



*The Second Annual*

# Microphysiological Systems WORLD SUMMIT

26<sup>th</sup>-30<sup>th</sup> June  
2023

BERLIN  
GERMANY

Hello Fellow Science Enthusiasts,

## **Buckle Up for a Wild Ride at the MPS World Summit 2023!**

The Center for Alternatives to Animal Testing (CAAT) is all set to roll out the red carpet for the second MPS (Microphysiological Systems) World Summit in the ever-vibrant city of Berlin in 2023. Remember our humble beginnings with the MPS workshops in Berlin in 2015 and 2019? Well, those were the seeds that sprouted into the idea of international conferences and a society. And boy, have we grown!

Last year, we rallied 52 organizations in New Orleans to hold the first MPS World Summit. We had a whopping 142 speakers and 189 posters. But hold onto your lab coats, because this year, we've outdone ourselves! We've got over 60 organizations in the Steering Group, 29 members in the Scientific Advisory Board, 166 speakers, and 553 posters. We've had to cap the number of in-person participants at 1,300 (that's triple from last year!) and we still have over 100 eager beavers on the waiting list. We even ran out of booths for our 95 sponsors!

A big shout-out to our fundraising committee led by J Hickmann for making this possible. Our hosts this year include our very own Marcel Leist from University of Konstanz/CAAT-Europe (Germany), along with co-hosts Uwe Marx and Peter Loskill from the co-organizing European Organ-on-Chip Society (EUROoCS). Together with the program committee and the local organizing committee, we've created a program that's packed with more punch than a caffeine-infused energy drink.

And let's not forget, we're officially launching the International MPS Society in Berlin, thanks to the tireless efforts of Lena Smirnova and team. So, 60 years after J.F. Kennedy's famous speech, let's all be "Berliners" for a few days, united in our quest for the best cell models to improve biomedical research, product development, and beyond.

So, whether you're from the academic research community, medical centers, the pharmaceutical, cosmetics, chemical, or food industries, regulatory agencies, health foundations, charities, patients associations, or policy-makers, we welcome you to join us in our motto of "emulating human biology for patients' benefit and a safer environment in the 21st century and beyond!"

The CAAT team (Thomas Hartung, Marcel Leist, Lena Smirnova (iMPSS), Giorgia Pallocca, Camila Sgrignoli Januario, and Anwyn Statnick) wishes you an exhilarating journey into microphysiology and a whole lot of fun at our Macroparty and other social events. Let's make some memories!

Best,  
*The CAAT Team*



# CONTENTS

Hosts	<b>1</b>
Sponsors	<b>6</b>
Program at a Glance	<b>11</b>
Program in Depth	<b>16</b>
Social Events	<b>33</b>
Maps	<b>38</b>



**INTERNATIONAL MPS SOCIETY**  
CONNECT, EXCHANGE, EDUCATE

We are thrilled to reveal that the International MPS Society, announced during our first World Summit in New Orleans, has been officialized!

***All attendees from our first MPS summit in New Orleans are considered founding members.***

***We are extending an invitation to all to become members.***

At the moment, there is no membership fee. You can void your membership by simply not paying the first invoice or opt out now by writing to [info@impss.org](mailto:info@impss.org).

Membership dues will be defined later in 2023, communicated to all members, and start in January 2024.

Please visit our website to review the bylaws and our suggested board. All members attending the MPS WS 2023 in Berlin will be asked to approve it during the iMPSS business meeting.

**What iMPSS offers:**

- A discounted rate for Annual MPS World Summits and free access to virtual webinars and conferences
- Regular newsletters providing summaries of events, publications and general updates in the field
- Our education program with hands-on trainings and workshops for members
- Support for three regional chapters and building interest groups.

**Find the registration form here:**

**Send it to a friend!**



# HOSTS

Uwe Marx is a physician by training. He received his doctorate degree from the Charité in Berlin, Germany and is the founder and Chief Scientific Officer of TissUse, a Berlin based company founded in 2010. Dr. Marx was appointed an Honorary Professor of Medical Biotechnology at the Technische Universität Berlin in 2022. Along his 35-year academic carrier at the Charite Berlin, the University of Leipzig and the Technische Universität Berlin, he always focused on the invention and implementation of innovative biopharmaceutical products and technology platforms. Immunotoxins, human monoclonal antibodies, stem cell transplants and human tissue engineering platforms resulted from his developmental work and have been secured by 30 patent families with several hundred granted patents in place. Dr. Marx published several book chapters and more than 150 peer reviewed papers. He founded numerous German biotech companies, among them ProBioGen and VITA34. Furthermore, he served as a reviewer for various German governmental biotech programmes. Since 1991, Dr Marx is engineering human multi-organ bioreactors, and since 2010 miniaturized human multi-organ-chip systems in collaboration with the Technische Universität Berlin. As a scientist Dr. Marx has developed the theoretical background of the organismoid theory – a concept and its principles to generate miniature mindless and emotion-free equivalents of a human individual's body on chips. The Russel and Burch award has been awarded to Dr. Marx by the Humane Society of the United States in Sep 2021. Dr. Marx hosted the two stakeholder CAAT-workshops of the MPS-community in 2015 and in 2019 in Berlin.

## Uwe Marx

TissUse GmbH & Technische Universitaet  
Berlin, Germany



# HOSTS

Marcel Leist obtained an MSc in toxicology (Guildford 1989), and a PhD in pharmacology (Konstanz 1993). Since 2006, he has been head of the department of in vitro toxicology and biomedicine at the University of Konstanz (inaugurated by the Doerenkamp-Zbinden foundation), and director of the Center for Alternatives to Animal Testing in Europe (CAAT-Europe), a joint venture with Johns Hopkins University. From 2000-2006, he worked as 'Head of Department of Disease Biology' on the discovery of neurology and psychiatry drugs in the Danish pharmaceutical company Lundbeck A/S. The current research addresses stem cell differentiation to neuronal lineages as well as the pharmacological and toxicological characterization of test methods and in vitro disease models. The novel test methods are used both to reduce the use of animals in scientific research and to shift research applications towards the use of human cells. The lab is particularly well-known for its test methods for developmental toxicity and neurotoxicity. It is also broadly involved in work on standardizing and quality controlling new approach methods, for instance in large-scale European research programs or as contributor to the OECD GIVIMP or the good cell culture practices 2.0 guideline. The research resulted in > 400 publications (cited over 30,000 times), and was awarded with many national and international research prizes.

## Marcel Leist

CAAT-EU, University of Konstanz, Germany



# HOSTS

Prof. Dr. Peter Loskill is Full Professor for Organ-on-Chip (OoC) Research at the Eberhard Karls University Tübingen (EKUT) and the Natural and Medical Sciences Institute (NMI), head of the 3R Center Tübingen for in vitro Models and Alternatives to Animal Testing, as well as Chair of the European Organ-on-Chip Society (EUROoCS). Dr. Loskill graduated in 2012 from Saarland University with a PhD in Physics focusing on Biointerface science. He then spent three years as postdoctoral fellow in the Healy lab at University of California at Berkeley developing hiPSC-based OoC models, funded by the NIH/NCATS Tissue Chip program and the German Science Foundation. In 2015, he was named as one of Technology Review's "Innovators under 35 Germany" and awarded a Fraunhofer ATTRACT Grant, the highest funded German starting grant program, which enabled him to start an independent research group at Fraunhofer IGB Stuttgart. In 2021, he accepted a W3-professor position heading the Department for Microphysiological Systems in the Faculty of Medicine at EKUT. Dr. Loskill and his interdisciplinary  $\mu$ Organo lab (<https://www.organ-on-chip.uni-tuebingen.de>) merge engineering, biology, physics and medicine to generate next generation tissue models recapitulating complex human biology in vitro. His research focuses on i) development of tailored OoC platforms, ii) application of OoCs for pharmaceutical research, toxicological screening, and biomedical studies, as well as on iii) enabling technologies that support parallelization, automation and ease of use. His 3R Center Tübingen (<https://www.the3rs.uni-tuebingen.de>) aims to provide all scientists in the state of Baden-Württemberg with low-threshold access to novel alternative methods to animal testing.

## Peter Loskill

Eberhard Karls University of Tübingen,  
Germany; EUROoCS, Europe



# Engage with Emulate @ MPS World Summit 2023

Join the Emulate team in Salon 5 – London, instead of the Exhibit Hall. This format will allow us to have dedicated presentations, roundtable discussions, hands-on training sessions, and a lounge environment where you can kick back and relax. Feel free to stop by at any time to Ask an Expert Anything. We look forward to engaging!

## Your Passport to MPS World Summit 2024

Attend at least four Emulate sessions for a chance to win a FREE trip to MPS World Summit 2024.

### It's as easy as 1-2-3 to participate

1. Attend at least four Emulate sessions
2. Scan QR codes displayed during sessions and follow the steps on the webpage
3. After the last session, drop the completed card at the Emulate Lab

## Participating Sessions

**Any Organ-Chip 101 Training Session in the Emulate Lab**

**One of three Roundtable Discussions in the Emulate Lab**

**Emulate Presentation:** Next-Generation Organ-Chips for Novel Experiment Design

**Emulate Presentation:** Modulation of inflammatory bowel disease (IBD)-specific immune cell recruitment and response with anti-TNF- $\alpha$  therapies in the human Colon Intestine-Chip

**Emulate Presentation:** Liver-Chip Decision-Making Criteria

**Emulate Presentation:** Evaluation of the gut-protective aerobic *Lactobacillus rhamnosus* GG bacteria on the Colon Intestine-Chip

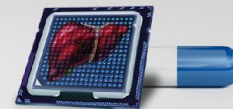
Please stop by Salon 5 – London or scan the QR code for more information on the passport adventure.







Using artificial intelligence to develop safe drugs, faster.



**Quris** is an artificial intelligence innovator with goal to disrupt the drug development process. Our Bio-AI platform better predicts which drug candidates will safely work in humans, avoiding the tremendous costs of failed clinical trials and animal testing. Quris is already working with leading pharma companies to evaluate the safety profile of pre-clinical and clinical assets.

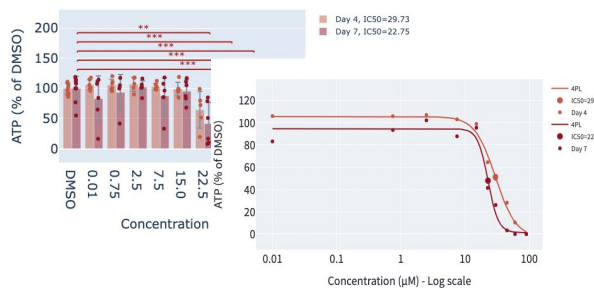
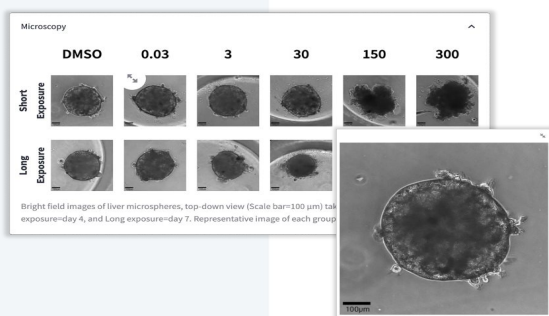
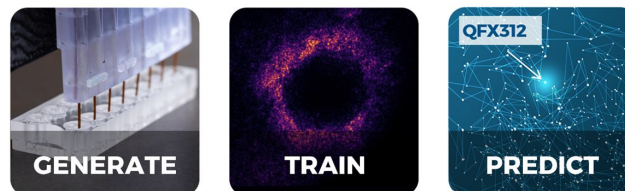
**Unmet Need:** Drug safety is a major unaddressed problem. A staggering 92% of all drugs fail in clinical trials, despite 'successfully' passing animal testing, costing pharma companies over \$53B each year. There is currently no company or solution that addresses this challenge: predicting which drug candidate will be safe in the human body, and for whom.

**Bio-AI Platform:** Quris uniquely combines the power of cutting-edge ML together with patients-on-chip technology, to better predict drug safety. How does it work? While the science and technology are complex, its essence is a simple, three-tiered process:

**Generate** millions of interactions between known drugs (safe drugs and toxic ones) and patients-on-chip (miniaturized interconnected human organs on a chip).

**Train** the AI model, based on the proprietary multi modality labeled data. Including microscopy images and proprietary nano-sensing.

**Predict** whether a new drug candidate will be safe to the human body, and for whom



**Stellar Team:** Based in Boston and Tel-Aviv, Quris is led by a team of track-record pioneers in the fields of machine-learning, statistics, biology, software, genomics, engineering, and med-tech – all with a strong track record of success, including Moderna’s co-founder Langer, Nobel laureate Ciechanover, and former Pfizer CEO McKinnell. The founders authored 48 patents, led two FDA approved products, and multiple successful Life-Sci exits (M&A, NASDAQ IPO).

“Quris is going to have a far greater impact on the pharmaceutical industry and world-health than anybody realizes.”

