Institute of Biotechnology of the Czech Academy of Sciences announces an open call in accordance with the Act No. 283/1992 Coll. of the Czech Academy of Sciences for a position:

PhD candidate

in the Laboratory of Structural Biology (http://lsb.avcr.cz/), with the focus on understanding

Modulation of the heat shock protein 90 (HSP90) by reversible acetylation

Job description:

Cellular functions of HSP90 are modulated by a host of post-translational modifications, including lysine acetylation and histone deacetylase 6 (HDAC6) can be the principal deacetylase and a client protein of HSP90. However, structural basis of HSP90 (de)acetylation by HDAC6 as well as functional consequences of such interactions have not been studied at the molecular level. The successful candidate will use genetic code expansion (GCE), structural and biophysical techniques, as well as cell-based assays to unravel how HSP90 is regulated by lysine acetylation. (S)he will use targeted mass spectrometry to identify HSAP90 acetylation, express and purify acetylated HSP90, analyze structural and functional consequences of HSP90 acetylation, identify HDACs responsible for HSP90 deacetylation, and characterize in detail interactions between HSP90 and HDACs. The candidate will also contribute to manuscript writing and present results at international meetings. (S)he will be enrolled in a PhD program at the Charles University in Prague.

Basic education, experience, and skills required for consideration:

- MSc in molecular biology, biochemistry, biophysics or related subjects (as of June 2023)
- Teamwork, enthusiasm to learn new skills, analytical thinking
- Good English command (oral and written)
- Prior experience with heterologous protein expression and purification, biophysics, structural methods, and enzyme kinetics is a plus

We offer:

- A dynamic, multidisciplinary and highly collaborative international team
- Access to state-of-the-art technologies in structural biology, biophysics, and omics
- Excellent training conditions in preparation for your future career
- Extensive network of collaborators

Institute and workplace:

The Institute of Biotechnology (IBT, www.ibt.cas.cz), a constituent of the BIOCEV center of excellence (www.biocev.eu), is a multi-disciplinary research center focused on cancer and developmental biology, metabolism, gene expression, and structural biology & protein engineering. IBT/BIOCEV brings together >500 international scientists and students in >50 research groups. Research is supported by state-of-the art core facilities (gene core, molecular structure and biophysics, animal clinic, flow cytometry & imaging, and omics). Located in Vestec, approximately 30 minutes (public transport) from the Prague center.

Additional information:

- **Application deadline: March 15, 2023. Start: September/October 2023 (or sooner)**
- For more information, please, contact Dr. Cyril Bařinka (cyril.barinka@ibt.cas.cz).
- To apply please submit your CV, motivation letter, and 2 references to hr@ibt.cas.cz.

More details on the processing of personal data are available on the website: https://www.ibt.cas.cz/cs/o-ustavu/oficialni-dokumenty/gdpr/.