

Call for Applications to the Doctoral School of the Ludwik Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences (IIET PAS) under Special Recruitment No. 3/2026 for an NCN Research Project

Recruitment is conducted in accordance with the Act of 20 July 2018 – Law on Higher Education and Science, the Regulations of the Doctoral School of the Ludwik Hirszfeld Institute of Immunology and Experimental Therapy, PAS, and the Recruitment Rules of the IIET PAS Doctoral School.

Recruitment Information

- **Announcement date:** August 18, 2026
- **Application deadline:** September 9, 2026
- **Interview date:** September 17-30, 2026
- **Recruitment results announced by:** September 30, 2026
- **Commencement of doctoral training:** October 1, 2026
- **Scientific discipline:** Biological Sciences
- **Number of positions:** 1
- **IIET PAS website:** hirszfeld.pl
- **Doctoral School website:** szkoladoktorska.hirszfeld.pl

If no formally correct applications are received by the application deadline, the recruitment period may be extended.

Information on the NCN Research Project

The doctoral project will be carried out within the framework of the NCN OPUS-29 research grant.

Grant title:

Identification of Age-Associated Hallmarks of Amyotrophic Lateral Sclerosis as a Basis for Discovering Novel Disease Modifiers

Project description

This project aims to identify age-associated mechanisms underlying amyotrophic lateral sclerosis (ALS), the most common motor neuron disease leading to progressive paralysis and premature death. As societies continue to age and neurodegenerative diseases become an increasing healthcare challenge, ALS remains incurable, with ageing representing one of its major risk factors.

The project seeks to develop and characterize innovative human ALS models that enable the investigation of molecular disease mechanisms in the context of ageing. Following validation of these models, advanced proteomic analyses will be performed to identify

age-dependent ALS-specific molecular signatures and potential disease modifiers. Selected candidates will undergo functional validation, and the project will be further expanded to investigate the contribution of astrocytes to neuronal pathology. Ultimately, the project aims to establish a unique research platform and generate knowledge that may facilitate the development of novel therapeutic strategies for ALS patients.

Principal Investigator

Dr. Agnieszka Krzyżosiak

Head of the Neurodegeneration Mechanisms Research Group
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Łukasiewicz – PORT Polish Center for Technology Development
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Doctoral Research Project

Proposed PhD thesis title: Investigation of Age-Dependent Disturbances in Cellular Proteostasis in Genetic Forms of ALS

Project description

The project will develop an innovative patient-derived cellular model of ALS that preserves key features of cellular ageing. The influence of selected ALS-associated genetic mutations on the development of pathological cellular phenotypes—including pathological protein accumulation and neuronal dysfunction—will then be investigated.

Particular emphasis will be placed on identifying mechanisms responsible for maintaining cellular proteostasis and determining how these processes become disrupted during disease progression. Based on these findings, the subsequent stage of the project will focus on identifying strategies to enhance cellular protein quality control systems in order to limit the development of ALS-associated pathological phenotypes.

The project will employ state-of-the-art methodologies, including human somatic cell reprogramming, high-throughput cellular analyses, biochemical and molecular biology techniques, microscopy and histological methods, as well as bioinformatics tools for data analysis and integration.

Research location

Neurodegeneration Mechanisms Research Group
P4Health Centre of Excellence
Łukasiewicz – PORT Polish Center for Technology Development

Supervisor:

Prof. Łukasz Łaczmański, DSc

Head of the Laboratory of Genomics and Bioinformatics
Ludwik Hirszfeld Institute of Immunology and Experimental Therapy
Polish Academy of Sciences
E-mail: lukasz.laczmanski@hirszfeld.pl

Candidate Requirements

Education

- Master's degree in Biological Sciences, Biotechnology, Medicine, or a related discipline.

Required qualifications

- Experience in the use of **in vitro** and/or **in vivo** models in biological research, including data analysis, report preparation, and presentation of research results.
- Experience in culturing neuronal cells.
- Strong interest in the cellular and molecular mechanisms underlying neurodegenerative diseases.
- Excellent organizational skills.
- Very good command of spoken and written English.

Additional Information

An NCN research scholarship may be awarded to individuals who do not hold a doctoral degree and who meet at least one of the following criteria:

- a) are enrolled in first-cycle, second-cycle, or long-cycle Master's studies at a higher education institution in Poland;
- b) are doctoral students enrolled in a doctoral school.

The NCN scholarship competition is conducted by a scholarship committee appointed by the head of the institution implementing the research project. The committee consists of the project leader as chairperson and at least two additional members with appropriate scientific or professional qualifications. At institutions with a doctoral student council, the project leader may appoint a representative of the council as an observer.

Further information:

https://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2019/uchwala25_2019-zal1.pdf

Responsibilities

- Establish and maintain human cellular models.
- Perform experiments and analyse and interpret research data.
- Report research progress to the project leader.
- Contribute to scientific publications and present research findings at scientific conferences.
- Maintain laboratory documentation according to the highest quality standards.
- Communicate and collaborate effectively within the research team.
- Contribute innovative ideas supporting the achievement of project objectives.

- Fulfil all obligations associated with doctoral training at the IIET PAS Doctoral School.

Required Application Documents

1. Application form (szkoladoktorska.hirszfeld.pl/rekrutacja/).
2. Documents specified in the **Recruitment Rules** (szkoladoktorska.hirszfeld.pl/zasady-rekrutacji/), §1, point 8, including in particular:
 - Master's diploma (or equivalent) together with the diploma supplement (for diplomas obtained outside the European Union, diploma and supplement legalization is required);
 - Proof of English language proficiency at **B2 level or higher**, provided in the form of an internationally recognized certificate or confirmation in the diploma supplement that English language coursework was completed during the study programme, or a certificate confirming that English was the language of instruction. This requirement does not apply to citizens of countries where English is an official language;
 - A motivation letter including a brief description of the candidate's scientific interests and justification for undertaking doctoral training and the proposed research project;
 - A declaration stating that, if admitted, the IIET PAS Doctoral School will be the candidate's only doctoral school;
 - A statement from the project leader confirming that the candidate meets the fundamental project-specific requirements.

Application Procedure

Applications may be submitted:

1. **Electronically** (preferred) to: sd.iitd@hirszfeld.pl, with the subject line: "**Recruitment 3/2026**". Originals of selected documents must be submitted before the commencement of doctoral training.
2. **In person** at the Main Office of the Ludwik Hirszfeld Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, 12 Weigla Street, Wrocław, between **9:00 a.m. and 3:00 p.m.**

Additional Information

For questions regarding the recruitment process or the Doctoral School:

sd.iitd@hirszfeld.pl

For questions regarding the doctoral research project:

agnieszka.krzyzosiak@port.lukasiewicz.gov.pl