

**Call for a Doctoral Scholarship funded by the National Science Centre as part of the project
“The crosstalk between iron and omega-3 fatty acids metabolic networks:
dietary health benefits and risks”
Project No. 2025/57/B/NZ9/02908**

The Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences has been awarded the HR Excellence in Research logo by the European Commission in recognition of its implementation of the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

The Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences (IGAB PAS) in Jastrzębiec, Poland, invites applications for a PhD student position within the research project “The crosstalk between iron and omega-3 fatty acids metabolic networks: dietary health benefits and risks”, led by Dr. Magdalena Ogłuszka. We conduct research of high scientific and societal importance, focusing on understanding biological mechanisms that affect human and animal health—and we would be delighted to do so with you as part of our team!

The project aims to elucidate the mechanisms underlying the interactions between iron metabolism and omega-3 fatty acid metabolism and to determine their significance for whole-body homeostasis. Iron is an essential micronutrient involved in key biological processes. However, both iron deficiency, which may lead to anaemia, and iron excess, which may cause organ damage and metabolic disturbances, have serious health consequences. Moreover, because mammals lack an active mechanism for iron excretion, precise regulation of iron homeostasis is critically important.

A growing body of research indicates close links between iron metabolism and omega-3 fatty acids—molecules with important structural and regulatory functions that may influence, among other processes, ferroptosis and the development of metabolic diseases. Nevertheless, the molecular mechanisms underlying these interactions remain largely unknown.

The project is based on the hypothesis that iron and omega-3 fatty acid metabolism are functionally interconnected and that their mutual interactions affect key cellular processes, including the regulation of iron availability, cell membrane properties, and the response to oxidative stress.

The research will use an innovative fat-1 transgenic mouse model capable of endogenous omega-3 fatty acid synthesis, enabling the effects of omega-3 fatty acids to be investigated without the confounding influence of dietary supplementation. The findings will be complemented by studies in a pig model, which closely reflects human physiology and increases the translational potential of the project.

The project integrates approaches from physiology, molecular biology, genomics, and in vitro research, providing a comprehensive, multilevel framework for investigating the interactions between iron and lipid metabolism.

Discipline: animal science and fisheries / health sciences

Scope of tasks in the project

- Participation in experiments involving animal models (mice and piglets)
- Biochemical and molecular analyses, including blood parameters, oxidative stress, and inflammatory markers
- Analysis of tissue iron content and fatty acid profiles
- Bioinformatic data analysis



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- Participation in in vitro studies using cell lines and primary hepatocytes, including siRNA-mediated gene silencing
- Analysis of gene and protein expression, including Western blotting and immunofluorescence
- Analysis and interpretation of results and preparation of scientific publications

Requirements

- A Master's degree in biology, biotechnology, animal science, or a related field
- Basic knowledge of molecular biology and physiology
- Strong motivation to pursue scientific research
- Ability to work effectively in a team and good organisational skills
- Good command of spoken and written English (B2 level)

Desirable qualifications

- Laboratory experience in molecular biology, cell culture, work with laboratory animals, or data analysis

We offer

- Doctoral scholarship for a period of 4 years as part of the implementation of a research project in the amount of:
 - PLN 5,000 gross per month during years 1–2
 - PLN 6,500 gross per month during years 3–4 (after the mid-term evaluation)
- Attractive annual leave entitlement of 40 days
- Access to accommodation at preferential rates in the doctoral residence located on the Institute's campus
- Scientific development leading to the opportunity to obtain a doctoral degree

Application submission period: 13–27 August 2026

Announcement of recruitment results: 18 September 2026

Planned start date of the project: 1 October 2026

Additional information:

1. The application should include:
 - A motivation letter describing the applicant's scientific and research interests (maximum one A4 page)
 - A curriculum vitae, with particular emphasis on previous achievements
 - A copy of the Master's degree diploma or information on the expected date of obtaining the Master's degree
 - The personal data processing information and the signed consent form
 - Contact details of persons who may provide references
2. The documents should be sent by e-mail to both m.ogluszka@igbzpan.pl (Project Principal Investigator) and application@igbzpan.pl from 13 to 27 August 2026. Please use the following subject line: "MAGOGL Candidate; Applicant's full name".
3. Selected candidates who meet the formal requirements and the project criteria will be invited to an interview. Details of the interview will be sent to the invited candidates by e-mail.
4. Please note that the Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences does not return submitted documents.



5. This admissions procedure is equivalent to the admissions process for the Doctoral School of Animal and Health Sciences at IGAB PAS. Doctoral students admitted to the Doctoral School are required to comply with the School regulations <https://www.igbzpan.pl/uploaded/FSiBundleContentBlockBundleModelTranslatableBlockTranslatableFilesElement/filePath/2807/regulamin-szkoly-doktorskiej-nauk-o-zwierzetach-i-zdrowiu2026.pdf>

INFORMATION OBLIGATION

1. The administrator of personal data collected during the recruitment process is the Institute of Genetics and Animal Biotechnology of the Polish Academy of Sciences, entered into the register of institutes of the Polish Academy of Sciences (kept by the Polish Academy of Sciences) under the number RIN-V-32/98, NIP no. 1230018381, REGON no. 000326196, address: Jastrzębiec, ul. Postępu 36A, 05-552 Magdalenka.
2. Personal data provided to the Administrator by the participants of the recruitment process will be processed in accordance with the provisions of the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ.EU.L. of 2016 No. 119/1, hereinafter referred to as "GDPR").
3. According to art. 5, 6, 7 and 13 of GDPR, the Administrator informs that:
 - a. Personal data provided by the participant of the recruitment process will be processed on the basis of art. 6 par. 1 letter a) of GDPR, i.e. on the basis of their consent and pursuant to art. 22¹ of the act of 26 June 1974 Labour Code (Journal of Laws 2018.917).
 - b. The following personal data are processed during the recruitment process: first name(s) and surname, image, names of parents, date of birth, place of residence (correspondence address), education, other personal details of the employee, including names and surnames and dates of birth of the employee's children if such data is necessary for the employee's use of special rights provided for in the labour law, the employee's PESEL number assigned by the Government Information Center of the Universal Electronic System for Registration of the Population (RCI PESEL), telephone number and e-mail address.
 - c. The person involved in the recruitment process has the right to request access to personal data, correct or remove it, as well as limit its processing, oppose to data processing, the right to transfer data and the right to submit a complaint to the supervisory body.
 - d. The person participating in the recruitment process has the right to withdraw consent to the processing of data at any time, which does not affect the legality of the processing which had been carried out on the basis of consent granted before its withdrawal.
 - e. Providing personal data by a person participating in the recruitment process is voluntary, however, the failure to provide it may prevent this process from being carried out.
4. In all matters related to the processing of personal data of persons participating in the recruitment process, please contact the Institute in writing at the following address: daneosobowe@igbzpan.pl.