EUROoCS CONFERENCE 2021

CONFERENCE PROGRAM

EUROoCS Online

1 and 2 July 2021

Day 1
Thursday July 1st 2021

Main Digital Venue

Chair: Maria Tenje

08:00 (CET)
Digital platform open

09:00-9:15
Welcome and Opening Remarks

09:15-10:00
Keynote Lecture [KL I] **Advanced Human Tissue Models in Pharmaceutical Research: Challenges & Opportunities moving towards in silico- & in vitro-based Drug Development**
Adrian Roth
Principal Scientific Director of Personalized Healthcare
Roche's Clinical development organization,
Roche, Basel, Switzerland

10:00-10:30
Coffee break

Session T-1: Vasculature - 1	Session T-2: Disease models - 1	Session T-3: Technology platforms - 1	Session T-4: Toxicity
Chair: Christine Mummery	**Chair: Albert van den Berg**	**Chair: Maria Tenje**	**Chair: Jose Tarazona**
Digital meeting room 1	**Digital meeting Room 2**	**Digital meeting room 3**	**Digital meeting room 4**
Selected Talk [ST 1.0] 10:30-11:00 **Engineered 3D vessel-on-chip (VoC) using hiPSC-derived endothelial- and vascular smooth muscle cells** ***A. Cochrane***, *M. Vila Cuenca, F. van den Hil, A. de Vries, S. Lesnik Oberstein, C. Mummery and V. Orlova* *Dept of Anatomy and Embryology, Dept of Clinical Genetics and Dept of Cardiology, University Medical Center, Leiden, The Netherlands.*	Selected Talk [ST 2.0] 10:30-11:00 **Mathematical modelling for the study of type 2 diabetes in a pancreas-liver microphysiological system** ***B. Casas***, *L. Vilén, S. Bauer, K. Kanebratt, C. Wennberg Huldt, L. Magnusson, C. Ämmälä, U. Marx, T. Andersson, P. Gennemark and G. Cedersund* *CVRM, BioPharmaceuticals R&D, AstraZeneca, Gothenburg; Dept of Biomedical Engineering, Linköping University, Linköping, Sweden; TissUse GmbH, Berlin, Germany.*	Selected Talk [ST 3.0] 10:30-11:00 **Direct Coupling of Organ-on-Chip with Electromembrane Extraction and Mass Spectrometry** *F. Sved Skottvoll, F. Hansen, A. Aizenshtadt, J. Kutter, S..Pedersen Bjergaard, E. Lundanes, S. Krauss and* ***S. Ray Wilson*** *Dept of Chemistry, University of Oslo; Hybrid Technology Hub, Faculty of Medicine, University of Oslo; Dept of Pharmacy, University of Oslo, Oslo, Norway; Dept of Pharmacy, University of Copenhagen, Copenhagen, Denmark*	Selected Talk [ST 4.0] 10:30-11:00 **uHeart: a beating heart-on-chip model to assess drug functional cardio-toxicity** ***R. Visone***, *S. Marzorati, F. Lozano, M. Ganell, M. Walter Rivolta, E. Pesenti, R. Sassi, P. Occhetta and M. Rasponi* *Dept of Electronics, Informatics and Bioengineering, Politecnico di Milano, Milano; BiomimX S.r.l., Milano; Accelera S.r.l., Nerviano; Dept of Computer Science, Università degli Studi di Milano, Milano, Italy*

