than 80 permanent staffs, 15 NMRs, 43 MS, robotic and computational platforms. MTH aims at pushing forward the field to develop metabolomics and fluxomics from single cell to population. Your contribution will serve a broad range of researchers in the fields of biotechnologies, Human health and nutrition and plant science. Joining MTH, you will be involved in cutting edge research within a highly skilled and motivated consortium.

## About MTH-PFEM https://eng-pfem.isc.inrae.fr/

The PFEM (metabolism exploration platform) is a metabolomic platform, recognized as a national and international leader in metabolomics applied to nutrition and health. PFEM principal research interest concerns the development of MS-based analytical methods and bioinformatics tools for a better characterization of metabolic deviations associated with development of chronic metabolic diseases and the study of nutrition and health relationships:

- metabolic profiling using multiplatform approaches in biofluids and tissues.
- development of analytical strategies for biomarker identification using ultra high-resolution MS and bioinformatics tools.
- development of models and tools to increase knowledge extraction from high throughput data.

# The mission

In the framework of the Workpackage 1, Task 2, of MetaboHUB2.0 (Advanced acquisition protocols for HT data acquisition), the aim is to evaluate a set of software solutions for DDA-MS and DIA-MS data extraction in the context of high-throughput analyses and to validate a relevant strategy to implement across MetaboHUB facilities. Tests will be performed using MTH in-house datasets in collaboration with mass-spectrometry experts and data analysts. Once validated, data processing strategies will be documented to harmonize standardized high-throughput data extraction on MTH platforms.

# **Key Responsibilities**

The person recruited will be in charge of the following:

- Literature review of software solutions to **apprehend the underlying extraction strategies** for DDA-MS and DIA-MS data.
- Practical **tests** to evaluate the efficiency and ease of use of selected tools in the context of high-throughput analyses.
- **Determination of optimal strategies** for data extraction and **implementation of its use** across MTH facilities (documentation writing, analyst training).



## **Profile**

Academic

- PhD with experience in Mass Spectrometry
- Skills and motivation for data processing
- Knowledge in metabolomics or proteomics
- Knowledge on DDA-MS and DIA-MS would be an advantage



#### Skills

English mandatory
Good communication and writing skills
Autonomy, organisation
Motivation to work within a
multidisciplinary environment (chemists,
data analysts, biologists)



## **Informations**

CDD IR / post-doctoral fellow 18 months contract, full-time position Salary range (gross salary): 2400 euros/month Place of work: Clermont-Ferrand Starting from: April 2022

# How to apply?

The application should contain the following attachments:

- a motivation letter
- a full CV (max. two pages) including contact details of two references,
- Copies of relevant diplomas or university certificates
- Short statement from a former supervisor
- Contact information for at least two relevant references

# Contacts

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# More informations

www.metabohub.fr

https://eng-pfem.isc.inrae.fr/

Position Reference: Cler-P1-C