Laboratory of Neuromuscular Plasticity
at the Nencki Institute of Experimental Biology,
Polish Academy of Sciences
is currently seeking a post-doc in biology

We are currently seeking an enthusiastic scientist for a postdoctoral position in our Laboratory who will participate in the project titled: **"Spinal cord repair from endogenous stem cells in the spinal niche** (**NEURONICHE)".** This is a consortium project financed by the EU **program ERA-NET CoFund under Horizon 2020** (for more information see http://www.neuron-eranet.eu/en/). The team of our consortium comprises colleagues from the UK, Germany, Belgium, France and Poland, among them basic neuroscientists and neurosurgeons. For information and application please contact the Laboratory Head, Prof. Urszula Sławińska (u.slawinska@nencki.gov.pl). For more information about the Laboratory of Neuromuscular Plasticity see http://en.nencki.gov.pl/laboratory-of-neuromuscular-plasticity.

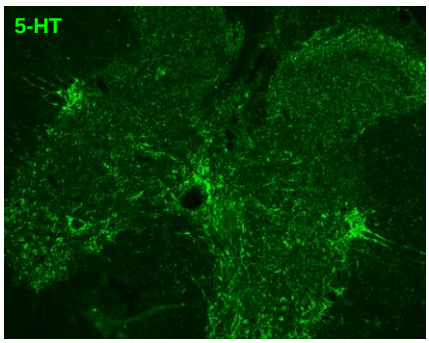
A goal of the consortium project is to identify the signals acting on stem cells in fish, and then to use them to improve the reaction of stem cells of humans (in a dish) and to promote spinal cord repair in rat models. In the course of the project, we will develop tools that will aid our research, but also contribute to the work of our colleagues in the consortium. This project will identify repair factors that could then be taken into clinical trials.

The group from Poland propose to use the intra-spinal grafting of the serotonergic neurons of embryonic origin that is known to enhance locomotor recovery (Sławińska et al., 2000, 2013, 2014) to investigate whether this strategy can also promote host neurogenesis as was described for descending serotonergic neurons in zebrafish by British group (Barreiro-Iglesias et al., 2015). We will also use our model to investigate which factors investigated by other groups in the European consortium can be useful to enhance grafted 5- HT neuron survival and growth of their axons in the spinal cord of paraplegic rats.

In order to move forward from the use of fetal tissue for intra-spinal grafting that has been successful in the past, our ambition is to derive 5-HT neurons in vitro from stem cells. For this purpose we are establishing a new unit for tissue culture equipped with new state-of-the-art equipment. The next important step will be to investigate whether these serotonergic neurons generated in vitro from stem cells are able to enhance recovery of hind limb locomotor movements in paraplegic rats as demonstrated with fetal raphe tissue. This important proof of concept will require us to develop in our lab a new experimental setup and method for neuronal culture in order to use stem cells as the source of 5-HT neurons for grafting.

The main task of the postdoctoral project will be to derive 5 HT neurons *in vitro* from stem cells and then to investigate whether these serotonergic neurons are able to enhance recovery of hind limb locomotor movements in paraplegic rats as demonstrated with grafted fetal raphe tissue

Qualifications:
- PhD degree in natural sciences (biology, biotechnology, medicine or related disciplines)
- Excellent interpersonal and communication skills
- Strong motivation to work
- Ability to work independently as well as in a collaborative team
- Willingness to learn new technologies
- Ability to communicate fluently in English
- General experience in laboratory work



Additionally it would be good to have background experience in :
- Cell culture in vitro
- Neuroanatomy - Immunohistochemistry
- Molecular biology
- Work with animals

The application should contain the following documents/information:
- A cover letter describing personal motivation to apply for this position (the letter should explain how your skills and interests overlap with the project goals, what you hope to gain from working with us and what you think you might uniquely bring to our team)
- Candidate's CV
- Copy of PhD diploma
- At least two reference letters by the candidate's advisor and another senior scientist should be send by e-mail to u.slawinska@nencki.gov.pl before the end of April 2017
- The candidates may include additional information or copies of documents/certificates in support of the application.

We offer:
- Employment at the Nencki Institute in Warsaw, an internationally recognized, top-ranked (A+) research institute of the Polish Academy of Sciences, distinguished by the EU Commission with the Excellence in Science award and the HR Excellence in Research logo.
- Work in a small but very dynamic research group of the Laboratory of Neuromuscular Plasticity (head prof. Urszula Sławińska) with members representing diverse interest and qualifications ranging from physics and electrophysiology through the physiology and microsurgery to micro- and molecular biology with ambitions to apply for new financial support.
- Work in well-equipped and modern laboratory with good funding from other grants.
- Standard salary for a postdoctoral position (starting from net 3 000 PLN/month with possibility to increase to 4 500 PLN/month during duration of employment). The postdoctoral position is planned for three years (June 2017 – May 2020).
- Possibility to collaborate with foreign research groups of Era-Net "NEURONICHE" consortium (The University of Edinburgh/Centre for Neuroregeneration (CNR), INSERM Montpellier, Centre for Regenerative Therapies and University Hospital, Dresden, Vrije Universiteit, Brussel) and others (current collaborator from University of Manitoba in Winnipeg)

Please send your application to: u.dziewulska@nencki.gov.pl

Please specify **"post-doc application"** in the subject line.

Application deadline: April 30th, 2017