Henry McKinnell, former Pfizer CEO

# SPONSORS

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## GOLD



German Federal Institute for Risk Assessment

# BfR

Institute of  
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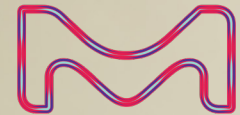
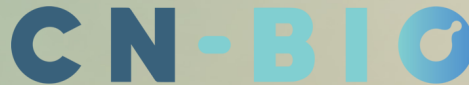
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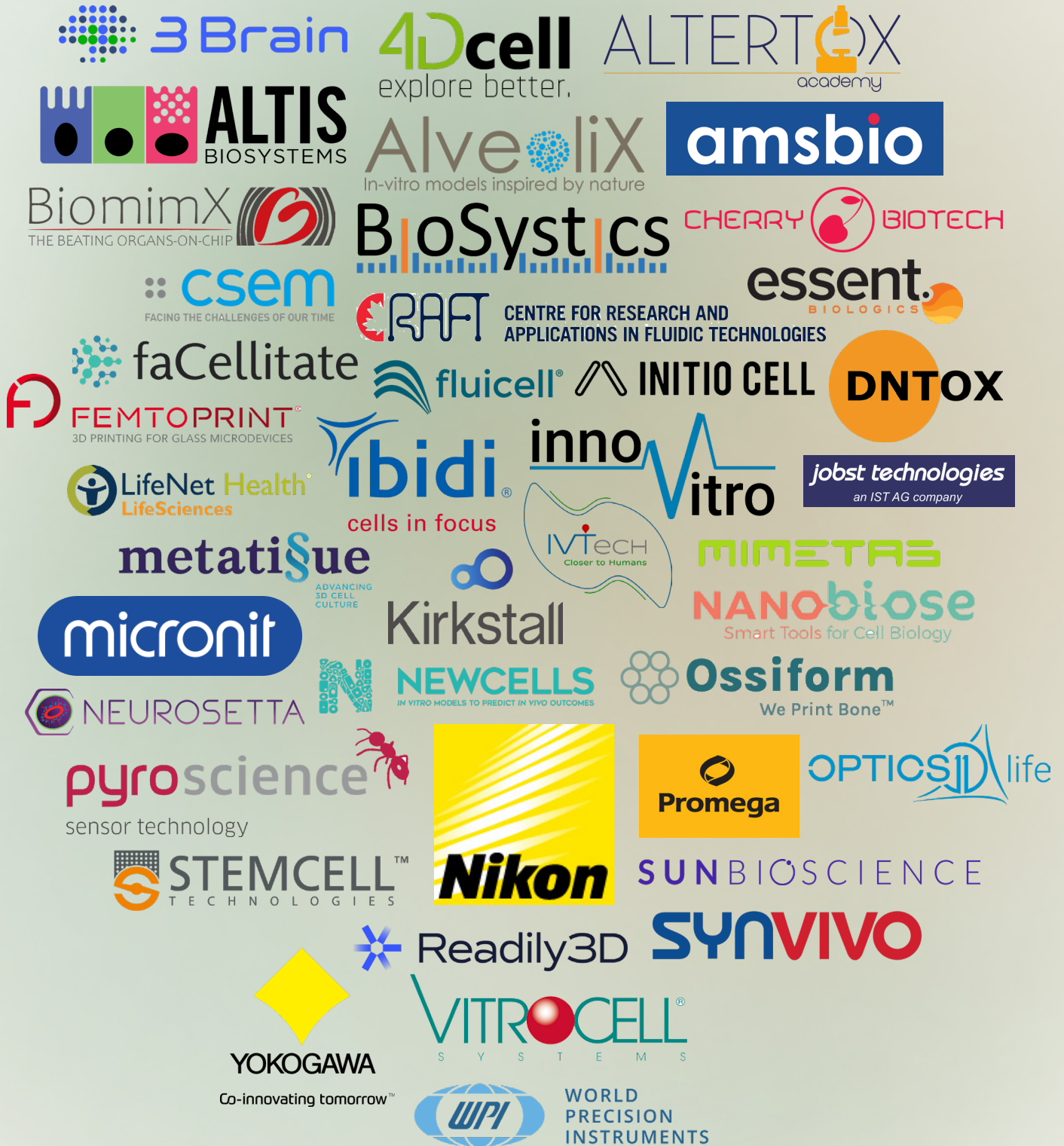
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# EXHIBITORS



# ADVERTISERS/SUPPORTERS



# PROGRAM AT A GLANCE

	Monday 26 <sup>th</sup> June	Tuesday 27 <sup>th</sup> June	Wednesday 28 <sup>th</sup> June	Thursday 29 <sup>th</sup> June	Friday 30 <sup>th</sup> June
8:00					
9:00			Keynote 9:00-10:00 <i>Hall Berlin A-E</i>		Symposia 8:30-10:30
10:00			Poster Session Drinks and Snacks Served 10:00-11:30		1.7 2.7 3.7 4.7 Coffee Break
11:00			Symposia 11:30-13:30		Symposia 11:00-13:00
12:00			1.1 2.1 3.1 4.1 1.3 2.3 3.3 4.5	1.5 2.2 3.5 4.3	1.8 2.8 3.8 4.8 Coffee Break
13:00			Lunch 13:30-14:30		Registration Hours Monday: 13:00-16:30 Tue-Thur: 8:00-18:00
14:00	Educational Workshop 13:00-16:30 <i>Salon 21</i>		Symposia 14:30-16:30		Closing Ceremony Keynote: U. Marx, (TissUse, TU Berlin) 13:30-15:30 <i>Hall Berlin A-E</i>
15:00			1.2 2.5 3.2 4.2 1.4 2.4 3.4 4.6	1.6 2.6 3.6 4.4	Matchmaking Hours Tue-Thur: 10:00-18:00
16:00			Poster Session Drinks and Snacks Served 16:30-18:00		
17:00	Opening Ceremony Keynote: M. Lutolf (Roche) 16:30-18:30 <i>Hall Berlin A-E</i>				
18:00		Keynote 18:00-19:00 <i>Hall Berlin A-E</i>	Round Table 17:50-18:50 <i>Hall Berlin A-E</i>	Round Table 18:00-19:00 <i>Hall Berlin A-E</i>	
19:00	Welcome Reception 19:00-21:00 <i>Exhibition Hall/Grand Ballroom</i>				
20:00			Macro Party 20:00-1:00 (next day) <i>Badeschiff/Arena Club Eichenstraße 4, 12435 Berlin</i>		
21:00					
22:00					

## FULL WEEK EVENTS

<b>Exhibition Hours</b> Monday: 13:00-16:30 Tue-Thur: 8:00-18:00
<b>Registration Hours</b> Monday: 13:00-16:30 Tu-Wed: 8:00-18:00 Thur: 8:00-12:00
<b>Matchmaking Hours</b> Tue-Thur: 10:00-18:00

## KEY

- Track 1
- Track 2
- Track 3
- Track 4

## TUESDAY | JUNE 27

11:30 AM – 1:30 PM  
**Session 1.1: Abstract 38**

4:30–6:00 PM  
**Poster Session: Poster 127**

## WEDNESDAY | JUNE 28

10:00–11:30 AM  
**Poster Session: Poster 282 & 350**

2:30–4:30 PM  
**Session 1.4: Abstract 332**

## THURSDAY | JUNE 29

10:00–11:30 AM  
**Poster Session: Poster 578**

11:30 AM – 1:30 PM  
**Session 3.5: Abstract 630**

4:30–6:00 PM  
**Poster Session: Poster 549 & 648**

## FRIDAY | JUNE 30

11:00 AM – 1:00 PM  
**Session 1.8: Abstract 568**

1:30–3:30 PM  
**Closing ceremony: Keynote**

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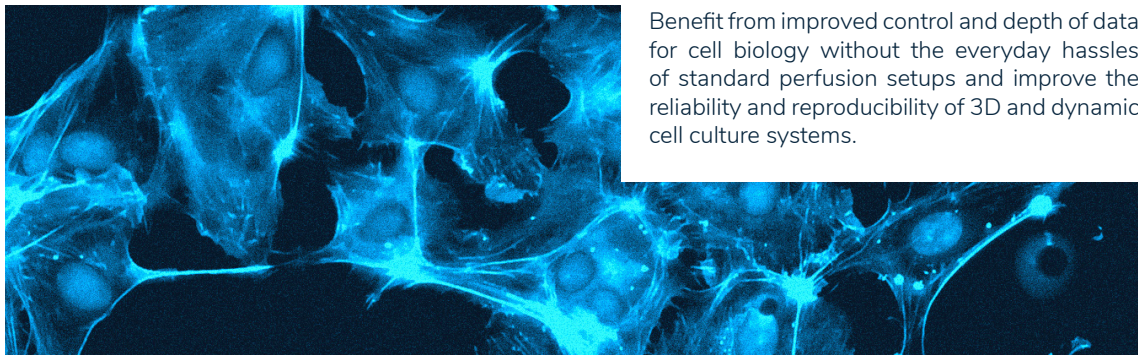
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**3**

## Podium Talks

June 28, 1 PM, Salon 21 | Presenter: Dr. Anna Borgström

• Human 3D InSight™ Liver spheroids are a highly predictive *in vitro* model for predictive and investigative toxicology

June 28, 3:20 PM, Hall Berlin D-E | Presenter: Dr. Michal Rudnik

• Development of a high-throughput, 3D spheroid co-culturing platform for investigation tissue interactions

June 29, 3:40 PM, Hall Berlin A | Presenter: Dr. Franziska Linke

• Building a multi-tissue microfluidics system of metastatic potential

**Booth #58**

**7**

## Poster Presentations on:

- 3D *In Vitro* Technologies
- Liver Safety
- Liver Discovery
- Islet Biology

**1**

## Educational Workshop

June 26, 1 PM, Salon 21



*“in vitro” but close to “in vivo”*

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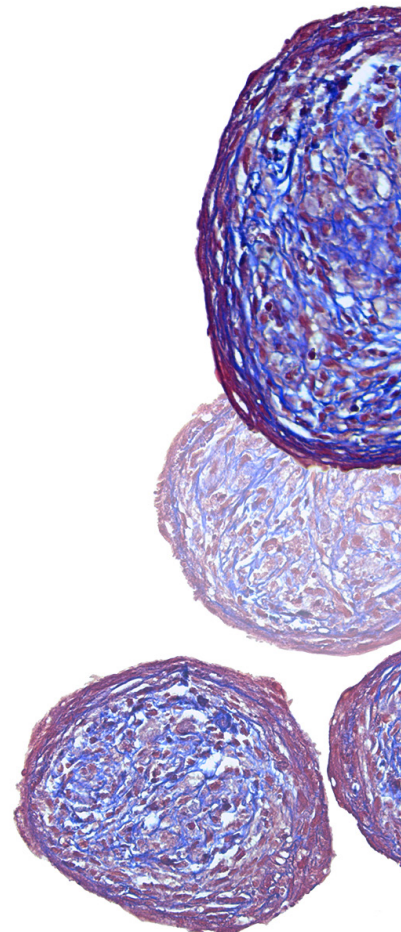


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## Fund

Annual Open and AiR Challenge grant programs have made over \$4 million in research grants

## Promote

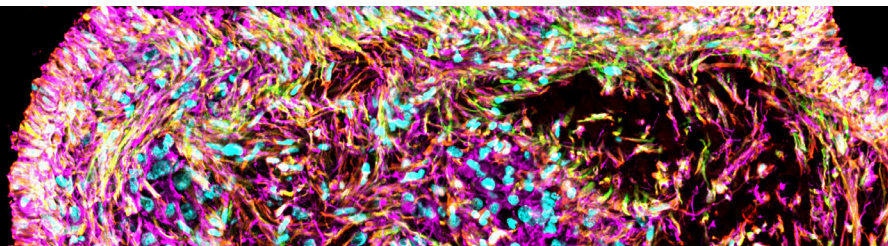
Sponsor and contribute to scientific meetings

## Reward

Recognize achievements in alternatives science through the William and Eleanor Cave Award and the AiR Challenge Prize

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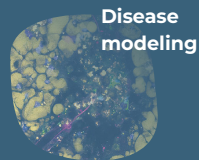
## Transform discovery with predictive human organ models

Generate human-specific pre-clinical safety and efficacy data with pioneering PhysioMimix single- and multi-organ-on-a-chip solutions

**Exhibition stand # 7**

visit [cn-bio.com](https://cn-bio.com)

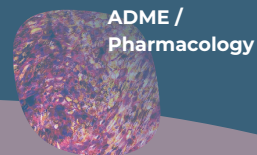
## CN-BIO



Disease modeling



Safety toxicology



ADME / Pharmacology



# PROGRAM

## Monday

### Exhibition Hours

**13:00-16:30**

If you didn't register for an Educational Workshop, enjoy additional Exhibition Hours in the Exhibition Hall.

