

**Recruitment for the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences
at the Institute of Bioorganic Chemistry, PAS in Poznań
Procedure no. 10/2025/ICHB/PSD**

INSTITUTION: Institute of Bioorganic Chemistry, PAS
CITY: Poznań
POSITION: PhD student
POSITIONS AVAILABLE: 1
SCIENTIFIC DISCIPLINE: biological sciences
PUBLICATION DATE: 14.05.2025
APPLICATION DEADLINE: 15.06.2025
IBCH PAS WEBSITE: <https://portal.ichb.pl/homepage/>
PDS IPAS WEBSITE: <https://psd-ipan.ichb.pl/index.php/en/home/>

KEY WORDS baruol synthase, gene duplication, genetic variation, metabolic gene clusters, gene expression, plant microbiome, Arabidopsis, cloning

Research topic Genetic and functional analysis of the baruol biosynthesis gene cluster biosynthetic cluster in Arabidopsis thaliana plant

Principal Investigator: Assoc. Prof. Agnieszka Żmieńko, PhD

I. Project description

Specialized metabolites are an extremely diverse group of molecules with a wide range of biological activities. We are still learning the important role they play in the communication between the plants and their environment. These metabolites may impose direct effects, e.g. as repellents, but they can also participate in signaling pathways. Moreover, some specialized metabolite biosynthetic pathways are crucial for plant development. We have recently described a previously unknown gene, BARS2 in the Arabidopsis thaliana genome, which arose by duplication of another poorly characterized gene, BARS1. Both genes are probably involved in the metabolism of important compounds named triterpenes, which in turn may be important for plant growth and its interactions with the soil bacteria. We demonstrated that copy number variation of BARS genes is associated with significant variation in climate preferences and root growth rates of natural A. thaliana ecotypes. The aim of the current project is to provide a detailed structural and functional characterization of both genes under different conditions and at different levels of expression, both in the natural ecotypes as well as in the mutants with the non-functional or additional copy of BARS1/BARS2 genes, which we plan to obtain as a part of the project realization.

Additional information:

1. Research and doctoral theses shall be carried out within the project 2024/53/B/NZ2/02784, entitled "Evaluation of the role of genes BARS1 and BARS2, which encodes novel oxidosqualene synthase, in the natural diversity of Arabidopsis growth and adaptation to environmental conditions", funded by National Science Centre.
2. PhD students shall receive a stipend in the gross amount of ca 4,300 PLN gross (3,800 PLN net) for the period of 40 months with the possibility of extending up to 48 months, and with the possibility of increasing the amount of the stipend after the mid-term evaluation (in accordance with the current regulation of the Minister - 5340.90 PLN gross).
3. PhD students shall be subject to social insurance, pursuant to article. 6 sect

- ion 1 passage 7b of the act of October 13th, 1998 on the social insurance system (Journal of Laws of 2019, item 300, 303 and 730).

II. Requirements for the candidates:

- MSc degree in biology or a related field, or fulfilling the conditions stipulated in article 186, section 2 of the act of July 20th, 2018 Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended).
- Experience in laboratory work in the field of molecular biology or experience in bioinformatics is welcome
- Good basic knowledge of molecular biology, genetics, genomics and epigenomics.
- Knowledge of English at a level that allows reading professional literature in biological sciences and communicating
- High motivation for research work and scientific development
- Interest in the project's topic
- Good work organization.

Candidates who do not meet the conditions described in p.1 are allowed to apply for the position, but the conditions must be fulfilled before starting the work on the project and no later than till the end of September 2025

III. Duties in project:

- Database and publication mining
- Participating in planning the experiments
- Conducting experiments, in particular, plant growth and treatments, biological material extractions, gene expression analyses, participation in mutant generation and analysis
- Analyzing and documenting results
- Collecting metadata
- Participating in scientific manuscript writing
- Participating in dissemination of the project results

IV. Required documents:

- 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: [IBCH Application for admission](#)
Applications without the aforementioned constant will not be considered.
- Certified copy of the diploma confirming graduation or a certificate confirming graduation (in the case of diplomas issued by foreign higher education schools - the diploma entitling to apply for conferment of a doctoral degree in the state of origin). 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>. 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, such as the Regional Authentication Center, **which can significantly speed up the recruitment process.**
- The candidate will be obliged to present the originals of the aforementioned documents before or on the day of commencement of the education at the doctoral school PDS IPAS.

