

Postdoc positions in the lipidomics group

Duration

12 months starting January 2023, possible extension.

Where

[Lipidomics group of Michal Holčapek](#), University of Pardubice, Faculty of Chemical Technology, Department of Analytical Chemistry, Czech Republic

Salary

The salary will be set according to the internal university rules taking into account the level of previous skills and experience.

What are you going to do?

The postdoc will work within the framework of the grant project “Multidimensional chromatography - mass spectrometry quantitative workflows in the detailed characterization of human plasma lipidome” funded by the Czech Science Foundation.

Position 1

The postdoc will learn and use the whole lipidomic workflow, which includes sample preparation of biological samples using our extraction protocols, measurements using ultrahigh-performance liquid chromatography – mass spectrometry ([UHPLC/MS](#)) or ultrahigh-performance supercritical fluid chromatography – mass spectrometry (UHPSFC/MS), data processing using [LipidQuant software](#), and statistical evaluation of data using advanced multivariate data analysis tools (e.g., Simca, R-scripts).

Requirements for position 1

- 1/ Ph.D. degree in (bio)analytical chemistry or closely related fields.
- 2/ Theoretical knowledge and experimental skills in mass spectrometry, liquid chromatography, and LC/MS.
- 3/ Passion for science, ambition to achieve difficult goals, reliability, and teamwork.

Position 2

The postdoc will be involved mainly in the bioinformatic and biostatistical workflow, which will include advanced statistical evaluation of the data using various tools for multivariate data analysis and visualization of results, and the use of metabolic pathway tools for data interpretation. The postdoc should implement available

softwares into our data processing workflow or may be involved in the development of new software tools.

Requirements for position 2

- 1/ Ph.D. degree in bioinformatics, statistics, (bio)analytical chemistry, or related fields.
- 2/ Knowledge of multivariate data analysis, at least basic programming skills, preferably in Python or R, advanced work with Excel.
- 3/ Passion for science, ambition to achieve difficult goals, reliability, and teamwork.

Additional skills and experience

It would be advantageous to know, but it is not required.

- 1/ Lipidomic or metabolomic analysis.
- 2/ Supercritical fluid chromatography – mass spectrometry.
- 3/ Software tools for metabolomics/lipidomics (MZmine, Skyline, etc.).

Lipidomics research group

Our international group consists of around twelve young postdoctoral researchers and students. The work environment is friendly and open to anyone interested in cutting-edge research, high-end instrumentation, and ambitious goals. We are passionate scientists who also enjoy informal group activities. We will provide an initial training course in lipidomic analysis to new members. We focus on lipidomic analysis by mass spectrometry coupled with chromatographic techniques. Our key application is in lipid cancer biomarkers, where the translation of our [patented methodology](#) for the early detection of [pancreatic cancer](#) or [other types of cancer](#) is in progress within the activity of the spin-off company Lipidica. We will work on the investigation of the biological mechanism of lipidomic dysregulation in cancer.

What should you do now

If you meet the requirements and feel enthusiastic to join my group, then please write a motivation letter and send it by email along with your CV that contains a description of skills and previous experience. The best candidates will be invited to the Zoom interview. Candidates without prior experimental experience with mass spectrometry or chromatography are unlikely to be selected. The job call will remain open until the best candidates are selected.

Contact

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