[OL 1.1] 11:00-11:15 **Assessment of αvβ3-targeted Liposome Accumulation in Microfluidic Vasculature Networks** ***M. Bourn***, *N. Ingram, L. Coletta, S.. Evans and S. Peyman* *Dept of Physics and Astronomy, University of Leeds; School of Medicine, St James' University Hospital, Leeds, UK*	[OL 2.1] 11:00-11:15 **A microphysiological early metastatic niche on a chip reveals how heterotypic cell interactions and inhibition of integrin subunit β3 impact breast cancer cell extravasation** *M. Crippa,* ***S. Bersini****, M. Gilard, C. Arrigoni, C. Candria, G. Dubini, M. Vanoni, M.Moretti* *Regenerative Medicine Technologies Lab, (EOC), Lugano; Facoltà di Scienze Biomediche, Università della Svizzera Italiana, Lugano, Switzerland; Laboratory of Biological Structures Mechanics, Chemistry, Material and Chemical Engineering Dept "Giulio Natta", Politecnico di Milano, Milan; Cell and Tissue Engineering Laboratory, IRCCS Istituto Ortopedico Galeazzi, Milan; SYSBIO-ISBE-IT Centre for Systems Biology, Dept of Biotechnology and Biosciences, University of Milano Bicocca, Milano, Italy*	[OL 3.1] 11:00-11:15 **Long-Term in vitro monitoring of electrophysiological activities at different levels from 3D neural tissues using Flex-Strip MEAs** ***L. Stoppini****, M. Heuschkel, F.Mor, L.Gomez Baisac and A. Roux* *Tissue Engineering Laboratory, HEPIA/HES-SO, Geneva, Switzerland*	[OL 4.1] 11:00-11:15 **Human immunocompetent Organ-on-Chip platforms allow safety profiling of tumor-targeted T-cell bispecific antibodies** *S. Jordan Kerns, C. Belgur, D. Petropolis, R. Barrile, M. Kanellias, J. Sam, T. Weinzierl, T. Fauti, A. Freimoser-Grundschober, J. Eckmann, C. Hage, M. Geiger, P. Ng, W. Tien-Street, D. Manatakis, V. Micallef, R. Gerard, M. Bscheider, E. Breous-Nystrom, A. Schneider, A. Giust, C. Bertinetti-Lapatk, H. Grant, A. Roth, G.. Hamilton, T. Singer, K. Karalis, A. Moisan, P. Bruenker, C. Klein, M. Bacac, N. Gjorevski and* ***L. Cabon*** *Emulate Inc., Boston, MA, USA; Roche Pharma Research & Early Development, Roche Innovation Center Basel; Roche Pharma Research & Early Development, Roche Innovation Center Zurich,Schlieren, Switzerland.*
[OL 1.2] 11:15-11:30 **Luminal Flow Actuation Generates Coupled Shear and Strain in a Microvessel -on-Chip** ***C. Dessalles****, C. Ramón-Lozano, A. Babataheri and A. Barakat LadHyX* *CNRS, Ecole polytechnique, Institut polytechnique de Paris, Palaiseau, France*	[OL 2.2] 11:15-11:30 **Breast-cancer-on-chips recapitulating tumor micro-environment interaction applicable for CAR-T cell testing** ***T. Ibrahim Maulana****, J. Rogal, C. Teufel, M. Cipriano, O. Schneider, A. Koch, S. Brucker, M. Alb, M. Hudecek, P. Loskill* *Dept of Biomedical Science, Faculty of Medicine, Eberhard Karls University, Tübingen; Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB, Stuttgart; Dept of Women's Health, Faculty of Medicine, Eberhard Karls University, Tübingen; Universitätsklinikum Würzburg, Medizinische Klinik und Poliklinik II, Würzburg; NMI Natural and Medical Sciences Institute, University of Tübingen, Reutlingen, Germany*	[OL 3.2] 11:15-11:30 **Machine learning microfluidics for RBCs plasticity evaluation** *A.Mencattini, V. Rizzuto,* ***M. D'Orazio****, D. Di Giuseppe, J. Filippi, P. Casti, G. Antonelli, M.C. Comes, V. Rizutto, J.L. Vives Corrons, M. Garcia-Bravo , J.C. Segovia, M.J. Lopez-Martinez, J. Samitier, and E. Martinelli* *Dept of Electronic Engineering, Univ. of Rome Tor Vergata, Italy; ICLOC; IBEC; BIST; Josep Carreras Leukaemia Research Institute (IJC), Badalona, and with Univ of Barcelona, Medicine; Biomedical Innovation Unit, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT); CIBER-BBN; Univ of Barcelona, Department of Electronic and Biomedical Engineering, Spain*	[OL 4.2] 11:15-11:30 **HepaChip-MP–An organ-like perfusable cell culture system in multi-well-plate format for toxicity testing** *M. Busche, S. Werner, B. Hagmeyer, M. Pawlak, C. Schmees, H. Becker, K. Gall, R. Hemmler, G. Damm, S. Beuck, T. Klaassen, J. Moer, A. Ullrich, D. Rabl, T. Mayr, M. Matz-Soja, R. Gebhardt and* ***M. Stelzle*** *NMI, Univ Tübingen, Reutlingen; microfluidic ChipShop, Jena; Ionovation GmbH, Bissendorf; Incubator of Saxony for Clinical Translation, Leipzig University, Leipzig 5A & M Labor für Analytik und Metabolismus-forschung Service GmbH, Bergheim;Primacyt GmbH, Schwerin; Rudolf-Schönheimer-Institute of Biochemistry, Leipzig University, Leipzig, Germany; Inst of Analytical Chemistry and Food Chemistry, Graz University of Technology, Graz, Austria*

