

**Sunday, November 10, 2024**

<b>18:00 - 20:00</b>	- Opening of the conference desk. - Distribution of badges and handbook - Welcome aperitif - Panels for posters are ready
----------------------	--

**Monday, November 11, 2024**

<i>Session M-1</i>		<i>Chair: Charles Baroud</i>
<b>09:00 - 09:05</b>	<b>Opening and Welcome</b>	
<b>09:05 - 09:45</b>	<b>Invited Keynote Opening Lecture:</b> <b>Dino Di Carlo, UCLA, USA</b> <i>Microfluidic Innovations from Lab on a Chip to Lab on a Particle</i>	p.1
<b>09:45 - 10:05</b>	<b>Senne Seneca, Max Planck Institute for Medical Research, DE</b> <i>Development of Microgel-Enforced Hybrid Organotypic Tissue Models</i>	p.2
<b>10:05 - 10:25</b>	<b>Elisa Lenzi, Institut Pasteur, FR</b> <i>Towards a skin-on-chip model to study cell-cell interactions within human epidermis</i>	p.3

**Coffee break**

<i>Session M-2</i>		<i>Chair: Jonas Tegenfeldt</i>
<b>11:00 - 11:20</b>	<b>Alain Wuethrich, The University of Queensland, AU</b> <i>Nanotechnologies for molecular multifactor authentication of extracellular vesicles</i>	p.4
<b>11:20 - 11:40</b>	<b>Samuel Maraschin, Technical University of Denmark, DK</b> <i>Dynamic Monitoring of Neurotransmitter Release in Midbrain Organoids using Cup-Shaped Pyrolytic Carbon</i>	p.5
<b>11:40 - 12:00</b>	<b>Poster snapshots, session A</b>	

**Lunch break at the hotel (included in the registration)**

<i>Session M-3</i>		<i>Chair: Yegan Erdem</i>
<b>14:00 - 14:20</b>	<b>Patrick Sandoz, KTH Royal Institute of Technology, SE</b> <i>Imaging-based exploration of innate cell functions in 2D and 3D microtumour models</i>	p.6
<b>14:20 - 14:40</b>	<b>Marie Hut, CEA, FR</b> <i>Integrated microfluidic platform for single organoid culture and secreted extracellular vesicles analysis</i>	p.7
<b>14:40 - 15:00</b>	<b>Christine Selhuber-Unkel, Heidelberg University, DE</b> <i>3D printing-based control of multicellular systems</i>	p.8

**Coffee break**

<i>Session M-4</i>		<i>Chair: Andrew deMello</i>
<b>15:50 - 16:20</b>	<b>Invited: Simone Schürle-Finke, ETH Zürich, CH</b> <i>Engineering microrobots for diagnostic and therapeutic applications</i>	p.9
<b>16:20 - 16:50</b>	<b>Poster snapshots, session B</b>	
<b>17:00 - 18:30</b>	<b>Poster Session in the poster area / Exhibition Reception / drinks</b>	
<b>19:30 - 22:00</b>	<b>Conference Dinner at Hotel Eurotel (included in the registration)</b>	

