

Preliminary program of the 2 day workshop:
 “NanoBio Surfaces and Interfaces in Healthcare and Science”

Programme Morning 8 May 2018

7.00	Hal open for table booth installations		
8.00	Doors open/coffee		
8.30	Opening by Philip Renaud , EPFL, Chair		
8.40-9.10	1 st keynote: Roland Zengerle , Hahn-Schickard-Director Freiburg & Villingen-Schwenningen “Molecular diagnostics at the Point-of-Care by centrifugal microfluidics”		
9.10-9.30	Hugo de Haan , introduction & presentation of 3 selected Alp region recent Start-ups		
	1. Christian Mathis , Dr. sc. ETH , SuSoS AG: “.PAcrAm - a Novel Sensing Platform for Next Generation Sequencing		
	2. Iwan Märki , Abionic SA, Switzerland, “Nanotechnology for point-of-care diagnostics”		
9.30-10.00	Coffee / tea at booth area		
	Start parallel workshop sessions		
	Salle Polyvalente Surface functionalization, antimicrobial/antifouling coatings and analytics, detection, imaging. Moderator: Thomas Pfohl (back-up Peter Miethe)	Demo salle (hall) Cell-material interaction for organ-on-chip devices & regenerative medicine @ the nano scale Moderator: Stefan Giselbrecht /Pascal Jonkheim?	la salle CE1 104 Human diagnostic devices Moderator: Hatice Altug
10.00-10.20	Katja Fricke , INP Greifswald, Head Research Programme Bioactive Surfaces “On the tailoring of cell-surface interactions by plasma-based surface engineering”	Stefan Giselbrecht , MERLN . “Membrane-based microfluidic systems for advanced 3D cell culture models”	Hatice Altug , EPFL. “Lab-on-a-Chip Nanophotonic Biosensors for Biology and Diagnostics”
10.20-10.40	Dr. Jörg Funk , Voxalytic GmbH “Microsolenoids – allrounder component for sensing, acting and transmitting on micro and nano-level”	Mikhael Bechelany , Institut Européen des Membranes “Design of biocompatible gelatin based fibers for drug delivery and bone tissue engineering applications”	Sami Rtimi , EPFL, “Recent developments in uniform films on 2D/3D surfaces leading to quasi-instantaneous bacterial inactivation kinetics”
10.40-11.00	Alessandro Patelli , Padova University. Title “Surface functionalization, nano roughness and drug delivery by atmospheric plasma jet on 3D printed scaffolds” (with Nadirtech)	Maurits van der Heiden , TNO, bio-NOMI “In-vitro monitoring organ on chip systems by their nano mechanical behavior”	Tzu-En Lin EPFL “Imaging the distribution of graphene oxide nanoribbons in mice livers by electrochemical probe”
11.00-11.20	Philip Paul , SwissLitho AG “Thermal scanning probe lithography for bio applications”	Norman D.H. Munroe , Florida International University “Surface Treated Biosorbable Materials for Sensors and Cardiovascular Applications”	Wilfried Weigel , Scienion, Ge “Miniaturized Planar Multiplex Analytics – From R&D to Highthroughput Manufacturing”
11:20-11:50	Coffee Break		
	Moderator: Thomas Pfohl (back-up Peter Miethe)	Moderator: Stefan Giselbrecht /Pascal Jonkheim?	Moderator Stavros Stavrakis
11.50-12.10	Peter Miethe , Research Centre of Medical Technology and Biotechnology mbH “Veterinary diagnostics- a playground for innovative lab on chip devices?”	Pascal Jonkheim , UT/MESA+ “Supramolecular materials and interfaces for biological and biomedical applications”	Hywel Morgan , Univ of Southampton, UK “ From SmartPhones to Diagnostics”
12.10-12.30	Bo Claerebout , PharmaFluidics, “Micro Pillar Array Columns (µPAC™): the heart of a versatile and robust platform for limited cell count proteomics”	Serena Danti , OTOLab @ Cisanello Hospital, Pisa, The BioRobotics Institute, Pontede , Italy “Piezoelectric nanomaterials with anti-inflammatory and immunomodulatory properties for cochlear stimulation” .	Aliki Tsopela , Micronit “Microtechnologies enabling point-of-care testing”
12.30-12.50	Andrea Valsesia , Advanced Analytical Methods , European Commission, Directorate General Joint Research Centre “Direct quantification of nanoparticles hydrophobicity”	Wolfgang Wagermaier , Max Planck Institute of Colloids and Interfaces , Department of Biomaterials, Research Campus Golm , Potsdam, Germany. “Osteocyte network architecture and	Dr Stavros Stavrakis , ETH Zurich , group Andrew J. deMello “OPTOFLUIDIC PLATFORMS FOR HIGH-THROUGHPUT AND HIGH PRECISION MEASUREMENTS IN

