

## Poster flash presentations

<b>Session A - Monday, November 15, 2021</b>					
	<b>Last name</b>	<b>First name</b>	<b>Institution</b>	<b>Country</b>	<b>Title of abstract</b>
<b>A1</b>	Rivera Arbelaez	José Manuel	University of Twente	NL	<i>A Versatile platform that allows mechanical and electrical stimulation to improve maturation of engineering 3D cardiac tissues using hPSCs</i>
<b>A2</b>	Zeinali	Soheila	ARTORG Center, University of Bern	CH	Functional Human Lung Vasculature-on-chip: Cyclic Stretch and Vascular Remodeling
<b>A3</b>	Ruff	Tobias	ETHZ	CH	<i>A biohybrid retinal ganglion cell neural interface to restore vision</i>
<b>A4</b>	Green	Brenda	FOM the FIRC institute of Molecular Oncology	EU	<i>PillarX: A Microfluidic Device to Profile Circulating Tumor Cell Clusters Based on Geometry, Deformability and Epithelial State</i>
<b>A5</b>	Girardin	Sophie	ETHZ	CH	<i>Using PDMS microstructures to build topologically constrained networks of human iPSC-derived neurons on microelectrode arrays</i>
<b>A6</b>	Pollet	Andreas	Eindhoven University of Technology	NL	<i>3D sugar printing for the investigation of vascular flow</i>
<b>A7</b>	Ayala- Nunez	Vanesa	EMPA	CH	<i>Modelling the physiological response to iron-carbohydrate nanoparticles with a dynamic and mature vascular in vitro model</i>
<b>A8</b>	O'Connor	Jonathan	KIST	DE	<i>3D-printed microfluidic chip for producing human liver cell-laden gelatin microgels</i>
<b>A9</b>	Vulić	Katarina	ETHZ	CH	<i>Dopamine Effects on Synaptic Plasticity in Small Patterned Biological Neuronal Networks</i>
<b>A10</b>	Yilmaz	Esra	Lund Univ.	SE	<i>Tracking The Shear Alterations of Human Circulating Tumor Cells via Time-lapse Imaging</i>
<b>A11</b>	Maner	Jenny	Eawag	CH	<i>RAINBOWFLOW CHIPONLINE: impedance spectroscopy for water quality monitoring using fish cells on a chip</i>
<b>A12</b>	Antunez Dominguez	Jesus Manuel	Elvesys	FR	<i>DEVELOPMENT OF A DROPLET MICROFLUIDICS BACTERIAL BIOFILM OBSERVATION PLATFORM</i>
<b>A13</b>	Tiemeijer	Bart	University of Technology Eindhoven	NL	<i>A hydrogel droplet-based microfluidics platform to probe macrophage polarization at the single-cell level</i>
<b>A14</b>	Brugnoli	Francesca Romana	Elvesys	FR	<i>Development of an automated cell perfusion station for controlled compound delivery</i>
<b>A15</b>	Carlino	Alessandro	University of Twente	NL	Rapid Detection of Hypermethylated DNA in Urine
<b>A16</b>	Chen	Jia Lu	ETHZ	CH	<i>Designing Polymeric Cardiovascular Biomaterials for Hemocompatibility and Mechanical Performance</i>
<b>A17</b>	Teixidor	Joan	EPFL	CH	<i>NEURAL PROBE TO SAMPLE DROPLETS ON DEMAND IN VIVO AND QUANTIFY GLUCOSE WITH MASS SPECTROMETRY</i>
<b>A18</b>					

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### Session B - Monday, November 15, 2021