4. 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.
5. Cover letter featuring a short description of research interests, achievements and justification for the intention to commence education at the doctoral school.
6. Certificates or other documents confirming the degree of proficiency in English, if the candidate is in possession of such materials.
7. Contact details of at least one, previous scientific supervisor or another researcher who is entitled to issue an opinion on the candidate.

V. Applications should be submitted via the eRecruiter portal at

<https://system.erecruiter.pl/FormTemplates/RecruitmentForm.aspx?WebID=346801a03cd0496ebb53dea528a9ee76>

VI. Submission deadline is June 15th, 2025.

VII. 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, experience in other sectors, including industry.
3. Candidate's knowledge on the following discipline: biological sciences.
4. Knowledge of the subject matter described in the recruitment advertisement.

VIII. The recruitment procedure shall be concluded no later than July 31st, 2025

The results of recruitment will be announced at the PDS IPAS website: <https://psd-ipan.ichb.pl/index.php/en/home/>

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

For additional information please contact the Principal Investigator:

Assoc. Prof. Agnieszka Żmieńko.

e-mail: akisiel@ibch.poznan.pl.

Information clause:

Pursuant to the stipulations of the 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 (General Data Protection Regulation), further referred to as GDPR, we hereby inform that:

- The Institute of Bioorganic Chemistry, Polish Academy of Sciences, seated in Noskowskiego St. 12/14, 61-704 Poznan; REGON 000849327, NIP 777-00-02-062 is the administrator of the collected personal data (further referred to as the Institute).
- The Administrator appointed a Data Protection Officer, who can be contacted in writing, via traditional mail, by sending a letter to the following address: Z. Noskowskiego St. 12/14, 61-704 Poznan, or by sending an e-mail to: dpo@ibch.poznan.pl.
- The personal data of the candidates is processed for the purposes of fulfilling the tasks of the administrator, associated with conducting the recruitment procedure for a vacant position.
- The legal basis for processing personal data is the Act of 26 June 1974 – The Labor Code, Act of 30 April 2010 on the Polish Academy of Sciences or the consent of the person whose data shall be subjected to processing.
- Your personal data shall be subjected to processing for period of 3 months upon the date of decision of the recruitment committee. Following this period, the data will be irretrievably and effectively destroyed.
- The personal data of the candidates shall not be transferred to any third country.
- The person whose data shall be subjected to processing has the right to:
 - request access to his/her personal data, and to amend it or delete it, pursuant to articles 15-17 of GDPR;
 - limit data processing, in the events stipulated in article 18 of GDPR;
 - data transferring, pursuant to article 20 of GDPR;
 - withdraw consent at any moment, without influencing compliance with the law of the processing that was executed prior to consent withdrawal;
 - file a complaint to the Inspector General for Personal Data Protection.

Providing personal data in the scope stipulated in article 22 (1) of the Act of 26 June 1974 – The Labor Code is mandatory, whereas providing data in a broader scope is voluntary and requires consent for its processing.

Protection for whistleblowers

In the case of reporting violations using a dedicated system for whistleblowers, the reporting person's data will be processed in accordance with applicable provisions on the protection of personal data, including the above-mentioned Regulation (EU 2016/679 of 27 April 2016). We ensure confidentiality and protection of the identity of reporting persons, and that their data will not be disclosed without their consent, unless the law provides otherwise.

Detailed rules regarding the protection of personal data and procedures for reporting violations of the law can be found in our Regulations on internal reporting at the Institute of Bioorganic Chemistry, Polish Academy of Sciences, available at the link:

<https://portal.ichb.pl/wp-content/uploads/2024/10/INTERNALREPORTINGREGULATIONS.pdf>