



2° CONVEGNO NAZIONALE

Società Italiana Organ-on-Chip · SIOoC 2026



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Dipartimento Scienze Bio-Mediche



MEDIA PARTNER



8 ottobre 2026

10:30–11:00	Registrazione e welcome coffee
11:00–11:15	Saluti istituzionali
11:15–12:00	INVITED LECTURE Biologia e Organ-on-Chip Luigi Nezi IEO – Istituto Europeo di Oncologia
12:00–12:45	FLASH TALKS I Sofia Belardinelli — A Paradigm Shift for Biomedical Research? Biomedical Engineering Perspectives on the Transition towards NAMs Gabriella Bretti — In-silico modelling of biological experiments on cancer: challenges and perspectives Paola Casti — A Machine Learning Approach for High-throughput Analysis of Pharmacological Effects via Multiple hiPSC-based Cardiac Modelling Variants Alessia Riccardi — Graph deviation network analysis of MEA signals for the detection of schizophrenia signatures in human forebrain organoids Alessandro De Giorgi — An experimentally validated multiphysics model of oxygen transport in a glioblastoma-on-a-chip Gaia Corallo — A biomimetic glioblastoma-on-a-chip for the study of tumor-stroma interactions Sofia Bellia — Advanced in vitro models for evaluating brain-targeted nanoparticles Brett Vega — Development of dynamic blood-brain barrier and tumour-endothelium modules for multicompartment organ-on-chip models of metastatic dissemination Clara Mattu — A multicompartment melanoma-brain model to replicate the metastatic disease Marianna Peditto — Neuroblastoma-on-a-chip automated platform to study metastatic microenvironments and anticancer drugs response Adriana Rosa Gambardella — Innovative Strategies Using Immune Derived Extracellular Vesicles and Epigenetic Drugs: A Nano Scale/Organ-on-Chip Framework for Melanoma Therapy Matteo Felice Pezzuto — Development of a Customizable 3D Human Dermal Wound Model with a Defined Wound-like Defect Davide Macaluso — Design, fluid dynamic validation and preliminary biological assessment of a liver–muscle multi-organ-on-chip for modelling cachexia in chronic liver disease
12:45–14:15	Lunch e poster session I

14:15–15:00	INVITED LECTURE Stato dell'arte in Italia ed Europa Marco Rasponi Presidente EUROoCS · Politecnico di Milano
15:00–15:45	INVITED LECTURE AI in the Loop: Integrare l'intelligenza artificiale nella pipeline della ricerca David Vagni CNR-Istituto per la Ricerca e l'Innovazione Biomedica
15:45–16:30	FLASH TALKS II Stefania Parlato — Engineering Immune-Tumor-on-Chip Platforms to Dissect Immune-Tumor Crosstalk Lucia Gabriele — ISONChipLab: Building an Integrated Hub for Immune-on-Chip Technologies Joanna Filippi — Dissecting MSI-inducing drug on tumor-immune crosstalk using a colon cancer-on-chip model Chiara Coricciati — A scalable hiPSC-derived apical-out intestinal organoid platform for modeling barrier dysfunction and translational therapeutic screening Luca Francioso — An exploratory co-culture intestinal model to evaluate direct epithelial effects of SGLT2 inhibitors on barrier integrity in CKD Consuelo Fabi — Modeling enteric hyperoxaluria in a microphysiological system and testing of microbial metabolites as potential protective agents Gergő Borka — Enhanced prediction of drug-induced gastrointestinal toxicity in a human gut-on-chip Sara Micheli — A multi-concentration gradient microfluidic device for long-term culture of colorectal cancer patient-derived organoids Giacomo Cretti — Development of a microfluidic platform to generate vascularized colorectal cancer spheroids on chip Radhika Dhekane — A dynamic milli-fluidic coculture spheroid model of the esophageal adenocarcinoma tumor microenvironment for studying chemotherapy resistance Elisa Raboni — Dynamic in vitro modelling of the gut-BBB axis using the multi-organ and multi-fluidic MIVO® Organ-on-Chip platform Valeria Mazza — A multi-organ-on-chip platform to investigate polyphenol translocation across a dynamic gut–liver–lung axis Manuela Lanzafame — Melanoma-fibroblast self-organization as a platform to identify stromal re-engineering strategies in the tumour microenvironment
16:30–17:30	Coffee break e poster session II
17:30–18:15	Assemblea Soci SIOoC
20:30–23:00	Cena sociale: La Limonaia, c/o Villa Torlonia, via L.Spallanzani 1A, 00161 Roma.