**Tuesday, November 12, 2024**

<i>Session T-1</i>		<i>Chair: Séverine Le Gac</i>
<b>9:00- 9:30</b>	<b>Poster snapshots, Session C</b>	
<b>09:30 - 10:00</b>	<b>Invited:</b> <i>Nicole Pamme, Stockholm University, SE</i> <i>Taking the chip out of the lab - from point-of-care diagnostics in resource limited settings to in-the-field analysis with citizens</i>	<i>p.10</i>
<b>10:00 - 10:20</b>	<b>Luca Potenza, University of Warsaw, PL</b> <i>Passive droplet microfluidic platform for high-throughput screening of microbial proteolytic activity.</i>	<i>p.11</i>
<b>10:20 - 10:40</b>	<b>Anuj Tiwari, University of Exeter, UK</b> <i>Automated screening of polymicrobial communities and bacteria-phage interactions in microdroplets using image-based AI tools</i>	<i>p.12</i>
<b>Coffee break</b>		
<i>Session T-2</i>		<i>Chair: Jonathan West</i>
<b>11:10 - 11:30</b>	<b>Alexander Grünberger, KIT, DE</b> <i>Bioprocess microfluidics: More than miniaturisation of bioprocesses?!</i>	<i>p.13</i>
<b>11:30 - 11:50</b>	<b>David Dannhauser, University of Naples, IT</b> <i>Tumor cell detection at the single-cell level without previous knowledge</i>	<i>p.14</i>
<b>11:50 - 12:20</b>	<b>Poster snapshots, Session D</b>	
<b>Lunch break at the hotel (included in the registration)</b>		
<i>Session T-3</i>		<i>Chair: Bastien Venzac</i>
<b>14:00 - 14:20</b>	<b>David Fernandez Rivas, University of Twente, NL</b> <i>Inertial Ballistic Microfluidics as Empathic Entrepreneurial Engineering platform for Biomedical and Engineering Applications</i>	<i>p.15</i>
<b>14:20 - 14:40</b>	<b>Kerem Kaya, KTH Royal Institute of Technology, SE</b> <i>Microfluidic Platform for Freely Programmable Matter</i>	<i>p.16</i>
<b>14:40 - 15:00</b>	<b>Sadaf Pashapour, IMSEAM, Heidelberg University, DE</b> <i>Thermally controlled microactuators as new tools for reconfigurable microfluidics</i>	<i>p.17</i>
<b>Coffee break</b>		
<i>Session T-4</i>		<i>Chair: Charles Baroud</i>
<b>16:00 - 16:30</b>	<b>Poster snapshots, Session E</b>	
<b>16:30 - 17:00</b>	<b>Invited:</b> <b>Rémi Dangla, Stilla Technologies, FR</b> <i>Pushing the boundaries of multiplexing in digital PCR: from 2-plex to 100-plex panels, an on-going 10 years journey by Stilla Technologies</i>	<i>p.18</i>
<b>17:00 - 19:00</b>	<b>Posters session in the poster area / Exhibition</b> <b>Reception / drinks</b>	

*Wednesday, November 13, 2024*

<i>Session W-1</i>		<i>Chair: Jonas Tegenfeldt</i>
<b>09:00 - 09:20</b>	<b>Myriam Cubizolles, CEA Leti, FR</b> <i>Sample to results food allergen detection with an integrated platform for simultaneous microfluidic qPCR and ELISA on-site analysis</i>	<i>p.19</i>
<b>09:20 - 09:40</b>	<b>Maria Tenje, Uppsala University, SE</b> <i>Microstructured hydrogels for organ-on-chip applications</i>	<i>p.20</i>
<b>09:40 - 10:00</b>	<b>Gloria Porro, EPFL, CH</b> <i>Self-contained Microsystem for Rapid One-step Quantification of Multiple Kidney Function Biomarkers in Mouse Samples</i>	<i>p.21</i>
<b>Coffee break</b>		
<i>Session W-2</i>		<i>Chair: Charles Baroud</i>
<b>10:40 - 11:00</b>	<b>Mohammad Asghari, ETH Zürich, CH</b> <i>Engineering T cell function via mechanical compression through microfluidic constraints</i>	<i>p.22</i>
<b>11:00 - 11:20</b>	<b>Jack Stubbs, University of Southampton, UK</b> <i>Droplet microfluidics for time-resolved serial crystallography</i>	<i>p.23</i>
<b>11:20 - 12:00</b>	<b>Invited Keynote Closing Lecture:</b> <b>Matthias Lutolf, IHB Roche &amp; EPFL, CH</b> <i>Engineering organoids for real-world applications in Pharma R&amp;D</i>	<i>p.24</i>
<b>12:00 - 12:15</b>	<b>Award ceremony for Poster Prizes and closing of the conference</b>	

Poster session A - Monday, November 11, 2024					
	Last name	First name	Institution		Title of abstract
A1	De Carli	Simone	Fraunhofer Gesellschaft IZI-BB	DE	<i>X-ray Compatible Flow Cell for Dielectrophoretic Manipulation and Trapping of Cells and Microparticles</i>
A2	Quacquarelli	Federica	Lund University	SE	<i>Optimized organoid-derived small intestinal epithelial cell adhesion and growth for organs-on-a-chip applications</i>
A3	Bütün	Ismail	Sabancı University	TR	<i>Optimization of Asymmetrical Helix Micromixers by Utilizing Deep Learning Approach</i>
A4	Le Goas	Marine	Université Paris Cité	FR	<i>On-chip model of mucociliary clearance for the design of new drug formulations aimed at respiratory diseases</i>
A5	Rembotte	Leon	CRPP, CNRS & Université de Bordeaux	FR	<i>Pheno-morphological screening and acoustic sorting of multicellular aggregates with drop millifluidics</i>
A6	Valderas Gutierrez	Julia	Lund University	SE	<i>Highly curved lightguiding nanowires for the study of model lipid membranes</i>
A7	Krivankova	Jana	Inst. of Analytical Chemistry, CAS	CZ	<i>Absolute nanoparticle quantification and massively parallel spectroscopy for droplet microfluidics</i>
A8	Saateh	Abtin	EPFL	CH	<i>Long-term and continuous plasmonic oligonucleotide monitoring enabled by regeneration approach</i>
A9	Moreno Fina	Martina	Fundacio Eurecat	ES	<i>Non-Invasive Printed Electronic Device for Enhanced Monitoring of Organ-on-Chip Culture Media Parameters</i>
A10	Gholizadeh	Ali	University of Liège	BE	<i>Modular centrifugal microfluidics for sample preparation</i>
A11	Rousseau	Fanny	CEA	FR	<i>Microfluidic strategies for the controlled generation of hybridoma cells and monoclonal antibodies.</i>
A12	Pirim	Feyza	TU Delft	NL	<i>Biodegradable 1D magnetic actuators for cardiac cells mechanical stimulation in organ-on-chip platform</i>