[OL 1.3] 11:30-11:45 **In Vitro Tumor Vasculature Model with Potential Application to Drug Screening and Adoptive Cell Therapy** ***H. Choi***, *D. Park, J. Song and N. Li Jeon* *Interdisciplinary program for bioengineering, Seoul National University, Seoul; Dept of mechanical engineering, Seoul National University, Seoul, South Korea*	[OL 2.3] 11:30-11:45 **Organ-chip model of bone cell regulation of breast and prostate cancer metastasis** ***S. Verbruggen***, *C. Thompson, M. Duffy, S. Lunetto, J. Nolan, O. Pearce, C. Jacobs, M. Knight* *Dept of Biomedical Engineering, Columbia University in the City of New York, New York, US: Centre for Predictive in vitro Models, Institute of Bioengineering, Queen Mary University of London; Dept of Mechanical Engineering and INSIGNEO Institute, University of Sheffield; Queen Mary + Emulate Organs-on-Chips Centre, Queen Mary University of London; Barts Cancer Institute, School of Medicine and Dentistry, Queen Mary University of London, UK*	[OL 3.3] 11:30-11:45 **A novel research tool for the study of the 3D tissue microenvironment in culture** *P. Oranje, A. van Eldonk, E. Michielon, S. Gibbs, T. de Gruijl, V. Thakoersing, C. Koster and* ***A. Motta*** *IMcoMET BV, Rotterdam; Dept of Molecular Cell Biology and Immunology, Amsterdam UMC, Vrije Universiteit, Amsterdam; Dept of Oral Cell Biology, Academic Centre for Dentistry Amsterdam (ACTA), University of Amsterdam and Vrije Universiteit, Amsterdam; Dept of Medical Oncology, Amsterdam UMC, Vrije Universiteit, Cancer Center Amsterdam, Amsterdam Infection & Immunity Institute, Amsterdam, The Netherlands*	[OL 4.3] 11:30-11:45 **Integrated on chip cytotoxicity test with real-time image analysis and electro-chemical sensors-based monitoring** *A. Chmayssem, V. Mourier, N. Verplanck, A. Uka, X. Polisi, A. Halili, C. Muller, L. Petit, J. Barthes, S. Vignoud,* ***N. Engin Vrana*** *and P.l Mailley* *Univ. Grenoble Alpes, CEA, LETI, DTBS, F-38000 Grenoble; Inserm UMR 1121, Strasbourg; Spartha Medical, Strasbourg, France; Epoka University, Computer Engineering Department, Tirana, Albania.*
Q&A All Speakers 11:45 – 12:00	Q&A All Speakers 11:45 – 12:00	Q&A All Speakers 11:45 – 12:00	Q&A All Speakers 11:45 – 12:00
12:00 – 13:00 Lunch break			
13:00 – 15:00 Poster Session			
Main Digital Venue			
15:00 – 16:00 **Special session (panel discussion): Meet your Industrial Advisory Board (EUROoCS IAB)** **Moderator: Thomas Singer (chair IAB)**			
Main Digital Venue			
Chair: Christine Mummery			
16:00-16:45 Keynote Lecture [KL II] **Human Organ Chips: From experimental models to clinical mimicry** **Don Ingber** Professor at the Wyss Institute, Boston, USA			
16:45-17:30 Keynote Lecture [KL III] **Mechanobiology of human induced pluripotent stem cell derived cardiomyocytes models** **Beth Pruitt** Professor at the University of California, Santa Barbara, USA			
End of Day 1			

