

## **Post-doc in surface proteomics by ion mobility mass spectrometry (3 years)**

*Center for Interdisciplinary Research on Medicines, Liège, Belgium*

Keyword: proteomics, mass spectrometry, cancer, minimal residual disease, bioinformatics

Function: research et development

### **Position**

A postdoctoral fellow position is available at the Center for Interdisciplinary Research on Medicines (CIRM), Laboratory for the Analysis of Medicines (LAM), directed by Prof. Marianne Fillet at the University of Liège, Belgium. The current project aims to identify combinations of antigens specific to multiple myeloma (MM) in order to develop CAR-T cell immunotherapy. We are looking for a qualified and creative scientist with interest in the development of innovative and robust analytical / biophysical methods to identify comprehensively surface proteome of MM cells. Importantly, the individual will be expected to evaluate and optimize new technologies including those relevant to sample preparation, sample separation, data acquisition by mass spectrometry and data analysis.

The postdoctoral fellow will be in charge of maximizing the coverage of cell surface proteome identification, optimizing the sensitivity of the workflow to be able to work with a low number of patient cells and improving the data treatment to extract valuable information in a reasonable amount of time. Moreover, once the panel of antigens selected, he/she will develop a sensitive high-throughput monitoring approach to search for any residual MM cells in patient samples.

The successful candidate will join a multidisciplinary group working in the cutting-edge area of exploring the surface proteome and immunopeptidome of cancer cells to develop new immunotherapies. This is a full-time, limited term employment position. The duration of this appointment is two years, with the option of extending the appointment for up to three years. The expected start date is late summer 2022. The ULiege Euraxess Centre is available to support international candidates with their pre-arrival preparations in addition to the ongoing support and resources available from the research unit, faculty and human resources department.

### **Environment**

Liège is a friendly, welcoming and vibrant city, full of "joie de vivre". Nestled at the crossroads of the German and Dutch borders, the city offers a mix of an urban, cultural center with an easy escape to the vast countryside and neighboring countries. Liege delights in culinary flavors with their famous Liégeois waffles, its homemade meatballs and of course a glass of pèkèt, a local white alcohol made of juniper. As the cultural and historical hub of eastern Belgium, the city is home to an Opera, a Symphony and several renowned theatres. Located on The Meuse River, the architectural beauty of the city's neighborhoods welcome visitors and residents from around the world.

The University of Liege is the largest francophone university in Belgium and home to 11 faculties, over 27,000 students and researchers and has a vast global network with other 820 partner institutions. The LAM ([www.lam-uliege.com](http://www.lam-uliege.com)) research unit centers around the development of new analytical tools for (bio)pharmaceutical quality controls, interactomics studies, disease biomarkers discovery and validation. LAM is part of the fast-paced,

multidisciplinary research unit called CIRM ([www.cirm.uliege.be](http://www.cirm.uliege.be)) which brings together 12 laboratories from ULiege and is comprised of over 215 researchers and 5 technological hubs. The successful candidate will have the opportunity to lead a cutting-edge research project in a GMP environment while obtaining valuable experience with state-of-the-art technologies (among which different modes of UHPLC, nanoLC, FFF, IM and CE coupled with DAD, MALS, LIF or MS/MS detectors, as well as micropillar arrays and MCE) that prepares well for future positions in academia or industry. We will also provide individual career development/support and access to an interdisciplinary and collaborative research community.

### **Candidate profile**

The successful applicant must have a PhD degree with interest and / or experience in **analytical chemistry, biochemistry or molecular biology**. Knowledge in **advanced protein analysis by mass spectrometry** is essential. Candidates with expertise in **ion mobility, multidimensional HPLC and capillary electrophoresis** are highly encouraged to apply. Experience in bioinformatics or computational biology is advantageous as is experience with cell culture, recombinant protein expression/purification and flow cytometry.

The candidate must be enthusiastic about research related to analytical/biophysical tool development for biomarker discovery, have excellent critical thinking skills, a significant track-record of productivity (e.g. peer-reviewed publications), the ability to work well both independently and as part of a team. Proficiency (written and oral) in English is required. As a French speaking university, online or in person language courses are available through the University's language institute.

### **Application**

Interested candidates should contact Prof. Marianne FILLET ([marianne.fillet@uliege.be](mailto:marianne.fillet@uliege.be)) and provide the following documents:

1. Cover letter with a brief statement of research experience and future proposed interests (max 2 pages)
2. Detailed CV (max 4 pages with publication records)
3. At least one reference letter

We thank all applicants who apply, however only those selected for an interview will be contacted.