

The Center of Plant Systems Biology and Biotechnology (CPSBB) in Plovdiv, Bulgaria, offers the following position: **PhD student in Plant Biotechnology**, Professional field 5.11 Biotechnologies.

Topic: *Genome-Wide Association Study (GWAS) Mapping of Horticultural Traits and Disease Resistance Loci in Pepper and Tomato Germplasm*

Occupation: Full-time

Period: Fixed-term contract, funding available until 31.12.2027; possibility for continuation of the research career after successful defence.

Apply no later than: August 31, 2024

CPSBB is a plant science Center of Excellence in Plovdiv, Bulgaria, that conducts excellent fundamental and applied research in plant systems biology and biotechnology.

CPSBB is looking for a highly motivated PhD student who will join the Department of Quantitative Crop Genetics to work on the project “Employing the natural variation to improve the nutritional properties and stress tolerance in vegetable crops (NatGenCrop)”. The project explores tomato and pepper’s wide genetic and phenotypic variations to improve their agronomical traits, including under abiotic (e.g. drought and salinity) and biotic stresses. Using a suite of genetics and genomics approaches, such as GWAS in combination with QTL, genes contributing to high yield and stress tolerance will be identified and functionally characterized. In another research direction, the fruit metabolic compositions regarding flavour and healthy-related compounds will be studied to assess the impact of abiotic stress on fruit quality. A wide range of plant phenotypic and metabolic traits will be evaluated, followed by transcriptomic profiling in two genome-wide association (GWAS) panels and two backcrossed inbred lines (BILs) populations for both tomato and pepper.

This PhD project will be devoted to investigating pathogen tolerance and the genes that contribute to this trait in tomato and pepper genotypes.

Workplace:

The workplace will be CPSBB in Plovdiv, Bulgaria (www.cpsbb.eu). This recently established institute for plant science has a brand new campus and is growing in prestige internationally.

Plovdiv is a modern city with a lot of history. It is one of the oldest settlements in Europe, with archaeological discoveries dating back to the 6th millennium BC. Currently, Plovdiv is the second largest city in Bulgaria and one of the country’s industrial and academic centers, the home of six Bulgarian universities. The city is rich in cultural life and entertainment for young people.

Job Requirements:

- MSc degree in Plant Molecular Biology, Plant Protection, Plant Biotechnology, or related fields
- Good technical skills, practical background, and communication skills.
- 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 August 2024** :

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

Send your application documents as a single PDF file to secretary@cpsbb.eu. For more information, please visit the CPSBB website: www.cpsbb.eu