Day 2
Friday July 2nd 2021

Main Digital Venue

Chair: Nathalie Picollet-D'hahan

08:00 (CET)
Digital platform open

09:00-09:45
EUROoCS announcements & Nation-wide Organ-on-Chip networks

09:45-10:30
Keynote Lecture [KL IV] **Next Generation Human Healthy and Disease Reconstructed Skin Models**
Sue Gibbs
Professor Department of Molecular Cell Biology & Immunology and Department of Oral Cell Biology, ACTA Amsterdam University Medical Center, the Netherlands

10:30-11:15
Keynote Lecture [KL V] **Scalable microfluidic platform using multi-cellular 3D cultures in disease modelling**
Olivier Frey
Vice-President of Technologies & Platforms at InSphero, Schlieren, Switzerland

11:15-11:45
Coffee break

Session F-5: Vasculature - 2	**Session F-6: Respiratory system**	**Session F-7: Immune system**	**Session F-8: Gastrointestinal tract**
Chair: Andries van der Meer	**Chair: Nathalie Delrue**	**Chair: Pelin Candarlioglu**	**Chair: Peter Loskill**
Digital meeting room 1	**Digital meeting Room 2**	**Digital meeting room 3**	**Digital meeting room 4**
[OL 5.1] 11:45 – 12:00 **Modeling Vascular Compliance using human induced Pluripotent Stem Cell derived Vascular Cells in a 3D model** ***M. de Graaf****, A. de Vivas, A. van der Meer, A. van den Berg, C. Mummery and V. Orlova* *Dept of Anatomy and Embryology Leiden University Medical Center, Leiden; Applied Stem cell Technology, Twente University, Enschede; BIOS, Twente University, Enschede, The Netherlands*	[OL 6.1] 11:45 – 12:00 **Microfluidic model of immune cell extravasation and migration through a hydrogel barrier** ***L. van Os*** *and O. Guenat* *ARTORG Center for biomedical engineering, University of Bern, Bern, Switzerland*	[OL 7.1] 11:45 – 12:00 **Modeling Inflammatory Immune Cell Recruitment on Colon Intestine-Chip** ***V. Kujala****, C. Carman, M. Kanellias, J. Sauld, D. Ramos, C. Lucchesi, G. Kulkarni, A. Apostolou and L. Ewart* *Emulate, Inc., Boston, MA, USA*	[OL 8.1] 11:45 – 12:00 **A mechanically active 3D gut-on-chip for intestine-microbiome co-culture** ***M. Ballerini****, K. Konrad Kugiejko, C. Catozzi, P. Occhetta, L. Nezi and M. Rasponi* *MiMic Lab, Dept of Electronics, Information and Bioengineering, Politecnico di Milano, Milano; Dept of Experimental Oncology, IEO, European Institute of Oncology IRCCS, Milan; BiomimX Srl, Milan, Italy*

