

ELI Beamlines research centre in Dolní Břežany is a part of pan-European infrastructure ELI (Extreme Light Infrastructure) representing a unique tool of support of scientific excellence in Europe by making available its capacities to the best scientific teams across the world. The aim of ELI Beamlines is to establish the most intensive laser system in the world and to operate it on a long-term basis. Due to ultra-high performances of 10 PW (1 petawatt = 1,000,000,000,000,000 watts) and concentrated intensities of up to  $10^{24}$  W/cm<sup>2</sup>, we can offer our users a unique source of radiation and beams of accelerated particles. The so called beamlines will enable ground-breaking research in the area of physics and science dealing with materials, but also in biomedicine and laboratory astrophysics and many other fields. ELI Beamlines is a part of the Institute of Physics of the Czech Academy of Sciences, and it was open in 2015.

The Institute of Physics of the Czech Academy of Sciences is a holder of the HR Excellence in Research Award. It is awarded by the European Commission to institutions which put significant effort into improving their human resources strategy and ensuring professional and ethical working conditions.

We are recruiting a researcher to develop new aerosol sample injection/deposition techniques for applications in electron microscopy and photon science. The successful applicant is expected to work on the development and application of new mass-selective sample delivery methods, using electro-spray ionisation and other aerosolisation techniques to enable high-resolution structural studies on mass-selected macromolecules, viruses, cell organelles and small cells, using electron microscopy or ultra-fast coherent diffractive imaging, e.g. at X-ray free-electron lasers. Other applications include the study of light-matter interactions between high intensity laser pulses and isolated nanoparticles. Depending on career stage, the appointment will be either at a junior or on a more senior level.

## Scientist/Postdoctoral Fellow in Structural Biophysics (IV-95)

### Description:

- you will be leading the aerosol sample-injection and deposition programme at ELI Beamlines
- will engage with the development of new instrumentation for applications in electron microscopy, free-electron laser research, and spectroscopy
- overseeing the installation and performance of laboratory infrastructures
- general support of the scientific activities of the research team
- cooperation with users and other research and technical teams at ELI Beamlines

### Requirements:

- PhD in Physics, Biophysics, Structural biology, Mass spectrometry, Physical chemistry, Laser-sciences, Optics
- prior work experience in academia in one or more of these areas

- experience with aerosol technologies and single-molecule/-particle techniques is a particular advantage
- ability to develop new cutting-edge instruments and technologies, including developing new algorithms
- excellent communication and writing skills in English
- ability to manage multiple tasks, and work as a key part of an international interdisciplinary team

### **What we offer:**

- the opportunity to work in a creative scientific environment to carry out cutting edge research
- a brand-new laboratory, where highly innovative techniques are being developed and tested
- competitive and motivating salary
- pleasant working environment
- 5 weeks of holiday and other employee benefits
- possibility of long term employment for proven experts

Applications, containing CV, cover letter, contacts of references, and any other material the candidate considers relevant, should be sent to Mrs. Jana Ženíšková, HR specialist ([jana.zeniskova@eli-beams.eu](mailto:jana.zeniskova@eli-beams.eu), +420 - 601560322).

Information regarding the personal data processing and access to the personal data at the Institute of Physics of the Czech Academy of Sciences can be found on: <https://www.fzu.cz/en/processing-of-personal-data>