### Educational Workshops

**13:00-16:30**

Moderator: *Riccardo Barrile, UC Cincinnati*

Location: *Salon 21*

Organisation	Title of Workshop
Altertort, Belgium	How to validate an organ-on-chip technology with TATAbox
AlveoliX, Switzerland	Mimic the dynamic microenvironment of organ barriers using the AXBarrier-on-Chip System
BiomimX, Italy	Beating Organs-on-Chip (OoC) as advanced in vitro models of human organs and diseases to progress the drug screening
CN Bio, United Kingdom	How to build robust predictive human organ models to improve the success of novel therapies discovery.
Emulate Inc., USA	The Human Emulation System® – a complete Organ-on-a-Chip solution for next-generation in vitro models
Hesperos Inc., USA	Evaluating long-term potentiation in a human iPSC-cortical neuron MPS system for assessing cognitive dysfunction
InSphero, Switzerland	Advancing MPS towards robust screening applications and microfluidic immune-competent tissue-tissue interactions using scalable plate formats
Netri, France	A high-throughput microfluidic devices tool to study neurological disorders and dermo-cosmetics
Organ-on-Chip Centre, University of Twente, Netherlands	The Translational Organ-on-Chip Platform (TOP): An open platform for modular interfacing of organs-on-chips
Ossiform, Denmark	3D printed bioceramics for studying bone and bone-related diseases
React4Life, Italy	New MPS based in vitro models for immuno-oncological applications: co-culture of circulating immune cells and 3D cancer tissues for basic research and drug testing purposes.
TissUse GmbH, Germany	Connecting 2D and 3D models in a Multi-Organ-Chip for safety and efficacy evaluation
Vitrocell, Germany	VITROCELL Cloud Aerosol Exposure System for Inhalation Studies using the AlveoliX AX12 lung-on-chip

### Opening Ceremony

**16:30-18:30**

Keynote Speaker: *Matthias Lutolf, Founding Director of the Roche Institute for Translational Bioengineering and Professor of Bioengineering at the Swiss Federal Institute of Technology in Lausanne (EPFL)*

Location: *Hall Berlin A-E*

on "Engineering Organoids"



### Welcome Reception (Exhibition Hall/Grand Ballroom)

**19:00-21:00**

# PROGRAM

\* indicates a Young Investigator

## Tuesday

**Matchmaking Hours**

**10:00-18:00**

**Keynote**

**9:00-10:00**

Keynote Speaker: *Roser Vento-Tormo, Group Leader at the Wellcome Sanger Institute, United Kingdom*

Location: *Hall Berlin A-E*

on "Mapping the development & regeneration of reproductive tissues"



**Poster Session: Coffee, Snacks, and Networking**

**10:00-11:30**

**Symposia**

**11:30-13:30**

Track 1.1 – Immunology in MPS

Moderators: *Pelin Candarlioglu, EUROoCS; Lotte de Winde, University College London*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Annie Moisan	Wellcome Leap, Switzerland	756. A Bioengineering Approach to T Cell Diversity
12:00-12:20	Claudia Teufel*	Eberhard Karls University Tübingen, Germany	593. Tonsil-on-chip to test T cell-dependent antibody responses and vaccine efficacy in vitro
12:20-12:40	Leopold Koenig*	TissUse GmbH, Germany	38. Modelling natural killer cell development in a microfluidic bone marrow model
12:40-13:00	Liana Kramer*	Georgia Institute of Technology, USA	73. Multi-niche human bone marrow-on-a-chip for plasma cell survival and differentiation
13:00-13:20	Raphaël Jeger-Madiot*	Institut Pasteur, Université de Paris, France	645. Development of a Lymphoid Organ-Chip to evaluate COVID vaccine boosting strategies

Track 2.1 – End-users case studies

Moderator(s): *Thomas Steger-Hartmann, Bayer; Nicole Anderle, Natural and Medical Sciences Institute*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Kim Homan	Genentech, USA	237. Complex Model Adoption at Genentech
12:00-12:20	Paul Vulto	MIMETAS, Netherlands	762. 762. Comprehensive tumor modelling and its application in discovery and development of next generation oncology drugs
12:20-12:40	Stefano Piazza*	BiomimX Srl, Italy	325. Efficacy assessment of novel anti-OA therapeutic drug candidates within an advanced mechanically active osteoarthritis-on-chip model: the SYN321 case study
12:40-13:00	Abhinav Sharma*	AbbVie Inc., USA	137. A microphysiological system to investigate cell death pathways in inflammatory bowel disease for drug discovery and validation
13:00-13:20	Rui Sun*	Bayer AG, Pharmaceuticals, Germany	157. Efficacy evaluation of AAV delivered liver specific promoters in the Emulate liver chip

# PROGRAM

\* indicates a Young Investigator

## Tuesday

### Symposia (Continued)

**11:30-13:30**

#### Track 3.1 – ADME and PK/PD modeling with MPS

Moderator(s): *Marian Raschke, Queen Mary University of London; Clémentine Richter, Helmholtz Institute for Pharmaceutical Research, Saarland*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Hiroyuki Kusahara	University of Tokyo, Japan	757. Application of MPS to the ADME studies: in vitro model for the intestinal drug absorption
12:00-12:20	Shiny Rajan*	Javelin Biotech, USA	456. Novel Single- and Multi-Tissue Chips for Predictive Pharmacokinetic Applications
12:20-12:40	Takeshi Hori	Tokyo Medical and Dental University (TMDU), Japan	117. In vitro models for the human placental barrier
12:40-13:00	Pedro Pinto	University Medicine Greifswald, Germany	410. Predicting renal drug clearance using mechanistic modeling based on drug secretion in a kidney microphysiological model
13:00-13:20	Liam Carr*	University of Edinburgh, United Kingdom	449. Novel body-on-chip system for quantification of compound kinetics, validated using positron emission tomography data

#### Track 4.1 – MPS Models for Cardiovascular Diseases

Moderator(s): *Marco Rasponi, Polytechnic University of Milan; Ying Betty Li, National Research Council Canada*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Christopher Hughes	UC Irvine, USA	528. Vascular Malformations in a Novel HHT-on-a-Chip Microphysiological System Model
12:00-12:20	Carla Cofiño Fabres*	University of Twente, Netherlands	347. Development of a novel micro-Engineered Heart Tissue platform on chip with multicellular biomimicry
12:20-12:40	Rebecca Riddle*	University of Cambridge, United Kingdom	61. Multi-faceted role of platelets in inflammation and haemostasis in a vessel-on-a-chip model
12:40-13:00	Estrela Neto*	i3S - Instituto de Investigação e Inovação em Saúde da Universidade do Porto, Portugal	198. Micropathological Chip Modeling the Neurovascular Unit Response to Inflammatory Bone Condition
13:00-13:20	Tatiana Mencarini*	Politecnico di Milano, Italy	444. Developing a 3D blood vessel-on-chip microfluidic model of thrombosis

### Lunch

**13:30-14:30**

### Symposia

**14:30-16:30**

#### Track 1.2 – Microfabrication, Instrumentation & Sensors

Moderator(s): *Riccardo Barrile, University of Cincinnati; Anas Munir, University of Salento*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Andries van der Meer	University of Twente, The Netherlands	732. SMART Organ-on-Chip: from single chips to a standardized open technology platform

# PROGRAM

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## Tuesday

### Symposia (Continued)

**14:30-16:30**

#### Track 1.2 – Microfabrication, Instrumentation & Sensors (cont.)

Moderator(s): *Riccardo Barrile, University of Cincinnati; Anas Munir, University of Salento*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
15:00-15:20	Daniel Carvalho	Maastricht University, Netherlands	46. Thyroid-on-a-chip: An In Vitro Organoid Device to Test Thyroid Disruption
15:20-15:40	Sebastian Buchmann*	Karolinska Institute, Sweden	441. Defined neuronal-astrocytic interactions enabled with a 3D-printed platform
15:40-16:00	Zaozao Chen	Southeast University, China	722. Monitoring of immune cell cross-talks and microdroplet/aerosol transmission in lung-microphysiological system
16:00-16:20	Yi Ling Yang*	University of Melbourne, Australia	149. The next generation lab-on-chip platform deploying real-time metabolic sensing

#### Track 2.5 – Next-Generation Risk Assessment

Moderator(s): *Tamara Zietek, Technical University of Munich; Elisa Batista, IPQ*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Yoko Hirabayashi	NIHS, Japan	758. Initiatives for New Approach Methods at Japanese Center for the Validation of Alternative Methods (JaCVAM)
15:00-15:20	Katharina Koch	IUF – Leibniz Research Institute for Environmental Medicine, Germany	696. Application of a human in vitro testing battery for endocrine disruptor (ED)-induced developmental neurotoxicity (DNT) to refine EDC risk assessment
15:20-15:40	Kasper Renggli	Philip Morris Life Sciences, Switzerland	502. Development of the Human-Relevant Aerosol Test Platform HUMIMIC-InHALES for Evaluating Respiratory Toxicity and Systemic Effects of Inhaled Aerosols
15:40-16:00	James McKim	LifeNet Health-IONTOX, USA	581. A New Human Dynamic Integrated Organ (MPS) Platform For Developing In Vitro Pharmacokinetic and Toxicity Data
16:00-16:20	Lukas Wijaya*	Leiden University, Netherlands	551. Human-induced pluripotent stem cell reporters for high-content screening of stress response activation identifying target organ-specific toxicities

#### Track 3.2 – MPS for Lung Disease Models

Moderator(s): *Lenie van den Broek, MIMETAS; Mariana Gueded, Universität des Saarlandes*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Janna Nawroth	Helmholtz Munich, Germany	749. Organotypic Chip Models and Applications in Disease Studies
15:00-15:20	Queeney Dasgupta*	Boston Children's Hospital & Harvard Medical School, USA	492. Modeling Pulmonary Radiation Injury using a Human Lung Alveolus-on-a-Chip
15:20-15:40	Emily Richardson*	CN Bio Innovations, United Kingdom	370. Communication is key: exploring local and systemic inflammatory responses to infection using a multi-organ lung-liver-immune axis microphysiological system.
15:40-16:00	Rachel Ringquist*	Georgia Institute of Technology, USA	560. Immune-competent Microvascularized Human Lung-on-a-chip Device for studying Lung Immunopathologies

# PROGRAM

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## Tuesday

### Symposia (Continued)

**14:30-16:30**

#### Track 3.2 – MPS for Lung Disease Models

Moderator(s): *Lenie van den Broek, MIMETAS; Mariana Gueded, Universität des Saarlandes*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
16:00-16:20	Aghiad Bali*	Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Department of Drug Delivery, Germany	319. 3D-Bioprinting of bacterial biofilm on monolayer of human lung cells as advanced in vitro model for chronic lung infections.

#### Track 4.2 – MPS for Vascularization 2

Moderator(s): *Martin Raasch, Dynamic42 GmbH; Isabel Koh, RIKEN*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Mathieu Hautefeuille	Sorbonne Université, France	232. Engineering of development-like tubulogenesis to construct non-embedded liver sinusoid on chip for mechanobiology studies
15:00-15:20	Erika Ferrari*	Politecnico di Milano, Italy	115. 3D Liver-on-Chip with a perfusable physiologic-like vascular channel
15:20-15:40	Laura Benito Zarza*	KTH Royal Institute of Technology, Sweden	416. Microvascularized neurovascular unit (NVU) model using human induced pluripotent stem cells (hiPSC) and laser cavitation molding
15:40-16:00	Marie Piantino*	Osaka University, Japan	136. Development of a three-dimensional blood-brain barrier microphysiological system with perfusable capillary opening structures for drug transport assays
16:00-16:20	Kieu Le*	UMC Groningen, Netherlands	495. Using blood vessel-on-chip to characterize endothelial memory

### Poster Session: Drinks and Snacks Served

**16:30-18:00**

### iMPSS Board of Trustees Meeting

**16:45-17:45**

Location: *Salon 7*

### Keynote

**18:00-19:00**

Keynote Speaker:

*Donna Mendrick, US Food and Drug Administration*

Location: *Hall Berlin A-E*

on "Advancing New Alternative Methods at FDA"





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## Wednesday

### Matchmaking Hours

**10:00-18:00**

### Keynote

**9:00-10:00**

Keynote Speaker: *Gordana Vunjak-Novakovic, Columbia University*

Location: *Hall Berlin A-E*

on “Multi-organ on chip platforms for individualized studies of human pathophysiology”



### Poster Session: Coffee, Snacks, and Networking

**10:00-11:30**

### Symposia

**11:30-13:30**

#### Track 1.3 – Vascularization of MPS

Moderator(s): *Ming-I Huang, Aracari Biosciences; Noam Demri, Institut Curie*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Roger Kamm	Massachusetts Institute of Technology, USA	730. Vascularised models for neurological disease
12:00-12:20	Tarek Gensheimer*	University of Twente, Netherlands	288. An open-top OoC-platform to generate a fully hiPSC-derived model of the outer blood-retinal barrier with a functional microvascular network
12:20-12:40	Riccardo Barrile	University of Cincinnati, USA	595. Rapid 3D-Bioprinting Approaches for Studying Human Vascular Disorders
12:40-13:00	Shira Landau*	University of Toronto, Canada	404. Investigating crosstalk between cardiomyocytes, fibroblasts, endothelial cells & resident macrophage within vascularized cardiac organ-on-a-chip platforms
13:00-13:20	Matthias Ryma*	Institute for Functional Materials & Biofabrication (IFB) and Bavarian Polymer Institute (BPI), Germany	584. Melt electrowriting and freeform printing for biofabrication of in vitro vascularization