09:30–10:15	INVITED LECTURE Micro and Nanotechnologies for Neurohybrid Engineering Francesca Santoro Università RWTH di Aquisgrana
10:15–11:00	INVITED LECTURE Progetto Biotech Lazio Fondo di investimento VC Letizia Goretti Primo Capital SGR
11:00–11:45	Coffee break
11:45–12:30	FLASH TALKS III Giorgia Curci — A Muscle-on-Chip Platform Coupled with Time-Lapse Microscopy for Quantitative Analysis of Skeletal Muscle Contractility Thuy Duong Nguyen — Autologous synovium-on-chip: a 3Rs-aligned NAMs for predicting therapeutic response in rheumatoid arthritis Claudia Colaiacono — From Bench to Chip: Engineering Intervertebral Disc-on-Chip Models for Next-Generation Spine Research Andrea Giannoccaro — Engineering biomimetic bone and endothelial compartments toward a vascularized 3D bone model Cesare Gabriele Gaglio — A PDMS Millifluidic Platform Integrating a Perfusable Endothelial Barrier Model within GelMA based Tissue Constructs Chiara Internò — Development of a versatile microfluidic organ-on-a-chip platform for dynamic vascular modeling and angiogenesis studies Eleonora Mello — Development and biological validation of a microwell-on-chip platform for dynamic culture of ovarian cancer spheroids Angela Di Battista — Compartmentalized microfluidic platforms as a tool to dissect the epithelial-fungal crosstalk in invasive aspergillosis Irene Ignazzitto — In vitro modeling of the human nasal mucosa: development of a dynamic air–liquid interface microfluidic platform Giulia Matusali — An organotypic 3D model of the human vaginal epithelium reveals sustained Oropouche virus replication and hormone-dependent host responses Gianni Antonelli — Real-time pH monitoring in dynamic environments by DNA-scaffold-based biosensors

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PNC
Piano nazionale per gli investimenti
complementari al PNRR
Ministero dell'Università e della Ricerca



Modelli alternativi alla sperimentazione animale (NAM)

Dalla ricerca alle politiche di finanziamento

PRIMA SESSIONE · PRESENTAZIONE DELL'INIZIATIVA

12:30–12:40	Luca Businaro · CNR-IFN Introduzione: obiettivi e contesto dell'iniziativa
12:40–12:50	Paolo Ariano · Fondazione D ³ 4 Health Stato dell'arte, evoluzione e opportunità dei NAM
12:50–13:00	Ignazio Roppolo · Politecnico di Torino Asset tecnologici a supporto delle attività
13:00–13:10	Gianluca Sferrazza · CNR Cambio di paradigma regolatorio sui NAM in fase preclinica e rete di laboratori biologici
13:10–13:15	Lorena Nappa · Fondazione D ³ 4 Health Chiusura della sessione mattutina
14:30–14:40	Lunch e poster session III

SECONDA SESSIONE · ESIGENZE, DIALOGO E FINANZIAMENTI

14:30–14:40	Lorena Nappa Fondazione D ³ 4 Health Ripresa dei lavori e inquadramento della tavola rotonda
14:40–14:50	Stefano Miotto · Confindustria Veneto La voce delle imprese: esigenze industriali di accesso ai modelli
14:50–15:00	Alessandra Ambrosone · ISS NAMs e il punto di vista regolatorio: validazione, accettazione e sfide
15:00–15:10	Giuseppe Lorizzo · EY Prospettive di finanziamento italiane ed europee
15:10–15:25	Felice Lopane · Cluster Lombardia Il ruolo dei cluster tecnologici
15:25–16:00	TAVOLA ROTONDA

16:00–16:30

PREMIAZIONI E CHIUSURA