

SELECTBIO

**Lab-on-a-Chip and Microfluidics Europe 2021
3D-Culture, Organoids and Organs-on-Chips Europe 2021
Point-of-Care, Biosensors and Mobile Diagnostics Europe 2021**

28-30 June 2021

**All Times Listed are Dutch Time – Central European Summer Time
(CEST)**

**On-site Physical Conference: Hilton Rotterdam – Rotterdam, The Netherlands
Virtual Access Worldwide Powered by the Zoom Platform**

Full Details and Up-to-Date Conference Agendas and Speaker Presentation
Abstracts available at: selectbio.com

For Information or Any Additional Details Including Zoom Access Details for
Virtual Participation, Please Contact:

Jeff Fan, Events Manager – SelectBIO
E-mail: J.Fan@selectbio.com

**On-site Conference at the Hilton Rotterdam Held in Compliance with Guidance from the
Dutch Government Relating to COVID-19 and Safe Operations of an On-site Conference**

**Each Attendee Receives Full Access to All Three Conference Days
Either On-site Physical Conference Participation in Rotterdam or Virtual Access**

Conference Day 1 -- Monday, 28 June 2021
Lab-on-a-Chip and Microfluidics Agenda

08:00 Conference Registration, Materials Pick-Up, Morning Coffee and Pastries

Session Title: Conference Opening Session -- Spotlight on Microfluidics

09:00 Keynote Presentation
Microfluidics and Nanobiosensors for Enrichment and Detection of Biological Entities from Complex Matrices

Lorena Diéguez, Leader of the Medical Devices Research Group, INL- International Iberian Nanotechnology Laboratory, Portugal

09:30 Keynote Presentation
Microfluidics in Resource-Limited Settings

Nicole Pamme, Professor in Analytical Chemistry, The University of Hull, United Kingdom

10:00 *STRATEC Consumables GmbH Industrial View of Plasmonic Devices made by Nanoimprint or Injection Molding*

Iris Prinz, Head of Sales and Business Development, STRATEC Consumables GmbH, Austria



10:30 Morning Coffee Break and Networking

11:00 Keynote Presentation
Optofluidic Imaging Flow Cytometry

Andrew J. deMello, Professor of Biochemical Engineering & Institute Chair, ETH Zürich, Switzerland

11:30 Keynote Presentation
Droplet-based Microfluidics for Cancer Research: Application for Cancer Patient Follow-up

Valérie Taly, CNRS Research Director, Group leader Translational Research and Microfluidics, University Paris Descartes, France

12:00 Networking Lunch, Meet Exhibitors and View Posters

12:40 Poster Oral Presentation by Jakub Aniulis, SensDx S.A. Poland. Poster Title: *Temperature control and stabilization system for microfluidic cartridge in EIS biosensor application*

13:10 Poster Oral Presentation by Lucas Santin, Bioaster France. Poster Title: *Optimizing the functionalization of super-paramagnetic beads for droplet-based protein secretion profiling of immune cells*

13:30 *Build Microfluidic Systems with 3D Bioprinting Technologies*

Cecilia Soto, Field Application Specialist, CELLINK LIFE SCIENCES, Sweden



14:00 Keynote Presentation
Intestine on Chip for Normal Physiology and Disease Models
Nancy Allbritton, Frank and Julie Jungers Dean of the College of Engineering and Professor of Bioengineering, University of Washington in Seattle, United States of America

14:30 *Single-Button Nucleic Acid Extraction for Rapid, Reliable Molecular Testing*
Richard Chasen Spero, CEO, Redbud Labs, United States of America



15:00 Keynote Presentation
Isolation and Analysis of Liquid Biopsy Markers using Microfluidics and a Liquid Handling Robot
Steve Soper, Foundation Distinguished Professor, Director, Center of BioModular Multi-scale System for Precision Medicine, The University of Kansas, United States of America; Adjunct Professor, Ulsan National Institute of Science & Technology, South Korea

15:30 Afternoon Coffee Break and Networking

16:00 Keynote Presentation
Home Diagnostic Testing Before, During, and After the Era of COVID-19
Paul Yager, Professor, Department of Bioengineering, University of Washington, United States of America

16:30 Keynote Presentation
Sorting of Single Cells Based on Secreted Products Using Lab on a Particle Technology
Dino Di Carlo, Professor and Vice Chair of Bioengineering, University of California-Los Angeles, United States of America