#### Track 2.3 – Applications in drug development - Efficacy

Moderator(s): *Stefan Kustermann, Roche; Katie Marshall, Unknown*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	James Hickman	Hesperos, Inc., USA	588. Neurodegenerative and rare diseases investigations utilizing human-on-a-chip systems
12:00-12:20	Jeong-Won Choi	Ulsan National Institute of Science and Technology, South Korea	660. Organ-on-a-Chip Approach for Accurate Phage Display Screening of Organ-Targeting Shuttle Peptide
12:20-12:40	Nagajaran Thirunavukkarasu	U.S Food and Drug Administration (FDA), USA	76. Neuro-Muscular System (NMS) for Botulinum Neurotoxin Assays to Replace Animal Testing: Readouts, Applications, and Regulatory Qualification Standards
12:40-13:00	Christopher Carman	Emulate, Inc., USA	672. Modulation of inflammatory bowel disease (IBD)-specific immune cell recruitment and response with anti-TNF- therapies in the human Colon Intestine-Chip

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## Wednesday

### Symposia (Continued)

**11:30-13:30**

#### Track 2.3 – Applications in drug development - Efficacy (cont.)

Moderator(s): *Stefan Kustermann, Roche; Katie Marshall, Unknown*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
13:00-13:20	Kaoru Sato	National Institute of Health Sciences, Japan	331. The integrated development of blood brain barrier microphysiological system - from novel BBB MPS development to regulatory acceptance

#### Track 3.3 – MPS Models for acute and repeated toxicity

Moderator(s): *Heidrun Ellinger-Ziegelbauer, Bayer Pharmaceuticals; Tracey Hurrell, Center for Scientific and Industrial Research*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Mathieu Vinken	Vrije Universiteit Brussel, Belgium	725. Ontologies as tools to support MPS-based predictive toxicity screening
12:00-12:20	José Manuel Rivera Arbelaez*	University of Twente, Netherlands	592. Assessment of commercial drug compounds in an engineered heart tissue platform using human induced pluripotent stem cell-derived cardiomyocytes in serum-free media
12:20-12:40	Anish Mahadeo*	University of Washington, USA	555. Assessment of risk factors in chronic kidney disease using proximal-tubule microphysiological systems
12:40-13:00	Dylan Fudge*	DTRA, Fort Belvoir, USA	468. Design and Application of an Adept Aerosol/Vapor Lung-on-a-Chip and Aerosol/Vapor Delivery Systems using Toxic Agents
13:00-13:20	Anna Borgström	InSphero, Switzerland	583. Human 3D InSight™ Liver spheroids are a highly predictive in vitro model for predictive and investigative toxicology

#### Track 4.5 – MPS and Cancer

Moderator(s): *Philip Hewitt, Merck Healthcare; Özlem Vural, Bayer Pharmaceuticals*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Tudor Petreus	CN-Bio Innovations, United Kingdom	345. A PK/PD translational microphysiological system to explore anti-cancer therapies efficacy on 3D tumour spheroids and patient derived organoids
12:00-12:20	Carly Strelez*	Lawrence J. Ellison Institute for Transformative Medicine, USA	85. Capturing biological complexity in a colorectal cancer-on-a-chip model
12:20-12:40	Azmeer Sharipol*	University of Rochester, USA	530. Recapitulating acute myeloid leukemia (AML) phenotypes in vitro using a 3D model of the bone marrow microenvironment (BMME)
12:40-13:00	Delta Ghoshal*	Georgia Institute of Technology and Emory University, USA	475. Multi-niche Human Bone Marrow On-A-Chip for Studying Interactions of Cell Therapies With Multiple Myeloma
13:00-13:20	Ségolène Ladaigue*	Institut Curie, France	432. A vascular tumor-on-chip platform to decipher endothelial immunomodulatory function

### Lunch

**13:30-14:30**

## Wednesday

### Symposia

**14:30-16:30**

#### Track 1.4 – Combining MPS with AI and in silico

Moderator(s): *Alexandra Maertens, Johns Hopkins Univ.; Thomas Steger-Hartmann, Bayer AG*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Shahar Harel	Quris AI, Israel	761. "The Sound of Safety" - combining MPS with Bio-AI and In-silico to capture the signature of the ordinary (non-toxic) behavior of MPS and the deviations under increasing concentrations of the drugs
15:00-15:20	Florian Huber*	TissUse GmbH, Germany	332. On the way to a digital twin in preclinical studies - how automation and continuous data acquisition enable AI-based in silico models
15:20-15:40	Syed Ahmad*	University of Rochester, USA	523. Analyzing Label Free Leukocyte Trafficking Dynamics on a Microvascular Mimetic with Computer Vision Techniques.
15:40-16:00	Anne Beghin	Nationale University of Singapore	111. Unlocking the secrets of Organoids: High Content Screening Device with 3D Imaging, Machine Learning and Extreme Condition Studies.
16:00-16:20	Kristen N. Olson	Xellar, Inc., USA	712. Embracing Complexity to Increase Efficiency and Predictivity: High-Throughput 3D Microfluidic Modeling of Drug-Induced Liver Injury Powered by Image-Based AI Toxicity Profiling

#### Track 2.4 – Applications in drug development - Safety

Moderator(s): *Mario Beilman, Boehringer Ingelheim; Moencopi Bernheim-Dennery, Institut Curie*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Rhiannon David	AstraZeneca, United Kingdom	751. Advancing pre-clinical safety assessment with MPS: the road to model qualification and adoption
15:00-15:20	Carmen Pin	AstraZeneca, United Kingdom	574. Mathematical modelling combined with microphysiological systems (MPS) enables the quantitative assessment of clinical safety in early stages of drug development.
15:20-15:40	Michal Rudnik*	InSphero AG, Switzerland	324. Development of a high-throughput, 3D spheroid co-culturing platform for investigation tissue interactions.
15:40-16:00	Stefan Kustermann	Roche Innovation Center Basel, Switzerland	313. Chances & challenges for in vitro models to address CNS toxicities
16:00-16:20	Christian Maass*	esqLABS, Germany	301. DigiLoCS – A digital liver-on-chip simulator for predicting human metabolism of drugs

#### Track 3.4 – Modeling developmental biology

Moderator(s): *Lena Smirnova, Johns Hopkins Uni; Chrysanthi-Maria Moysidou, Cambridge. University*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Magdalena Kasendra	Cincinnati Children's Hospital Medical Center, USA	596. From Developmental Biology to Drug Discovery and Regenerative Medicine: Realizing the Promise of Three-Dimensional Organoids.
15:00-15:20	Julia Boos*	ETH Zürich, Switzerland	623. Integration of human-stem-cell-based embryoid bodies into a microfluidic multi-tissue platform for systemic embryotoxicity testing
15:20-15:40	Renée Moerkens*	University Medical Center Groningen, Netherlands	479. Steering epithelial and mesenchymal cell type composition in an iPSC-derived Intestine-Chip

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## Wednesday

### Symposia (Continued)

**14:30-16:30**

#### Track 3.4 – MPS for Lung Disease Models (cont.)

Moderator(s): *Lena Smirnova, Johns Hopkins Uni; Chrysanthi-Maria Moysidou, Cambridge University*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
15:40-16:00	Erik V	Maastricht University, Netherlands	10. Exposing the pathways in embryo morphogenesis by phenotypic screening of embryo models
16:00-16:20	Arum Han*	Texas A&M University, USA	188. Modeling a Disease Phenotype Associated with Preterm Birth in vitro using a Feto-Maternal Interface (FMI) Organ-on-Chip (OOC)

#### Track 4.6 – MPS for Intestine and Metabolic Diseases

Moderator(s): *Olivier Frey, InSphero AG; Ana Mora-Boza, Georgia Institute of Technology*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Joram Mooiweer*	University Medical Center Groningen, Netherlands	227. Autologous co-cultures of human intestinal CD8+ cells and organoids on-chip to recapitulate a mucosal immune response
15:00-15:20	Brice Lapin*	Institut Curie, France	228. A kidney-on-a-chip to study the role of hydrodynamic constraints in cyst formation in polycystic kidney disease
15:20-15:40	Laurène Froment*	Alveolix AG, Switzerland	412. A novel gut-on-chip model recreating physiological 3D peristalsis
15:40-16:00	Liisa Vilén	AstraZeneca, Sweden	138. Pancreas-liver in vitro and in silico hybrid model for human diabetic glucose dysregulation
16:00-16:20	Yoh-ichi Tagawa	Tokyo Institute of Technology, Japan	330. MPS consisting of intestinal epithelial cells, macrophage, and bacteria for inflammatory bowel disease culture model

### Poster Session: Drinks and Snacks Served

**16:30-17:50**

### Seattle Organizing Committee + IMPSS Executives

**16:45-17:45**

Location: *Salon 7*

### Round Table

**17:50-18:50**

Moderator: *Ming-I Huang, Aracari Biosciences*

Panelists: *Dan Tagle, NCATS, USA; Rhiannon Hardwick, BMS, USA; Rhiannon David, AstraZeneca, UK; Milena Mennecozzi, European Commission, Joint Research Centre; Takao Ashikaga, NIH, Japan; Zhongze Gu, Southeast University, China*

Location: *Hall Berlin A-E*

on "Moving MPS into practice"

### Macro Party

**20:00-1:00**

Location:  
*Badeschiff/  
Arena Club Berlin  
Eichenstraße 4,  
12435 Berlin*

Tickets  
Here!



# PROGRAM

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## Thursday

**Matchmaking Hours**

**10:00-18:00**

**Keynote**

**9:00-10:00**

Keynote Speaker: *Thomas Hartung, Johns Hopkins University*

Location: *Hall Berlin A-E*

on "The state of the MPS revolution"



**Poster Session: Coffee, Snacks, and Networking**

**10:00-11:30**

**Symposia**

**11:30-13:30**

Track 1.5 – Real-time and in-situ monitoring of MPS systems

Moderator(s): *Torsten Mayr, Graz University of Technology; Sri Harsha Paladugu, Center for Nanoscience and Engineering (CeNSE)*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Boyang Zhang	McMaster University, Canada	752. Unlocking the Potential of Organoid and Tissue Models for Drug Discovery with Platform Technology
12:00-12:20	Stephanie Fuchs	Graz University of Technology, Austria	445. Optical glucose sensor for on-line and at-line measurements of MPS
12:20-12:40	Giorgia Zambito*	University Medical Center, Netherlands	385. Bioluminescence imaging of microfluidic chips for continuous, non-invasive, and on-situ bio-screening.
12:40-13:00	Julia Marzi*	University of Tübingen, Germany	372. Molecular-sensitive imaging enables in situ monitoring of cellular dynamics at spatial and temporal resolution
13:00-13:20	Narasimhan Sriram*	Hesperos, Inc., USA	690. High throughput cardiac ischemia Human-on-a-Chip platform with integrated microelectrode arrays and piezoresistive cantilevers

Track 2.2 – Scalability, automation and throughput

Moderator(s): *Erika Györfvay, Swiss Center for Electronics and Microtechnology; Lorenzo Coppadoro, Politecnico di Milano*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	Alice Soragni	University of California Los Angeles, USA	734. A patient-derived tumor organoid high-throughput screening platform for precision medicine
12:00-12:20	Moo-Yeal Lee	University of North Texas, USA	141. Pillar and Perfusion Plate Platform for Dynamic Human Organoid Culture and Analysis
12:20-12:40	Sandro Meucci	Micronit B.V., Netherlands	403. Smart Multi-Well Plate: industrializable open technology platform for tubeless, autonomous OoC applications
12:40-13:00	Sven Fengler	German Center for Neurodegenerative Diseases (DZNE), Germany	82. iPSC-derived brain endothelial microvessels in a standardized multi-chip format as 3D human blood-brain barrier model for drug permeability screens

## Thursday

### Symposia (Continued)

**11:30-13:30**

#### Track 2.2 – Scalability, automation and throughput

Moderator(s): *Erika Györvary, Swiss Center for Electronics and Microtechnology; Lorenzo Coppadoro, Politecnico di Milano*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
13:00-13:20	Stéphanie Boder-Pasche	CSEM, Switzerland	317. Automated platform for the micro-perfusion of bioengineered tissues