	Last name	First name	Institution	Country	Title of abstract
<b>B1</b>	Sanka	Immanuel	Tallinn University of Technology	EE	<i>Classification Study for High-Throughput Polydisperse Droplet</i>
<b>B2</b>	Lipp	Clémentine	EPFL	CH	Large arrays of vertical hydrodynamic traps for beads and cells trapping
<b>B3</b>	Hengoju	Sundar	Leibniz Institute, Jena	DE	<i>Multi-parametric data acquisition and analysis for high-throughput droplet-based microfluidic applications</i>
<b>B4</b>	Hochvaldova	Lucie	Palacky University Olomouc	CZ	<b>PLASMONIC NANOSILVER-MODIFIED SURFACES FOR MICROTHERMAL-INDUCED PROTEIN DAMAGE IN CELLS</b>
<b>B5</b>	Kurniawan	Tetuko	IPPT-PAN	PL	<i>Formation of dual-size droplets in the microfluidic cross-junction device</i>
<b>B6</b>	Pitingolo	Gabriele	Bioaster	FR	<i>Semi-automated microfluidic droplet generator for single-cell analysis of immune cells</i>
<b>B7</b>	Man	DeDe Kwun V	Hans Knöll Institute	DE	Ultrahigh throughput droplet cultivation to access microbial dark matter
<b>B8</b>	Dalcanale	Federico	FHNW	CH	<i>3D printed modules for microfluidics: droplets generation and microfluidic mixers</i>
<b>B9</b>	Vian	Antoine	UCSB	USA	<b>HYDROPHILIC REAGENT TRANSPORT ACROSS PHASES IN DOUBLE EMULSION DROPLETS</b>
<b>B10</b>	Zubkovs	Vitalijs	CSEM	CH	<i>Hydrogel-immobilized single-walled carbon nanotube-based optical sensors for cell culture monitoring</i>
<b>B11</b>	de Hemptinne	Amaury	Vrije Universiteit Brussel	BE	<b>MICROFLUIDIC DEVICE FOR MULTILAYER COATING OF MAGNETIC MICROPARTICLES</b>
<b>B12</b>	Hengsteler	Julian	ETHZ	CH	<i>Additive Manufacturing of Metals at the Nanoscale</i>
<b>B13</b>	Vafaizadeh	Vida	EPFL	CH	<i>TheraMe! - Microfluidic platforms for personalized drug screening in cancer</i>
<b>B14</b>	Zuchowska	Agnieszka	University of Twente	NL	An effective method to obtain an on-chip vascular network
<b>B15</b>	Moonen	Emma	Eindhoven University of Technology	NL	<i>Digital microfluidics for wearable sweat sensing devices towards monitoring of individuals in sedentary state</i>
<b>B16</b>	MOMENIAZA NDARIANI	Shima	Blackholelab	FR	A novel approach for synthesis of methylene blue using an enhanced electrochemical microfluidic cell
<b>B17</b>	Venkataraman achar	Bhavana	Eindhoven University of Technology	NL	<i>Micro and nanosized magnetic artificial cilia as flow sensors</i>
<b>B18</b>	Dehsharhria	Ali	Shiraz University of Me	IRN	<b>GEMCITABINE-TOBACCO MOSAIC VIRUS NANOPARTICLES: A NOVEL PLATFORM FOR CONVENTIONAL ANTICANCER DRUGS</b>
<b>B19</b>	Ziller	Amelie	NMI, Tübingen University	DE	<i>Interconnections for Flexible Microelectrode Arrays and their Lifetime-Testing under Body-like Conditions</i>

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### Session C - Tuesday, November 16, 2021

	Last name	First name	Institution	Country	Title of abstract
<b>C1</b>	Kooi	Roeel	Eindhoven University of Technology	NL	<i>Studying Mechanotransduction via Extracellular Dynamic Stimulation using Artificial Cilia</i>
<b>C2</b>	Zhang	Xinyu	ETHZ	CH	<i>4D force detection of cell adhesion and contractility combining FluidFM and confocal reference-free TFM</i>
<b>C3</b>	Mierzejewski	Michael	NMI Tübingen University	DE	One-sided microfluidic integration of solid-state nanopore arrays
<b>C4</b>	Paggi	Carlo Alberto	University of Twente	NL	Mimicking rheumatoid arthritis macrophages response using a triple culture synovial membrane-on-chip
<b>C5</b>	Ostromohov	Nadya	EPFL	CH	<i>Leveraging isotachophoresis and deterministic lateral displacement for simultaneous sample concentration and size-based sorting</i>
<b>C6</b>	Matthiesen	Isabelle	KTH Royal Institute of Technology	SE	<b>CONTINUOUS MONITORING SHOWS PROTECTIVE EFFECTS OF ANTIOXIDANT ON BLOOD-BRAIN BARRIER <math>\mu</math>-FLUIDIC MODEL</b>
<b>C7</b>	Nakatsuka	Nako	ETHZ	CH	<i>Interfacing DNA-Based Nanobiosensors with Live Neurons</i>
<b>C8</b>	Aydemir	Gizem	Institute of Neuroinformatics	CH	<i>Hydrodynamic Cavitation on a Chip for Early Cancer Diagnosis</i>
<b>C9</b>	Ahmed	Husnain	NTNU	NO	<i>Fabrication of Ca-alginate microgel beads by microfluidic picoinjection method</i>
<b>C10</b>	ZARE EELANJEGH	Elaheh	ETHZ	CH	<i>Fluidic Force Microscopy for Monitoring and Quantifying the Nucleo-Cytoskeletal Coupling</i>
<b>C11</b>	Della Pelle	Giulia	Jozef Stefan Institute	SV	<i>Erythrocytes based carriers for therapy and diagnostic</i>
<b>C12</b>	Sifringer	Léo	ETHZ	CH	<i>Development of a stretchable biohybrid brain implant for vision restoration</i>
<b>C13</b>	van Dongen	Jeanne Elisabeth (Nienke)	University of Twente	NL	Towards Multiplexed Tethered Particle Motion DNA Sensing using Optical Fluctuation of Plasmonic Nanoparticles: a Modelling Study
<b>C14</b>	Vergier	Blandine	EPFL	CH	<i>Development of a microfluidic pipeline to decipher the target landscape of tumor-specific T Cell Receptors</i>
<b>C15</b>	Baber	Robert	Elvesys	FR	<i>Development of a versatile and low-cost droplet microfluidic platform for single-cell analysis</i>
<b>C16</b>	Gadea Solidoro	Alejandra	Université de Bordeaux	FR	<i>Directed Evolution of Glucose Oxidase using Droplet-Based Microfluidics</i>
<b>C17</b>	Rezaeianaran	Farzad Rezaeianaran	EPFL	CH	<b>HIGH-RESOLUTION IMAGING OF BACTERIA IN THE CAENORHABDITIS ELEGANS GUT</b>
<b>C18</b>					

