

Preliminary program of the 2 day workshop: "Healthcare and Life Science & Entrepreneurship"

Program Morning 29 April 2021

08.30	‘Doors’ open for zoom meeting	
09.00	Welcome & Opening by Chair(s) Winnie Svendsen and Heiner Linke	
9.20-9.50	1 st keynote Anja Boisen , <i>Technical University of Denmark, Lyngby, Denmark</i> , “Bringing microstructures to life”	
Start parallel workshop sessions		
	Microfluidics Moderator: Julien Reboud	Surface functionalization, coating and dispensing; Moderator: Diego Mantovani
9.50-10.10	Julien Reboud , <i>University of Glasgow</i> , “Microfluidics in Medical Devices – from Entrepreneurship to Open Innovation”	Diego Mantovani , <i>Department of Min-Met-Materials Eng., & University Hospital Research Center, Canada</i> , “Diamond-like coatings: A scientific platform for multifunctional antibacterial coatings for health in an academic/entrepreneur R&D&I perspective”
10.10-10.30	Iwona Ziemecka , <i>Vrije Universiteit Brussel, Belgium</i> , “Controlling the trajectory of magnetic particles in microfluidic devices for Layer-by-Layer coating”	Damien Thiry , <i>University of Mons, Belgium</i> , “The wrinkling concept applied to plasma-deposited polymer-like thin films: a promising approach for the fabrication of flexible electrodes”
10.30-10.50	Piotr Garstecki , <i>Bacteromic Sp. z o.o., Scope Fluidics S.A, Poland</i> , “Microfluidic methods in phenotypical and molecular diagnostics to curb AMR” with virtual booth 2PPT slides by opening chair	Ghizlane Choukrani , <i>Surflay Nanotec GmbH, Berlin, Germany</i> , “Controlled release of the immunomodulatory protein TNF under body-like flow conditions and tumor microenvironmental pH using vaterite nanoparticles”
10.50-11.10	Loes Segerink , <i>University of Twente, The Netherlands</i> , “Improving assisted reproductive technology using microfluidics”	Sonja Voorn , <i>Fontys University of Applied Sciences, The Netherlands</i> , “Developing medical phantoms and learning models”
11.10-11.30	Carlos A García-González , <i>University of Santiago de Compostela, Spain</i> , tentative title "Processing of medical devices using supercritical fluid technology".	Harald Doell , <i>TSE Troller AG, Switzerland</i> , “Development of new products with optimized slot dies”
11.30-11.50	Coffee Break	
	Cell-material interaction; Moderator: Valeria Chiono	Drug delivery Moderator: Ada-loana Bunea
11.50-12.10	Valeria Chiono , <i>Politecnico di Torino, Turin, Italy</i> “Bioengineering strategies in the direct reprogramming of human cardiac fibroblasts towards the cardiac phenotype”	Ada-loana Bunea , <i>DTU Nanolab, Denmark</i> , "Microrobots for biomedical applications: where does light come in?"
12.10-12.30	Jaap Koopman , <i>Fibriant BV, Leiden, The Netherlands</i> , “Recombinant Human Fibrinogen: turning natural variation into product innovation”	Francesca Costantini , <i>Sapienza University of Rome, Italy</i> , “RNA amplification through an optoelectronic lab on chip: from plant virus to SARS-CoV-2 detection”
12.30-12.50	Silvia Fare , <i>Politecnico di Milano, Milan, Italy</i> , “Photocrosslinked GelMA/hyaluronic acid hydrogels as adipose tissue in vitro models”	
12.50-13.10		
13.10-13.30		
13.30-14.10	Lunch break	

14.10-14.40	2 nd keynote: Regina Luttge , Associate Professor in the Microsystems section and Chair of Neuro-Nanoscale Engineering, Eindhoven University of Technology, The Netherlands, "Nervous system-on-chip: From moonshot to forward engineering of applications"	
	Entrepreneurship Moderator Regina Luttge	Nanomedicine; Moderator Dietmar Appelhans
14.40-15.00	Martin Holmboe , <i>Futurebox, Denmark</i> , "Best practice for accelerating startups: The Futurebox philosophy"	Dietmar Appelhans , <i>Leibniz-Institut für Polymerforschung Dresden e.V, Germany</i> , "Compartmentalized space for enzymatic cross-talks and overcoming enzyme inhibitions"
15.00-15.20	Jens Friholm , <i>DTU Skylab, Denmark</i> , "Supporting the DTU Life science entrepreneurs"	Stephan Block , <i>Freie Universität Berlin, Germany</i> , "Mobility-Based Quantification of Single Virus-Receptor Interactions"
15.20-15.40		
15.40-16.00	Coffee Break	