17:00 *Evolving Microfluidics with 3D Printing*
Hemdeep Patel, President and CEO, CADworks3D, Canada



CADworks3D
MICROFLUIDICS

17:30 Keynote Presentation
Designing a Bioreagent-Compatible Material for a 3D-Printed Molecular Design System
Noah Malmstadt, Professor, Mork Family Dept. of Chem. Eng. & Mat. Sci., University of Southern California, United States of America

18:00 *Microfluidic Droplet Reactors to Reveal the Bacterial Interaction in an Antibiotic Environment*
Xinne Zhao, Researcher, Helmholtz-Zentrum Dresden Rossendorf, Germany

18:30 Poster Oral Presentation by András Laki, Pázmány Péter Catholic University Hungary. Poster Title:
Particle separation with deterministic lateral displacement

18:50 Close of Day 1 of the Conference

Conference Day 2 -- Tuesday, 29 June 2021
3D-Culture, Organoids and Organ-on-a-Chip Agenda

08:00 Morning Coffee, Pastries and Networking

09:00 Keynote Presentation

Applications of Organ-on-a-Chip Systems in Precision Medicine

Peter Ertl, Professor of Lab-on-a-Chip Systems, Vienna University of Technology, Austria

09:30 Keynote Presentation

Organ-on-a-Chip Models for Cancer Research

Séverine Le Gac, Professor, Applied Microfluidics for Bioengineering Research, MESA+ Institute for Nanotechnology, University of Twente, The Netherlands

10:00 Keynote Presentation

Blood Perfusion of Organs-on-Chips

Andries D. van der Meer, Associate Professor, Scientific lead, Organ-on-Chip Center Twente, University of Twente, The Netherlands

10:30 Morning Coffee Break and Networking

11:00 *Modeling Human Fatty Liver Disease Using Stem Cell-derived Liver Tissue*

David Hay, Principal Investigator/RCUK Fellow, MRC Centre for Regenerative Medicine, United Kingdom

11:30 *Microfabrication Technologies for Engineering a Joint on Chip*

Marcel Karperien, Professor, University of Twente, The Netherlands

12:00 Networking Lunch, Meet Exhibitors and View Posters

12:40 Poster Oral Presentation by Angeline Lim, Molecular Devices. Poster Title: *A streamlined approach for multiplexed phenotypic profiling based on the Cell Painting assay*

13:00 *3D Cultures to Study Parkinson's Disease*

Silvia Bolognin, Research Scientist, University of Luxembourg, Luxembourg

13:30 *Population Effect on Drug Metabolism and Absorption Using Ex Vivo Intestinal Tissue Explants in the Intestine Explant Barrier Chip*

Joanne Donkers, Scientist, TNO, The Netherlands

14:00 *Automation of 3D Organoid Culture with Monitoring, Imaging and Analysis of Complex Biological Effects*

Oksana Sirenko, Sr. Imaging Applications Scientist, Molecular Devices, United States of America



14:30 *Tissue Organoids for Disease Modeling and Therapy Development*

Shay Soker, Professor of Regenerative Medicine and Chief Science Program Officer, Wake Forest Institute for Regenerative Medicine, United States of America

15:00 Afternoon Coffee Break and Networking

15:30 *Optical Sensors in Microfluidics Devices*
Jake Boy, Senior Application Scientist, Scientific Bioprocessing Inc.,
United States of America



16:00 *Assessing Contractility of 3D iPSC-derived Engineered Muscle Tissues for Safety and Drug Discovery Applications Using a High-throughput and Novel Label-free Method*
Nicholas Geisse, Chief Science Officer, Curi Bio Inc., United States of America

16:30 Keynote Presentation
Three Things Count for MPS and Organoids: Quality, Quality and Quality!
Thomas Hartung, Professor and Doerenkamp-Zbinden Chair for Evidence-based Toxicology, Director of the Center for Alternatives to Animal Testing (CAAT), Johns Hopkins Bloomberg School of Public Health, United States of America

17:00 Keynote Presentation
Organ-specific Models of Barrier Function
Roger Kamm, Cecil and Ida Green Distinguished Professor of Biological and Mechanical Engineering, Massachusetts Institute of Technology (MIT), United States of America

17:30 Close of Day 2 of the Conference

Conference Day 3 -- Wednesday, 30 June 2021
Point-of-Care, Biosensors & Mobile Diagnostics Europe 2021 Agenda