[OL 5.2] 12:00 – 12:15 **Long-term study of vascularized pancreas-on-chip** ***M. Cosnier***, *R. Den Dulk, C. Laporte, E. André, A. Pitaval, E. Tubbs, S. Lablanche, P. Benhamou, Y. Fouillet, F. Navarro and X. Gidrol* *Univ. Grenoble Alpes, CEA LETI, DTBS, Grenoble; Univ. Grenoble Alpes, CEA, INSERM, IRIG, BIOMICS, Grenoble; Univ. Grenoble Alpes, Lab.y of Fundamental and Applied Bioenergetics (LBFA), INSERM& SFR Environmental and Systems Biology (BEeSy), Grenoble; Grenoble Univ. Hospital, Grenoble, France*	[OL 6.2] 12:00 – 12:15 **Lung-on-chip model systems to study host-pathogen interactions in tuber-culosis and COVID** ***V. Thacker***, *K. Sharma, N. Dhar and J. McKinney* *Global Health Institute, EPFL, Switzerland*	[OL 7.2] 12:00 – 12:15 **Multiscale Immuno-Oncology on-Chip System (MIOCS) establishes that collective T cell behaviors govern tumor regression** *G. Ronteix,* ***S. Jain****, C. Angely, M. Cazaux, R. Khazen, P. Bousso, and C. Baroud* *Physical microfluidics and Bioengineering, Institut Pasteur, Paris; LadHyX, CNRS, Ecole polytechnique, Institut polytechnique de Paris, Palaiseau; Dynamics of Immune Responses Unit, Equipe Labellisée Ligue Contre le Cancer, Institut Pasteur, INSERM Paris, France*	[OL 8.2] 12:00 – 12:15 **Discovering communication of the microbiome-gut-brain axis on a micro-fluidic chip** ***L. Koch***, *P. Goldsteen, D. Buentello, M. Garcia-Corral, N. Annang, R. Gosens and K. Broersen* *Dept of Applied Stem Cell Technologies, TechMed Centre, University of Twente, Enschede; Molecular Pharmacology, Faculty of Science and Engineering, University of Groningen, Groningen, the Netherlands; Centro de Biotecnología - FEMSA, Tecnológico de Monterrey, Monterrey, Nuevo León, México*
[OL 5.3] 12:15 – 12:30 **Dynamic inflammatory stimulation of hiPSC-endothelial cells in a multiplexed microfluidic chip** ***A. Vollertsen***, *K. Le, L. van den Hil, K. Vermeul, B. van Meer, A. van den Berg, V. Orlova, V. Kumar, M. Odijk and A. van der Meer* *Applied Stem Cells Technologies Group, University of Twente, Enschede; BIOS Lab on a Chip group, University of Twente, Enschede; Dept of Genetics, University Medical Center Groningen, Groningen; Dept of Anatomy and Embryology, Leiden University Medical Centre, Leiden; Organ-on-Chip Center Twente, MESA+, University of Twente, Ensched; Dept of Internal Medicine and Radboud Center for Infectious Diseases (RCI), Radboud University Medical Center, Nijmegen, the Netherlands.*	[OL 6.3] 12:15 – 12:30 **Optimization of an alveolus-on-chip model for personalized drug screening against super-infections in viral pneumonia** ***H. Koceva***, *M. Figge, C. Eggeling, C. Ehrhardt, S. Deinhardt-Emmer, P. Loskill, O. Schneider and Alexander Mosig* *Inst of Biochemistry, Jena Univ Hospital; Section of Experimental Virology, Inst of Medical Microbiology, Jena Univ Hospital; Inst of Medical Microbiology, Jena Univ Hospital; Leibniz-Institute of Photonic Technology, Jena; Research Group Applied Systems Biology, Leibniz Inst for Natural Product Research and Infection Biology – Hans Knöll Institute, Jena; Fraunhofer Inst for Interfacial Engineering and Biotechnology IGB, Stuttgart, Germany*	[OL 7.3] 12:15 – 12:30 **Studying the macrophage inflammatory response in a synovial membrane-on-chip platform** ***C. Paggi***, *N. Araújo-Gomes, A. Zuchowska, S. Le Gac, and Marcel Karperien* *Dept of Developmental BioEngineering, TechMed Centre, University of Twente; Applied Microfluidics for BioEngineering Research, MESA+ Institute for Nanotechnology & TechMed Centre, University of Twente, The Netherlands*	[OL 8.3] 12:15 – 12:30 **A bioelectronic 3D in vitro platform for investigating the human microbiota-gut-brain axis** ***V. Stoeger***, *C. Moysidou, C. Pitsalidis and R. Owens* *Dept of Chemical Engineering and Biotechnology, University of Cambridge, Cambridge, UK*
Q&A All Speakers 12:30 – 12:45	Q&A All Speakers 12:30 – 12:45	Q&A All Speakers 12:30 – 12:45	Q&A All Speakers 12:30 – 12:45
12:45 – 13:30 Lunch break			
Main Digital Venue			
13:30 – 14:30 **Special session (panel discussion): Meet your Regulatory Advisory Board (EUROoCS RAB)** **Moderator: Maurice Whelan (chair RAB)**			

