

Faculty of Health Science, Department of Neurobiology, Poznan University of Physical Education

One post-doctoral position in “In Vivo Electrophysiology” is available in the Department of Neurobiology at the Poznan University of Physical Education (Poland) under the co-supervision of Marcin Bączyk and Daniel Zytnicki.

We are looking for motivated candidates with an interest in the fields of neurophysiology, neurobiology, and neurodegeneration. The funded project aims at investigating the mechanisms underlying the breakdown of homeostatic scaling between synaptic excitation and motoneuron excitability in mice displaying Amyotrophic Lateral Sclerosis. To meet these aims we will implement cutting-edge methods combining intracellular recordings of mouse spinal motoneurons in vivo, with advanced chemogenetics, viral manipulations, and molecular biology. The candidate will be responsible for performing in vivo electrophysiological investigations in anaesthetized mice (intracellular recordings of spinal motoneurons) after genetic manipulations. S/he will also participate in virus injections and immunohistochemical analysis. It should be noted that s/he will be trained by the project PI's, which are world leaders of the mouse in vivo intracellular electrophysiology, for an approximate time period of 6 months in order to be fully operational. Upon completion of this training, the successful candidate will be part of the small group of electrophysiologists with this rare expertise of paramount importance. The project will be made in collaboration with Prof. Francesco Roselli at Ulm University (Germany) who will provide scientific know-how for the virus engineering and the molecular biology component of the project. Prof. Roselli will contribute to the post-doc training.

We expect that the candidate has acquired a solid experience in electrophysiology during his/her PhD or a previous post-doc and has good knowledge in cell biology. The Working language is English and fluency in this language is required. The successful candidate will start as soon as possible. Interested candidates are welcome to ask for more details and to send their CV, short introduction letter, and two reference letters to baczykump@gmail.com and Daniel.Zytnicki@parisdescartes.fr

The position is funded by the Polish National Science Centre (NCN) for 3 years with a very attractive gross annual salary of 120,000 PLN , significantly exceeding the Polish average.

Job Information

Contract length: 36 months

Institution: Poznań University of Physical Education

Department: Department of Neurobiology

Starting date: The position is available immediately upon successful application

Contact Information

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Requirements for candidates

The applying candidates should fill the following criteria:

- have obtained a Ph.D. in the field of biological, neurobiological, or related sciences not more than 7 years prior to application
- have well documented scientific achievements in the field of biological, neurobiological, or related sciences.
- have experience in performing intracellular or patch-clamp recordings of neurons
- have experience in *in vivo*, *in vitro* or/and *ex vivo* electrophysiological studies of the nervous system
- have experience in surgical procedures.
- be fluent in English enabling good communication and publication of the experiment results in international journals
- have experience in the statistical analysis of electrophysiological data
- have knowledge of spinal networks physiology with a particular focus on spinal motoneurons
- have no medical contraindications for working with animals

The recruitment process is carried out by the Poznań University of Physical Education, in accordance with transparency procedures and clear unambiguous recruitment criteria, taking into account the relative level of applicants' scientific careers.