



INSTITUTE OF PLANT GENETICS POLISH ACADEMY OF SCIENCES

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Recruitment to the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences at the
Institute of Plant Genetics, PAS in Poznań
Procedure no. 15/2026/IGR/PSD

PhD CANDIDATE IN AN NCN OPUS 27 PROJECT

Genetics, genomics and bioinformatics of flowering in lupins

INSTITUTION: Institute of Plant Genetics, Polish Academy of Sciences
CITY: Poznań
POSITION: PhD candidate
POSITIONS AVAILABLE: 1
SCIENTIFIC DISCIPLINE: agriculture and horticulture
PUBLICATION DATE: 11.08.2026
APPLICATION DEADLINE: 11.09.2026
IPG PAS WEBSITE: <https://www.igr.poznan.pl/en/>
PDS IPAS WEBSITE: <https://psd-ipan.ichb.pl/>

KEYWORDS: genetics, genomics, bioinformatics, genotyping, phenotyping, QTL mapping, gene expression, regulation of flowering induction, vernalisation, photoperiod, lupin.

Research topic: The project aims to uncover pathways controlling flowering induction, responses to vernalisation and adaptation to changing environmental conditions in New World lupins (NWLs), and to compare them with mechanisms described in Old World lupins (OWLs). The research will help elucidate genetic and evolutionary relationships among species and the mechanisms shaping diversity and adaptation across the genus *Lupinus*. The findings will contribute to a global model of flowering and vernalisation that could support breeding programmes using wild lupin species and the development of new sources of plant protein.

Principal Investigator: dr Sandra Rychel-Bielska

Position description

Place of employment: Department of Gene Structure and Function, Institute of Plant Genetics, Polish Academy of Sciences

Scientific supervision: dr hab. Michał Książkiewicz (supervisor) and dr Sandra Rychel-Bielska (co-supervisor)

Purpose of the position: implementation of the OPUS 27 project no. 2024/53/B/NZ9/01796

Scope of research: The doctoral research will test the hypothesis that the molecular mechanisms underlying the response to vernalisation in New World lupins resemble those described in OWLs, while the rapid evolution that occurred in the Andes may have led to additional changes specific to NWLs. The work will include observations of successive phenological stages, collection of plant material, whole-genome DNA sequencing, genotyping using DArT-seq and RAD-seq, and molecular and bioinformatic analyses, including differential gene expression analysis, RT-qPCR, synteny analysis and the identification of genome

rearrangements. The results will help describe previously unknown mechanisms controlling flowering induction and provide new insights into the evolution of the genus *Lupinus*.

Responsibilities in the project

- Conducting research on plant material in accordance with the project plan;
- Processing, analysing and interpreting the results;
- Collaborating with members of the Department of Gene Structure and Function;
- Contributing to scientific publications and conference presentations.

What we offer

- Participation in an interdisciplinary NCN OPUS 27 project combining genetics, genomics, phenotyping and bioinformatics;
- Scientific guidance from a supervisor and co-supervisor, together with collaboration within the Department of Gene Structure and Function;
- Opportunities to develop practical skills in molecular biology, genetics, genomics, plant breeding, genotyping and genomic data analysis;
- Participation in data interpretation and the preparation of scientific publications and conference presentations;
- Doctoral training at PDS IPAS and completion of the PhD project at IPG PAS in Poznań;
- A doctoral scholarship for 48 months, subject to the terms and amounts specified below.

Candidate profile

Essential requirements

1. Master's degree in biology, biotechnology or a related discipline.
2. Basic knowledge of genetics, including genetic mapping and quantitative trait locus (QTL) mapping.
3. Basic knowledge of gene-expression regulation in eukaryotic organisms.
4. Ability to use MS Office applications, particularly Word and Excel.
5. At least a good command of spoken and written English.
6. Applicants from outside the European Union must be prepared to provide documents confirming their right to reside in Poland or a written statement confirming their ability to begin on-site work on the project within the required timeframe.
7. Readiness to start the research no later than one month after the recruitment results are announced.

Desirable qualifications

- Laboratory experience in molecular biology, particularly PCR and DNA/RNA isolation.
- Knowledge of the molecular mechanisms controlling flowering induction in plants.
- Experience in bioinformatics, including basic sequence-analysis tools and publicly available genetic-resource databases.
- Knowledge of R, Python or related programming tools.
- Additional scientific activity, such as publications, conference presentations, participation in projects or student research groups, and organisational activity, such as organising workshops, training courses or conferences.

Conditions of the doctoral project

1. The research and doctoral work will be carried out within the NCN-funded OPUS 27 project no. 2024/53/B/NZ9/01796, entitled "Journey of a thousand miles along the vernalization paths of the Old and New World lupins".
2. The PhD candidate will receive a doctoral scholarship of PLN 4,270.00 gross / PLN 3,700.00 net for the first 24 months. Following a positive mid-term evaluation, the scholarship will increase to PLN 5,340.90 gross / PLN 4,739.00 net for the subsequent 24 months.

