INSTITUTE OF PLANT GENETICS POLISH ACADEMY OF SCIENCES

Strzeszynska 34, 60-479 Poznan

Tel.: 61 6550200, secretary: 61 6550255 E-mail: office@igr.poznan.pl www.igr.poznan.pl/en/home-en/
VAT EU: PL7811621455 REGON: 000326204 BDO: 000017736

Recruitment for the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences at the Institute of Plant Genetics, PAS in Poznan
Procedure no. 17/2025/IGR/PSD

INSTITUTION:	Institute of Plant Genetics, Polish Academy of Sciences
CITY:	Poznan
POSITION:	PhD student
POSITIONS AVAILABLE:	1
SCIENTIFIC DISCIPLINE:	agricultural sciences
PUBLICATION DATE:	09.07.2025
APPLICATION DEADLINE:	09.08.2025
IPG PAS WEBSITE:	https://www.igr.poznan.pl/en
PDS IPAS WEBSITE:	http://www.psd-ipan.ibch.poznan.pl/index-en.html

KEYWORDS: genetics, genomics, proteomics, bioinformatics, gene expression, functional divergence of genes and proteins, protein complexes, environmental stress, oilseed rape.

Research topic: The main objective of the project is to characterize the dynamics of proteome changes and differences in protein interaction networks associated with two BnaABI1 proteins (type 2C protein phosphatases) under drought and salt stress in oilseed rape (*Brassica napus* L.). Within the project we will analyze physiological characteristics and differences in the composition of protein complexes associated with the two BnaABI1 isoforms under stress conditions. This will allow the identification of new components involved in the regulation of plant stress responses and in the improvement of tolerance to unfavorable environmental conditions. The data collected will provide a valuable basis for the construction of the first interaction map (interactome) of BnaABI1 in oilseed rape. Knowledge of the full spectrum of protein–protein interactions that are dependent on environmental stimuli is essential for a better understanding of the signaling networks and dynamic cell states of living organisms under stress.

Principal Investigator: dr hab. Danuta Babula-Skowrońska

DESCRIPTION:

Place of employment: Department of Plant Physiology, Polish Academy of Sciences

Supervisor: dr. hab. Danuta Babula-Skowrońska

Goal of employment: implementation of the project OPUS 26 no. 2023/51/B/NZ9/01614

Scope of research: The doctoral thesis will focus on the characterisation of the dynamics of proteome changes and differences in protein interaction networks associated with two ABI1 proteins under drought and salt stress in oilseed rape (*Brassica napus* L.). The proteomic and transcriptomic analyses will be performed to investigate the changes in the proteome of oilseed rape plants exposed to

drought and salt stress. The data obtained will be compared with physiological responses and transcriptomic changes observed under these stress conditions. Subsequently, protein interaction networks related to two BnaABI1 isoforms (type 2C protein phosphatases) will be analysed. Finally, the role of BnaABI1 isoforms in the functional regulation of target proteins will be analysed, in particular their involvement in dephosphorylation and protein stability. These analyses will be performed in wild-type plants, transgenic lines overexpressing selected *BnaABI1* genes and in selected mutants.

Duties in the project: Engaging in scientific research on plant materials in accordance with the established plan in collaboration with colleagues within the Department, including the development and interpretation of the results. Moreover, the PhD candidate will participate in the preparation of scientific publications and conference presentations, as well as contribute to the ongoing research initiatives conducted within the Department.

Requirements for the candidates:

1. Master's degree in Biology, Biotechnology, or in related fields
2. Persons who do not have the qualifications referred to in paragraph 1 may participate in the recruitment procedure; however, they must acquire them before commencing their training at the Poznań Doctoral School of Institutes of the Polish Academy of Sciences.
3. Knowledge of genetics, molecular biology, genomics and proteomics as well as a basic understanding of the research topics of the project.
4. Experience in laboratory work with molecular biology techniques (experience in isolation and identification of genes and proteins as well as in sequence analysis is welcome).
5. Basic knowledge of gene expression regulation in eukaryotic organisms.
6. Ability to use MS Office software, including Word and Excel.
7. At least good knowledge of spoken and written English.
8. Independence in performing experiments and teamwork skills.
9. Candidates who are citizens of countries outside the European Union must provide current documentation verifying their right to reside in Poland.
10. Readiness to start research no later than one month after the publication of recruitment results.
11. Knowledge of R/Python or related programming languages is welcome.
12. Additional scientific activity (publications, conference communications, and other forms of presenting results, participation in projects, scientific groups, etc.) and organizational activity (e.g., organizing workshops, training, and conferences) are welcome.

