TUESDAY, JUNE 11			
10:00 AM - 11:30 AM			
Poster Board Number	**Abstract ID**	**Presenter**	**Title**
TRACK 1: MPS for (patho)physiology			
SESSION: 1.1 MPS for cardiovascular diseases			
1	71	Jingyi Zhu	Unraveling Cardiac Device Infection: Tissue Engineered Blood Vessels as a Microphysiological Model
2	81	Bettina Lickiss	Contractility-based pharmacological characterization of hiPSC-derived atrial and ventricular cardiomyocytes for preclinical toxicity testing
3	104	Pimonrat Ketsawatsomkron	p-cresol compromises vascular barrier and induces endothelial cytotoxicity and inflammation in 3D human microvessel-on-a-chip
4	163	Alessia Moruzzi	SpheroFlow: a user-friendly Heart-on-Chip integrating hiPSC-derived cardiac 3D microtissues amenable for multi-parametric non-invasive monitoring
5	528	Kevin Healy	Vascular Microphysiological System as an Organ Preservation Testbed
6	570	Kevin Shani	Modeling Flecainide Response in Catecholaminergic Polymorphic Ventricular Tachycardia with Microphysiological Systems
7	626	Aaron Rogers	Biomanufacturing in Low Earth Orbit
8	651	Christopher J Hatch	3D vascular niche alters endothelial-stromal crosstalk to support vessel formation
9	662	Sabrina Staples	Transluminal endothelial bridge formation in a microfluidic vessel-on-chip: critical role of cytoskeletal tuning
SESSION: 1.2 MPS for pulmonary diseases			
10	44	Yun-Chen Wu	A tape-assisted approach to fabricate membrane-containing devices for cultured cells performing breathing movements
11	67	Jeffrey Morgan	A 3D In Vitro Model of Fibrosis: Measuring the Pathophysiological Biomechanics of the ECM.
12	99	Thomas Shupe	Microengineered Human Organ Tissue Equivalents for the In Vitro Study of Drugs, Toxins and Infectious Diseases
13	183	Deborah Ramsey	Small airway lung-on-chip model for evaluating neutrophil-mediated damage in inflamed lung tissues.
14	192	Satoshi Ikeo	'Portable' human iPSC-derived alveolar organoids mimicking physiological functions in microfluidic system
15	231	Marize Valadares	Lung-sens-on-a-chip model for evaluation of respiratory sensitizers aerosols: characterization and applicability.
16	240	Lea De Maddalena	A novel alveolus-on-chip model of SARS-CoV-2 infection for pre-clinical application
17	245	Young-Jae Cho	Integrated adult tissue-derived lung organoid-microphysiological system for new emerging infectious respiratory diseases
18	322	McLendon Patrick	Alveolus-on-a-Chip As a Model Platform for Assessing Toxicity after Exposure to Flight-related Compounds via Custom Soot/VOC Generation
19	442	Konrad Schmidt	A breathable multi-compartment lung-on-chip model to study the (patho)physiological relevance of biological hydrogels in dynamic conditions
20	510	Janny Pineiro-Llanes	Assessment of Drug Permeability across Healthy and Pathological Bronchial Epithelial: In vitro Organotypic systems vs. Immortalized cell line
21	546	Madeline Eiken	Synthetic hydrogels to interrogate extracellular matrix deposition by alveolar organoids
22	661	Yuncheng Man	Macrophage-exacerbated alveolar tissue injury and therapeutic pyroptosis blockade in influenza infection revealed in a human lung alveolus chip
SESSION: 1.3 MPS for cancer research			
23	8	Yaling Liu	Vessel-supported Tumor Model on Chip for Therapeutic Evaluation
24	29	Pedro Pinto	Microfluidic Prostate-Cancer Model to Study MicroRNA Secretions and Their Potential as Diagnostic Biomarkers
25	40	Pooja Sawant	Alternative-to-animal lung adenocarcinoma model: Characterization, validation, and therapeutic insights using a spheroid model
26	47	Olivier UWISHEMA	Revolutionizing Neurotherapeutics: Blood-Brain Barrier-On-A-Chip Technologies For Precise Drug Delivery
