

OPEN PhD Student POSITION

**[14/2026/IGC/PSD] Announcement concerning recruitment
to the Poznan Doctoral School of the Institutes of the Polish Academy of Sciences (PDS
IPAS)
as part of a research project**

The Director of the Institute of Human Genetics, Polish Academy of Sciences (IHG PAS),
and Principal Investigator of the research project, **Iwona Ziółkowska-Suchanek, assistant
professor**

gives notice of an open competition to be held for the position of
**PhD student-scholarship holder at the Poznan Doctoral School of the Institutes PAS,
in Department of Molecular Pathology IHG PAS**

Number of vacancies: **1**

I. General information

1. Department in which candidate will work: **Department of Molecular Pathology IHG PAS**
2. Discipline: **Medical Sciences**
3. Planned scholarship: **5500 PLN gross/per month (4900 PLN net/per month)**
4. Period of involvement in research project: **36 months**

The opportunity to begin studies on **October 1, 2026**

The candidate selected through the recruitment process will be admitted to the Poznań Doctoral School, provided that the Institute of Human Genetics of the Polish Academy of Sciences in Poznań receives funding from the OPUS LAP 30 (2025/59/I/NZ2/02573) titled "Hypoxia-Driven Metastatic Potential in NSCLC: Multi-Modal Transcriptomic Profiling in 3D and Orthotopic Models" to fund the fellowship for a period of 36 months.

5. Deadline for submission of documents: **7.09.2026**
6. Date of announcement: **29.07.2026**

The proposed study will be carried out within **the project OPUS LAP 2025/59/I/NZ2/02573**
financed by the National Centre of Science in Poland

Principal Investigator: Iwona Ziółkowska-Suchanek, PhD, assistant professor,
Project title: "Hypoxia-Driven Metastatic Potential in NSCLC: Multi-Modal
Transcriptomic Profiling in 3D and Orthotopic Models"

7. Description of research:

Non-small cell lung cancer (NSCLC) is the most common type of lung cancer. One of the key factors responsible for the resistance of cancer cells to treatment is hypoxia in the tumor microenvironment. This phenomenon affects approximately 50–80% of patients with stage I–IV

NSCLC and is a recognized poor prognostic factor. Despite intensive research into the biology of hypoxia, none of the proposed biomarkers has yet been implemented into routine clinical practice. The main objective of the project is to identify gene expression signatures characteristic of lung cancer cells that have experienced hypoxia and to assess their potential for metastasis. To this end, we will use a state-of-the-art permanent fluorescent labeling system that will enable the identification of cancer cells experiencing hypoxia. This will allow us to track their fate both in three-dimensional tumor spheroids cultured *in vitro* and in orthotopic mouse models *in vivo*. We will characterize NSCLC cells using advanced transcriptomic methods, including single-nucleus RNA sequencing, bulk RNA sequencing, and high-resolution spatial transcriptomics. These methods will allow us to determine which genes are activated or silenced in hypoxic cells, both at the single-cell level and within their natural tissue environment. By integrating data obtained from *in vitro* cultures, primary tumors, and metastases in *in vivo* mouse models, we will create a detailed map of the distribution of hypoxic cells within the tumor and identify changes in gene expression that may be responsible for the increased aggressiveness of cancer cells. The project will provide the first comprehensive picture of the changes occurring in lung cancer cells under the influence of hypoxia and will explain how this process promotes metastasis. The results obtained may contribute to the identification of new prognostic markers and potential therapeutic targets, supporting the development of more effective treatments for NSCLC.

