

2021 NanoBioTech-Montreux

Monday, November 15, 2021

Session M-1		Chairs: Yegan Erdem & Philippe Renaud
09:00 - 09:05	Opening and Welcome	
09:05 - 09:45	Invited Keynote Opening Lecture: Christine Mummery, Leiden University, NL <i>Human stem cells in microphysiological systems: cardiovascular models and beyond</i>	
09:45 - 10:05	Gaspard Pardon, Stanford University, USA <i>Impaired inside-out force transmission in hiPSC-cardiomyocyte model of Duchenne Muscular Dystrophy cardiomyopathy</i>	
10:05 - 10:25	Maik R. Schot, University of Twente, NL <i>Engineering Capillary Networks Using Microporous Annealed Particle Tissues</i>	
Coffee break		
Session M-2		Chair: Jonathan West
11:00 - 11:20	Lucile Alexandre, McGill University, CA <i>Multiplexed protein detection in single extracellular vesicles by DNA Exchange Imaging (DEI)</i>	
11:20 - 11:40	Oskar Ström, Lund University, SE <i>Karman Vortex City of DNA Strands</i>	
11:40 - 12:20	Poster snapshots, session A <i>snapshot presentations 2 min/poster</i>	
Lunch break at the hotel (included in the registration)		
Session M-3		Chair: Charles Baroud
14:00 - 14:30	Invited: Lucio Isa, ETH Zurich, CH <i>Fabricating and controlling active particles</i>	
14:30 - 14:50	Rodolphe Marie, Technical University of Denmark, DK <i>Characterizing size and zeta potential of biocolloids with a salinity gradient</i>	
14:50 - 15:10	Tilman Schlotter, ETH Zurich, CH <i>AFM-Controlled Interface Nanopores for Single Biomolecule Sensing and Neuron Secretion Analysis</i>	
Coffee break		
Session M-4		Chair: Séverine Le Gac
16:00 - 16:30	Invited: Christine Schmidt, University of Manchester, UK <i>Engineering human sperm for cancer therapies</i>	
16:30 - 17:10	Poster snapshots, session B and exhibitors presentations <i>snapshot presentations 2 min/poster</i>	
17:10 - 18:30	Posters A presentations in poster area / Exhibition Reception / drinks	
from 19:30	Conference Dinner at Hotel Eurotel (included in the registration)	

Tuesday, November 16, 2021

Session T-1		Chair: Yegan Erdem
09:00 - 09:40	Invited Keynote Lecture: Andreas Hierlemann, ETH Zurich, CH <i>Microtechnology and microelectronics to characterize neurons and networks at subcellular resolution</i>	
9:40 - 10:00	Selim Hanay, Bilkent University, TR <i>Vacuum-Free Mass Spectrometry of Single Viruses and Nanoparticles by Nano-Electromechanical Systems</i>	
10:00 - 10:20	Silvia Demuru, EPFL, CH <i>Wearable Electrochemical Sensing Transistors for Real-Time Sweat Analysis</i>	
Coffee break		
Session T-2		Chair: Séverine Le Gac
11:00 - 11:30	Invited: Stéphanie Descroix, Institut Curie, Paris, FR <i>Macromolecules and microsystems in biology and medicine</i>	
11:30 - 11:50	Marco Rocca, IBM Research Europe, CH <i>Rapid test combining a quantitative G6PD assay and a measurement of hemoglobin concentration on a single capillary-driven microfluidic chip</i>	
11:50 - 12:10	Etienne Boulais, Polytechnique Montréal, CA <i>Designing new microfluidic devices using conformal transforms</i>	
12:10 - 12:40	Poster snapshots, Session C <i>snapshot presentations 2 min/poster</i>	
Lunch break at the hotel (included in the registration)		
Session T-3		Chair: Jonas Tegenfeldt
14:00 - 14:30	Invited: Thomas Gervais, Polytechnique Montréal, CA <i>Transport theory-guided innovation in microfluidics: from 3D ex vivoculture to advanced reagent delivery systems</i>	
14:30 - 14:50	Pauline Zamprogno, ARTORG Center, University of Bern, CH <i>Lung-alveoli-on-chip: New generation of air-blood barrier model based on soft and stretchable biological membrane</i>	
14:50 - 15:10	Carlo Alberto Paggi, University of Twente, NL <i>Cartilage-on-Chip: How Mechanical Actuation Stimulates the Formation of Pericellular Matrix</i>	
Coffee break		
Session T-4		Chair: Philippe Renaud
15:40 - 16:20	Invited Keynote Lecture: Hilmi Volkan Demir, Bilkent University, TURKEY <i>Emerging Field of Semiconductor Nanocrystal Optoelectronics: Pushing the Limits</i>	
16:20 - 17:00	Poster snapshots, Session D and exhibitors presentations <i>snapshot presentations 2 min/poster</i>	
17:00 - 19:00	Posters B presentations in poster area / Exhibition Reception / drinks	

Wednesday, November 17, 2021

Session W-1		Chair: Andrew deMello
09:00 - 09:30	Invited : Ali Abou Hassan, Sorbonne University, FR <i>Multi-scale approach to thermal therapies for cancer treatment: from simple magnetic nanoparticles to magnetoplasmonic nanohybrids</i>	
09:30 - 09:50	Agnieszka Zuchowska, University of Twente, NL <i>Increasing the efficiency of drug delivery to hepatocellular carcinoma aided through enzymatic degradation</i>	
09:50 - 10:10	Moein Talebian Gevari, Sabanci University, TR <i>Spray structure analysis under the effect of hydrodynamic cavitation and its local effect on immobilized cancer cells</i>	
Coffee break		
Session W-2		Chair: Yegan Erdem
10:40 - 11:00	Nadia Vertti-Quintero, Institut Pasteur, FR <i>Understanding double-strand break repair efficiency in yeast cells</i>	
11:00 - 11:20	Miguel Xavier, International Iberian Nanotechnology Laboratory, P <i>Microfluidic Simulation of Human Gastrointestinal Digestion and Cell- based Intestinal Absorption</i>	
11:20 - 12:00	Invited Keynote Closing Lecture: Benjamin Davis, Oxford University, UK <i>Sugars and proteins</i>	
12:00 - 12:20	Award ceremony for Poster Prizes and closing of the conference	

Thanks for your participation! And hopefully, see you next year.