

# COMULIS Conference Nicosia, Cyprus


September 21<sup>st</sup> – 22<sup>nd</sup>,  
Pre-Conference Work Group Meetings September 20<sup>th</sup>

Coach transportation departs at 8 am (8:30 on the 22nd) from the point closest to the city center; please be ready at the subsequent points also at 8 am, or a few minutes after, as the distances are relatively short. Please note however that there may be traffic

Wednesday 21st September 2022	
08:00	Coach transportation from pick-up points to The Cyprus Institute
08:30 – 09:00	<b>Registration for COMULIS Conference; Poster positioning</b>
09:00 – 10:00	<b>MC Meeting</b> (COMULIS MC members only) (Andreas Mouskos) <b>POSTER SESSION</b> for conference delegates
10:00 – 10:15	<b>COMULIS CONFERENCE WELCOME</b> – Costas Papanicolas (President of the Cyprus Institute), Andreas Walter (COMULIS Chair) & Kirsi O. Lorentz (Cyprus COMULIS Conference Chair) (Fresnel Auditorium)
10:15 – 10:45	OPENING KEYNOTE: Frank Winkler (University Clinic Heidelberg, Heidelberg) - Deep insights into brain tumors: From malignant networks to novel therapies
10:45 – 11:00	<b>Group Photo</b>
11:00 – 11:15	<b>COFFEE BREAK &amp; Poster Session</b>
11:15– 13:00	<b>Session 1: Correlative Microscopies – Light and Electron Microscopy</b> <i>Chair: Paul Verkade &amp; Anna Sartori</i>
11:15 – 11:30	Talk 1.1: Kyriacos Kyriacou (CING, Cyprus) – Correlative microscopies – past present and future
11:30 – 11:45	Talk 1.2: Nico Sommerdijk (Radboud University, Netherlands) – A live-to-cryo workflow for 3D CLEM volume imaging of tissues
11:45– 12:00	Talk 1.3: Ben Giepmans (University Groningen, Netherlands) – ColorEM and in vivo fluorescence analysis in Type 1 diabetes research
12:00 – 12:15	Talk 1.4 Andreas Stylianou (European University Cyprus) – MechanoOptical fingerprints as biomarkers for cancer treatment monitoring
<b>POSTER Flash Talks – 6 x 5 min</b> 12:30-13:00 <i>Chairs: Andreas Walter &amp; Perrine Paul-Gilloteaux</i>	
12:30 – 12:35	Flash Talk 1: Antje Biesemeier (Luxembourg Institute of Science and Technology, Luxembourg) - Correlative microscopy and imaging secondary ion mass spectrometry for high resolution nanoanalytics on biological tissue
12:35 – 12:40	Flash Talk 2: George Stanciu (University Politehnica of Bucharest, Romania) - A multimodal microscopy system that integrates several microscopy imaging techniques using far field (CSLM, TPEM, SHGM and STED microscopy) and scanning probe (aperturereless-SNOM, AFM).
12:40 – 12:45	Flash Talk 3: Francisco Cunha (University of Coimbra, Portugal) - Evaluating the impact of lossy compression on HREM, CT, and MRI segmentation: a case study
12:45 – 12:50	Flash Talk 4: Lena Zachhuber (Medical University Vienna, Austria) - Multimodal PET-MR imaging can be used to follow tumour growth in an orthotopic syngeneic cholangiocarcinoma model
12:50 – 12:55	Flash Talk 5: Paolo Bianchini (Istituto Italiano di Tecnologia, Italy) - Corelative study on the interaction between hypericin and supported lipid bilayers mimicking coronavirus envelopes
	Flash Talk 6: György Vámosi (Medical University Debrecen, Hungary) - Simultaneous mapping of molecular proximity, co-mobility and dynamics by SPIM-ALEX-FRET-FCCS
13:00 – 14:00	<b>LUNCH BREAK</b>
<b>Session 2: Preclinical Hybrid Imaging</b> 14:00 – 15:45 <i>Chairs: Claudia Kuntner, Julia Mannheim &amp; Ludek Sefc</i>	
14:00 – 14:30	KEYNOTE: Daniel Razansky (ETH Zurich, Switzerland) - Combining light and sound for multi-scale interrogation of biological dynamics
14:30 – 14:45	Talk 2.1: Gilbert Frühwirth (King's College, UK) – Exploiting multi-modal imaging for cell tracking in therapy development
14:45 – 15:00	Talk 2.2: Claudia Kuntner-Hannes (Medical University Vienna, Austria) – Multi-centre FDG-PET/(CT) image analysis study
15:00 – 15:15	Talk 2.3: Robbin de Kruijf (Wageningen University & Research, Netherlands) - Multiscale imaging of the immune system