27	55	Sirjana Pun	A Two-Step Approach to Biofabricating an Advanced Microphysiological System Mimicking Phenotypical Heterogeneity and Drug Resistance in Human Glioblastoma
28	57	Rachel Perez	Combining patient-derived tumor organoids and an organ-on-chip system to model colorectal cancer progression
29	60	Hannah Graf	A standardized plug&play multi-organ chip connection to study interactions between tumor and lymphoid tissue
30	88	Keqian Nan	Development of an ex vivo Image-Based Platform for Kidney Precision Immuno-Oncology
31	95	Thomas Richardson	Development of hydrogels supporting liver immune-microtumors for functional precision medicine
32	96	Curran Shah	combined influence of kras mutational status and peristaltic-like forces promotes tumor cell intravasation in organ on chip model of colorectal cancer
33	123	Maryna Somova	Unveiling Molecular Dynamics of SARS-CoV-2 Spike Protein in the Renal epithelium using a Microphysiological approach (MPS)
34	130	Julia Alber	Real time imaging of treatment response in an immunocompetent tumor-on-chip
35	135	Mariana Viso	Engineering Immune-driven Stromal Remodeling in Pancreatic Cancer within a PDMS-free MPS
36	149	Sriram Bharath Gugulothu	Perfusable 3D Bioprinted tumor model for triple-negative breast cancer immunotherapeutics screening
37	175	Gemma Nomdedeu-Sancho	Development of Skin Organoids as a Universal Platform for Skin Physiology, Injury, and Disease Modeling
38	184	Yu-Hsiang Hsu	Development of a vascular liver tumor model using a micro-dissected patient-derived tumor xenograft and a physiologically controlled MPS system
39	199	Jose Antonio Reales-Calderon	Vascularization of Tumor Spheroids in the organiX System for Immuno-oncology Applications
40	207	Giulia Amos	Towards a 3D hydrogel platform to study glioblastoma invasion in vitro

Poster Board Number	Abstract ID	Presenter	Title
SESSION: 1.3 MPS for cancer research			
41	209	Chrisna Gouws	Establishing a doxorubicin-resistant triple-negative breast cancer spheroid model
42	210	Atsuya Kitada	Parallel cultivation and evaluation of multiple vascularized tumor spheroids using a microfluidic device
43	228	Lisa Hoelting	Assessment of immune cell infiltration and cancer metastatic potential in Akura™ Immune Flow Chip - a microfluidic 3D spheroid system
44	230	Thomas Sommermann	A microfluidic spheroid-on-a-chip model of vascularized pancreatic cancer for screening novel therapeutics
45	237	Simon Sayer	An artificial immune niche and an in vitro tumor model enabled by high-resolution 3D printing
46	285	Kimia Abedi	A Bioprintable Model of Glioblastoma for Dissecting Cellular Mechanisms of Tumor Invasion and Drug Resistance
47	292	Adeel Ahmed	A Patient-Specific, Organotypic Head and Neck Cancer Model For Personalized Medicine
48	298	Angelo Massaro	Development of an In Vitro Colon Crypt Model to Study the Interdependent Relationship of Underlying Fibroblasts and Intestinal Epithelial Cells
49	300	Arturs Abols	Testing of Patient-Derived Stem Cell Extracellular Vesicles Loaded with Cisplatin in a Personalized Lung-Cancer On-Chip Platform
50	361	Shay Soker	Assessing the Effects of BAPN and Marimastat on Collagen Remodeling in an Ex-Vivo Tumor Organoid Model
51	372	Marie Floryan	Exploring the effects of fluid velocity and shear stress on the metastatic potential of circulating tumor cells in engineered organ-specific environments.
52	378	Jerome Lacombe	ASTEROIDS- spheroid on chip to reproduce the lung tumor microenvironment
53	423	Zhipeng Dong	Microfluidic blood-brain barrier chip for identifying repurposable drugs as glioblastoma chemotherapeutic agents.
