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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 26/2020/IGR/PSD**

The Robert Malinowski's lab research group at the Institute of Plant Genetics of the Polish Academy of Sciences in Poznań, Poland is seeking highly motivated applicant for PhD studies and experimental work in the project focused on developmental aspects of clubroot disease progression in plants.

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: 11-12-2020

APPLICATION DUE DATE: 22-01-2021

WWW: <http://www.igr.poznan.pl/en/main-en/ids-en/competitions>

IGR PAN: <http://www.igr.poznan.pl>

PSD IPAN: <http://www.psd-ipan.ibch.poznan.pl/index-en.html>

KEY WORDS: vascular tissue, long-distance signalling and transport, plant-pathogen interaction, phloem, plant molecular biology

Research subject: plant pathogen-interaction complex studies

Principal Investigator: dr hab. Robert Malinowski prof. IPG PAS

DESCRIPTION OF RESEARCH POSITION IN THE PROJECT

Place of employment: Department of Integrative Plant Biology, Plant Systems Biology Team.

Supervisor: Robert Malinowski (associate professor)

Goal of employment: Conducting research in the NCN OPUS17 UMO-2019/33 / B / NZ9 / 00751 project entitled "Vascular long-distance coordination in *Plasmodiophora brassicae* infested plants". The aim of our project is to understand the role of long-distance coordination in plants infected with the biotrophic protist - *Plasmodiophora brassicae*.

The project focuses on functional studies of the phloem-mediated macromolecule transport that occurs during disease progression in *Arabidopsis* (*Arabidopsis thaliana* L.) and oilseed rape (*Brassica napus* L. var. *Napus*) plants.

Scope of research:

In this project, we will examine changes in the composition of phloem sap and functionally characterize the role of factors whose quantity changes significantly during the course of the disease. The first stage of the work, aimed at the identification of macromolecules, will be carried out on oilseed rape plants. The further importance of particular factors will be investigated with help of the *Arabidopsis thaliana* model plant. This approach will facilitate the

modification of the amount or the transport of individual factors using molecular biology techniques. Alteration in signalling or accumulation patterns of studied molecules in vascular tissue will be monitored using advanced microscopy techniques. To understand phloem ability to transport specific factors we will also describe the anatomical and structural changes in the vascular tissue. Results integration will help understanding the biological basis of the interaction between *P. brassicae* and the plant at the system level. We will also learn about important aspects of the developmental and physiological plasticity of plants in response to biotic stress.

Duties:

1. Conducting of research planned in the project.
2. Participation in PhD School and satellite activities related to it.
3. Involvement in data analysis and integration, preparation of manuscripts and dissemination of results.
4. PhD thesis preparation.

Required qualifications:

1. The professional title of master's degree in the field of biology or related, 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. Willingness to work on plant models.
3. Knowledge of general techniques for experimental work on *Arabidopsis thaliana*.
4. Previous experience with microscopy techniques.
5. Acquaintance with methods of molecular biology.
6. Interest in plant physiology and developmental biology.
7. English language fluency.
8. Manual skills for precision work.

Additional information:

1. Research will be conducted in the frame of the National Science Center funded project No. UMO-2019/33/B/NZ9/00751 "Vascular long-distance coordination in *Plasmodiophora brassicae* infested plants"
2. PhD student will receive gross monthly fellowship 4270,00 PLN (Apr. 990 €). The fellowship can cover up to 36 months.

The employer will cover the costs of social security according to art. 6 ust. 1 pkt 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 PSD IPAN with consent to the processing of personal data for the purposes of the recruitment procedure and a declaration of reading the rules of recruitment to PSD IPAN, 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 20, 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 PSD IPAN. 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 the stage of the recruitment process, there is no requirement to present documents certified with the apostille clause or the requirement to recognize diplomas. These requirements must be met if the candidate is accepted.

3. Curriculum vitae containing the course of previous education and employment, information on involvement in scientific activities (membership in scientific societies, participation in research conferences, internships and trainings, awards and distinctions obtained), 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 proving the level of English language proficiency, if applicable.

6. Contact details of at least one current research tutor or other researcher who may issue an opinion on the candidate.

Documents in electronic form (in 1 PDF file) should be sent to psd@igr.poznan.pl with a mandatory entry in the title, e.g. PhD student, Department of Integrated Plant Biology

Application deadline: 22-01-2021

Evaluation Criteria:

1. Knowledge of the subject matter mentioned in the recruitment notice.
2. 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.
3. 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.
4. The candidate's knowledge of plant development biology.
5. Previous Experience in performing precise measurements or observations requiring manual precision.

A description of the recruitment process can be found in the Recruitment Regulations for the PSD IPAN. 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 primary investigator:

dr hab. Robert Malinowski prof. IPG PAS
e-mail: rmal@igr.poznan.pl

Competition adjudication: no later than 1 month after the closing of the call 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 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,
- 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.