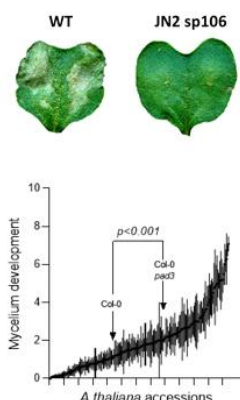




PhD position, starting from **September 2024**

Dissecting molecular background of resistance to *Leptosphaeria maculans* in Brassicaceae plants

Oilseed rape (*Brassica napus*) is the second largest oilseed crop in the world. The major constraint to its production is blackleg disease, caused by fungal pathogen *Leptosphaeria maculans* (*Lm*). The project is devoted to the search of molecular mechanisms of resistance to *Lm* through exploring natural variation of *Arabidopsis thaliana*, which is non-host to the pathogen. The project combines approaches of molecular biology, microbiology, bioinformatics, advanced microscopy and plant physiology.



We aim to understand:

- 1) what makes *Arabidopsis* non-host to *Lm*, and how to transfer this into a susceptible crop?
- 2) what makes *Lm* pathogenic, and how do pathogenic determinants from the fungus interact with plant defence system?
- 3) how are the plant defences to *Lm* executed, what is a cross-talk between plant and fungal hormones in a due course of the infection process?

We offer: high quality research and training, dynamic scientific environment, international group and collaboration network. The work will be performed in the Laboratory of Pathological Plant Physiology in the Institute of Experimental Botany <https://ieopathofyz.wixsite.com/patofyz1> ; <http://www.ueb.cas.cz/en>.



Student will be enrolled to the doctoral program of the University of Chemistry and Technology Prague <https://fpbt.vscht.cz/> . The Czech study program runs for 4 years, students receive a stipend + part-time contract at the IEB Prague, social and health insurance and performance-based benefits. Accommodation in the dormitory is possible. The project is co-funded by Operation Program of Johannes Amos Comenius "TANGENC" (Towards New Generation Crops) and benefits from COST action CA22142.

Requirements: holder of Master degree in Biochemistry, Microbiology, Virology, Plant physiology, Botany or Biotechnology. Interest in multidisciplinary research, knowledge of lab work and data processing/statistics (molecular biology, microbiology or plant biology experience is a plus). Ability to communicate, read and write in English (knowledge of the Czech language is not required).

Applications will be reviewed immediately, enrolment to the university is in April 2024 (Master studies are to be finished before the starting date). Interested candidates are welcome to send their CV and motivation letter to **doc.Ing. Lenka Burketová, CSc** burketova@ueb.cas.cz.