54	438	Haru Yamamoto	Single-cell analysis reveals characteristics of feline mammary tumor organoid derived from patients
55	463	Sadegh Ghorbani	Development of a 3D biomimetic microenvironment with engineered cell-matrix interactions to investigate in vitro glioblastoma cell behaviors
56	514	Stephanie J Hachey	Targeting tumor-stromal interactions in triple-negative breast cancer using a human vascularized micro-tumor model
57	532	Martin Stano	Advanced Microfluidic Platform for In-Vitro Sonodynamic Therapy Testing in Diffuse Midline Glioma Cell Models
58	543	Rajul Bains	Vascularized tumor-on-a-chip to investigate immunosuppression of CAR T-lymphocytes
59	567	G. Wills Kpeli	Microphysiological systems for investigating potential anti-angiogenic effects of xenohormetic phytochemicals in the context of cancer
60	607	Ngan Phung	Prostate-specific membrane antigen's role in promoting and protecting tumor-neovasculature during hypoxia-induced angiogenesis
61	623	Emily Hutchison	A Microphysiological System to Model Chronic Hepatitis C Virus Infection and Hepatocellular Carcinoma
62	627	HONGYAN YUAN	A Contraction–Reaction–Diffusion Model: Integrating Biomechanics and Biochemistry in Cell Migration
63	633	Simona Campora	Primary breast tumor spheroids as a model for evaluating the impact of collagen matrix on drug penetration
64	665	Lisa F Horowitz	Microscale cancer models based on microdissected tumor "cuboids" that retain a complex tumor microenvironment
65	666	Tran Ngoc Huyen Nguyen	Microfluidic Modulation of Tumor Microvasculature in Micro-dissected Cancer Tissues
SESSION: 1.4 MPS for rare diseases			
66	159	Nina Stelzer	A human Bone/Bone-Marrow-on-a-Chip system for preclinical investigation of new therapeutic approaches for Autosomal Recessive Osteopetrosis
67	213	Ilka Maschmeyer	Chronic Kidney Disease on-a-chip – a dual-perfused autologous proximal tubule model
68	288	Amelie Reigl	Establishing a Vascularized and Perfusable in vitro Skin Model Using hiPSC-Derived Organoids for Disease and Infection Research
69	388	Jennifer Harder	Modeling podocytopathies using human kidney organoids
70	436	Xiufang Guo	Development of human iPSC-skeletal muscle ALS model for pathogenesis study and therapeutic testing
71	562	Kenneth Hawkins	Human iPSC-CMT2s Motoneuron Model for Characterization and Drug Development
72	650	Jan Lichtenberg	Scalable 3D cell culture-based retinal fibrosis model for efficacy testing
362	437	Yuki Kobayashi	Development of a simultaneous evaluation system for anticancer drug sensitivity and side effects using microphysiological systems and 3D organoid culture method
363	445	Honoka Hashizume	Establishment of an anti-cancer drug sensitivity assessment system using microphysiological systems and feline breast cancer organoids

TUESDAY, JUNE 11 4:30 PM - 6:00 PM			
Poster Board Number	**Abstract ID**	**Presenter**	**Title**
TRACK 1: MPS for (patho)physiology			
SESSION: 1.5 MPS to model pre- and postnatal conditions or reproductive disorders			
73	4	Sun Min Kim	Investigating oxygen-stressed placental vessel remodeling on a microfluidic 3D platform
74	87	Odysseas Chaliotis	Microphysiological model of the placental barrier to study human Brucella infections and antibiotic treatment during pregnancy
75	295	Samantha Holt	Development of an MPS model of innervated human endometriosis and adenomyosis lesions
76	343	Linda Griffith	Engineering synthetic hydrogels for a microfluidic model of vascularized endometriosis lesions
77	365	Shuo Xiao	An ex vivo mini-ovary model to study female reproductive biology, medicine, and toxicology
78	614	Ana Collins-Smith	Microfluidic Device Successfully Replaces Traditional Models of Pregnancy Associated Drug Pharmacokinetic Studies
79	617	Mi T. M. Soe	An ex vivo model for investigating the mechanisms of ovarian disorders induced by polycystic ovary syndrome (PCOS)
SESSION: 1.6 MPS to model neurodevelopment and neurodegeneration			
80	24	Mubeen Goolam	Modelling the embryo using stem cells: defining the roles of biochemical and physical cues in driving stem cell self-organisation.
81	80	Stuart Prime	The multiplatform utility of human iPSC derived neuronal models to provide complex biological systems for drug discovery using Microphysiological systems
82	82	Yukari Shigemoto-Mogami	Study about the cell composition of blood brain barrier-microphysiological system (BBB-MPS) for reproducing pathological conditions
83	103	Krysten Jones	A human hiPSC brain fatigue model and in vivo validation of a neuroactive peptide secreting synbiotic
84	108	Hong Nam Kim	Neurovascular unit model for modeling human brain diseases
85	120	Benoît G. C. MAISONNEUVE	Translational brain-on-chip models for Alzheimer's disease drug discovery.
86	129	Patrick C Hurley	Development of MS-on-a-chip; effects of microfluidic device structure.