Session F-9: Technology platforms - 2	Session F-10: Disease models - 2	Session F-11: (Multi)-Organ models	Session F-12: Spheroids and organoids
Chair: Torsten Mayr	**Chair: Marco Rasponi**	**Chair: Janny van den Eijnden-van Raaij**	**Chair: Erika Györvary**
Digital meeting room 1	**Digital meeting Room 2**	**Digital meeting room 3**	**Digital meeting room 4**
Selected Talk [ST 9.0] 14:30 -15:00 **Non-specific Sorption of Small Molecules in Organ-on-Chip Systems** ***T. Winkler*** *and A. Herland* *Division of Micro- and Nanosystems, KTH Royal Institute of Technology, Stockholm; AIMES, Department of Neuroscience, Karolinska Institute, Solna, Sweden; Center of Pharmaceutical Engineering & Institute for Microtechnology, TU Braunschweig, Braunschweig, Germany*	Selected Talk [ST 10.0] 14:30 -15:00 **Development of a disease-mimicking model for non-alcoholic steatohepatitis & fibrosis in a triple cell-type, spheroid-based liver-on-chip microfluidic platform** ***G. Galaris****, H. Ahmed, K. Toet, H. Eslami Amirabadi, E. Pieterman, R. Ostendorf, R. Hanemaaijer, B. van de Water, I. Bobeldijk, E. van de Steeg and G. Stokman* *TNO Metabolic Health Research, Leiden; Leiden Academic Centre for Drug Research, Leiden, The Netherlands*	Selected Talk [ST 11.0] 14:30 -15:00 **Modelling the joint on a chip: a Vertical Burst Valve allows for mechanically active, 3D, multi-layer vascularized osteochondral compartment OoC representations** ***A. Mainardi****, P. Occhetta, I. Martin, A. Barbero and M. Rasponi* *Dept of Electronics, Informatics and Bioengineering, Politecnico di Milano, Milano; Dept of Biomedical Engineering, Univ of Basel, Allschwil;; Dept of Biomedicine, Univ Hospital Basel, Univ of Basel, Basel, Switzerland*	Selected Talk [ST 12.0] 14:30 -15:00 **Microphysiological Systems for 3D Pancreatic Islet Organoids Enables Serial Assessments** ***S. Patel****, M. Ishahak, D. Chaimov, A. Velraj, D. LaShoto, D. Hagan, P. Buchwald, E. Phelps, A. Agarwal, and C. Stabler* *Dept of Biomedical Engineering, University of Florida, Gainesville; Dept of Biomedical Engineering, University of Miami, Miami; Diabetes Research Institute, University of Miami, Miami, USA*
[OL 9.1] 15:00 – 15:15 **Organ-on-a-disc technology for automated and parallelized microphysiological systems** ***S. Schneider****, M. Bubeck, F. Erdemann, O. Schneider, H. Weener, T. Hutschalik, C. Rojas and P. Loskill* *Fraunhofer Inst for IGB, Stuttgart; NMI at the University of Tübingen, Reutlingen; Dept of Biomedical Sciences, Faculty of Medicine, Eberhard Karls University Tübingen, Germany*	[OL 10.1] 15:00 – 15:15 **Engineering Neuromuscular Junction on a Chip for Disease Modeling** ***E. Drabbe****, R. Besser, M. Sarpota and A. Agarwal* *Dept