Keywords: non-small cell lung cancer (NSCLC), RNA sequencing, spatial transcriptomics, gene expression profiling, hypoxia markers

Predicted tasks in the project:

- active participation in experimental work and the analysis of results
- presenting results at seminars and conferences in Poland and abroad
- preparing scientific publications
- supervising students

Opportunities:

- getting familiar with a molecular and cellular experimental techniques
- participation in national and international trainings, conferences and workshops
- working with a team engaged and enthusiastic about science

II. Requirements for candidates

- master's degree in biology, biotechnology, or a related field
- knowledge of molecular biology and genetics
- familiarity with basic molecular biology techniques and methods for working with RNA
- knowledge of cell culture
- experience with fluorescence imaging techniques is a plus
- very good command of spoken and written English
- high motivation and enthusiasm for working in research
- ability to work in a team

III. Required documents

1. CV, including research achievements, scientific activities, list of publications.
2. Cover letter featuring a short description of research interests, achievements and justification for the intention to commence education at the doctoral school.
3. Certified copy of the diploma confirming completion of a Master's Studies Programme, or a certificate of their completion (in the case of diplomas issued by foreign institutions, giving the right to apply for a doctoral degree in the country of origin. More information about foreign diplomas is available at: <https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies>.) If a document that raises doubts is submitted, the application will not be considered because the time required for its verification would make it impossible to complete the competition within the set deadline. We recommend a submission of the Individual Recognition Statement, obtained from the SYRENA system or another government institution, which can significantly speed up the recruitment process.

If the candidate does not have the above-mentioned documents, s/he is obliged to provide them before being admitted to Poznań Doctoral School IPAS.

4. Contact details of at least one current supervisor or other researcher who has previously agreed to issue an opinion about the candidate. The opinion should not be included in the application.
5. Application for admission to the Poznań Doctoral School IPAS, together with a consent to the processing of personal data for the purposes of the recruitment procedure plus a statement on his/her familiarity with recruitment regulations for the Poznań Doctoral School using form downloaded from: https://psd-ipan.ichb.pl/wp-content/uploads/2024/10/IHG_Application_for_admission_01_10_24.docx
Applications without the aforementioned content will not be considered.
6. Certificates or other documents indicating level of English language proficiency, if the candidate possesses any.

IV. Criteria for the evaluation of candidates

1. Candidate's scientific and professional experience based on his/her participation in:
 - conferences, workshops, training courses and internships
 - participation in research or commercial projects
 - involvement in scientific societies and associations
 - international and professional mobility
 - experience in other sectors, including industry
 - background knowledge in molecular biology.
2. Candidate's scientific achievements, based on study grades, scientific and popular science publications, scholarships; prizes and awards resulting from research carried out; student activity or other achievements.
3. Communication skills in English.

V. Announcement of results

Up to 45 days after the deadline of documents submission.

VI. Additional conditions

A condition of involvement in the project is participation in the Poznan Doctoral School of the Institutes of PAS (after passing the recruitment procedure). Details of the studies are available on <https://igcz.poznan.pl/en/phd-studies/poznan-doctoral-school-of-institutes-of-pas/> followed by the fulfillment of requirements as set out in the Regulations for Granting Scholarships in Research Grants Financed by the National Research Center are available on website: https://www.ncn.gov.pl/sites/default/files/pliki/uchwaly-rady/2019/uchwala25_2019-zal1_ang.pdf.

VII. Additional information

Address to which documents should be submitted by e-mail: phdstudies@igcz.poznan.pl with the number of the announcement: **14/2026/IGC/PSD** in the title of your message.

Additional information is available from:

- PI of the project: dr hab. Iwona Ziółkowska-Suchanek:
iwona.ziolkowska@igcz.poznan.pl
- Secretary for Scientific purposes: phdstudies@igcz.poznan.pl

APPLICATION SENT AFTER THE DEADLINE WILL NOT BE CONSIDERED

Once the recruitment process is finished, unsuccessful candidates will be informed about the scores they have obtained at each step of evaluation.

Refusal of admission to PDS IPAS takes place by way of an administrative decision. The candidate is entitled to submit a request for reconsideration of the decision to the Director of the Institute concerned.

Principal Investigator

Iwona Ziolkowska-Suchanek

DIRECTOR
Director of the Institute
Institute of Human Genetics
Polish Academy of Sciences

Prof. Małgorzata Gieřing, PhD