

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