



Institute of Experimental
Botany of the AS CR, v. v. i.

Imaging Facility

Institute of Experimental Botany ASCR - IFIEB, Prague

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Multi-modal light microscopy imaging in plant research

October 19-20, 2022

Programme:

Day 1:

09:30 - 09:45	Introduction and organization details
09:45 - 11:15	Pavel Krist - Introduction to fluorescence microscopy
11:15 - 11:30	Coffee break
11:30 - 12:00	Kateřina Malínská - Light microscopy methods for plant research - do not stress out your sample
12:00 - 13:00	Lunch break
13:00 - 15:00	Hands-on session A in 3 parallel groups
15:00 - 16:30	Imaging of participants' samples; get together coffee, snacks & discussion

Day 2:

09:30 - 10:00	Jan Petrášek - Advanced fluorescence microscopy in plants – comparison of different microscopy approaches
10:00 - 10:15	Coffee break
10:15 - 12:15	Hands-on session B in 3 parallel groups
12:15 - 13:00	Lunch break
13:00 - 15:00	Hands-on session C in 3 parallel groups
15:00 - 16:00	Final discussion, feedback form

Hands on will include:

LONG-TERM IMAGING – Ivan Kashkan: vertical-stage microscope; long-term imaging with tile-scan; long-term imaging with tracking algorithm; application of gravistimulus.

FAST&GENTLE – Jan Petrášek: spinning disc microscopy experimental setup; ultrafast simultaneous two channel imaging; deconvolution; SRRF.

HIGH RESOLUTION – Kateřina Malínská: sample preparation; high-resolution microscopy with Airyscan 2 detector with multiplex mode; photomanipulation.

Institute of Experimental Botany ASCR, Building B1, Imaging facility, Rozvojova 263, Prague 6

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