

## Student

**The Institute of Biochemistry and Biophysics of the Polish Academy of Sciences in Warsaw is looking for a student to implement the Sonata-Bis research project “Bet-hedging” in plants - multi level analysis of seed dormancy variability - from single cell to population.” funded by the National Science Center.**

**Keywords:** seed dormancy, DOG1,

**Institution:** Institute of Biochemistry and Biophysics of the Polish Academy of Sciences; Laboratory of Seed Molecular Biology

**Type of post:** Student

**Domain:** molecular biology

**Type of contract:** stipend

**Number of job offers:** 3

**Remuneration:** ~ PLN 2500 gross

**Employment period:** 12 months

**Date of commencement of work:** Directly after recruitment (negotiable)

**Name and surname of the project head:** Dr hab. Szymon Świeżewski

**Project title:** “Bet-hedging” in plants - multi level analysis of seed dormancy variability - from single cell to population.”

### **Project description:**

Since the initial observation of Charles Darwin of seeds that could germinate many years after their been buried deep in the soil – so called soil seed banks, it is clear that part of plants successful survival mechanism is entrance of some but not all of seeds produced by the mother plant into a dormant state. This is part of a plants strategy to hedge their bets on survival by spreading their offspring germination time. This partially achieved by variability of seed dormancy strength. Although initially described many years ago the phenomena have not been extensively studied. Here we will use a variety of methods, to investigate the molecular, physiological and evolutionary aspects of bet-hedging in plants. This project combines open-end approaches to look for highly variable genes between individual seed by single-seed-RNA-sequencing with single gene centred approach including single molecule RNA FISH analysis. This project aims to take advantage of my leading position in the field of DOG1 expression regulation, a number of preliminary data and offers to deliver a major breakthrough in seed dormancy research. Eventually this project by combining this multilevel analysis will contribute to future food security by testing some of the paths toward more alike seed dormancy, leading to more uniform germination in the field.

### **Expectations towards candidates:**

1. Interest in Plant Molecular Biology.

2. Ability to communicate in English.
3. Experience in working with plants and/or in RNA/chromatin field is highly desired

**List of documents:**

1. CV
2. Short motivation letter

**The evaluation of candidates consists of:**

1. In the first stage the Selection Committee, composed of Project Manager and two independent researchers from IBB PAN) will select eligible candidates. We reserve the right to contact selected candidates.
2. In the second stage the candidates will be interviewed by the Selection Committee. The candidate will be asked to briefly present his or hers CV and outline one main scientific project, which will be then discussed in more detail with the Selection Committee. During the meeting the candidate will be free to inquire about details concerning the project.

**Contact for formal and informal inquiries:** [team.swiezewski@gmail.com](mailto:team.swiezewski@gmail.com)

**Deadline for submitting applications:** Review of applications will begin on 15.05.2024, and continue until the position is filled.

**Please include the following consent to process personal data (applications not including this statement will not be processed for legal reasons):**

„Wyrażam zgodę na przetwarzanie moich danych osobowych dla potrzeb niezbędnych do realizacji procesu rekrutacji zgodnie z Ustawą z dnia 29 sierpnia 1997 r. o ochronie danych osobowych ( Dz. U. z 2016 r. poz. 922 z późn. zm.)”