#### Track 3.5 – Addressing Reproduction & Endocrinology with MPS

Moderator(s): *Linda Griffith, MIT; Natali Barakat, University of Central Florida*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
11:30-12:00	J. Julie Kim	Northwestern University, USA	731. The Female Reproductive Microphysiologic System
12:00-12:20	Manon Murdeu*	Swiss Federal Laboratories for Materials Science & Tech.	214. Human-based placenta-embryo chip for developmental toxicity assessment of nanoparticles
12:20-12:40	Ilka Maschmeyer	TissUse GmbH, Germany	630. A liver and testis multi-organ-chip: towards a systemic male reprotoxicity model
12:40-13:00	Elena Kromidas*	Eberhard Karls University Tuebingen, Germany	575. Modeling the Stages of Cervical Cancer Pathogenesis: Establishment of a healthy Cervix-, a pre-cancerous CIN- and an immunocompetent Carcinoma-on-Chip
13:00-13:20	Iva Sovadinova	RECETOX, Czech Republic	472. Human Testicular Steroidogenesis Models for Biomedical and Toxicological Research in a Microphysiological Setting

#### Track 4.3 – MPS for Chemical and Drug Toxicity Testing

Moderator(s): *Jan Lichtenberg, InSphero AG; David Pamies, University of Lausanne*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
11:30-11:35	Björn Ekwall Memorial Foundation (BEMF)		Award presentation: Marcel Leist, 2023 BEMF Award winner
11:35-12:05	Marcel Leist	CAAT-EU, University of Konstanz, Germany	755. Novel models and technologies for developmental and adult neurotoxicity prediction
12:05-12:25	Kainat Khan	AstraZeneca, United Kingdom	489. Investigation of the impact of gap scheduling on the toxicity of PARP1-selective AZD5305 combined with carboplatin using the bone marrow microphysiological system (BM MPS) and mathematical modelling
12:25-12:45	Heidrun Ellinger-Ziegelbauer	Bayer AG, Germany	167. Comparative In vitro DILI characterization of two candidate drugs using advanced in vitro liver models
12:45-13:05	Anne-Katrin Bothe*	Dynamic42 GmbH, Germany	327. Predicting immune-related antibody-induced toxicities with microphysiological organ-on-chip models
13:05-13:25	Anthony Bahinski	Vivodyne, Inc, USA	538. Fully Automated High-Throughput Drug Toxicity Evaluation on the Hematopoietic Niche in a Bone Marrow Model

### Lunch

**13:30-14:30**

## Thursday

### Symposia

**14:30-16:30**

#### Track 1.6 – (Bio)Material Advances in MPS

Moderators: Sarah Hedtrich, Univ. of British Columbia; Ishan Goswami, Univ. of California Berkeley

Location: Hall Berlin D-E

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Róisín Owens	University of Cambridge, UK	726. 3D Bioelectronic models of the gut, brain and lung
15:00-15:20	Alice Stanton*	Massachusetts Institute of Technology, USA	240. Engineering Patient-Specific Vascularized Mini-Brain-Chips of Immuno-Glial-Neurovascular Units for Accelerating Drug Development
15:20-15:40	Gonzalo de Aranda Izuzquiza*	Universidad Carlos III de Madrid, Spain	114. Intelligent magneto-mechanical system to simulate physio- and pathologically relevant mechanical dynamics in vitro
15:40-16:00	Christina Tringides*	ETH Zurich, Switzerland	181. Tunable hydrogel scaffolds to support 3D neuronal networks
16:00-16:20	Viola Sgarminato*	Politecnico di Torino, Italy	615. Tomographic volumetric bioprinting of 3D pancreatic cancer models

#### Track 2.6 – MPS for Skin, Cosmetics, Aging and Joint

Moderators: Seiichi Ishida, National Institute of Health Sciences, Japan; Arjen Gebraad, Tampere Univ.

Location: Salon 7

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Nicky Hewitt	SWS, Germany	740. Cosmetics Europe LRSS project: Use of skin-based multi-organ MPS models in the safety assessment of cosmetics ingredients
15:00-15:20	Dmitriy Kepkiy	NCATS/NIH, USA	576. Tissue Chips in Space: Modeling Human Disease States in Microgravity
15:20-15:40	Raquel Ajalik*	University of Rochester, USA	238. Human Tendon-on-Chip (hToC) platform for modeling fibrotic disease and screening therapeutic candidates
15:40-16:00	Arianna Kieser	Curi Bio, USA	569. Mantarray 3D Engineered Muscle Tissue Platform Demonstrates Clinically-Relevant Disease Stratification of an In Vitro Duchenne Muscular Dystrophy Model
16:00-16:20	Hang Lin	University of Pittsburgh, USA	14. Using microphysiological system to develop treatments for joint inflammation and associated cartilage loss - a pilot study

#### Track 3.6 – MPS in cancer research: next generation tumor models

Moderators: Silvia Scaglione, React4Life; Elena Kromidas, Eberhard Karls University Tübingen, Germany

Location: Hall Berlin A

Time	Speaker	Organisation	Title of Talk
14:30-15:00	David Beebe	University of Wisconsin-Madison, USA	754. Can Engineered Organotypic Models Predict Patient-Specific Response?
15:00-15:20	Tengku Ibrahim Maulana*	Eberhard Karls University, Germany	483. Breast tumor-on-chip applicable for efficacy and safety assessment of CAR-T cell therapy
15:20-15:40	Joanna Burdette	University of Illinois Chicago, USA	42. Modeling the role of the fallopian tube in the prevention and spread of high grade serous cancer using a multi-organ platform.

## Thursday

### Symposia (Continued)

**14:30-16:30**

#### Track 3.6 – MPS in cancer research: next generation tumor models (cont.)

Moderators: *Silvia Scaglione, React4Life; Elena Kromidas, Eberhard Karls University Tübingen*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
15:40-16:00	Franziska Linke	University Medical Center, Netherlands	208. Building a multi-tissue microfluidics system of metastatic potential (biomep)
16:00-16:20	Katerina Apostolopoulou*	Roche pRED, RICZ, Switzerland	250. Human 3D in vitro models for the assessment of Cancer Immunotherapy Mode of Action

#### Track 4.4 – MPS for Drug Efficacy Testing

Moderator: *Andries D. van der Meer, University of Twente; Aakash Patel, University of Central Florida*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
14:30-15:00	Zheng Maomao Tan*	The University of British Columbia, Canada	122. Human atopic diseases on a chip: developing an ex vivo drug discovery platform
15:00-15:20	Oscar Arrestam*	Linköping University, Sweden	497. Complementing MPS with mechanistic computer models help overcome limitations: translating the drug exenatide from MPS to humans
15:20-15:40	Konstantinos Gkatzis	Ksilink, France	79. Integration of deep learning assisted high-content screening and deep tissue-phenotyping to identify cardioprotective compounds in dilated cardiomyopathy
15:40-16:00	Christopher Carman	Emulate, Inc., USA	704. Evaluation of the gut-protective aerobic <i>Lactobacillus rhamnosus</i> GG bacteria on the Colon Intestine-Chip
16:00-16:20	Shifaa Abdin*	Hannover Medical School, Germany	216. Tailoring human macrophages from iPSC for next generation MPS-based screening of immunotherapies

### Poster Session: Drinks and Snacks Served

**16:30-18:00**

### Round Table

**18:00-19:00**

Moderators: *Magdalena Kasendra, Cincinnati Children's Hospital Medical Center; Annie Moisan, Wellcome Leap*

Panelists: *Solen Pichereau, Debiopharm; Janine Scholefield, Council for Scientific and Industrial Research, South Africa; James McKim, IONTOX by LifeNet Health LifeSciences; Kimberly Homan, Genentech*

Location: *Hall Berlin A-E*

### on "Diversity and inclusion in preclinical studies"

Join our expert panelists as they discuss:

- How does the lack of diversity in preclinical studies impact drug development and clinical trials, and what can be done to mitigate these effects?
- What are some of the biggest challenges in achieving diversity and inclusion in preclinical studies, and what strategies could be effective in overcoming these challenges?
- What's the role of regulatory agencies in promoting diversity and inclusion in preclinical studies, and what policies or initiatives could they implement to drive progress in this area?
- How can individual scientists/other professionals help increase diversity and inclusion in preclinical studies?



# PROGRAM

\* indicates a Young Investigator

## Friday

### Symposia

**8:30-10:30**

#### Track 1.7 – Cell sources for multi-organ systems

Moderator(s): *Elizabeth Baker, Physicians Committee for Responsible Medicine; Eleonora De Vitis, CNR-Nanotec*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
8:30-9:00	Jeremy Sugarman	Johns Hopkins University, USA	748. Ethical Considerations in Obtaining Human Cells for Multi-Organ Microphysiological Systems Research
9:00-9:20	Lena Sophie Koch*	University of Twente, Netherlands	442. An iPSC-derived microbiome-gut-brain axis on a microfluidic chip to model systemic effects of neurodegenerative diseases
9:20-9:40	Bas van Balkom	UMC Utrecht, Netherlands	590. A human kidney and liver organoid-based multi-organ-on-a-chip model to study the therapeutic effects and biodistribution of mesenchymal stromal cell-derived extracellular vesicles.
9:40-10:00	Susanna Narkilahti	Tampere University, Finland	457. Towards physiologically realistic/relevant body-on-chip models; introducing organ-specific innervation
10:00-10:20	Ishan Goswami*	University of California Berkeley, USA	711. Heuristic method for the discovery of a common media to support integration of a hiPSC-derived type 2 diabetes mellitus microphysiological system

#### Track 2.7 – MPS from development to commercialization

Moderators: *Magdalena Kasendra, Cincinnati Children's Hospital Medical Center; Shiny Rajan, Javelin Biotech*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
8:30-9:00	Murat Cirit	Javelin Biotech, USA	736. Development and Commercialization of Predictive Drug Discovery Platforms Merging Human Tissue Chips and Translational Software
9:00-9:20	Seiichi Ishida	National Institute of Health Sciences, Japan	129. Development of evaluation methods of "points to consider" for industrial implementation of MPS
9:20-9:40	Joris Kaal*	Univ. Grenoble Alpes, CEA, Leti, France	394. Rapid prototyping ISO compatible organ-on-chip devices
9:40-10:00	Ben Cappiello	AxoSim, USA	210. The 3Rs Collaborative's MPS Initiative: Collaborating to accelerate adoption of MPS in scientific research
10:00-10:20	Maria Emmerich*	Technical University of Munich, Germany	426. Design Automation and Simulation for Microphysiological Systems

#### Track 3.7 – MPS in Precision Medicine

Moderators: *Dan Tagle, NIH/NCATS; Estrela Neto, i3S - Instituto de Investigação e Inovação em Saúde da Universidade do Porto*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
8:30-9:00	Passley Hargrove-Grimes	NIH/NCATS, USA	17. The Use of Tissue Chips for Precision Medicine Studies

# PROGRAM

\* indicates a Young Investigator

## Friday

### Symposia (Continued)

**8:30-10:30**

#### Track 3.7 – MPS in Precision Medicine (cont.)

Moderator(s): *Dan Tagle, NIH/NCATS; Estrela Neto, i3S - Instituto de Investigação e Inovação em Saúde da Universidade do Porto*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
9:00-9:20	Camilla Ceroni*	Doppl SA, Switzerland	71. Standardized patient-derived rectal organoids predict clinical efficacy of CFTR modulator in a patient with the rare 1677delTA/R334W genotype
9:20-9:40	Sheena Kerr	University of Wisconsin-Madison, USA	209. Patient-specific head and neck tumor microenvironment models for stratification of treatment efficacy.
9:40-10:00	Thomas Richardson	Ourotech Ltd t/a Pear Bio Ltd, United Kingdom	309. Pan-Cancer microfluidic platform for functional precision medicine aided by computer vision
10:00-10:20	Arturs Abols	Latvian Biomedical Research and Study Center, Latvia	550. PDMS-free gut on a chip as a tool for patient derived anaerobic microbiota research.

