

ADVANCES IN MICROBIOLOGY



22 OCTOBER 2026 • 09:00–16:10

Lecture hall / Kinosál, FgÚ AV ČR · Vídeňská 1083, Praha 4–Krč

PROGRAMME

09:00–09:45	Oldřich Benada • Biological surfaces in 3D - Scanning electron microscopy in the IMIC <i>SEM, 3D surface imaging, sample preparation, image recording</i>
09:45–10:30	Jan Svoboda • Tools for microbiota analysis at the IMIC: Cytometry and microscopy Core Facility <i>Qualitative and quantitative fluorescence analysis</i>
10:30–10:50	Coffee break
10:50–11:35	Ondřej Černý • From individual cells to OMICs <i>Bacterial scRNAseq and its FISH analogy, low-input proteomics</i>
11:35–12:10	Jaroslav Semerád • Microbial metabolomics and xenometabolomics <i>LC-MS-based metabolomics, targeted and untargeted analysis</i>
12:10–13:00	Lunch
13:00–13:45	Martina Slaninová Kyselková • Microbial community analysis using high-throughput sequencing <i>Second and third generation sequencing of microbial amplicon and shotgun metagenomes</i>
13:45–14:20	Jarmila Hnilicová • Bacterial RNAs: From Transcriptomics to Regulation <i>RNA-seq, RIP-seq, ChIP-seq, RNA-protein interactions</i>
14:20–14:40	Coffee break
14:40–15:25	Ahmad Jawid Nazir • Manipulation of host immune cells by bacterial pathogen <i>Isolation of cells from blood, methods for analysis of cell proliferations</i>
15:25–16:10	Jana Kamanová • At the Bacterium-Host Interface: Modern Approaches to Studying Infection <i>Air-liquid interface model of the respiratory epithelium, advanced microscopy techniques, dual RNA-seq, Tn-seq</i>

REGISTRATION & INFORMATION

Open to all interested participants. Light refreshments for registered attendees. Register via [SIS](#) or email jaroslav.semerad@mbu.cas.cz. Lectures are in English.

Organized by the Czechoslovak Society for Microbiology, Institute of Microbiology CAS and Faculty of Science, Charles University, Doctoral Study Program Microbiology (course code MPGS0013).