

Post-doctoral position: Clinical ion mobility spectrometry

One post-doctoral position is available in the Laboratory of Molecular Structure Characterization, Institute of Microbiology (IMIC), [Videnska 1083](#), CZ 142 20 Prague 4, Czech Republic. The duration of this post-doctoral fellowship is 12 months in the first stage with possible extension to the second year. Start of the fellowship is upon mutual agreement; we prefer to receive your application by March 31, 2018. Monthly fellowship will be 1150 Eur in gross, upon signing tax exemption form the income represents 870 EUR netto/month. Accommodation in campus hostel is available (monthly rent 190 EUR). Send your application to prof. Vladimir Havlicek (vlhavlic@biomed.cas.cz).

Area of research

The position linked to the project entitled “Clinical ion mobility spectrometry” consists of two individual subsections, i.e. **(1) Intraoperative mass spectrometry in burn surgery** and **(2) The diagnostics of infectious diseases by metabolomics approaches**. Both parts are carried out under the umbrella of the National Sustainability Program of the IMIC funded by the Czech Ministry of Education, Youth and Sports of the Czech Republic (LO1509). The development, construction and clinical application of a tangential electrosurgical knife compatible with for online characterization of human tissues by rapid evaporation ionization mass spectrometry is planned for the burn surgery. Necrotic and potentially vital tissue types will be quantitatively distinguished. This work will further be supported by FTICR MSI combined with metabolomics on nano-HPLC-IM-QTOF. Both tools will also be employed in development of non-invasive diagnostic approaches useful for infections caused by BSL-2 pathogens in man or animal models. **Literature:** <https://www.nature.com/articles/s41598-017-16648-z> and DOI: 10.4149/av_2017_316.

Qualifications and personal qualities

The applicant must hold a PhD degree within one of the following disciplines – analytical chemistry, biology, molecular biology, immunology, microbiology, pharmacology or biochemistry. Applicants who have submitted their doctoral thesis can also apply if the defence is expected before Apr 30, 2018.

- Experience with Waters Synapt G2Si is necessary
- Experience with chromatography and multimodal imaging methods will be an advantage.
- Good communicative skills in both written and oral English are necessary.

Main duties and responsibilities

- To start the research line within the framework of the project;
- Operating ion mobility mass spectrometer, basic instrument maintenance, communication with the vendor on major servicing and repairs;
- Developing and application for grant proposals for research funding;
- Supporting other research projects within the group;
- Delivering output in the form of reports and publications.

Your application should include:

1. Complete CV
2. List of publications (in peer reviewed journals and conferences)
3. Two reference letter(s)