#### Track 4.7 – (Bio)Material Advances in MPS 2

Moderator(s): *Yashoda Chandorkar, Swiss Federal Laboratories for Materials Science and Technology*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
8:30-9:00	Noam Demri*	Institut Curie, France	52. Remote Magnetic Alignment of Spheroids in 3D Matrix for Muscle-on-chip
9:00-9:20	Marta Garcia Valverde*	Utrecht University, Netherlands	47. Engineering a Biomimetic Glomerular Filtration Barrier Chip for Diabetic Nephropathy Modeling
9:20-9:40	Suji Choi*	Harvard School of Engineering and Applied Sciences, USA	119. Printing 3D Anisotropic Heart Chamber Scaffolds with Fiber Infused Gel Inks
9:40-10:00	Hanna Vuorenperä	Tampere University, Finland	314. Vascularization and cellular rearrangement in bioactivated gellan gum hydrogels
10:00-10:20	Federico Vozzi	Institute of Clinical Physiology IFC-CNR, Italy	587. BIOENGINEERED 3D CARDIAC TISSUE MODEL FOR CARDIOTOXICITY STUDIES

### Coffee Break

**10:30-11:00**

### Symposia

**11:30-13:00**

#### Track 1.8 – MPS for Organ Interactions

Moderator(s): *Hitoshi Naraoka, Astellas Pharma; Alessandra Grillo, University College London*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
11:00-11:30	Stefan Krauss	University of Oslo, Norway	759. Reconstructing metabolic cross talk on chip
11:30-11:50	Martin Trapecar	The Johns Hopkins Center for Microphysiological Systems, USA	474. Reconstructing same-donor multiorgan physiology for studies of systemic immunity
11:50-12:10	Madalena Cipriano*	Eberhard Karls University Tübingen, Germany	621. Quantification of insulin response in a modular multi-organ chip approach: white adipose tissue-liver axis

## Friday

### Symposia (Continued)

**11:00-13:00**

#### Track 1.8 – MPS for Organ Interactions (cont.)

Moderator: *Hitoshi Naraoka, Astellas Pharma; Alessandra Grillo, University College London*

Location: *Hall Berlin A*

Time	Speaker	Organisation	Title of Talk
12:10-12:30	Isabel Koh*	RIKEN, Japan	233. Replicating Organ-Organ (BBB-Brain) Interaction with Modular Tissue-in-a-CUBE Chip
12:30-12:50	Thi Phuong Tao*	TissUse GmbH, Germany	568. Development of a microphysiological skin-liver-thyroid Chip3 and its application to evaluate the effects on thyroid hormones of topically applied cosmetic ingredients under consumer-relevant conditions

#### Track 2.8 – Reproducibility of MPS

Moderator(s): *Monica Piergiovanni, Joint Research Centre, Europe; Deephsika Arasu, Poietis*

Location: *Hall Berlin D-E*

Time	Speaker	Organisation	Title of Talk
11:00-11:30	Sonja Beken	3Rs Working Party (3RsWP), European Medicines Agency (EMA)	753. Advancing acceptance of MPS for regulatory testing of medicinal products in the EU
11:30-11:50	David Pamies*	University of Lausanne, Switzerland	172. Establishing a Quality Management Plan for Microphysiological Systems (MPS): quality parameters and monitoring reproducibility.
11:50-12:10	Pu Chen	Wuhan University TaiKang Medical School (School of Basic Medical Sciences), China	77. Reproducible production of bioengineered homogenous hPSC-derived organoids on a microplate
12:10-12:30	Darwin Reyes	National Institute of Standards and Technology, USA	413. Developing Guidelines for Microfluidic-Based Systems: a Window into the Future Standardization of Microphysiological Systems
12:30-12:50	Molly McCloskey*	University of Rochester, USA	447. A reproducible human blood-brain barrier model ( $\mu$ SiM-hBBB) for in vitro studies cognitive disorders

#### Track 3.8 – MPS to Address Infections

Moderator(s): *Abhinav Sharma, AbbVie; Beatrice Brugger, Medical University of Graz, Austria*

Location: *Salon 21*

Time	Speaker	Organisation	Title of Talk
11:00-11:30	Alexander Mosig	Jena University Hospital, Germany	746. "Dissecting mechanisms of host-pathogen interaction in organ-on-chip"
11:30-11:50	Rebeccah Luu*	Draper, USA	552. Uncovering SARS-CoV-2 Pathogenic Insights and Screening Therapeutics in a Reproducible and High-Throughput BSL3 Human Airway-on-Chip Platform
11:50-12:10	Raquel Alonso-Roman*	Hans-Knoell-Institute, Germany	106. Studying the therapeutic potential of live microbes and antifungals in vitro: an intestine-on-chip approach
12:10-12:30	Mirjam Kiener*	University of Bern, Switzerland	251. Targeting respiratory viruses: A novel alveolus-on-chip infection model for pre-clinical applications
12:30-12:50	Coraline Chéneau*	CR2TI, INSERM, France	401. A microphysiological human renal tubulointerstitium model as a testing platform for drug-inducing nephrotoxicity and dynamics of infectiosity

# PROGRAM

\* indicates a Young Investigator

## Friday

### Symposia (Continued)

**11:00-13:00**

#### Track 4.8 – MPS for Pathology

Moderator(s): *Nadine Stokar, Roche; Julia Kühnlenz, Bayer SAS*

Location: *Salon 7*

Time	Speaker	Organisation	Title of Talk
11:00-11:30	Danilo Tagle	NIH/NCATS, USA	480. Collaborative Teams of Biologists, Engineers, and Pathologists Driving Complex in vitro Model Engineering and Characterization
11:30-11:50	Luisa Bell*	Roche, Switzerland	680. Tissue technology enables further morphologic readouts for efficacy/toxicity in early drug screening using blood-brain barrier organoids
11:50-12:10	Randolph Ashton	University of Wisconsin-Madison, USA	567. Scalable application of RosetteArray™ technology for modeling the complex etiology of human Neural Tube Defects and screening for risk factors
12:10-12:30	Tomomi Kiyota	Genentech Inc., USA	713. Application of Renal Proximal Tubule-on-a-Chip: Challenge and Benefit for Supporting Drug Development in a Pharmaceutical Industry
12:30-12:50	Samy Aliyazdi*	Helmholtz-Institute for Pharmaceutical Research Saarland, Germany	289. 3D-Printed Human Hair Follicle Model to Investigate Topically Administered Nano-Antibiotics

### Coffee Break

**13:00-13:30**

### Keynote

**13:30-14:30**

Keynote Speaker: *Uwe Marx, TissUse*

Location: *Hall Berlin A-E*

on “Integrating human organoids into organismoids – how to achieve human body homeostasis in vitro?”



### Closing Ceremony

**14:30-15:30**

Location: *Hall Berlin A-E*

Closing ceremony, awards ceremony and iMPSS member meeting.

# SOCIAL EVENTS

Sunday, June 25

**Early Arrival – Get Together**

**16:00**

boat cruise – a historic tour of Berlin along the River Spree.

**Early Arrival – Beer Garden**

**18:00**

summer weather, freshly tapped beer, and warm food in Café am Neuen See!

Monday, June 26

**Morning Run**

**7:00**

Led by Reyk Horland, Tissuse; meet at the hotel lobby.

**Welcome Reception**

**19:00-21:00**

Free and open to all attendees! No registration – we look forward to welcoming you here!

Tuesday, June 27

**Morning Run**

**7:45**

Led by Kathrin Herrmann, Johns Hopkins University; meet at the hotel lobby.

Tuesday, June 27-Thursday, June 29

**Matchmaking**

**20:00-22:00**

Organized by the Enterprise Europe Network: a great way for attendees to connect! *Free and part of the official conference program; for attendees of the 2023 MPS World Summit only.*

Wednesday, June 28 and Friday, June 30

**Tai Chi Program** in Salon I

**7:00-8:00**

Ming-I Huang, Aracari Biosciences, will lead the Tai Chi program. She has volunteered for several summers at New York City's Bryant Park. She will start with a set of chi kung exercises that coordinate movement with deep breathing techniques to improve your ability to relax and manage stress, among other benefits. Developed by Grandmaster C. K. Chu, these are good for all levels and ages. The program will end with a full set of Yang style Tai Chi short form.

## Macro Party Wednesday, June 28

**DJ Fabian Kross**

**20:00-22:00**

melodic set of organic and minimal house music during sunset at the Beach. Pool open until midnight! Bring a towel and swim-wear!

**DJ Daniel Neuland**

**22:00-01:00**

authentic groovy bass-lines and bouncy beats inside the Arena Club

**DJ Jörg Stuhldreier**

**22:00-01:00**

relaxing soul music and drinks at the Glauhaus

Tickets and other info here:





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## Hands-on workshop on D42 OoC technology

25.09.23 - 27.09.23

06.11.23 - 08.11.23

Jena, Germany

Visit us at booth 32  
Expo Hall Level 1

### Course Contents

- / Basic Lectures in Organ-on-Chip
- / Training in Chip Handling & on-Chip Cell Culture
- / Training in Dynamic Chip Operation
- / Training in Readouts & Downstream Analysis



**ORGANS-ON-CHIP**  
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Compatible with numerous tissue phenotypes and multi cell barrier configurations

### Specializing In:

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- Rare Diseases

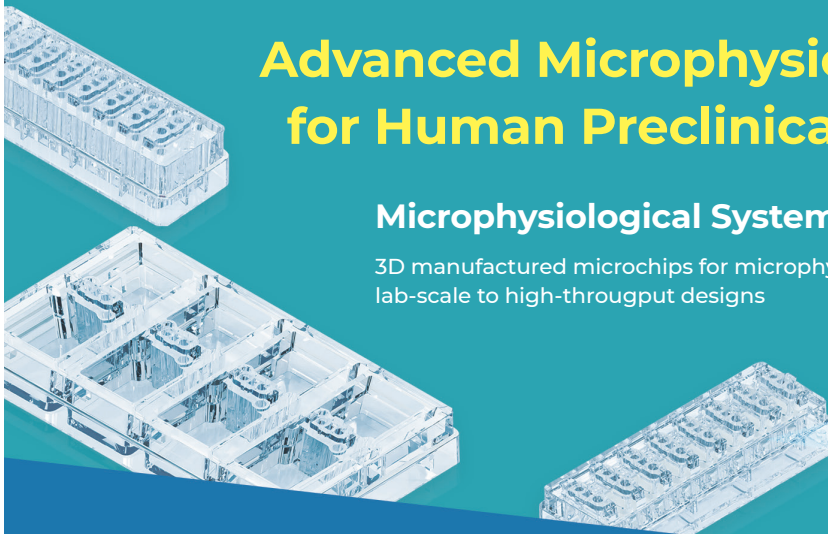
[hesperosinc.com](http://hesperosinc.com)



## Advanced Microphysiological System for Human Preclinical Drug Testing

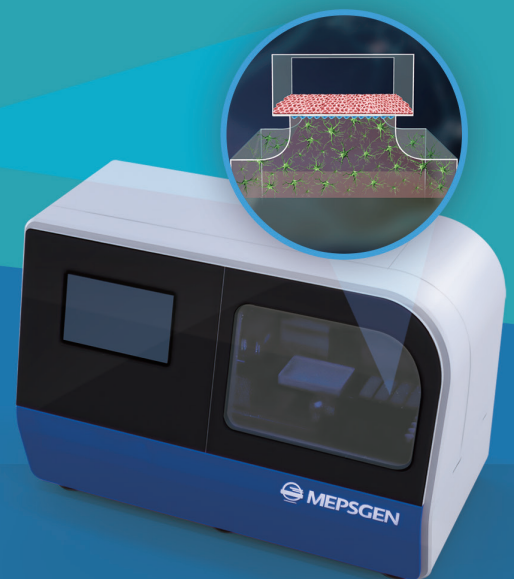
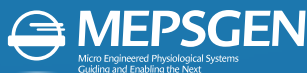
### Microphysiological System

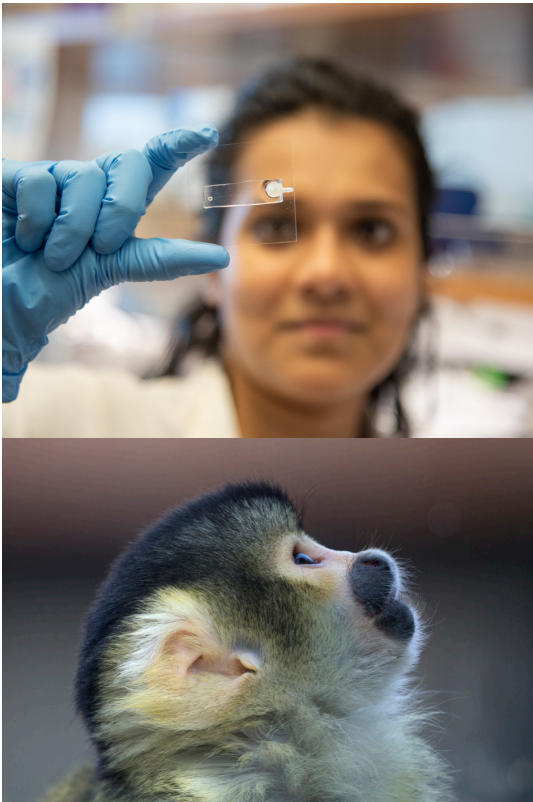
3D manufactured microchips for microphysiological system modeling: lab-scale to high-throughput designs



### Automated Microphysiological System

Fully automated robotic system designed to establish microphysiological system models for high-speed, high-throughput evaluation of drug toxicity and efficacy





# ADVANCING HUMAN-RELEVANT, NON-ANIMAL SCIENCE

For nearly 40 years, IFER and NAVS have been working in partnership to advance scientific methods that have the potential to replace the use of animals in testing and research. Together, we are proud to once again support the MPS World Summit. And together, we are ushering in a new era of scientific excellence that is better for humans and for animals.

- Graduate Fellowships of up to \$12,500 are awarded each year to promising early-career researchers for their work developing and using non-animal methods and models. These fellowships are eligible for renewal annually for up to three years.
- IFER and NAVS collaborate within the scientific community and with regulatory agencies to identify areas of research and testing that would benefit from the development and use of MPS devices.
- NAVS is introducing high school students to MPS devices and other non-animal models as part of its new curriculum, "Animal Use in Science: Exploring the 3Rs."