15:15 – 15:30	Talk 2.4: Irene Polycarpou (European University, Cyprus): Combined PET with MRI for improved cancer diagnosis
15:30 – 15:45	Talk 2.5: Maritina G. Rouchota (BIOEMTECH, Athens, Greece) - A preclinical platform to non-invasively study in vivo biodistribution of nanoparticles
15:45 – 16:00	<b>COFFEE BREAK</b> ; poster session continues
<b>Special session 1: Correlated Multimodal Imaging and Synchrotron Radiation Techniques</b> 16:00 – 18:00 Chairs: Anis Fatima & Kirsi O. Lorentz	
16:00 – 16:30	KEYNOTE – Kirsi O. Lorentz (Chair of LAAAMP Light Source Usage and Strategic Plan Committee for the Middle East; Member of Cyprus Delegation to the SESAME Council) – <i>Correlated Multimodal Imaging and Synchrotron Radiation Techniques: Advances, Problems and Potential</i>
16:30 – 16:45	Talk S1.1: Maria Harkiolaki (Diamond Light Source, UK) – Development and implementation of correlative workflows across high-resolution imaging modalities
16:45 – 17:00	Talk S1.2: George Kourousias (Elettra Sincrotrone Trieste, Italy) – Multimodal selective XRF Scanning using Compressive Sensing
17:00 – 17:15	Talk S1.3: Gianluca Iori (SESAME, Jordan) – Extending synchrotron computed tomography with image-derived finite element analyses
17:15 – 17:30	Talk S1.4: Hiram Castillo (ESRF – European Synchrotron Radiation Facility, France) – title TBC
17:30 – 17:45	Talk S1.5: EMBL/ESRF collaboration
17:45 – 19:30	FREE TIME (coach transportation to hotel Semeli/Nicosia Old City [walking distance from Reception venue] – for sightseeing options see separate document)
19:30 – 21:30	<b>CONFERENCE RECEPTION – CYPRUS MUSEUM and GARDENS</b> (NB. The galleries of this national archaeological museum are open exclusively for the conference participants. Drinks and finger food served in the museum gardens, with live music)
21:30	Coach transportation from The Cyprus Museum to the pick-up points

### Thursday 22nd September 2022

Time	Speaker
08:30	Coach transportation from pick-up points to The Cyprus Institute
<b>Company Talks</b> 9:00 – 10:00 Chairs: Martina Marchetti-Deschmann & Ivana Vrhovac Madunić (Fresnel Auditorium)	
09:00 – 09:20	<b>CARL ZEISS Microscopy: Company Talk on Correlative Microscopy Platform “ZEN Connect”</b> Jörg Lindenau
09:20 – 09:50	 <b>Company Talk: Streamlining cryo-CLEM with METEOR and enabling large scale CLEM with FAST-EM</b>
9:50-10:00	Forming of four groups for Cyl facility visits
<b>The Cyprus Institute Science and Technology Facilities: A Tour</b> 10:00 – 11:00	
09:50 – 10:05	BioMERA Platform MicroCT Data Analysis and Visualization Facility
10:05 – 10:20	Nano Lab
10:20 – 10:35	High Performance Computing Facility (HPC)
10:35 – 10:50	Andreas Pittas Art Characterization (APAC) Laboratory
10:50 – 11:00	Imaging Lab (optional)
11:00 – 11:15	COFFEE BREAK; poster session continues
<b>Session 3: Imaging across scales</b> 11:15 – 13:00 Chairs: Yannick Schwab & Dror Fixler	
11:15 – 11:45	KEYNOTE: Francesco Pavone (University of Florence, Italy) - Multimodality and Multiscale approaches in label free tissue detection
11:45 – 12:00	Talk 3.1: Tim Dyrby (Technical University Denmark, Denmark – Mapping the brain network across different anatomical length scales using correlative MRI and x-ray synchrotron imaging
12:00 – 12:15	Talk 3.2: Alejandra Sierra (online, University of Eastern Finland, Finland) - Multiscale imaging of the brain: from MRI to tissue ultrastructure
12:15 – 12:30	Talk 3.3: Dror Fixler (Bar-Ilan University, Israel) – The COMULS Showcase Project: Multimodal Imaging for removing Tattoos
12:30 – 12:45	Talk 3.4: Martina Marchetti-Deschmann (Technical University Vienna, Austria) – The COMULIS Showcase Project: New paths towards multimodality or The many different ways to study a skin equivalent
12:45 – 13:00	Talk 3.5 Peter Harvey (University of Nottingham, United Kingdom) - Monitoring drug delivery across length scales with multimodal MRI and mass spectrometry

13:00 – 14:00	<b>LUNCH BREAK</b>
	<b>Session 4: Software</b> 14:00 – 15:30 <i>Chairs: Raphaël Marée and Nataša Sladoje</i>
14:00 – 14:30	KEYNOTE: Natasa Sladoje (Uppsala University, Sweden) - Automated alignment of multimodal images: To (deep) learn – or not?
14:30 – 14:45	Talk 4.1: Chandler D Gatenbee (Moffitt Cancer Center, US) – VALIS: Virtual Alignment of pathology Image Series for multi-gigapixel whole slide images
14:45 – 15:00	Talk 4.2: Pekka Ruusuvoori (University of Turku, Finland) – Cancer diagnostics and grading using deep learning based AI
15:00 – 15:15	Talk 4.3: Raphael Maree (University of Liege, Belgium) – Cytomine for COMULIS Skin Project Data Handling
15:15 – 15:30	Talk 4.4: Anis Fatima (The Cyprus Institute) – 3D Slicer for biomedical applications
15:30 – 15:45	<b>CLOSING REMARKS:</b> <i>Andreas Walter &amp; Perrine Paul-Gilloteaux</i>
15:45 – 16:15	<b>Farewell Coffee</b>
16:15	Coach transportation from The Cyprus Institute to the pick-up points