

RECETOX

Postdoctoral Position in Metabolomics in Alzheimer's Disease

Research group: **Metabolomics and targeted proteomics research group**

Research group leader: **Dr. Zdeněk Spáčil**

RECETOX

the research center at the Masaryk University in Brno (the Czech Republic), is focused on the research and education in cross-cutting area of Environment and Health. RECETOX operates high-quality research infrastructure, which is equipped with state-of-the-art facilities, possesses excellent expertise and provides access to facilities, services and training to the international research community, collaborators and other partners.

Research project

Transformative stem cell-based model of Alzheimer's disease and advanced analytics to study the role of membrane lipids in the pathogenesis

Job Description

The postdoctoral associate will design, execute and evaluate experiments to develop quantitative protocols for determination of membrane lipids and proteins primarily involved in pathogenesis of Alzheimer's disease. The candidate will primarily use modern analytical techniques based on mass spectrometry and apply them to relevant in vitro cell biology model and clinical samples. The newly introduced model based on cerebral organoids derived from human embryonic stem cells will allow for hypothesis driven experiments leading to mechanistic understanding of Alzheimer's disease pathogenesis. The candidate will perform research on innovative multidisciplinary project combining advanced analytical technology with cutting-edge cell biology, further providing a unique opportunity to transform the field of Alzheimer's disease research.

The research group

led by Zdenek Spáčil is engaged in metabolomics and targeted proteomics and pioneering the exposome (i.e. non-genetic factors affecting human health).

Requirements and qualifications

The candidate must hold a Ph.D. degree in chemistry, biochemistry, biological sciences or related field obtained during past 5 years. The candidate must have a research experience; a track record of publications in peer-reviewed scientific journals (WoS, SCOPUS). International experience is an advantage.

Applications and selection process

The application (consisting of the curriculum vitae, cover letter, two reference letters or the names of at least two referees and the copy of Ph.D. certificate), as well as formal and scientific questions should be send via email to Dr. Zdeněk Spáčil, spacil@recetox.muni.cz.

A review of applications will run continuously as they are received. The best candidates will be invited for personal or Skype interview.

Candidate has to prove the interest and motivation to tackle scientific challenges, independent planning of experiments to explore given hypotheses and technical skills to conduct experimental work. The candidate should have the experience with mass spectrometry-based techniques and modern liquid chromatography concepts, set-up, operation, and maintenance, programming skills and experience with advanced data processing and bioinformatics are an advantage and ability to prioritize multiple responsibilities, troubleshoot technical issues, and develop and execute detailed technical protocols. Additional requirements are following: good written and oral communication skills, excellent documentation skills and the ability to work both independently and as part of a team.

What we offer

We can offer you the work on challenging scientific project and important healthcare problems with the opportunity to publish results in prestigious international journals, work in the international and dynamic team and informal research environment with state of the art instrumentation and collaborative projects with international partners (e.g. ETH Zurich, University College London, University of Washington), opportunities towards independent scientific career and competitive salary and employee benefits.

Contract duration

This is a one-year appointment with the possibility of extension based on excellent performance and continued funding.