

# Finnish Organ-on-Chip meeting 2024, Kauppi campus, Tampere, 23-24 Oct 2024

## Wed 23 Oct

<b>Session 1</b>		<b>OoC technology</b> (chair: Minna Kellomäki, co-chair: Miina Björninen)
9:00	Minna Kellomäki	Opening of the meeting and CoEBoC introduction
9:15	Andries van der Meer	Organs-on-Chips: From Platform Technology to Applications in Drug Development
10:00	Oliver Degerstadt, University of Helsinki	Drug metabolite production for organ-on-chip applications
10:15	Cellbox Labs, Gatis Mozolevskis	Sponsor talk: Cellbox Labs – Industrial Organ on Chip Technology
10:30	Tomi Ryyänen, TUNI	Stroke-Heart Syndrome on-a-chip with integrated microelectrode array and neuronal cell growth guiding DR1-glass grooves
10:45	Sweeta Akbari, TUNI	Synthesis of Gold Nanoparticle Functionalized Porous and Elastic Materials
11:00	<i>Coffee &amp; sponsors at the exhibition hall</i>	
11:30	<b>Session 2</b>	
		<b>Cancer, immunology and tumor microenvironment</b> (chair: Heidi Haikala, co-chair: Bassel Alsaed)
11:30	Heidi Haikala, University of Helsinki	Precision tumor-on-chip models for studying drug responses in lung cancer
12:15	Elina Multamäki, University of Oulu	Understanding how tumor microenvironment modulate drug responses in ovarian cancer
12:30	Lotta Isosaari, TUNI	Exploring multicellular dynamics in glioblastoma: a 3D open-top chip model with integrated neurovascular networks for drug testing
12:45	Birhanu Belay, TUNI	Luminescence lifetime imaging integrated into selective plane illumination microscopy for oxygen imaging in 3D cell cultures
13:00	<i>Lunch</i>	
14:00	<b>Session 3</b>	
		<b>Neurological</b> (chair: Susanna Narkilahti, co-chair: Oskari Kuluta)
14:00	Olli Kallioniemi	Technology-, data- and AI-driven molecular precision medicine
14:45	NETRI, Thibault Honegger	Sponsor talk: How to use neurons as sensor in innervated and vascularized organs on chip
15:00	Sini Saarimaa, TUNI	Effect of neurons and culturing conditions on adipogenic differentiation of adipose stromal/stem cells on a 3D microfluidic environment.
15:15	Emre Kapucu, TUNI	Spatiotemporal Modeling of Alpha-Synuclein Pathological Propagation in Human Neuronal Networks for Parkinson's Disease Research
15:30	Tanja Hyvärinen, TUNI	Microglial Activation in Multiple Sclerosis: An In Vitro Approach
15:45	<i>Wine &amp; posters (Session A) &amp; sponsors at the exhibition hall</i>	
16:30	<b>LABTOUR</b>	<i>Separate sign up provided later (gathering at the entrance of the exhibition hall)</i>
19:00	<i>Dinner</i>	<i>Scandic Tampere City (for dinner registrants only)</i>

## Thu 24 Oct

<b>Session 4</b>		<b>Cardiovascular</b> (chair: Katriina Aalto-Setälä, co-chair: Mari Pekkanen-Mattila)
9:00	Katriina Aalto-Setälä	Heart on a Dish
9:30	Alessio Esposito, University of Pisa	A Novel Vascularized Biomimetic In-Vitro Model of the Blood-Retinal barrier
9:45	Austin Donnelly, TUNI	Shrink Resistant Blue Light Crosslinked Hyaluronan-Collagen Based Conductive Bioink Enables 3D Bioprinting Of Soft Tissue Constructs
10:00	Mathias Busek, University Oslo	The pump-less recirculating Organ-on-Chip - rOoC platform
10:15	Emma Pesu, TUNI	Stroke-Heart Syndrome on-a-chip
10:30	<i>Coffee &amp; posters (session B) &amp; sponsors at the exhibition hall</i>	
11:30	<b>Session 5</b>	
		<b>Musculoskeletal &amp; technology</b> (chair: Susanna Miettinen, co-chair: Janne Koivisto)
11:30	FinnAdvance, Sebastien Mosser	Sponsor talk: Versatile and Scalable Microfluidics for Everyday Lab Work
11:45	Kaisa Tornberg, TUNI	Organ-on-chip technology for Stroke-Heart Syndrome
12:00	Aldeliane da Silva, University of Oulu	High-throughput microfluidic platform for inflammatory models of human articular cartilage
12:15	Erik Niemi, University of Jyväskylä	Exercise-on-a-dish induces cell-type specific responses in human myotubes and endothelial cells
12:30	<i>LUNCH</i>	
13:30	<b>Session 6</b>	
		<b>Ethics &amp; Quality &amp; Validation</b> (chair: Pasi Kallio, co-chair: Hanna Vuorenpää)
13:30	Jeremy Sugarman	Ethical Considerations for Organ-on-Chip Research
14:15	Huub Weener, University of Twente	Considering future qualification for regulatory science in the early development of Microphysiological Systems
14:30	Iiro Rautsola, University of Helsinki	HLM chip: a microfluidic in vitro model for mechanism-based enzyme inhibition studies using immobilized human liver microsomes
14:45	Ehsanollah Moradi, University of Helsinki	A microfluidic device for isolation and quantitation of hepatocyte-secreted extracellular vesicles and monitoring their cytochrome P450 activity on-chip
15:00	Closing	
15:15	<b>LABTOUR</b>	<i>Separate sign up provided later (gathering at the entrance of the exhibition hall)</i>