For more information, visit [IFER.org/MPS-Summit](http://IFER.org/MPS-Summit)



**Life on a Chip**  
*Accelerating Drug Development*

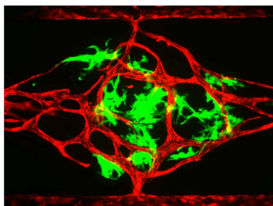
## OUR SERVICES

### Why Aracari?

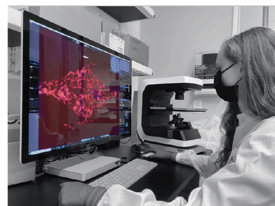
When it comes to treating patients, most therapeutics are delivered through the blood vessels, including small molecules, antibodies, and immune cells. This is also true in Aracari's platforms, where self-assembled human blood vessels not only support tissue growth through delivery of nutrients, but also deliver drugs and cell therapies. Aracari's vascularized microphysiological systems therefore provide more relevant, physiological data for accelerating drug development.

### Core Service Features

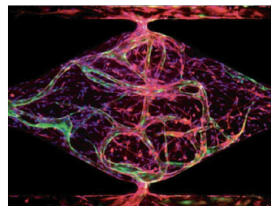
- Access to **cutting-edge, vascularized** microphysiological testing platforms
- **Personalized expert consultation** to reach your project goals using Aracari's technology
- **Confidential communication** of project objectives & results
- **Customized** downstream read-outs



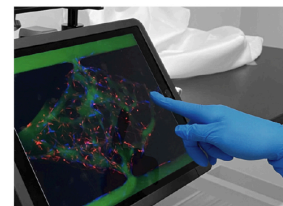
Oncology Studies



Immuno-Oncology (IO) Studies



Blood-Brain Barrier Studies



Vascular Toxicity & Permeability Studies

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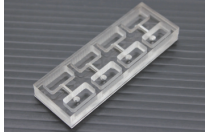




USHIO provides original MPS products, and platform services to realize your MPS.

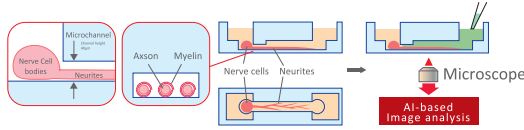
**Nerve MPS Plate & AI Neurotoxicity Analysis**

Making Neurotoxicity Evaluation  
Simpler and More Accurate

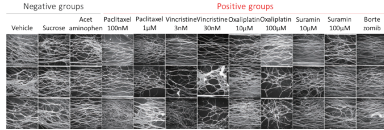


Collaboration with Prof. Ikuro Suzuki  
TOHOKU INSTITUTE OF TECHNOLOGY

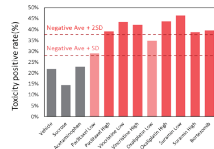
Peripheral Neurotoxicity Evaluation based on AI image analysis reading the shape of neuritis in the microchannel



- Representative local immunofluorescence image samples of neurites in a microchannel after drug administration.



- AI showed the potential for drug-induced neurotoxicity even at low concentrations.



**Open Innovation Platform**

For realizing your Organ on Chip  
and new evaluation workflow

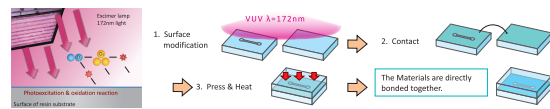
**Prototype** Discuss MPS design based on customer's proposal

**Scale up** Evaluation of Practicality, Feedback and design

**Mass Production** Proposal for full-scale adoption into your workflow

Our "Light technology" for development and production of OoC

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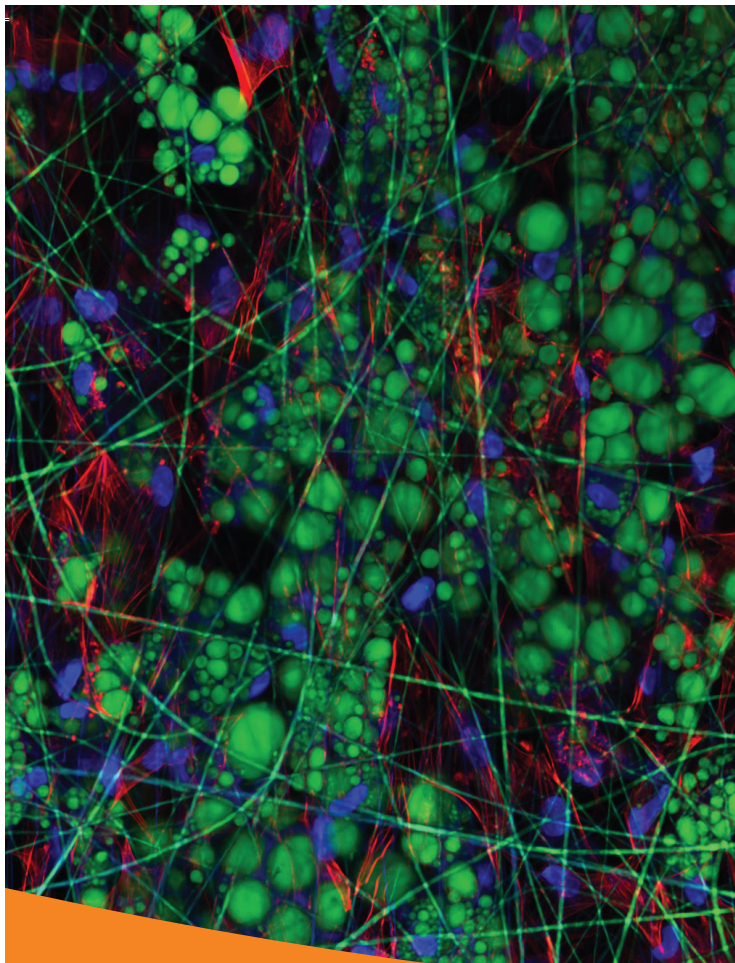


Microfabrication using light for channel structures and surfaces with various design.



**Organs on chip Project**

[www.ushio.co.jp/en/feature/organs-on-chip/](http://www.ushio.co.jp/en/feature/organs-on-chip/)  
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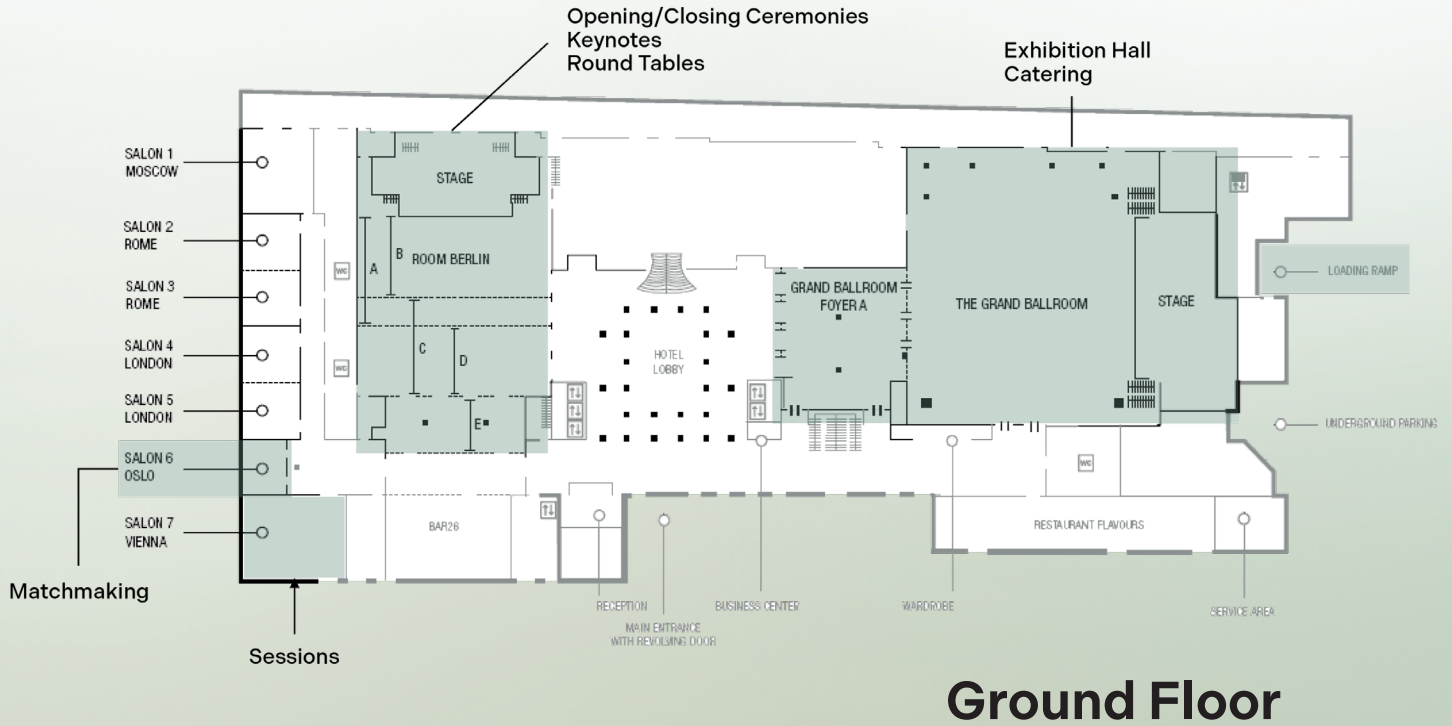
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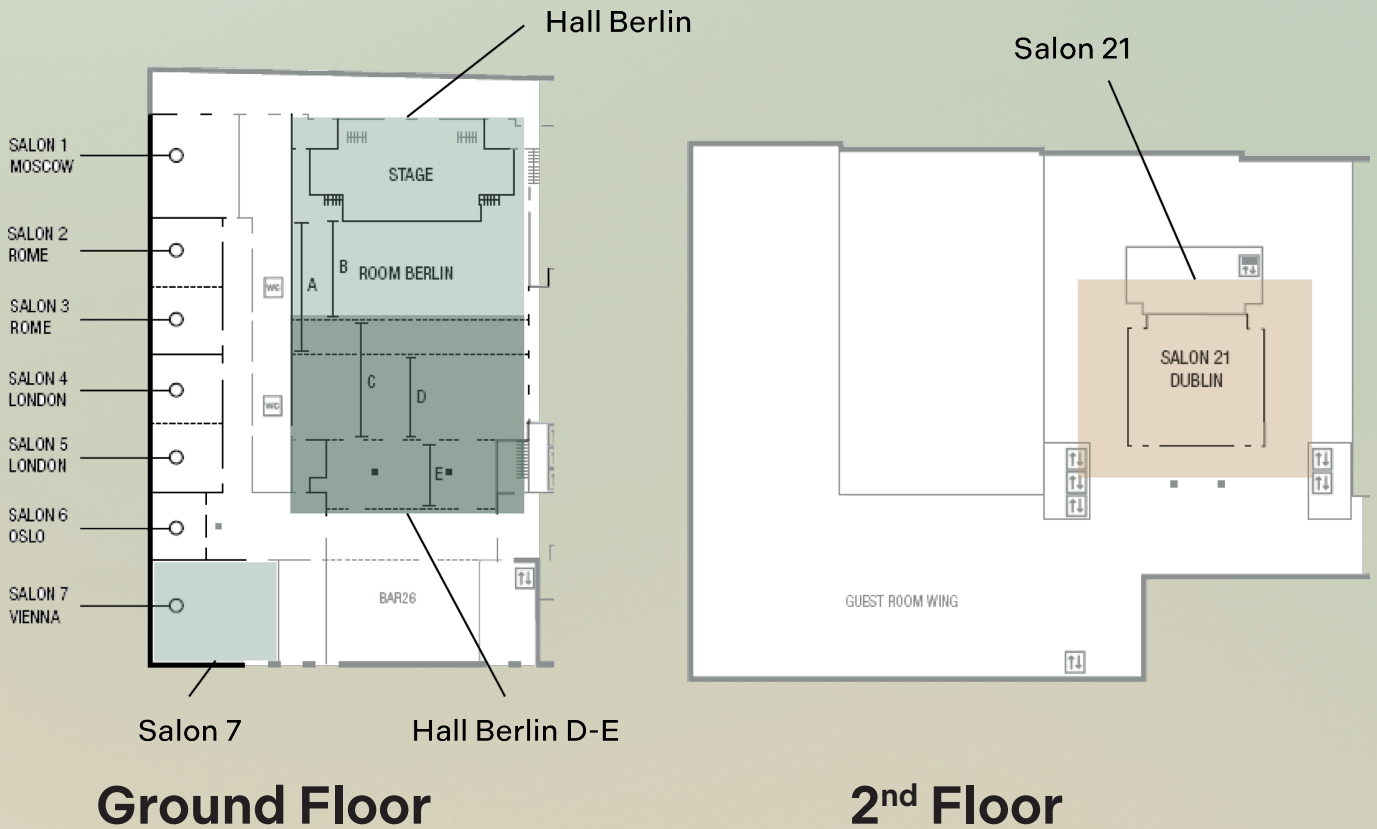