Posters without snapshot presentation :

A13	Li	Fan	ETH Zürich	CH	<i>A fluidic device for continuous on-line inductive sensing of proteolytic cleavages</i>
A14	Kumari	Monika	Indian Institute of Technology, Jammu	IN	<i>Design of compact and low-cost blood plasma separation device from whole blood exploiting the biophysical effects</i>
A15	Bui	Cat-Vu H.	ETH Zürich	CH	<i>Nano-volcano electrodes post-fabricated on CMOS microelectrode arrays: towards large-scale intracellular neural interfaces</i>
A16	Ferreira	Daniela Filipa Cardoso	NOVA University Lisbon	PT	<i>Nanoheaters for spatial-temporal control of gene delivery triggered by mild hyperthermia</i>
A17	Potejanasak	Potejana	School of Engineering, University of Phayao	TH	<i>Fabrication of Au-Pd bimetallic nano-islands by thermal dewetting process for LSPR plasmonic sensing</i>

**Poster session B - Monday, November 11, 2024**

	<b>Last name</b>	<b>First name</b>	<b>Institution</b>		<b>Title of abstract</b>
<b>B1</b>	Peytral-Rieu	Olivia	LAAS-CNRS	FR	<i>Miniature microwave sensor suitable for real-time dielectric analysis of multicellular spheroids</i>
<b>B2</b>	Sampaio da Silva	Claudia	CSEM	CH	<i>Electrical impedance spectroscopy platform for label-free characterization of microtissues with facing electrodes</i>
<b>B3</b>	Tsitouridou	Anna	University of Surrey	UK	<i>Developing Droplet-based Microfluidic Platforms for Manufacturing of Micro-drug Delivery Systems</i>
<b>B4</b>	Juskova	Petra	ETH Zürich	CH	<i>Individuals in community: Exploring heteroresistance in combined bacterial populations</i>
<b>B5</b>	Colombo	Federico	IMSEAM, Heidelberg University	DE	<i>Mechanical Stimulation of 3D Multicellular Systems printed via Two- Photon Polymerization</i>
<b>B6</b>	Del Giovane	Stefano	CSEM	CH	<i>A simplified CRISPR-based assay for monoclonal antibody quantification at the point-of-care</i>
<b>B7</b>	Parent	Caroline	Institut Curie	FR	<i>Drug screening on cancer spheroids in droplet microfluidics</i>
<b>B8</b>	Turato (pres. J. Tegenfeldt)	Enrico	Lund University	SE	<i>Laminar to elastic-turbulent transition for PEO in micropillar arrays</i>
<b>B9</b>	Raza	Sada	Institute of Phys. Chemistry, PAS	PL	<i>Unveiling the Potential of Mixed-Ligand Nanoparticles: Targeted Bacteriophage Inactivation</i>
<b>B10</b>	Mesic	Ana	ENS Paris Saclay	FR	<i>Multicellular 3D in vitro liver model on chip for drugs hepatotoxicity screening</i>
<b>B11</b>	Bali	Nesrine	NTNU	NO	<i>Kinetically Controlled Loading of Hydrophilic Iron Oxide Nanoclusters in Hydrophobic Polymeric Nanoparticles through Flash Nanoprecipitation</i>
<b>B12</b>	Honrado	Carlos	International Iberian Nanotechnology Laboratory	PT	<i>Isolation and analysis of extracellular vesicles DNA for the evaluation of microsatellite instability in endometrial cancer</i>