Additional information:

1. Research and doctoral theses shall be carried out within the OPUS 26 project no. 2023/51/B/NZ9/01614, entitled “Determination of the dynamics of changes in protein networks interacting with selected isoforms of the protein phosphatase BnaABI1 under drought and salt stress in oilseed rape (*Brassica napus* L.)”, funded by National Science Centre, Poland.
2. The PhD student will receive a scholarship in the amount of PLN 4270,00 gross/PLN 3700,00 net, for a period of 24 months. After a positive mid-term evaluation, the PhD scholarship will increase to PLN 5340,90 gross/PLN 4739,00 net for a period of 24 months.
3. PhD students shall be subject to social insurance, pursuant to the article. 6 section 1 passage 7b of the act of October 13th, 1998, on the social insurance system (Journal of Laws of 2019, items 300, 303, and 730).

Required documents:

1. Application for admission to PDS IPAS along with the consent for processing personal data upon the recruitment procedure and a statement on having acknowledged the regulations of recruitment for PDS IPAS, using form downloaded from https://www.igr.poznan.pl/en/main-ids-konkursy-oferty-do-psd-ipan

2. Certified copy of the diploma confirming graduation or a certificate confirming graduation (in the case of diplomas issued by foreign higher education schools, diploma stipulated in article 326, section 2, passage 2 or article 327, passage 2 of the act of July 20th, 2018 – Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended), entitling to apply for conferment of a doctoral degree in the state in where such a certificate was issued by the relevant higher education school. In the event when the candidate is not in possession of the aforementioned documents, he/she is obliged to submit them prior to admission to PDS IPAS. Additional information on foreign school diplomas are available at: https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies
   ATTENTION: at the stage of the recruitment process, there is no requirement to present documents certified by the apostille clause nor the requirement of nostrification of diplomas. These requirements must be met if the candidate is accepted.
3. Scientific CV encompassing track record of previous education and employment, information on involvement in scientific activities (participation in student research groups, attendance at scientific conferences, accomplished internships and training, awarded prizes and distinction), and list of publications.
4. Cover letter featuring a short description of research interests, achievements, and justification for the intention to commence education at the doctoral school.
5. Certificates or other documents confirming the degree of proficiency in English, if the candidate is in possession of such materials.
6. Contact details of at least one, previous scientific supervisor or another researcher who is entitled to issue an opinion on the candidate.

Documents in the electronic form (in 1 pdf file) must be sent by e-mail to **psd@igr.poznan.pl** with the following title: **PhD student – Plant Physiology Team**, supplemented by the **number of the procedure: 17/2025/IGR/PSD.**

The submission deadline is 09.08.2025

Criteria for evaluation of candidates:

1. Candidate's research achievements, pursuant to the grades obtained in the course of studies, scientific publications, awarded scholarships and distinctions resulting from conducting scientific research or student activities or other achievements.
2. Candidate's scientific and professional experience, pursuant to participation in conferences, workshops, training sessions, and internships, implementation of research and commercial projects, involvement in scientific trusts and societies, international and professional mobility, and experience in other sectors, including industry.
3. Candidate's knowledge of the following disciplines: horticulture and agriculture, agriculture sciences.
4. Knowledge of the subject matter described in the recruitment advertisement.

The description of the recruitment process is stipulated in the Regulations of Recruitment for PDS IPAS. Following the recruitment procedure, the unadmitted candidates shall be informed on the number of points obtained at both stages.

For additional information, please contact:

Principal Investigator: dr hab. Danuta Babula-Skowrońska

e-mail: dbab@igr.poznan.pl

Announcement of the results: Within one month from the deadline for applications.

Information clause:

Pursuant to Regulation (EU) 2016/679 of the European Parliament and of the Council 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 (hereinafter General Data Protection Regulation - GDPR), the Employer informs that:

a) the administrator of personal data obtained, collected and processed as a part of the implementation of this agreement is the Institute of Plant Genetics, Polish Academy of Sciences, 34 Strzeszyńska str., 60-479 Poznań,
b) contact with the inspector of personal data protection of the Institute of Plant Genetics, Polish Academy of Sciences in Poznan, is possible at the following e-mail address: iodo@igr.poznan.pl,
c) the basis for data processing is art. 6 par. 1 letter b) and c) of the Regulation referred to above,
d) all personal data provided to the Employer will be kept for the duration of the contract and for a period of 5 years after its completion,
e) in relation to the personal data obtained, the Employer will not make decisions in an automated manner,
f) The Employee is entitled to:based on Article.
   - 15 GDPR - access to personal data
   - based on Article. 16 GDPR - rectify personal data;
   - based on Article. 18 GDPR - request the administrator to restrict the processing of personal data, except to the cases referred to in art. 18 para. 2 GDPR;
   - the right to file a complaint to the President of the Office for Personal Data Protection, if the Employee considers that the processing of personal data by the Employer violates the provisions of the GDPR.