



HR EXCELLENCE IN RESEARCH

The **Laboratory of Cholinergic Signaling** at the **Institute of Physiology, Czech Academy of Sciences (CAS)**, is seeking suitable candidates for the:

POSTDOCTORAL POSITION

In the newly started project, the successful candidate will use a **neuronal-type-specific expression of an engineered bacterial enzyme together with masked nicotinic ligands** to modulate the expression of nicotinic acetylcholine receptors in defined neuronal populations in the mouse brain. He/she is primarily expected to have a leading role in some of the following areas:

- testing the distribution, unmasking and activity of the masked/fluorescent ligand in primary neuronal cultures, by HPLC-MS, imaging experiments, electrophysiology and/or gene expression measurements
- expression of the exogenous enzyme in specific neuronal types in vivo using neuronal-type-specific AAV vectors and testing its unmasking activity by fluorescence imaging
- validation of the enzyme-masked/fluorescent ligand pair in vivo, testing the distribution and degradation of the ligand after different administration routes, determining the effect of the unmasked ligand on the nicotinic expression in specific neuronal types and ultimately on neuronal function and animals' behavior

Candidate's profile:

We are looking for a highly motivated candidate with an interest in neuroscience and a background in biochemistry, pharmacology, cell biology, molecular biology or related fields. Experience with organic chemistry, Ca²⁺ imaging, electrophysiology, neuronal cultures and/or viral vectors is advantageous. In addition, the willingness to travel and spend time in collaborating laboratories and fluency in English is essential.

We Offer:

- A creative, international working environment
- Competitive salary based on the Institute's internal policies, as well as the candidate's skills and experience
- Professional development opportunities and career mentorship
- Employee benefits (e.g. health insurance, language courses, meal allowance, childcare, institutional lodging house)
- Full-time position (1.0 FTE)
- 5 weeks of holiday, plus 1 additional week of holiday, and 3 sick days

To apply, please send your CV and a motivation letter to the address below.

Contact person: Kateřina Rozsypalová

Email: personalni@fgu.cas.cz

Web page: <https://fgu.cas.cz/en/research-and-laboratories/research-departments/laboratory-of-cholinergic-signaling/>