*Posters without snapshot presentation :*

<b>B13</b>	Curé	Guilhem	Institut Curie-Centre de Recherche-UMR 168	FR	<i>Detection of iron oxide nanoparticle biotransformations in human stem cells</i>
<b>B14</b>	Gupta	Upasana	Indian Institute of Technology, Jammu	IN	<i>Exploring Multi-Drug Therapeutics within a 3D Microphysiological Kidney Cancer-on-Chip Platform</i>
<b>B15</b>	Oliveira	Beatriz	NOVA University Lisbon	PT	<i>Shrinking the gap in cancer research: Novel thermosensitive polystyrene device for cell culture and gene silencing assays</i>
<b>B16</b>	Duan	Yangyu	Eindhoven University of Technology	NL	<i>Microfluidic Mixing Induced by a Magnetic Artificial Cilium in a Closed Chamber</i>

Poster session C - Tuesday, November 11, 2024					
	Last name	First name	Institution		Title of abstract
C1	Osaid	Mohammad	KTH Stockholm	SE	<i>Enhanced Bacterial Separation from Blood Through Automated Repeated Filtration in a Centrifuge</i>
C2	Esteves	Ana Margarida	Iberian Nanotechnology Laboratory	PT	<i>Single cell-derived breast cancer spheroids for real-time growth and secretomic studies</i>
C3	Dubrova	Anastasiia	Institut Curie	FR	<i>Tumor-on-chip model to decipher the effect of nanoparticle-mediated photothermia on tumor microenvironment of pancreatic ductal adenocarcinoma (PDAC)</i>
C4	Davila Martinez	Sergio	Lund University	SE	<i>Development of a small-intestine-on-a-chip device through viscous finger patterning methodology</i>
C5	Causa	Filippo	University of Naples	IT	<i>Optical biosensing by polymeric hydrogel microparticles using native and xeno nucleic acids bioreceptors for detection in biological samples.</i>
C6	Prudhomme (pres: P. Chollet)	Marc	FEMTO-ST	FR	<i>Acoustic sensing of bioanalytes with functionalized microbubbles</i>
C7	Kutucu	Ceren	Delft University	NL	<i>A biodegradable optical filter and photodetector for monitoring oxygen in living tissues</i>
C8	Tan	Jiayi	EPFL	CH	<i>Nanoplasmonic Single-Tumoroid Microarray for Real-Time Secretion Analysis</i>
C9	Apra	Elena	Delft University	NL	<i>A Biodegradable, Magnetically Actuated Micropump for Peripheral Nerve Implants</i>
C10	Weisova	Julie	Inst. of Analytical Chemistry, CAS	CZ	<i>Synthesis and absolute quantification of photon upconversion nanoparticles for microfluidics</i>
C11	Kaminski	Bartosz	Inst. of Physical Chemistry	PL	<i>Illuminating Antimicrobial Defense: Quantum Dot Hydroxyapatite Nanoparticles with Light Sensitivity and Antimicrobial Properties</i>
C12	Humblot	Vincent	Institut FEMTO-ST,CNRS, UFC	FR	<i>Development of a generic biointerface for in flow detection of pathogenic bacteria</i>

*Posters without snapshot presentation*

C13	Saini	Arun	Indian Institute of Technology, Jammu	IN	<i>Electrochemical-based point-of-care detection of G6PD through bi-substrate reaction</i>
C14	Cristofori	Micaela Siria	EPFL	CH	<i>One-step multi-marker immunoassay system for the evaluation of preterm birth risk in vaginal secretions</i>
C15	Zwingelstein	Thibaut	FEMTO-ST	FR	<i>Development of a specific microfluidic biosensor for the detection of pathogenic bacteria</i>
C16	Orsini	Etienne	LMGP	FR	<i>Development of a portable molecular amplification detection system using functionalized magnetic nanoparticles</i>