87	139	Sourabh Sharma	A fetal blood-brain-barrier microphysiological system to study the effect of in-utero toxicant exposure
88	157	Eric Reed	Impact of Dynamic Oxygen Conditions on a Human Neurovascular Unit-on-a-Chip
89	167	Emma Drabbe	Higher Throughput Bioreactor for Retinal Organoid Microenvironmental Control
90	168	Kaveena Autar	The Investigation of Drug-Induced Dementia in an hiPSC-Central Nervous System Assessing Deficits in Long-Term Potentiation from Anticholinergic Burden
91	249	Florian Larramendy	Compartimentalized MEA Pain(s)-on-chip platform
92	265	Mahdi Ghazal	Next-generation electrophysiology for functional characterization of human neural organoids
93	338	Maria Grisales	Development of a Human-Based Cortical Neuron Model for Down Syndrome
94	349	Francesca Michela Pramotton	Senescent microphysiological model to investigate vascular and lymphatic dysfunction in neurodegenerative diseases
95	353	Maren Schenke	Sex hormone supplementation increases physiological relevance of an in vitro model of the developing human brain
96	395	Nicholas Geisse	A Functional In Vitro 3D iPSC-Derived Neuromuscular Junction Model for use in Neurotoxin Potency Testing or Preclinical Drug Development
97	427	Tatsuya Osaki	Engineering 3D endothelial vascular networks from Rett syndrome patient-derived iPS cells
98	468	Zhanhe Liu	High Precision and High Throughput Neuronal Circuits Printing for Organ-on-A-Chip Devices
99	499	Alex Rittenhouse	Addressing the role of maternal inflammation in Autism Spectrum Disorder using immune-competent brain microphysiologic systems
100	504	Lise Harbom	Modulation of glial differentiation in a 3D iPSC-derived CNS model
101	521	Gülden Akçay	Femtoprinted Brain-on-Chip to Explore Brain Microenvironment
102	522	Ikuro Suzuki	A novel field potential imaging method to evaluate systemic neuronal function using a compartmentalized in vitro MPS device
103	539	Jennifer Lawson	Generation of Human Endothelial Cells for Integration of Pericytes and Regional Specific Astrocytes to Mimic in vitro Blood Brain Barrier Model from Human Induced Pluripotent Stem Cells
104	542	Alexandra Maertens	Circadian rhythm gene networks in neurobiology and neurodegenerative diseases: comparing in vitro cell lines, organoids, and in vivo data using weighted gene correlation network analysis
105	554	Itzy E. Morales Pantoja	Enhancing brain organoid size and complexity using 3D printed microfluidics
106	568	Prashant Hariharan	Choroid plexus-on-a-chip: a microfluidic model to study how cerebrospinal fluid secretion and blood-cerebrospinal fluid barrier function are affected by hydrocephalus-associated inflammation.
107	601	Vincent Truong	Completing The Circuit: Recreating Sensory Pathways Using Human Keratinocytes, Sensory Neurons, and Dorsal Horn Neurons
108	615	Spencer Seiler	A feedback-driven IoT microfluidic, electrophysiology, and imaging platform for brain organoid studies
109	619	Emma Warrner	A Novel Microfluidic Chip to Induce Linear Concentration Gradients for Differentiation of Cochlear Cells of Inner Ear Organoids
110	625	Peter Udall	Development and characterization of human iPSC-derived 3D neurospheres for disease modelling and drug discovery
SESSION: 1.7 MPS for metabolic and endocrine disorders			
111	236	Giulia Raggi	A novel human 3D peristaltic simulating Gut-on-Chip platform for predictive testing of new barrier-protecting drug candidates
112	323	Ana Carolina Figueira	ESTEATO-CHIP: A NEW MODEL FOR INVESTIGATING NON-ALCOHOLIC FATTY LIVER DISEASE THROUGH THE INTEGRATION OF 3D CULTURES OF ADIPOCYTES AND HEPATIC CELLS

Poster Board Number	Abstract ID	Presenter	Title
			SESSION: 1.7 MPS for metabolic and endocrine disorders
113	364	Trivia Frazier	ObaCell® Obesity-on-a-Chip, a Platform for Disease Modeling and Drug Development - A GLP1 agonist study
114	406	Erin Tevonian	Engineering a vascularized liver spheroid model of hepatic insulin resistance
115	413	Sakai Yasuyuki	A liver microphysiological system with an open organoid structure for liver disease modeling.
116	634	Rachelle Baun	Modeling Metabolic Dysfunction-Associated Steatohepatitis in human liver Microphysiogical Systems for clinical prediction of therapeutic efficacy.
