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**Recruitment for the Poznań Doctoral School of the Institutes of the Polish Academy of Sciences
at the Institute of Plant Genetics, PAS in Poznań
Procedure no. 4/2022/IGR/PSD**

INSTITUTION: Institute of Plant Genetics, PAS
CITY: Poznań
POSITION: PhD student
POSITIONS AVAILABLE: 1
SCIENTIFIC DISCIPLINE: Agricultural Science
PUBLICATION DATE: 02.02.2022 r.
APPLICATION DEADLINE: 02.04.2022 r.
IPG PAS WEBSITE: <http://www.igr.poznan.pl/pl/main-pl/ids-pl/konkursy>
PDS IPAS WEBSITE: <http://www.psd-ipan.ibch.poznan.pl/>

KEY WORDS: evolution, domestication, molecular phenotyping, seed size, legumes, lupin, common bean

Research topic: The main goal of the Project is to construct a model that identifies gene regulatory networks that underlie seed-size variations in the legumes – lupin (*Lupinus albus* L.) and common bean (*Phaseolus vulgaris* L.) – through research into their evolutionary and domestication events. The following specific questions will be posed:

- 1) How have gene expression and gene co-expression networks (i.e., the gene regulatory architecture) been modified in relation to phenotypic changes in seed size during the different steps of evolution in white lupin and common bean?
- 2) How does transcriptional expression control metabolite variations (molecular phenotyping), and how do core gene co-expression networks control phenotypic seed variations?
- 3) Has convergent phenotypic evolution resulted from similar or different histological and molecular bases (e.g., are the same genes, or networks, under selection, or are these different genes?), and are the genetic architectures responsible for the same phenotypes across different species?

The project is lead in cooperation with Prof Roberto Papa (Università Politecnica delle Marche, UNIVPM, Ancona, Italy), Prof Alisadir Fernie (Max Planck Institute of Plant Physiology, Potsdam, Germany), and Prof Robert Goldberg (University of California, Los Angeles, USA).

Principal Investigator: dr hab. Karolina Susek.

DESCRIPTION:

Place of employment: Institute of Plant Genetics, Polish Academy of Sciences, Legume Genomics Team

Supervisor: dr hab. Karolina Susek. Optional Co-supervisor: Project partner.

Goal of employment: Participation in the implementation of research projects that are focused on the mechanisms underlying seed-size variations in legumes, in the framework of the Project OPUS 18 (No. 2019/35/B/NZ8/0428; https://projekty.ncn.gov.pl/en/index.php?projekt_id=465910).

Date of running the Project research: 48 months. Date of the start of work: to be agreed.

Scope of research: Conducting scientific research using of molecular biology techniques (PCR, DNA/RNA isolation, real-time PCR) and microscopy, analysis of sequence data to identify candidate genes, functional analysis of genes involved in seed-size variations, co-participation in metabolic analyses, conducting research in an international research community.

Duties in the project: Planning and carrying out the research at a high scientific level, preparing manuscripts for publication in reputable scientific journals and other forms of result presentations (e.g., scientific conferences, scientific visits to Project partner institutions), active participation in meetings with Project partners.

Requirements for the candidates:

1. Experience in laboratory work using molecular biology techniques.
2. Knowledge of microscopy techniques; i.e., laser microdissection system of plant tissues to prepare material for further analyses (nucleic acid sequencing).
3. Experience in plant genetic engineering, construction of vectors, plant tissue culture, gene transfer, molecular characterization of transgenic plants.
4. Experience in bioinformatics analyses will be an additional and welcome skill.
5. Research mobility: internships, workshops, training, etc.
6. Good command of the English language.
7. Ability to independently plan work and conduct experiments.
8. Ability to work individually and in a team, as well as with Project partners.

Additional information:

1. Research and doctoral theses shall be carried out within the OPUS 18 2019/35/B/NZ8/0428, entitled pt. “Genetic architecture of plant seeds: an evolutionary approach to identify the molecular basis of phenotypic variation in legumes (white lupin and common bean)”, funded by National Centre of Science, Poland.
2. PhD student will receive a stipend for the gross amount of ca. 4270,50 PLN (3685,00 PLN net), for the period of 48 months.
3. PhD student shall be subject to social insurance, pursuant to article 6, section 1, passage 7b of the Act of October 13, 1998 on the social insurance system (Journal of Laws of 2019, items 300, 303, 730).

Required documents:

1. Application for admission to PDS IPAS along with consent for processing personal data upon commencing the recruitment procedure, and a statement on having acknowledged the regulations of recruitment for PDS IPAS, using the form downloaded from <http://www.igr.poznan.pl/en/main-en/ids-en/poznan-doctoral-school>
2. Certified copy of diploma confirming graduation or 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 20, 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 where such a certificate was issued by the relevant higher education school. In the event that 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 is 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 apposite clause, nor the requirement of notification 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, completed internships and training, prizes and distinctions awarded) 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 willing to provide an opinion of the candidate.

Documents in electronic form (in a single PDF file) must be sent by e-mail to: psd@igr.poznan.pl putting in the title: **PhD student – Legume Genomics Team IPG PAS**

Submission deadline is 02.02.2022

Criteria for evaluation of candidates:

1. Candidate's knowledge in biological and agricultural sciences.
2. Knowledge of the subject matter described in the recruitment advertisement.
3. Candidate's research achievements, pursuant to the grades obtained in the course of studies, scientific publications, scholarships and distinctions awarded resulting from conducting scientific research or student activities or other achievements.
4. 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.

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

For additional information please contact the Principal Investigator:

prof. dr hab. Karolina Susek

e-mail: ksus@igr.poznan.pl

Announcement of the results: Within one month of 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 Poznań, 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 – rectification of 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.