**Poster session D - Tuesday, November 11, 2024**

	<b>Last name</b>	<b>First name</b>	<b>Institution</b>		<b>Title of abstract</b>
<b>D1</b>	Kaiser	Luna	CNRS, Université Paris Cité	FR	<i>Pathfinding strategy of Candida albicans hyphae in a network of obstacles</i>
<b>D2</b>	Luk	Nicole Sui Man	Uppsala University	SE	<i>Acoustic fluid manipulation via two-photon-printed resonant microstructures</i>
<b>D3</b>	Aslan	Mahmut Kamil	ETH Zürich	CH	<i>Deep learning-based blood smear scanning system for automated white blood cell classification</i>
<b>D4</b>	Kleinknecht	Dominic	Hahn-Schickard	DE	<i>Towards multiplex and multianalyte electrochemical detection on universally modified carbon electrodes for integrated molecular diagnostic tests</i>
<b>D5</b>	Catucci	Domenico	CNRS, Université Paris Cité	FR	<i>Deformation under flow and morphological recovery of glioblastoma cell nuclei: role of microtubule acetylation</i>
<b>D6</b>	Nooranian	Samin	University of Oulu	FI	<i>An in vitro model for heterogenous oxygen flux in capillaries using microfluidic chip</i>
<b>D7</b>	Dumas	Simon	LAAS-CNRS	FR	<i>Multimodal Bead Extraction in Droplet Microfluidics for Single-Cell Multiomics</i>
<b>D8</b>	Johansson	Sofia	Uppsala University	SE	<i>Droplets on high-density micro-electrode arrays</i>
<b>D9</b>	Anandita	Anna	Indian Institute of Technology, Jammu	IN	<i>Anisotropy and Fluid Transport Behaviour in Paper-based Materials</i>
<b>D10</b>	Hammink	Esmay	Leiden University medical Center	NL	<i>Evaluating insulin detection with graphene sensors using QCM-D</i>
<b>D11</b>	Clément	Blandine	ETH Zürich	CH	<i>A compartmentalized culture of human nociceptors and keratinocytes to model peripheral pathophysiological conditions in vitro</i>
<b>D12</b>	Miguélez	M. Henar Marino	KTH Royal Institute of Technology	SE	<i>Culture-free rapid isolation and detection of bacteria from whole blood at clinically relevant concentrations</i>

Posters without snapshot presentation :

<b>D13</b>	Majumder	Rajib	Adamas University	IN	<i>Plant extracts mediated synthesis of Silver Nanoparticles (AgNPs): Evaluation of in vitro antimicrobial efficacy towards nanomedicine toolbox</i>
<b>D14</b>	Bou	Elise	LMGP	FR	<i>Magnetophoresis and microfluidics for efficient magnetic nanoparticle manipulation</i>
<b>D15</b>	Rosenberg	Nadia	EPFL	CH	<i>Droplet-microfluidic-based drug screening of primary cancer cell towards precision oncology and drug development</i>

Poster session E - Tuesday, November 11, 2024					
	Last name	First name	Institution		Title of abstract
E1	Salmon	Hugo	Université Paris Cité	FR	<i>Re-usable micromilled thermoplastic microfluidic device for formation of colorectal cancer tumor spheroids</i>
E2	Mello	Eleonora	University of Salento-CNR Nanotec	IT	<i>Development of intestinal in vitro models as precision medicine platforms for metabolic diseases</i>
E3	Sun	Yiqing	Eindhoven University of Technology	NL	<i>Optimization of the net flow generated by artificial cilia performing tilted conical motion</i>
E4	Abdolahimzadeh	Seyedamirhosein	University of Oulu	FI	<i>Microfluidic Electro-Viscoelastic Separation of Submicron Particles</i>
E5	Golestaneh	Shameem	Imperial College London	UK	<i>Development of lab-on-chip technologies for frontier Agri-tech assays</i>
E6	Barwig	Chantal	Institute for Molecular Systems EngineeringS	DE	<i>Bistable Multi-Stimuli Responsive Microactuators for Dynamic Microfluidics</i>
E7	Coricciati	Chiara	University of Salento-CNR Nanotec	IT	<i>Development of physiologically relevant in vitro human liver models as platforms for investigating metabolic diseases</i>
E8	Ryser	Till	EPFL	CH	<i>Electrorotation of single cells for the analysis of membrane damage induced by the neurotoxic protein alpha-Synuclein</i>
E9	Sagot	Matthieu	LAAS-CNRS	FR	<i>Clip-chips: 3D printed microfluidic and characterization modules for cell culture applications</i>
E10	Devamoglu	Utku	University of Twente	NL	<i>Impact of cellular and microenvironmental factors on 3D vascularization in organ-on-bhip models</i>

*Posters without snapshot presentation :*

E11	Hollmann	Lina	Karlsruhe Institute of Technology	DE	<i>Establishing microsystems for whole-cell bioproduction processes: Chances and challenges</i>
E12	Grothe	Hanna Rosmarie	ETH Zürich	CH	<i>Self-referencing aptamer modified double-pore nanopipettes for neurotransmitter measurement</i>
E13	Aspert	Théo	EPFL	CH	<i>Development of a microphysiological model of Catheter-Associated Urinary Tract Infection</i>