# MAPS

## Venue



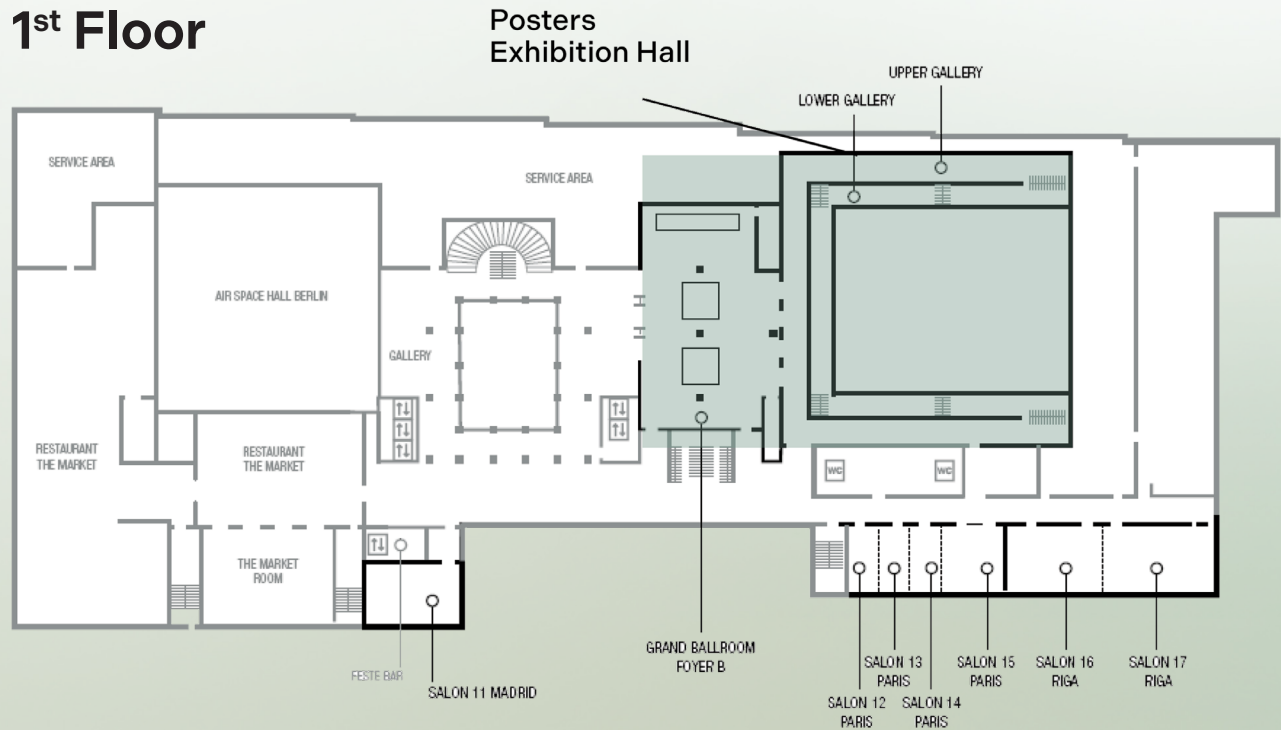
## Sessions



# MAPS

## Posters/Exhibition Hall

### 1st Floor



## Booth Numbers

#	Sponsor	#	Sponsor	#	Sponsor	#	Sponsor	#	Sponsor
1	TissUse GmbH	16	SUN bioscience SA	30	4Dcell	44	Curi Bio	58	inSphero
2	AxoSim Inc.	17	IVTech srl	31	Fluicell	45	Essent Biologics	59	Molecular Devices
3	BEOnChip	18	Ossiform	32	Dynamic42	46	Promega GmbH	60	Netri
4	Celvivo	19	Xellar Biosystems	33	PyroScience GmbH	47	Alertox	61	Merck KGaA
5	Kanto Chemical Co., Inc.	20	Fluigent	34	Altis Biosystems	48	DNTOX GmbH	62	BIOND Solutions BV (Bi/ond)
6	Bio-Techne	21	faCellitate GmbH	35	AlveoliX	49	Elvesys	63	Bayer AG
7	CN Bio Innovations	22	Jobst Technologies GmbH	36	AMSBIO	50	VitroScreen Srl	64	Epithelix
8	Hesperos	23	Nikon BioImaging Lab	37	InSCREENeX	51	51 Synvivo	65	3Brain AG
9	Aracari Biosciences	24	micronit	38	Avatarget Co.	52	BioSystics	66	FemtoPrint
10	MaxWell Biosystems AG	25	React4Life	39	LifeNet Health LifeSciences	53	World Precision Instruments	67	Nanobiose
11	Initio Cell BV	26	Mepsgen, Co.	40	CSEM	54	VITROCELL Systems GmbH	68	Readily3d
12	Newcells Biotech	27	STEMCELL Technologies	41	Kirkstall Ltd	55	Yokogawa Deutschland GmbH	69	Neurosetta
13	Ushio Inc.	28	BiomimX	42	MIMETAS	56	Metatissue	70	InnoVitro GmbH
14	Obatala Sciences	29	Cherry Biotech	43	Systemic Bio, a 3D Systems Company	57	CRAFT	71	ibidi GmbH

# MAPS

## Exhibition Hall (inside)



# Poster Boards

Time: 10:00-11:30

June 27th 2023			
Board #	Abstract ID	Board #	Abstract ID
1	4	95	126
3	7	97	128
5	11	99	131
7	15	101	133
9	19	103	135
11	21	105	140
13	23	107	143
15	25	109	145
17	27	111	148
19	29	113	151
21	31	115	153
23	33	117	155
25	35	119	158
27	37	121	160
29	40	123	162
31	44	125	164
33	48	127	166
35	50	129	169
37	53	131	171
39	55	133	174
41	57	135	177
43	59	137	179
45	62	139	182
47	64	141	184
49	66	143	186
51	68	145	189
53	70	147	191
55	74	149	193
57	78	151	195
59	81	153	197
61	84	155	200
63	87	157	202
65	89	159	204
67	91	161	206
69	93	163	211
71	95	165	213
73	97	167	217
75	99	169	219
77	101	171	221
79	103	173	223
81	105	175	225
83	108	177	229
85	110	179	231
87	113	181	235
89	118	183	239
91	121	185	242
93	124	187	244

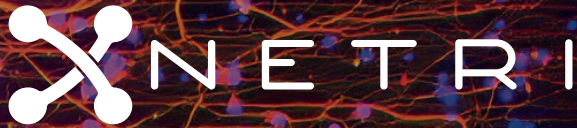
June 28th 2023			
Board #	Abstract ID	Board #	Abstract ID
1	246	95	364
3	249	97	366
5	253	99	368
7	255	101	371
9	257	103	374
11	259	105	376
13	261	107	378
15	263	109	381
17	265	111	383
19	267	113	386
21	269	115	388
23	271	117	390
25	273	119	392
27	275	121	395
29	277	123	398
31	279	125	400
33	282	127	405
35	284	129	407
37	286	131	409
39	290	133	414
41	293	135	417
43	295	137	419
45	297	139	421
47	300	141	424
49	303	143	427
51	305	145	429
53	307	147	431
55	310	149	434
57	312	151	436
59	318	153	438
61	321	155	440
63	323	157	445
65	328	159	448
67	333	161	451
69	335	163	453
71	337	165	455
73	340	167	459
75	342	169	461
77	344	171	463
79	348	173	465
81	350	175	467
83	352	177	470
85	354	179	473
87	356	181	477
89	358	183	481
91	360	185	485
93	362	187	487

June 29th 2023			
Board #	Abstract ID	Board #	Abstract ID
1	488	95	619
3	491	97	622
5	494	99	625
7	498	101	627
9	500	103	629
11	503	105	632
13	505	107	634
15	507	109	636
17	509	111	638
19	511	113	640
21	513	115	643
23	516	117	647
25	519	119	649
27	521	121	651
29	524	123	653
31	526	125	655
33	529	127	657
35	532	129	659
37	534	131	662
39	536	133	664
41	539	135	667
43	541	137	669
45	544	139	671
47	546	141	674
49	548	143	676
51	553	145	678
53	556	147	681
55	558	149	683
57	561	151	686
59	563	153	688
61	565	155	691
63	570	157	693
65	573	159	695
67	578	161	698
69	580	163	702
71	586	165	705
73	591	176	708
75	597	169	715
77	599	171	717
79	602	173	719
81	604	175	721
83	606	177	724
85	608	179	728
87	610	181	735
89	612	183	738
91	614	185	742
93	617	187	745

June 27th 2023			
Board #	Abstract ID	Board #	Abstract ID
2	5	96	127
4	8	98	130
6	12	100	132
8	16	102	134
10	20	104	139
12	22	106	142
14	24	108	144
16	26	110	147
18	28	112	150
20	30	114	152
22	32	116	154
24	34	118	156
26	36	120	159
28	39	122	161
30	41	124	163
32	45	126	165
34	49	128	168
36	51	130	170
38	54	132	173
40	56	134	175
42	58	136	178
44	60	138	180
46	63	140	183
48	65	142	185
50	67	144	187
52	69	146	190
54	72	148	192
56	75	150	194
58	80	152	196
60	83	154	199
62	86	156	201
64	88	158	203
66	90	160	205
68	92	162	207
70	94	164	212
72	96	166	215
74	98	168	218
76	100	170	220
78	102	172	222
80	104	174	224
82	107	176	226
84	109	178	230
86	112	180	234
88	116	182	236
90	120	184	241
92	123	186	243
94	125		

June 28th 2023			
Board #	Abstract ID	Board #	Abstract ID
2	247	96	365
4	252	98	367
6	254	100	369
8	256	102	373
10	258	104	375
12	260	106	377
14	262	108	380
16	264	110	382
18	266	112	384
20	268	114	387
22	270	116	389
24	272	118	391
26	274	120	393
28	276	122	396
30	278	124	399
32	280	126	402
34	283	128	406
36	285	130	408
38	287	132	411
40	291	134	415
42	294	136	418
44	296	138	420
45	297	140	422
48	302	142	425
50	304	144	428
52	306	146	430
54	308	148	433
56	311	150	435
58	315	152	437
60	320	154	439
62	322	156	443
64	326	158	446
66	329	160	450
68	334	162	452
70	336	164	454
72	338	166	458
74	341	168	460
76	343	170	462
78	346	172	464
80	349	174	466
82	351	176	469
84	353	178	471
86	355	180	476
88	357	182	478
90	359	184	482
92	361	186	486
94	363		

June 29th 2023			
Board #	Abstract ID	Board #	Abstract ID
2	490	96	620
4	493	98	624
6	496	100	626
8	499	102	628
10	501	104	631
12	504	106	633
14	506	108	635
16	508	110	637
18	510	112	639
20	512	114	641
22	515	116	644
24	517	118	648
26	520	120	650
28	522	122	652
30	525	124	654
32	527	126	656
34	531	128	658
36	533	130	661
38	535	132	663
40	537	134	665
42	540	136	668
44	542	138	670
45	544	140	673
48	547	142	675
50	549	144	677
52	554	146	679
54	557	148	682
56	559	150	685
58	562	152	687
60	564	154	689
62	566	156	692
64	571	158	694
66	577	160	697
68	579	162	700
70	585	164	703
72	589	166	706
74	594	168	710
76	598	170	716
78	601	172	718
80	603	174	720
81	604	176	723
82	605	178	727
84	607	180	733
86	609	182	737
88	611	184	741
90	613	186	743
92	616		



BOOTH #60

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Organoids



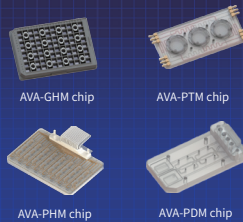
Organ Chips



Smart Equipment

### Product Introduction

#### Organs on Chips



AVA-GHM chip

AVA-PTM chip

AVA-PHM chip

AVA-PDM chip

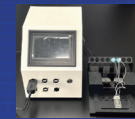
#### Smart Equipment



High Throughput  
Imaging System



Mini Incubator



Flow-Perfusion  
System



Organ Pre-treatment  
System (Desktop)

#### Kits & Biomaterials



Tumor Organoids

Hydrogel



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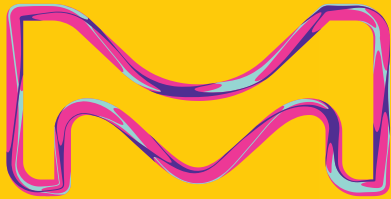
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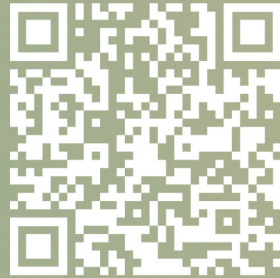




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