Postdoc position in lipidomics and mass spectrometry

Duration
18 months, starting from July 2022 or as soon as possible.

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 and considering the level of previous skills and experience.

What are you going to do?
The postdoc will work within the framework of the grant project "Prospective study on early pancreatic cancer detection and therapy monitoring using lipidomic profiling by mass spectrometry"" sponsored by the Czech Health Research Council or the grant project "Multidimensional chromatography - mass spectrometry quantitative workflows in detailed characterization of human plasma lipidome" funded by the Czech Science Foundation. The postdoc will learn and use the whole lipidomic workflow, which includes the sample preparation of biological samples using 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 our LipidQuant software, statistical evaluation of data using advanced multivariate data analysis tools (e.g., Simca). In case of programming skills in Python, the involvement in the development of a new version of LipidQuant may be considered.

Requirements
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, analytical precision, reliability, and teamwork.

Additional skills and experience

If you have some of the following skills and experience, it would be considered an advantage, but it is not necessary to be familiar with all of them.

1/ Lipidomic analysis.

2/ Metabolomic analysis.

3/ UHPSFC/MS.

4/ Statistical analysis of data and visualization tools.

5/ Programming in R or Python language and advanced work with Excel including the use of macros.

What do we offer?

Our group consists of around ten young postdocs and students from various countries. The working 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 or without chromatography. Our key application is lipid cancer biomarkers, and the next task is to translate our patented methodology for the early detection of pancreatic cancer or other types of cancer into real clinical practice. For more details, please visit the website of our group and previously published papers.

What you should 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 the 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 candidate is selected.
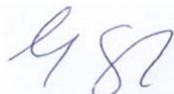
Contact

Prof. Michal Holčapek, Ph.D.

University of Pardubice

Faculty of Chemical Technology, Department of Analytical Chemistry

Studentska 573, 53210 Pardubice, Czech Republic

Phone: +420 466 037 087

Email: Michal.Holcapek@upce.cz

http://holcapek.upce.cz/