	Analytics, detection and imaging; Moderator: Fredrik Westerlund	Title Moderator:
16.00-16.20	Fredrik Westerlund , <i>Chalmers University of Technology, Sweden</i> , "High-resolution identification of bacteria and their plasmids using optical DNA mapping"	
16.20-16.40	Jochen Guck , <i>Max Planck Zentrum für Physik und Medizin, Erlangen, Germany</i> , "Physical phenotyping at rates of 1,000 cells/sec for functional blood cell diagnostics"	
16.40-17.00	Karin Schütze , <i>CellTool GmbH, Germany</i> , "Advanced cell analysis using gentle Raman-Trapping-Microscopy"	<i>If required</i>
17.00-17.20	Max Maletta , <i>ThermoFisher, The Netherlands</i> , "The role of cryo-EM in fighting back diseases and the Covid-19 epidemic"	<i>If required</i>
17.20-17.40	Nils Goedecke , <i>Heidelberg Instruments Nano, SwissLitho AG, Switzerland</i> Title/abstract yet to follow	<i>If required</i>

	Tissue Engineering, regenerative medicine, organ on a chip; Moderator: Serena Danti	Human diagnostics Moderator: Magdalena Kowalska,
08.30-08.50	Serena Danti, University of Pisa, Italy, "3D printed barium titanate/polyhydroxybutyrate scaffolds for bone tissue engineering"	Magdalena Kowalska, CERN, Geneva, Switzerland, "Novel techniques for biological studies and medical diagnosis using unstable isotopes"
08.50-09.10	Elena Martínez, Institute for Bioengineering of Catalonia, Spain, "Biomimetic models of intestinal tissue: promoting cellular self-organization through bio fabrication techniques"	Elisabete Fernandes, INL, Portugal, "Patient stratification for treatment decisions: the challenges behind the optimization of a PoC platform"
09.10-09.30	Joost Lötters, Bronkhorst High-Tech BV, Ruurlo, The Netherlands, "Flow control system for organ on a chip application"	Alexios Paul Tzannis, IMT Masken undTeilungen AG, Switzerland, "Advanced detection schemes in Consumables for Life Science and Diagnostics by including surface functionalisation in microfluidic flow cells; challenges and opportunities"
09.30-09.50	Séverine Le Gac, University of Twente, The Netherlands, "Tumor-on-a-chip models to study nanomedicine penetration"	
09.50-10.10	Stephanie Descroix, Institut Curie, PSL Research University, CNRS, Paris, France, "Development of an gut on chip recapitulating gut complexity"	
10.10-10.20	Coffee Break	
10.20-10.50	3 rd keynote: Heiner Linke, Lund University, Sweden, "Highly sensitive optical detection of biomarkers using light-guiding nanowires"	
	NanoBio surfaces, biosensing Moderator: Heiner Linke	Drug Delivery Moderator Anders Koustrup Niemann
10.50-11.10	Fouzia Boulmedais, Université de Strasbourg, CNRS, France, "Release-killing polyphenol based multilayer film applied as antibacterial coating"	Anders Koustrup Niemann, Danish Technological Institute, Denmark, "Development of calibration procedures for drug delivery devices"
11.10-11.30	Michael Daniele, NCSU, United States, "Wearables and Implantables: Enabling Technologies to Move Biosensing from the Benchtop to the User"	Richard Hoogenboom, Ghent University, Belgium, "Poly(2-oxazoline)s for drug delivery"
11.30-11.50		
11.50-12.00		
12.00-12.20	Coffee Break	
	Bio Polymers Moderator: Evelien Smits	Title Moderator:
12.20-12.40	Evelien Smits, University of Antwerp, Belgium, "Combination of different sources of reactive oxygen species in 2D and 3D glioblastoma multiforme cultures"	
12.40-13.00	Gianluca Ciardelli, Politecnico di Torino – DIMEAS, Italy, "Tailored biomaterials: advanced tools to enhance cancer understanding and treatment"	
13.00-13.20		
13.20-14.20	Lunch break	

Program Afternoon 30 April 2021

14.20	Workshop session	
	Polymers Moderator: Felix Löffler	Title Moderator:
14.20-14.40	Felix Löffler , <i>Max Planck, Potsdam, Germany</i> , "Laser-assisted parallel synthesis of biomolecules and nanomaterials in polymer nanoreactors"	
14.40-15.00	Zarah Korb , <i>University of Basel, Switzerland</i> , "Obstacles to commercialisation: Understanding organisation and structure in adaptable, bio-based polymer networks in complex environments"	
15.00-15.20	Maria Cristina Righetti , <i>CNR and IPCF Pisa, Italy</i> , "Semi-crystalline Biopolymers: Properties of the Constrained Amorphous Interphase"	
15.20-15.40	Benjamin Richter , <i>Nanoscribe, Germany</i> , "3D micro printing by means of two-photon polymerization as the key enabling technology for life science applications"	
15.40-16.00	<i>If required</i>	<i>If required</i>
16.00-16.30	Plenary Closure	