		bone material properties in healthy and healing bone”	FLOW CYTOMETRIC DETECTION” (theme; surface functionalization)
12.50-13.10	Maximilien Guerin , Fluigent S.A. “Microfluidic Flow control instruments to model cell microenvironment”	Samuele Tosatti , SuSos AG “Stem cells React on Form and Surface – Biological Principles demand new platforms for regenerative medicine “	Etienne FRADET, Stilla Technologies “The Naica system and its applications” CANCELLED
13.10-13.30	Thomas Pfohl , Institute of Physics, University of Freiburg “Straightforward microfluidic tools for biology and biophysics”	Arnaud Nicolas , MIMETAS “High-throughput platform for rapid TEER measurement of Organ-on-a-Chip endothelial and epithelial tubules”	John Brennan , Biointerfaces Institute McMaster University “A Paper Sensor Printed with Multifunctional Bio/Nano Materials”
13.30-14.00	Lunch		
14.00-14.20	Photo shoot participants		

Programme Afternoon 8 May 2018

Start parallel workshop session & Possibility to join CMi day afternoon program in RLC		
	Salle Polyvalente Surface functionalization, antimicrobial/antifouling coatings and analytics, detection, imaging. Moderator: Peter Miethe	Demo salle (hall) Cell-material interaction for organ-on-chip devices & regenerative medicine @ the nano scale Moderator: no need ? / 2ea only
14.20-14.40	Morteza Aramesh , Laboratory of Biosensors and Bioelectronics, Institute for Biomedical Engineering, ETH Zurich “Carbon coating of nanomaterials for biosensing”	Maurizio Ventre , University of Naples Federico II / Centre for Advanced Biomaterials for Health Care, IIT@CRIB, Istituto Italiano di Tecnologia, and Interdisciplinary Research Centre on Biomaterials “Engineering patterned surfaces to control cell and tissue functions through the material-cytoskeleton crosstalk”
14.40-15.00	Anke Schuetz-Trilling , Surfix NI, “Local surface modification for the life science market” A Paper Sensor Printed with Multifunctional Bio/Nano Materials	Giovanna Brusatin , Università di Padova “2D-3D cell culture systems for biomedical studies”
15.00-15.20	Walk to Rolex Center (10 min) for CMi Poster session & Cocktail The doors will be closed during the presentations & the actual timing will certainly deviate from the program	
15.20-15.45	Break	
15.45-16.00	Philippe Renaud , (http://lmis4.epfl.ch), From the lab to the fab: how simple technologies translate into innovative products	
16.00-16.15	Jamie Paik , (https://rrl.epfl.ch), Soft Origami Robots	
16.15-16.20	Jochen Zimmer , (https://www.nanoscribe.de), Short technical presentation	
16.20-17.00	CMi day Poster Session & Cocktail in Rolex Learning Center (RLC)	
18.30-19.00	Walking from RLC to restaurant	
19.00-23.00	Dinner	

