

Post-doctoral position – 3 years

Innoviris Funded project – RD3 – PBM and Analytical Platform of the Faculty of Pharmacy

Full-time position at the Analytical Platform of the Faculty of Pharmacy in Brussels.

Job description

The Analytical Platform of the Faculty of Pharmacy (ULB, [APFP](#)) is an analytical platform providing analytical solutions, especially through chromatography coupled to mass spectrometry. The Platform is hosted by the RD3 – Pharmacognosy, Bioanalysis and Drug Discovery research unit ([RD3 – PBM](#)) and develops tools and methods for identifying and quantifying molecules of interest in therapeutics or biomarkers. These methods are part of the proteomic, glycomic, metabolomic, or lipidomic applications. It has its own research projects and contracts and supports the research of other ULB and industrial laboratories.

Project description:

The research project is called “Plastic-City” and aims at studying the presence of microplastics (MPs) and related pollutants in the waterways of the Brussels region (BCR). This project is led by the “Vrij Universiteit Brussels” in collaboration with ULB. The research will be carried out by Analytische, Milieu en Geochemie (AMGC/VUB) and the APFP (ULB).

The general objective of this project is to estimate the present and future contribution of the BCR as a microplastic source for waterways and determine what are the ecological impacts associated to this MP contamination. The project is divided in four work packages:

1. To assess the present-day plastic use in the BCR and their export as MPs to the Zenne and Canal waterways
2. To identify and quantify pollutants associated to MPs, evaluate their toxicity at cellular level and understand their interaction with microplastics.
3. To define plastic use and waste management scenario, apply them to estimate MP emission of BCR to its waterways and evaluate the contamination of Brussels waterways with MPs.
4. To assess the impact of leaching of inorganic and organic contaminants adsorbed on MPs as well as those used as additives in polymer processing that can be ingested by aquatic organisms

As member of APFP, the proposed research position will mainly focus on analytical developments in GC and LC-MS(MS), the job will be dedicated to

- Analytical development in GC and LC-MS(MS) for detecting and quantifying hydrocarbon, plasticizers, pesticides... Samples preparation, analysis... (80 %)
- Sampling of water and microplastics in the waterways of BCR (10 %)
- Helping in the model development for management scenario (10 %)

Profile

PhD in Analytical Chemistry, Pharmacy, Chemistry, Bioengineering, Biology with:

- **Experience in mass spectrometry analysis**
- **Experience in GC and LC coupled to mass spectrometry**
- **Experience in sample treatment (SPE, liquid/liquid extraction)**
- Experience in environmental chemistry
- The candidate should have demonstrable track record of research excellence and be capable of both work independently and collaboratively in a team
- Excellent organizational and time management skills
- Excellent skills in spoken and written English.
- High motivation, flexibility as well as innovate and creative thinking are a must

At the time of applying and during the last three years (36 months), the post-doc researcher has been at least 12 months abroad. The PhD has been obtained max 5 years ago.

Interested ?

Applications with CV and motivation letter + 2 references should be sent directly to pierre.van.antwerpen@ulb.be

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Duration: 3-year full time.

Starting date: 01 September 2022.

Deadline for the submission of applications: Positions open until filled