

The Institute of Physiology of the Academy of Sciences of the Czech Republic is engaged in research in normal and pathological physiology, focusing mainly on the study of the mechanisms of serious human diseases.

Laboratory of Metabolism of Bioactive Lipids is looking for a new team member.



POSTDOC in metabolomics/lipidomics (f/m)

Location:

Laboratory of Metabolism of Bioactive Lipids of Dr. Ondrej Kuda, Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic

Lab: <https://www.fgu.cas.cz/en/departments/laboratory-of-metabolism-of-bioactive-lipids>

Duration:

12 – 36 months, starting from July 2022 or as soon as possible



Job Description:

Your work will be varied. You will investigate molecular mechanisms of metabolic diseases related to the liver, adipose tissue, and heart, specifically glucose intolerance and cachexia. Primarily you will process omics data (metabolomics, proteomics, genomics) obtained from clinical projects, mice, and cells. You will statistically evaluate differences between healthy and diseased patients, looking for the causes of these differences in gene expression, protein, and metabolite concentrations. You will not do this alone but with a team of specialists in the field. You will learn how to perform metabolomics and lipidomics analyses, measure metabolic fluxes using stable isotope tracers and develop LC/GC–MS methods. You will perform experiments with cells or mice, create new models, extract samples, play with R and Python scripts, and write reports and publications.

To familiarize yourself with our research, please refer to:

Lopes et al., Cell Rep. 2021, [10.1016/j.celrep.2021.109833](https://doi.org/10.1016/j.celrep.2021.109833)

Brejchova et al., PNAS 2021, [10.1073/pnas.2020999118](https://doi.org/10.1073/pnas.2020999118)

Paluchova et al., Diabetes, 2020, [10.2337/db19-0494](https://doi.org/10.2337/db19-0494)



We offer:

- Highly interdisciplinary work in a creative academic environment. Everyone can come up with ideas to move the project forward.
- Projects balanced between basic and translational science and active involvement in clinical trials.
- Further training opportunities (-omics courses, etc.)
- Fixed-term employment with the possibility of extension, starting by agreement.

- Competitive salary based on the internal rules of the institute and the candidate's skills and experience.
- Language courses, parking on-site, bike room, campus hostel, home office, support for international colleagues, etc.
- Six weeks holiday + sick days.



Our requirements:

- ✓ The preferred candidate will be nearing completion, or be within 12 months, of completing his or her Ph.D. The candidate should have at least one first author publication in a well-recognized English language journal.
- ✓ Ph.D. degree preferably in biochemistry, (bio)analytical chemistry, (bio)informatics, statistics, biomedical engineering, natural sciences, etc. The projects are diverse, so the critical thing is not the discipline but the ability to learn new things.
- ✓ Hands-on experience in metabolomics (sample preparation or data analysis).
- ✓ Independence (partly home office), reliability (responsible for a funded project).
- ✓ Enthusiasm and motivation to learn new things outside of your comfort zone (basic biology, chemistry, programming languages) from more experienced colleagues.
- ✓ Ambition to lead a project, support the team, and achieve the goals.
- ✓ Excellent communication in English (written and spoken).

Additional skills (would be considered an advantage)

- Knowledge of Python or R, MS Excel, and programming skills.
- Expertise in cell culture techniques.
- Complex metabolomics/lipidomics analysis using LC–MS.
- Animal work (mouse physiology, handling, FELASA or national certificate).
- Clinical work (hands-on experience in a clinical trial)



How to apply:

Have we awakened your interest? If you meet the requirements, please write a motivation letter and send it by email along with the CV that contains a description of skills and previous experience to Bc. Marcela Tomášková, BBA (marcela.tomaskova@fqu.cas.cz). We will get back to you within two weeks.