



# INSTITUTE OF PLANT GENETICS POLISH ACADEMY OF SCIENCES

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## **Recruitment to the Poznań Doctoral School of Institutes of the Polish Academy of Sciences at the Institute of Plant Genetics of the Polish Academy of Sciences in Poznań, Poland No 24/2023/IGR/PSD**

A highly motivated candidate for a PhD and experimental work is sought in a project to decipher the role of RNA interference (RNAi) in the biotic interactions of wheat plants with pathogenic and symbiotic fungi.

**INSTITUTION:** Institute of Plant Genetics of the Polish Academy of Sciences

**CITY:** Poznań

**TYPE OF POSITION:** PhD student

**NUMBER OF VACANCIES:** 1

**SCIENTIFIC DISCIPLINE:** Agricultural sciences

**DATE POSTED:** 24/07/2023

**APPLICATION DUE DATE:** 28/08/2023

**www IGR PAN:** <http://www.igr.poznan.pl/en/home-en>

**Link to the announcement on the IGR PAN website:** <http://www.igr.poznan.pl/en/main-en/ids-en/poznan-doctoral-school/offers-of-competitions-for-pds-ipas>

**PSD IPAS:** <https://psd-ipan.ichb.pl/index.php/en/home/>

**KEY WORDS:** *Fusarium culmorum*, *Trichoderma atroviride*, wheat, small RNA-seq, Degradome-Seq, dPCR, miRNA, siRNA

**Research subject:** The miRNA and siRNA-mediated communication between wheat and pathogenic *Fusarium culmorum* and symbiotic *Trichoderma atroviride* species.

**Principal Investigator:** dr hab. Lidia Błaszcyk, Prof. IPG PAS

### **DESCRIPTION OF RESEARCH POSITON IN THE PROJECT**

**Place of employment:** Department of Plant Microbiomics

**Supervisor:** dr hab. Lidia Błaszcyk, Prof. IPG PAS

**Goal of employment:** Conducting research in the NCS OPUS 24 **2022/47/B/NZ9/01282** project: RNACtion: microRNAs and siRNA- mediators in communication between common wheat and pathogenic and symbiotic fungi.

**Scope of research:**

The main goal of the research project is to decipher the role of RNA interference (RNAi) in biotic wheat – fungi interaction by understanding the miRNA and siRNA-mediated communication between wheat and pathogenic *Fusarium culmorum* species and symbiotic *Trichoderma atroviride* species. The proposed study will be conducted to determine and compare the temporal (time course) and spatial (above- and under-ground plant organs) microRNA (miRNA) expression profiles in wheat inoculated with two different species of fungi in complex interaction systems: wheat – *F. culmorum*, wheat – *T. atroviride*, wheat – *T. atroviride* – *F. culmorum*; to study the effects of wheat genotype, host organs, fungal species and interaction phase on the miRNA molecule compositions and distributions in wheat plants; and finally, to verify functionally miRNAs and their predicted target transcripts potentially involved in the formation of the symbiotic associations or in triggering defensive and immune responses upon pathogenic infection.

**Duties:**

1. Conducting molecular and microbiological experimental work, covering both own and Team's topics.
2. Participation in the program of the Doctoral School.
3. Dissemination of research findings during national and international scientific conferences.
4. Expanding national and international collaborations.
5. Preparation of manuscripts for publication in international scientific journals.
6. PhD thesis preparation.

**Requirements for candidates:**

1. The professional title of Master's degree in the field of biology or a related field, or meeting the conditions indicated in Art. 186 paragraph 2 of the Act of July 20, 2018 Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended).
2. Experience with laboratory work and the experimental methods of molecular biology.
3. Strong interest in the subject of plant-microbe interactions.
4. Motivation to work independently.
5. Good knowledge of written and spoken English.

**Additional information:**

1. Research will be conducted in the frame of the National Science Centre funded OPUS 24 2022/47/B/NZ9/01282 project: RNaCTiON: microRNAs and siRNA- mediators in communication between common wheat and pathogenic and symbiotic fungi.
2. PhD student will receive gross monthly fellowship 4270 PLN (3685 PLN nett). The fellowship duration is 48 months.

The employer will cover the costs of social security according to art. 6 par. 1 item 7b act from 13th of October 1998 on the social insurance system (Journal of Laws of 2019, items 300, 303 and 730).