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### Session D - Tuesday, November 16, 2021

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	Last name	First name	Institution	Country	Title of abstract
D1	Bossink	Elsbeth	University of Twente	NL	Measuring the barrier formation and a local barrier disruption using multiplexed electrodes along the length of a Gut-on-Chip
D2	Ihle	Stephan	ETHZ	CH	<i>Investigating stimulation dependent neuronal activity in topologically constrained networks in vitro</i>
D3	Zakhorova	Mariia	University of Twente	NL	<i>Quadro - channel organ on-chip for modeling and studying the blood<sub>7</sub> brain barrier</i>
D4	Venzac	Bastien	University of Twente	NL	Microplastics, the next threat to male fertility?
D5	Clément	Blandine	ETHZ	CH	<i>Stretchable nerve model for studying peripheral neuropathies in vitro</i>
D6	Huttner	Aviv	EPFL	CH	<i>SensUs student competition</i>
D7	Akbari	Elham	Lund University	SE	<b>SEPARATION OF CLUSTERS OF STREPTOCOCCI USING DETERMINISTIC LATERAL DISPLACEMENT</b>
D8	Duru	Jens	ETHZ	CH	<i>Engineered biological neural networks on high density CMOS based microelectrode arrays</i>
D9	Clément	Pierrick	EPFL	CH	<i>Real-time and reversible detection of neurotransmitters with solution processable nanoscale biosensor</i>
D10	Saqib	Muhammad	Bilkent Univ.	TR	<b>SYNTHESIS OF POLYMER MICROPARTICLES BY DROPLET-BASED MICROFLUIDICS</b>
D11	Mortelmans	Thomas	Swiss Nanoscience Institute	CH	<i>Cost-effective 3D nanofluidic device for multiplexed detection of Influenza A and SARS-CoV-2 antibodies</i>
D12	de Bruijn	Douwe	University of Twente	NL	<i>Influence of acid treatment on the calcite exoskeleton of algae via impedance flow cytometry</i>
D13	Beech	Jason	Lund University	SE	<i>Developments in high-throughput, microfluidic sorting of extracellular vesicles</i>
D14	Chimerel	Catalin	University of Exeter	UK	<i>Functional Phenotype Flow Cytometry: On Chip Sorting of Individual Cells According to Responses to Stimuli</i>
D15	Paggi	Carlo Alberto	University of Twente	NL	Impact of compressive forces on breast cancer aggressiveness in a breast cancer-on-chip platform
D16	Betterelli Giuliano	Camila	Elvesys	FR	<b>PRODUCTION AND STABILITY OF DOUBLE EMULSIONS FOR ORAL VACCINE DELIVERY</b>
D17	Draz	Muaz	EPFL	CH	<i>Electrothermal effects for enhancing surface-based assays: a Finite Element Method study</i>
D18	Kögel	Marco	NMI, Tübingen University	DE	<i>Stoichiometry-dependent stability of silicon nitride nanopores</i>
D19					