



CSMS CONFERENCE - MICROSCOPY 2019

Day 1 (May 13, 2019)	
15:00	Registration
15:00-16:45	Meeting of the CSMS board
17:00-18:00	Member meeting of CSMS society
18:00-20:00	Welcome drink + refreshments
Day 2 (May 14, 2019)	
08:30-09:00	Registration
09:00-09:10	Conference opening
09:10-10:10	Plenary lecture - Pavel Plevka "Enterovirus particles expel capsid pentamers to enable genome release"
10:10-10:15	Announcement of the winner of the 2018 scholarship competition by Thermo Fisher / CSMS - (Milan Heczko)
10:15-10:20	Announcement of the winner of the 2018 scholarship competition by CSMS - (Petr Bouchal)
10:20-10:25	Announcement of the winner of the best PhD. dissertation competition 2018 - (Marie Olšinová) <i>sponsored by Carl Zeiss</i>
10:25-11:00	CSMS award for merit in microscopy - Jaroslav Klíma "Devices and solutions for imaging and characterization of micro- and nano- objects"
11:00-11:30	Coffee break
11:30-12:30	I. Session - Technology lectures <i>session chair: Pavel Hozák</i>
11:30-11:45	- JEOL: Guillaume Brunetti "New development in the field of electron microscopy"
11:45-12:00	- MIKRO: Zdeněk Rous "The Million Nanometer Ultramicrotome"
12:00-12:15	- OLYMPUS: Tomáš Pop "Confocal Super Resolution for Live Cell samples"
12:15-12:30	- THERMO FISHER: Oleksii Kaplenko "Automated sample preparation using Helios G4 PFIB DualBeam"
12:30-14:00	Lunch

14:00-15:15	II. Session - Biomedical sciences (part 1) <i>session chair: Jana Nebesářová</i>
14:00-14:30	- Aleš Panáček (invited speaker) “ Silver nanoparticles: antibacterial effect, synergism with antibiotics and bacterial resistance to silver”
14:30-14:45	- Daniel Hadraba (the winner of the best PhD. dissertation competition 2017) “Mechanostimulation of cells in 3D environment”
14:45-15:00	- Marie Olšinová (the winner of the best PhD. dissertation competition 2018) “ Roughness of Transmembrane Helices Reduces Lipid Membrane Dynamics”
15:00-15:15	- Josef Lazar “Trivially simple determinations of molecular orientations by laser scanning fluorescence microscopy”
15:15-16:15	Poster session + Coffee break
16:15-16:45	II. Session - Biomedical sciences (part 2) <i>session chair: Jana Nebesářová</i>
16:15-16:30	- Adam Schrofel “Why my Tetrahymena mutant won't become a swimming champion”
16:30-16:45	- Alexey Bondar “Single-molecule imaging of G protein signaling”
16:45-17:30	III. Session - Material sciences (part 1) <i>session chair: Miroslav Šlouf</i>
16:45-17:15	- Matej Mičušík (invited speaker) “2D nanoplatforms for detection of cancer”
17:15-17:30	- Milan Heczko (the winner of the 2018 scholarship competition by Thermo Fisher CSMS) "Structure, Morphology and Coarsening Behavior of MX (NbC) Nanoprecipitates in Fe-Ni-Cr Based Alloys"
18:30-20:00	Wine degustation
20:00-23:00	Social evening with banquet