08:00 Morning Coffee, Pastries and Networking

09:00 *Self-Powered Microfluidic Electrical Sensor Array to Rapidly Detect Viral Contaminations in Liquid Solutions*

Peter Ertl, Professor of Lab-on-a-Chip Systems, Vienna University of Technology, Austria

09:30 Keynote Presentation

Continuous Biomarker Monitoring with Single-Molecule Resolution

Menno Prins, Professor, Eindhoven University of Technology & Helia BioMonitoring, The Netherlands

10:00 *Towards Large Scale Integrated, Multivariate "Lab-on-a-Disc" Sensors by a Virtual "Digital Twin" Approach*

Jens Ducreé, Doctor, Dublin City University, Ireland

10:30 Morning Coffee Break and Networking

11:00 *Actin Filament Multiplication, Path Control and Longevity of Actin-Myosin based Nanodevices for Biosensing and Biocomputation*

Alf Månsson, Professor, Linnaeus University and Lund University Sweden, Sweden

11:30 *Combined Calorimetric Gas- and Spore-based Biosensor for Aseptic Food Processing*

Michael Schöning, Professor and Director, Institute of Nano- and Biotechnologies, Aachen University of Applied Sciences, Germany

12:00 Networking Lunch, Meet Exhibitors and View Posters

12:40 Poster Oral Presentation by Alice Iles, University of Southampton UK. Poster Title: *Semi-quantitative, paper-based detection of the inflammatory biomarkers, C-reactive protein and procalcitonin using laser-patterned multiplex technology*

13:00 Poster Oral Presentation by Eva Melnik, Austrian Institute of Technology. Poster Title: *Novel surface modification of platinum microneedle sensors for interference-less detection of glucose and lactate*

13:30 *Quantitative, Sensitive and Multiplexed Detection of Staphylococcal Enterotoxins: The Lanthanide-based Luminescent Nanoparticle Contribution to Lateral Flow Assays*

Fanny Mousseau, Post-doctorate Fellow, Laboratoire d'Optiques et Biosciences (LOB), INSERM U1182, CNRS UMR 7645, Ecole Polytechnique, France

14:00 Keynote Presentation

Novel Microfluidic Approaches to Real-Time Tissue Monitoring

Martyn Boutelle, Professor of Biomedical Sensors Engineering, Imperial College London, United Kingdom

14:30 *Small-Molecule Quantification for Point-of-Care Testing Using Paper-based Analytical Devices*
Jean-Manuel Segura, Professor, University of Applied Sciences and Arts Western Switzerland Valais, Switzerland

15:00 Keynote Presentation
Development and Deployment of a 'Smart Diagnostic Ecosystem' for Covid-19 and Beyond: Near Real-Time Customization of Programmable Medical Microdevices
John T. McDevitt, Chair, Department of Biomaterials, New York University College of Dentistry Bioengineering Institute, United States of America

15:30 Afternoon Coffee Break and Networking

16:00 *An Advanced Statistical Description of Digital Quantification Methods and its Implications for the Design of Point-of-Care Devices*
Manuel Loskyll, Researcher, Robert Bosch GmbH, Germany

16:30 *Accelerating CAR T-cell Immunotherapy Research with Assistance of Nano-Biosensors*
Trang Anh Nguyen Le, Researcher, Helmholtz Center Dresden Rossendorf, Germany

17:00 *Interdigitated Gold Nanowires for Impedimetric Detection of SARS-CoV-2 Antibodies*
Diana Isabel Sandoval Bojorquez, Researcher, Helmholtz Zentrum Dresden Rossendorf, Germany

17:30 Poster Oral Presentation by Feixiong Chen, University College Dublin. Poster Title: *Multi-functionalized magnetic nanoparticle for Point of Care diagnosis of Breast Cancer biomarker*

17:50 Poster Oral Presentation by Wioleta Bialobrzaska, The Institute of Biotechnology and Molecular Medicine (IBMM) Poland. Poster Title: *Electrochemical biosensor for Equine Viral Arteritis protein detection using antibody modified gold electrodes*

18:10 Keynote Presentation
New Tools to Help Developers of Point of Care Diagnostics
Joany Jackman, Senior Scientist, Technical Lead, Technology Development Core, Johns Hopkins Center for Point-of-Care Technologies Research for Sexually Transmitted Diseases, The Johns Hopkins University Applied Physics Laboratory, United States of America

18:40 Close of Conference