117	641	Ute Wölfle	Modulation of the interplay between fatty liver spheroids and psoriasis keratinocytes by liver- protecting herbal remedies
118	643	Susan Grepper	Digital pathology with artificial intelligence analysis provides insight to the efficacy of antifibrotic compounds in human 3D MASH model
119	652	Francisco Conceição	Unveiling Bone Remodeling Dynamics: exploring osteoblast-osteoclast interactions in an organ-on-chip model via biomimetic bone-remodeling micro-units
			SESSION: 1.8 MPS for immune response and diseases
120	5	Trinath Jamma	Study the impact of host gut microbiota-derived secondary bile acids on intestinal inflammation
121	18	Dawn Lin	High-throughput organ-specific micro-vessel model for vascular research
122	22	Tim Kaden	DSS-induced colitis-on-chip model to study the therapeutic potential of the secondary bile acid lithocholic acidin vitro
123	31	Kylie Gallagher	Creation of colon epithelium-immune microphysiological systems on porous scaffolds
124	43	Fuki Yokoi	Recapitulation of the pathophysiology of inflammatory bowel disease using colon organoids differentiated from human pluripotent stem cells
125	59	Joel P Joseph	T cell activation in 3D bioprinted hydrogels mimicking biomechanical properties of lymph node microenvironment
126	84	Moritz Pfeiffenberger	Development of a cartridge bioreactor for parallelized cultivation and stimulation of a complex fracture healing model
127	91	Huddleston Mary Elizabeth	Evaluation of a Pathogen-Killing Synbiotic in a Human Intestine-on-a-Chip
128	109	Ryuji Yokokawa	hiPSC-derived human airway and alveolus on-chip models: Decoding dynamic immune responses to SARS-CoV-2 in human lungs
129	116	Kayenat Aryeh	Comparative analysis of the calcineurin inhibitors cyclosporine and voclosporin on primary human kidney epithelial cells
130	122	Kevin Bewley	Adding cellular immune elements into a lung SARS-CoV-2 infection MPS model system
131	143	Alexandra Damerau	Dual-chambered bioreactor for biomimetic culture of human joint components
132	153	Naomi Coombes	SARS-CoV-2 infection in upper and lower human respiratory MPS at high containment as a model for pandemic pathogens
133	164	Kevin J. Pollard	Microphysiological Peripheral Nerve Invasion by Respiratory Viruses
134	188	Noo Li Jeon	Inflammatory Gut-on-a-Chip for Testing Live Biotherapeutics Product for Inflammatory Bowel Disease
135	198	Jenna Kastenschmidt	Modeling disease and testing therapeutic response using human immune organoids
136	206	Sarah Heub	Automated continuous unidirectional perfusion of vascularized 3D in vitro models.
137	247	Bhumi Suthar	Engineering a human endothelialized platform for disease modeling
138	252	Shuai Shao	A microphysiological system reveals neutrophil contact-dependent attenuation of pancreatic tumor progression by CXCR2 inhibition-based immunotherapy
139	254	Elena Müller	Novel microfluidic staining chip for suspension and adherent cell cultures requiring minimized cellular and reagent resources
140	293	Crystal Burke	Modeling emerging respiratory virus infection utilizing a lung microphysiological system
141	351	Hosein Mirazi	Modeling Human Joint Health and Disease: A Four-Cell Co-culture Chip Approach Under Varied Fluid Shear Stress
142	358	Isabelle Linares	Developing a Human Tendon-on-a-Chip with Vascular Flow to Model Inflammatory Mechanisms in Fibrotic Tendon Pathology
143	366	Robin Houssier	IPS-based pathophysiologically-relevant human liver co-culture microfluidic model for the study of its interactions with parasitic Schistosoma mansoni eggs
144	379	Samantha Holt	An in vitro model of the skin microvasculature to investigate host response to borrelia infection
145	398	Yunhao Zhai	Modeling intramuscular vaccination with mRNA vaccines in a lymphoid follicle organ chip
146	408	Arvind R. Srivatsava	Utilization and Development of in vitroμSiM Platforms to Study Bacterial Invasion of the Osteocyte Lacuno-Canalicular Network
147	492	Vidhya Vijayakumar	A multi-strain human skin microbiome model provides a testbed for disease modeling
148	516	Evan Cirves	3D In Vitro Modeling of Extramedullary Granulopoiesis in Wound Healing
149	529	James N. Wilking	Stomach-on-chip co-culture model reveals increased recruitment of dendritic cells to the gastric epithelium upon H. pylori-induced apoptosis
150	597	Marla Dubau	iPSC-derived immunocompetent skin models as an alternative method for the in vitro identification of skin-sensitizing foreign substances
151	612	Hediye Cinar	Establishment of Microphysiological Jejunum Platform in Emulate Organ-Chip System to be Used in Cultivation of Viruses and Parasites
362	437	Yuki Kobayashi	Development of a simultaneous evaluation system for anticancer drug sensitivity and side effects using microphysiological systems and 3D organoid culture method
363	445	Honoka Hashizume	Establishment of an anti-cancer drug sensitivity assessment system using microphysiological systems and feline breast cancer organoids