of Biomedical Engineering and Dept of Neurology, University of Miami, Miami, USA*	[OL 11.1] 15:00 – 15:15 **Stem cell-based microphysiological systems to interrogate the adipose-liver axis in type-2 diabetes mellitus** ***M. Groeger****, L. Qi, K. Matsuo, I. Goswami, E. de Klerk, M. Hebrok, K. Healy, E. Hsiao, A. Stahl and H, Willenbring* *Inst for Regen Medicine, and Ins for human Genetics, and Diabetes Center, UC San Francisco; Dept of Nutritional Science and Toxicology, and; Dept of Bioengineering, UC Berkeley; USA*	[OL 12.1] 15:00 – 15:15 **Vascularized three-dimensional cardiac microtissue-on-chip** ***U. Arslan****, D. Nahon, C. Mummery and V. Orlova* *Anatomy and Embryology, Leiden University Medical Centre, Leiden, Netherlands*
[OL 9.2] 15:15 – 15:30 **Transcriptomic analysis of the corneal epithelium on chip under dry eye-like conditions** ***R. Abdalkader*** *and K. Kamei* *Ritsumeikan Global Innovation Research Organization (R-GIRO), Ritsumeikan University, Shiga; Institute for Integrated Cell-Material Sciences (WPI-iCeMS), Kyoto University, Japan*	[OL 10.2] 15:15 – 15:30 **Modelling migraine on-a-chip** ***J. Frimat****, M. Hu, J. West, M. Ferrari, N. van der Weerd, E. Tolner and A. van den Maagdenberg* *Dept of Human Genetics, Leiden University Medical Centre; Dept of Neurology, Leiden University Medical Centre, the Netherlands; Dept of Biomedical Microfluidics, Faculty of Medicine, University of Southampton, UK*	[OL 11.2] 15:15 – 15:30 **Engineered human tissues for assessing cosmic radiation damage** ***D. Tavakol****, T. Nash, Y. Kim, M. Tamargo, S. Fleischer, J. Brown, M. Liberman, K. Yeager, A. Harken, G. Garty, A. Ferrando, P. Schein, E. Azizi, K. Leong, D. Brenner and G. Vunjak-Novakovic* *Biomedical Eng; Cancer Center; Center for Radiological. Research; Schein Group; Medicine; Columbia University, New York, USA*	[OL 12.2] 15:15 – 15:30 **Monitoring oxygen and lactate in microfluidic, matrix-based 3D culture** ***J. Dornhof****, J. Kieninger, H. Muralidharan, J. Maurer, G. Urban and A. Weltin* *IMTEK – Dept of Microsystems Engineering, University of Freiburg, Germany 2 Clinic for Gynecology and Obstetrics, University Hospital RWTH Aachen, Germany*
Q&A All Speakers 15:30 – 15:40	Q&A All Speakers 15:30 – 15:40	Q&A All Speakers 15:30 – 15:40	Q&A All Speakers 15:30 – 15:40

15:40 – 16:00 Coffee break
Main Digital Venue
Chair: Maria Tenje
16:00-16:45 Keynote Lecture [KL VI] **Advancing Regulatory Science Through Innovation: Microphysiological Systems** **Suzanne Fitzpatrick** Senior advisor Toxicology at the US Food and Drug Administration Foods Program, FDA, USA
Prize ceremony and Closing Remarks **Announcement of EUROoCS 2022**
16:45 – 17:30
End of EUROoCS 2021