
PHD STUDENT IN THE DOCTORAL SCHOOL – CALL FOR APPLICATIONS

Position: PhD student in biological sciences

Unit of the project realization: Faculty of Natural Sciences – University of Silesia in Katowice

Unit realizing the PhD student education: Doctoral School at the University of Silesia in Katowice
in cooperation with the European University consortium – Transform4Europe

The research undertaken by the successful applicant will be carried out within the framework of the project **“Understanding the Role of ABA in Climate Resilience through Alternative Splicing in Barley”**.

Duration of the scholarship: 48 months

Scholarship amount: 3466,90 PLN / 5340,90 PLN (after mid-term evaluation)

PhD supervisor: dr hab. Agata Daszkowska-Golec, prof. UŚ

Project description:

The primary goal of this research is to elucidate the effect of specific mutations within the cap-binding complex on abscisic acid signaling in barley seedlings. To achieve this, transcriptomic analysis (short and long-reads sequencing) will be conducted, focusing on alternative splicing events, in conjunction with metabolomic profiling of barley mutants in CBC subunits when exposed to ABA. This will enable a deeper understanding of the physiological responses, such as stomatal behavior, in barley seedlings under varying environmental conditions. By integrating transcriptomic, metabolomic, and physiological data, this study aims to provide a comprehensive understanding of the molecular mechanisms that underlie abscisic acid responses in barley. This project proposal is a critical component of the QUEST project (SONATA BIS10, funded by NCN, and led by the supervisor).

The project will be implemented as an international PhD in cooperation with partner universities within the consortium “Transform4Europe”. Part of education and research will be realized in one of the partner European universities.

Requirements:

1. MSc in Biotechnology or related.
2. Fluency in English (both spoken and written)
3. Experience in: conducting bioinformatics analyses of data from next-generation sequencing (NGS) with emphasis on RNA-seq, performing experiments related to response of crops to abiotic stresses, with particular emphasis on barley
4. Achievements: fellowships, conference reports, publications in scientific journals

Required documents:

1. A written outline of a research proposal.

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2. A list of the candidate's fellowships, conference reports, scientific publications.
 3. A CV focused on research and academic experience.
 4. A copy of the MSc diploma (or a declaration of obtaining a diploma no later than September 10, 2024).
 5. One letter of recommendation.

Candidates should register in the IRK system (<https://irk2.us.edu.pl/>), select "Admission to the Doctoral School at the University of Silesia in Katowice – ADMISSION FOR PROJECTS," and choose a suitable project title.

Documents should be delivered until **31.05.2024** through the IRK system.

In case of any questions before submitting the formal application, please contact the Doctoral School (szkola.doktorska@us.edu.pl).

Documents will be evaluated by an interview panel led by the project leader. Admission will be carried out in English. Interviews will be organized online. The final decision will be sent to the candidates via the IRK system until **17.06.2024**.