

The Center of Plant Systems Biology and Biotechnology (CPSBB) in Plovdiv, Bulgaria, offers the following position:

**PhD student in Plant Biotechnology, (First Stage Researcher – R1)**, Professional field 5.11 Biotechnologies;

**Topic:** Computational Integration of Multi-Omics Data for Identifying Genetic and Metabolic Determinants of Stress Tolerance and Fruit Quality in Tomato and Pepper Under Abiotic and Biotic Stresses.

**Occupation:** Full-time

**Period:** Fixed-term contract

**Apply no later than:** May 31<sup>st</sup>, 2025

CPSBB, a plant science Center of Excellence in Plovdiv, Bulgaria, seeks a motivated PhD student to work on the project NatGenCrop “Employing the natural variation to improve the nutritional properties and stress tolerance in vegetable crops” (<https://natgencrop.com/>). The project aims to enhance nutritional properties and stress tolerance in tomatoes and peppers by exploring genetic and phenotypic variations. Using genetics and genomics approaches like GWAS and QTL, the research will identify and characterize genes linked to high yield and stress tolerance. The project also examines the impact of abiotic stress on fruit quality through metabolic and transcriptomic analyses. The PhD student will develop computational workflows to integrate and analyze large-scale GWAS, metabolomics, and transcriptomics data, applying statistical and machine learning methods to uncover genetic and metabolic factors related to stress tolerance and fruit quality.

**Work place:**

The workplace is CPSBB in Plovdiv, Bulgaria ([www.cpsbb.eu](http://www.cpsbb.eu)), a new plant science institute with a modern campus and growing international reputation. Plovdiv, one of Europe’s oldest cities with roots dating to the 6th millennium BC, is now Bulgaria’s second largest city and a key industrial and academic hub, home to six universities and vibrant cultural life.

**Job Requirements:**

- MSc degree (or equivalent) in Computational biology, Bioinformatics, Biostatistics, Plant Genetics, Molecular Biology, or a closely related discipline.
- Solid programming skills at least in Java and R and experience in the analysis of GWAS, QTL mapping, and metabolomics data is considered a plus.
- Knowledge of plant systems biology techniques, including transcriptomics and metabolomics analyses, is recommended.
- Good wet lab skills and effective communication abilities will be advantageous.
- Excellent English presentation and communication skills (written and oral).

**Main responsibilities:**

- Conduct cutting-edge plant science research related to the NatGenCrop project.
- Participation in other project events and activities.

**We offer**

- Gross salary of 2800 BGN, including social contributions from the employer and the employee.
- Career development in an internationally competitive research institution.
- Work in a friendly team on a large project funded by the European Commission.
- CPSBB is an equal opportunity employer.

Applicants interested in the position should send the following documents until **31 May 2025**:

- Application letter including a statement about why you apply for this position.
- CV including a list of published and accepted publications (if any).
- Contact information, including email addresses, of a minimum of one reference person.

**Send your application documents as a single pdf-file** to [secretary@cpsbb.eu](mailto:secretary@cpsbb.eu).