

Processing and Analysis of Microscopic Images in Biomedicine (PAMIB), April 13-17, 2026					
	Monday 13	Tuesday 14	Wednesday 15	Thursday 16	Friday 17
8:30 - 9:00	Registration	X	X	X	X
9:00 - 9:45	Digital image formation and terminology	Image acquisition conditions and deconvolution	Fiji: Macros - Introduction into IJM language	3D/4D image visualization and analysis in Imaris	Estimation of volume and surface (Point Grid, Cavalieri's principle, Fakir) - virtual and/or physical sections
	Michaela Blažíková	Ivan Novotný	Jan Valečka	Oxford Instruments	
9:50 - 10:35	Introduction into Fiji 1	Huygens: Image deconvolution I	Fiji: Using macros for data processing and analysis	Imaris: Examples of interactive image analysis and visualization (using cloud computers)	Estimation of length and particle numbers (Slicer, Disector) - virtual sections 9.00-12.30 (2 parallel groups)
	Jan Valečka	Ivan Novotný	Jan Valečka	Oxford Instruments	Barbora Radochová
10:35 - 10:55	coffee	coffee	coffee	coffee	coffee
10:55 - 11:40	Introduction into Fiji 2	Huygens: Image deconvolution II	Evaluation of colocalisation in microscopic images	FRAP data analysis	3D analysis: Scale setting, 3D image filtration, visualization and measurement in Fiji (JJ)
	Jan Valečka	Ivan Novotný	Martin Čapek	Michaela Blažíková	Vibe coding: Using chatGPT for IJM macro developing (MČ) 9.00-12.30 (2 parallel groups)
11:45 - 12:30	Image analysis in Fiji	Huygens: Image deconvolution III (stand-alone practical tasks)	Fiji: Evaluation of colocalisation in microscopic data	Fiji: FRAP data analysis	
	Michaela Blažíková	Ivan Novotný	Martin Čapek	Michaela Blažíková	Jiří Janáček / Martin Čapek
12:30 - 13:30	Lunch	Lunch	Lunch	Lunch	EVAL + Certificates 12.30-13.00
13:30 - 14:15	Fiji: Stand-alone practical tasks	Segmentation methods	Tracking - principles and algorithms	3D image processing and geometrical modelling	Informal lunch 13.00-14.00
	Michaela Blažíková	Martin Čapek	Michaela Blažíková	Jiří Janáček	
14:20 - 15:05	Specifics of visualization and image interpretation in electron microscopy	Fiji: Using segmentation for detection of structures in various microscopic images	Fiji: Tracking - practicals	Fiji: Image filtration / Morphological image processing and analysis	  
	Dominik Pinkas	Martin Čapek	Michaela Blažíková	Jiří Janáček	
15:10 - 15:55	Fiji/MIB: Introduction to electron microscopy data processing	Fiji: Artificial Intelligence (AI) approaches to image segmentation	Guidelines for processing and presenting microscopy images in scientific publications	Stereological methods and measurement	
	Markéta Dalecká	Martin Čapek	Jan Valečka	Barbora Radochová	
16:00 - 16:20	Short participant test	Short participant test	Short participant test	Short participant test	

Theoretical Lectures

Practicals/Demo in One Group

Practicals in Two Parallel Separated Groups