Programme Morning 9 May 2018

07.30-8.20	Coffee / tea at booth area	
	<p>Salle Polyvalente</p> <p>Surface functionalization, antimicrobial/antifouling coatings and analytics, detection, imaging.</p> <p>Moderator: Marileen Dogterom</p>	<p>Demo salle (hall)</p> <p>Cell-material interaction for organ-on-chip devices & regenerative medicine @ the nano scale</p> <p>Moderator: Fredrik Höök</p>
08.20- 08.40	Dmitri Y. Petrovykh , International Iberian Nanotechnology Laboratory (INL), "Practical design and characterization of biofunctionalized surfaces"	Fredrik Höök , Chalmers Univ, "Micro- and Nanofluidics in Biological Nanoparticle Analytics." (application theme; Drug delivery systems & Nanomedicine)
08.40-09.00	Elmar Hartmann , JPK Instruments AG „Modern Techniques of Atomic Force Microscopy (AFM) in Life Sciences"	Hugo Bissig , Federal Institute of Metrology METAS "High accuracy testing of drug delivery devices"
09.00-09.20	Marileen Dogterom , TU Delft / Department of BioNano science, Kavli Institute of Nanoscience, "Building minimal mitotic spindles in artificial confinement"	Joost Lötters , Bronkhorst High-Tech B.V. "MicroCoriolis flow and density sensor for flow and composition measurement in drug delivery systems"
09.20-09.40	Jeff Wood , University Twente (<i>replacing Rob Lammertink</i>). "Transport Phenomena in Structured Charge-Selective Interface Systems"	Marie-Agnès Doucey , Ludwig Institute for Cancer Research, "Memristor Nanowire Sensors for High Sensitivity Detection of markers in Breast Cancer Patient Tumor Tissues"
09.40-10.20	Coffee Break	
10.20-10.50	2 nd keynote: Emmanuel Delamar , IBM "Microfluidics for point-of-care diagnostics 2.0: from liquid control to security features "	
10.50-11.20	<p>Hugo de Haan, introduction of Science & Entrepreneurship case;</p> <p>Murali Ghatkesar, TU Delft, Alquin Stevens, InnoPhysics, NL "Hollow AFM cantilever for small volume nanofluid sample handling" combined with "Recent developments in digital μPlasmaPrint surface engineering from low volume science to high volume industrial applications"</p>	
11.20-12.00	Coffee Break	
	<p>Salle Polyvalente</p> <p>Surface functionalization, antimicrobial/antifouling coatings and analytics, detection, imaging.</p> <p>Moderator: Matthias Lutolf</p>	<p>Demo salle (hall)</p> <p>Lead compound discovery and novel screening methods (such as organoids/organs on a chip) use of solid & fluidic micro/NanoParticles</p> <p>Moderator: Wim De Malsche</p>
12.00-12.20	Matthias Lutolf , Institute of Bioengineering, EPFL (section; Tissue Engineering) co-founder spinoff SUN Bioscience	Wim De Malsche , VUB, "Production of monodisperse particles at an industrial scale"
12.20-12.40	Itedale Namro Redwan , Cellink "3D bioprinting of human soft tissues"	Uwe Marx , TissUse GmbH, spin-off TU Berlin (section "novel screening methods") . "Nanoscale aspects of a human multi-organ-chip platform for safety and efficacy testing"
12.40-13.00	Björn Önfelt , Microbiology, Tumor and Cell Biology, Karolinska Institutet, Sweden "Devices and analysis to assess anti-tumour responses of natural killer cells at the single cell level"	Tom Constandse , TNO NL "Intrapreneurship at TNO – Scaling-up single-molecule science to high-throughput technology"
13.00-13.20	Cagri Üzü m, Surflay Nanotec GmbH "Microsensors for label-free bioanalysis, diagnostics and monitoring biomolecular interactions: Low-Q Whispering Gallery Modes (WGM)"	Albert van den Berg , MESA+/UT Nanotech for Health "Labs, Cells and Organs on a Chip"
13.20-14.40	Poster session & Lunch (13.45 meeting International Scientific Committee / ISC)	
	<p>Posters:</p> <p>Alberta De Capua, PhD student of Italian Institute of Technology (IIT) in Naples</p> <p>Alessandra De Masi, PhD student of Italian Institute of Technology (IIT) in Naples</p> <p>Stephanie Hwu, PhD student ETH Zurich, Non-specific interaction based biosensing</p>	

Programme Afternoon 9 May 2018 (Cont'd)

14.40	Workshop session 2	
	<p>Salle Polyvalente</p> <p>Surface functionalization, antimicrobial/antifouling coatings and analytics, detection, imaging.</p> <p>Moderator: Gregor Thalhammer</p>	<p>Demo salle</p> <p>Human diagnostic devices</p> <p>Moderators: Jonathan M. Cooper & Tony Cass</p>
14.40-15.00	Monika Ritsch-Marte , Medical University of Innsbruck, "Optical and acoustic traps for cell clusters"	Jonathan M. Cooper , University of Glasgow "Rapid, Low Cost Diagnostics for Microbial Assessment in Disease"
15.00-15.20	Iago Pereiro , IBM Zurich Laboratory (Delamarche group) - Zurich "High-efficiency microscale biopatterning on surfaces using hydrodynamic flow confinements"	Tony Cass , Imperial College, UK "Microneedle Sensor Arrays for Minimally Invasive Continuous <i>in vivo</i> Monitoring"
15.20-15.40		Samantha Paoletti , CSEM. "Recent advances in non-invasive diagnostics"
15.40-16.00		Francesco Padovani , Nanobiotech Group, CRANN, Naughton Institute, Trinity College Dublin "Nanomechanical Clinical Coagulation Diagnostics and Monitoring of Therapies"
16.00-16.15	Coffee break	
16.15	Plenary Closure @ Salle Polyvalente	