Day 3 (May 15, 2019)	
09:00-10:00	III. Session - Material sciences (part 2) <i>session chair: Miroslav Šlouf</i>
09:00-09:15	- Michal Horák "Plasmonic properties of silver amalgam nanoparticles studied by analytical transmission electron microscopy"
09:15-09:30	- Kateřina Adámková "Freezing Methods and Cryo-SEM Imaging as a Way to Examine Hydrogel Structure"
09:30-09:45	- Veronika Gajdořová "Micromechanical properties of polymers: detailed interpretation with the help of SEM and 3D-LM microscopy"
09:45-10:00	- Adam Strachota "Synthesis and preliminary characterization of novel embedding resins for 3D-SEM microscopy applications"
10:00-11:00	Poster session + coffee break
11:00-12:15	IV. Session – Optics and Instrumentation <i>session chair: Vladislav Krzyřánek</i>
11:00-11:30	- Eliška Mikmeková (invited speaker) "UHV scanning low energy electron microscope / TOF spectrometer"
11:30-11:45	- Dalibor Štys "Tools for correct visual inspection of logical series of scientific images: LIL compression, Image Explorer and VerCa calibration"
11:45-12:00	- Jan Valenta "Absolute radiometric calibration of the twin micro-spectroscopic apparatus over a broad VIS/NIR range using a special luminescent etalon"
12:00-12:15	- Renata Štysová Rychtáriková "An information-entropic approach to the detection of observed object's volume response in fluorescence microscopy"
12:15-13:30	Lunch
13:30-13:40	Introduction to the Czech-Biolmaging Open Access
13:40-15:40	Technologies of the future (in collaboration with Czech-Biolmaging)
13:40-14:10	- PRAGOLAB: Tommaso Cerullo "New Leica FALCON and Leica THUNDER FAMILY for live cell imaging"
14:10-14:40	- SPECION: Andreas Nowak "Latest development in sample preparation technics"
14:40-15:10	- THERMO FISHER: Radovan Spurný "Micro-Electron Diffraction for high resolution structure determination"
15:10-15:40	- ZEISS: Pavel Krist "We Moved Speed, Resolution & Sensitivity Limits In Live Cell Imaging. Again."
15:40	Conclusion



IMAGING PRINCIPLES OF LIFE 2019
Czech-Biolmaging Annual Scientific Conference

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15:40-17:00	Poster Session + Coffee break
18:00-20:00	Dinner
Day 2 (May 16, 2019)	
09:00-9:15	Biology Centre CAS
	Marie Vancová "Advanced microscopy techniques used for research on ticks and tick-borne pathogens"
09:15-09:30	Palacky University Olomouc - IMTM
	Vlastimil Mašek "Biomedical applications of vibrational spectroscopy"
09:30-09:45	Charles University - 1st Medical Faculty - CAPI
	Luděk Šefc "Fully spectral imaging for computed tomography, positron emission tomography and single-photon emission computed tomography"
09:45-10:00	Charles University - BIOCEV
	Jakub Rohlena "Mitochondria in life and death of a cancer cell"
10:00-10:15	Institute of Experimental Botany CAS
	Katarzyna Retzer "Why to topple the confocal microscope: Microscope with vertical sample mounting for plant research"

10:15-10:30	Institute of Molecular Genetics CAS – Electron Microscopy
	Margarita Sobol "The role of nuclear lipid islets in the formation and maintenance of transcription factories during cell cycle"
10:30-11:00	Coffee break
11:00-11:30	Institute of Molecular Genetics CAS – Light Microscopy
11:00-11:15	Ondřej Ballek "Visualizing of immunological synapse formation using two camera spinning disc confocal microscopy"
11:15-11:30	Veronika Niederlová "Quantitative phase microscopy in exploring the diversity of T cells"
11:30-12:00	Institute of Scientific Instruments CAS
11:30-11:45	Jana Ruda-Kučerová "Diffusion kurtosis imaging detects brain microstructural alterations in three mouse models of Parkinson's disease"
11:45-12:00	Eva Dražanová "MRI findings induced by antipsychotic treatment and animal models of schizophrenia-like pathology"
12:00-12:45	Masaryk University - CEITEC - CELLIM
12:00-12:15	Jan Křivánek "Dental cell type atlas reveals new stem and differentiated cell types in mouse and human teeth"
12:15-12:30	Aswathy Jayasree "Structural insights into the signaling specificity via Arabidopsis histidine kinases"
12:30-12:45	Martina Dvořáčková "In situ detection of DNA replication, RNA transcription and DNA damage response"
12:45-13:00	Masaryk University - CEITEC - MAFIL
	Pavel Hok "Functional Abnormalities of the Sensorimotor System in Cervical Dystonia"
13:00-14:00	Lunch
14:00-14:15	Masaryk University - Faculty of Informatics
	Jarmila Navrátilová "Fiducial-based semi-automatic coregistration and analysis of multimodal MALDI MS and immunofluorescent data"
14:15-14:30	Brno University of Technology - CEITEC
	Pavel Veselý "Holographic incoherent quantitative phase imaging for cell biology"
14:30-15:00	Institute of Physiology CAS
14:30-14:45	Elena Filová "PVA Nanofibers Releasing Platelet Lysate Components Support HaCat Keratinocytes Growth and Differentaiton"
14:45-15:00	Jana Musílková "Differentiation of Mesenchymal Stem Cells towards Smooth Muscle Cells: Recent Direction in Blood Vessel Tissue Engineering"
15:00	Closing