**Documents Required:**

1. An application for admission to PDS IPAS with consent to the processing of personal data for the purposes of the recruitment procedure and a statement acknowledging

the regulations recruitment to PDS IPAS, made on the form available at: <http://www.igr.poznan.pl/en/main-en/ids-en/poznan-doctoral-school>.

2. A copy of the diploma confirming completion of studies or a certificate of graduation (in the case of diplomas issued by foreign universities, the diploma referred to in Article 326 (2) (2) or Article 327 (2) of the Act of July 20th, 2018. – Law on higher education and science (Journal of Laws of 2018, item 1668, as amended), giving the right to apply for a doctoral degree in the country in which the higher education system is operated by the university that issued it. If the candidate does not have the above-mentioned documents, he/she is obliged to provide them before being admitted to the PDS IPAS. Additional information about foreign diplomas is available at: <https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies>.

**NOTE:** At this stage of the recruitment process, there is no requirement to provide documents that have been certified with the apostille clause or the requirement to certify the recognition of diplomas. However, these requirements must be met if the candidate is accepted.

3. A scientific CV covering the candidate's previous education and employment, information regarding involvement in scientific activities (membership in scientific societies, participation in research conferences, internships and trainings, awards and distinctions obtained) and a list of publications.
4. A cover letter containing a short description of scientific interests and achievements as well as a justification for the intention to study at the doctoral school.
5. Certificates or other documents confirming the level of English language proficiency, if available.
6. Contact details for at least one academic supervisor or other researcher who would be able to issue an opinion on the candidate.

Documents in electronic form (in 1 PDF file) should be e-mailed to [psd@igr.poznan.pl](mailto:psd@igr.poznan.pl) with a copy to [lbla@igr.poznan.pl](mailto:lbla@igr.poznan.pl) using the title: **PhD student, Department of Plant Microbiomics**

**Application deadline: Deadline for application submission is 28/08/2023**

#### **Evaluation Criteria:**

1. The candidate's knowledge concerning plant-microbe interactions.
2. Knowledge of cell biology and molecular biology in general.
3. The candidate's scientific achievements based on grades from studies, scientific and popular science publications, scholarships, awards and distinctions resulting from research or student activity or other achievements.
4. The candidate's scientific and professional experience based on participation in conferences, workshops, trainings and internships, participation in research and commercial projects, involvement in scientific societies, international and professional mobility, experience in other sectors, including industry.

**A description of the recruitment process can be found in the Recruitment Regulations for the PDS IPAS. After the recruitment is completed, the unsuccessful candidates will be informed about the scores obtained at various stages of the recruitment process.**

Additional information can be obtained from the Principal Investigator: dr hab. Lidia Błaszczuk, Prof. IPG PAS; e-mail: [lbla@igr.poznan.pl](mailto:lbla@igr.poznan.pl)

**Announcement of the recruitment results: no later than 1 month after application deadline.**

**Information clause:**

Pursuant to Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46 / EC (hereinafter referred to as GDPR), The Institute of Plant Genetics of the Polish Academy of Sciences (hereinafter referred to as the "Institute") informs that:

a) the administrator of personal data obtained, collected and processed as part of the implementation of this contract is the Institute of Plant Genetics of the Polish Academy of Sciences, ul. Strzeszyńska 34, 60-479 Poznań,

b) contact with the Inspector of Personal Data Protection of the Institute of Plant Genetics of the Polish Academy of Sciences in Poznań, is possible at the following e-mail address: [iodo@igr.poznan.pl](mailto:iodo@igr.poznan.pl),

c) the basis for data processing is Art. 6 sec. 1 letter b) and c) of the Regulation referred to above,

d) all personal data provided to the Institute will be kept for the duration of the contract and for a period of 5 years after its termination,

e) with regard to the obtained personal data, the Institute will not make decisions in an automated manner,

f) The employee has the right to:

- pursuant to art. 15 GDPR, the right to access personal data,

- pursuant to art. 16 GDPR, the right to rectify personal data;

- pursuant to art. 18 GDPR, the right to request the administrator to limit data processing personal data, subject to the cases referred to in art. 18 sec. 2 GDPR;

- the right to lodge a complaint with the President of the Personal Data Protection Office when an Employee considers that the processing of personal data by the Institute violates the provisions of the GDPR.