3. The PhD candidate will be covered by social insurance pursuant to Article 6(1)(7b) of the Act of 13 October 1998 on the Social Insurance System (Journal of Laws of 2019, items 300, 303 and 730).

Required documents

Mandatory documents are underlined.

1. Application for admission to PDS IPAS, including consent to the processing of personal data for the purposes of the recruitment procedure and a statement confirming that the applicant has read the PDS IPAS recruitment regulations, using the form available at:

Current application form and regulations: <https://psd-ipan.ichb.pl/>

2. Copy (scan) of the diploma confirming completion of higher education, or a certificate confirming completion. For diplomas issued by a foreign higher-education institution, the document must be a diploma referred to in Article 326(2)(2) or Article 327(2) of the Act of 20 July 2018 - Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended), which entitles its holder to apply for a doctoral degree in the country in whose higher-education system the issuing institution operates. If the candidate does not yet possess the required document, it must be submitted before admission to PDS IPAS. Further information on foreign diplomas is available from NAWA: [recognition for academic purposes](#).

NOTE: At the recruitment stage, documents do not need to bear an apostille and foreign diplomas do not need to be formally recognised in Poland. These requirements must be met only if the candidate is admitted.

3. Scientific Europass CV describing the candidate's education and employment history, involvement in scientific activities (including student research groups, scientific conferences, internships and training), awards and distinctions, and list of publications. Further information is available at [Europass](#).
4. Cover letter presenting a brief description of research interests and achievements and explaining the candidate's motivation to undertake doctoral training.
5. For candidates from outside the European Union: current documents confirming the right to reside in Poland, or a written statement confirming the ability to begin on-site work on the project no later than one month after the recruitment results are announced.
6. Certificates or other documents confirming proficiency in English, if available (optional).
7. Contact details of at least one previous scientific supervisor or another researcher who can provide a reference for the candidate.

Electronic documents, combined into a single PDF file, must be sent to work@igr.poznan.pl. The subject line must read "PhD candidate - Department of Gene Structure and Function", and the procedure number 15/2026/IGR/PSD must be included in the body of the message.

Application submission deadline is 11.09.2026

Candidate evaluation criteria

1. The candidate's academic achievements, based on grades obtained during their studies, scientific and popular-science publications, scholarships, awards and distinctions related to research, student activity or other achievements.
2. The candidate's scientific and professional experience, including participation in conferences, workshops, training courses and internships; involvement in research or commercial projects, scientific societies or student research groups; and international or professional mobility.
3. The candidate's knowledge of agriculture and horticulture.
4. Knowledge of the research area described in this recruitment announcement.

NOTE: The Europass CV should be completed clearly and systematically. The education section should include at least the full name of the institution, the graduation date and the title of the master's thesis. The professional-experience section should state the exact period, role and principal responsibilities for each activity. Entries concerning workshops, training courses and internships should include the dates, the organisation's full name and the name of the scientific supervisor or lecturer. Conference and publication records should contain complete bibliographic information and DOI numbers. Only clearly and fully described information will be evaluated; incomplete entries will not be scored.

The recruitment procedure is described in the PDS IPAS Recruitment Regulations. After the procedure has been completed, unsuccessful candidates will be informed of the points awarded at each stage.

Contact

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Announcement of the results: no later than one month after the application deadline.

Information clause

Pursuant to Article 13 of 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 (the General Data Protection Regulation, hereinafter: GDPR), please be informed that:

- a) The controller of the personal data collected is the Institute of Plant Genetics, Polish Academy of Sciences (hereinafter: IPG PAS), 34 Strzeszyńska Street, 60-479 Poznań, REGON 000326204, NIP 7811621455.
- b) The Data Protection Officer of the Institute of Plant Genetics, Polish Academy of Sciences may be contacted at iodo@igr.poznan.pl.
- c) Personal data are processed for the purpose of carrying out the Controller's tasks associated with recruitment for the vacant position.
- d) When applying for a specific position, personal data are processed pursuant to Article 6(1)(c) GDPR in conjunction with Articles 22¹-22^b of the Polish Labour Code. Where necessary for the establishment, exercise or defence of legal claims, processing is based on the Controller's legitimate interests pursuant to Article 6(1)(f) GDPR.
- e) Personal data collected during the current recruitment procedure will be retained for one year after the procedure has ended in case of potential claims. After this period, the data will be securely destroyed so that they can no longer be accessed or restored.
- f) If a candidate is selected, their personal data will be transferred to the administration of IPG PAS for the purpose of establishing an employment relationship. The selected candidate's data will then be processed for the performance of a contract to which the candidate is party and in order to take steps at the candidate's request before entering into that contract, pursuant to Article 6(1)(b) GDPR.
- g) IPG PAS will not make decisions based solely on automated processing of the personal data obtained.
- h) Personal data will not be transferred to a third country.
- i) A candidate whose personal data are processed has the following rights:
 - i. the right to access and rectify their personal data;
 - ii. the right to request restriction of processing or erasure of their personal data;
 - iii. the right to object to the processing of their personal data;
 - iv. the right to lodge a complaint with the President of the Personal Data Protection Office.