



SUMM3R SCHOOL



Centro 3R



Università
di Genova

ADVANCES IN BIOMEDICAL SCIENCES

Human and environmental-related research and testing

A practical-theoretical course organised by
Centro 3R and University of Genova

Students who have completed a Master's
degree or PhD students, working in relevant
fields of research and applications.

Open to up to 45 participants.

Students enrolled in the *PhD programmes in Experimental Medicine and Science and Technology for the Environment and Territory of the University of Genova* will be accredited 3 CFU. Students enrolled in the *PhD programmes in Bioengineering and Robotics* of the University of Genova will be accredited 2 CFU.

9-10-11 July, 2025

Genova, Italy

Anna Maria Bassi, Giulia De Negri Atanasio, Elena Grasselli, Sonia Scarfi, Laura Pastorino, Stefania Vernazza, Sara Tirendi - *UNIGE*

Arti Ahluwalia, Chiara Magliaro - *UNIPI*

Valeria Chiono - *POLITO*

WHO

WHEN

WHERE

ORGANISERS

DAY 1

THEORY

PRACTICE



8.30 – 9.30 REGISTRATION

**9.30
10.00**

KEYNOTE
S. Letasiova, "Reconstructed tissue models in toxicology and pharmacology"

**10.00
10.20**

RECONSTRUCTED TISSUES FOR TOXICOLOGY STUDIES
L. Dondero E. Grasselli, "Skin Homeostasis and Sustainable Cosmetic Products"

**10.20
11.00**

STEM CELL MODELS
V. Sottile, "Stem cell models of tissue and embryo development"
E. Bottani, "Human induced pluripotent stem cell (iPSC)-derived Neural Precursor Cells for drug repurposing in rare genetic diseases"

11.00 – 11.30 COFFEE BREAK

**11.30
12.10**

ORGANOIDS AS DISEASE MODELS
S. Vernazza S. Tirendi, "Retinal organoids for neurorecovery approaches"
I. Decimo F. Ciarpella, "Mouse and human brain organoids as innovative platforms for disease modelling and drug discovery"

12.10 – 14.00 LUNCH

**14.00
16.00**

RECONSTRUCTED TISSUES
S. Letasiova J. Markus, "In Vitro Model of Small Intestine For the Assessment of Chemicals, Drugs and Metabolism Studies"

16.00 – 16.30 COFFEE BREAK

**16.30
17.30**

EMERGING TECHNOLOGIES
D. Di Lisa, "Application of MEA technology"

DAY 2

THEORY

9.30
10.00

KEYNOTE

C. Rovida, "Regulatory space for NAMs"

10.00
10.40

BIOLOGICAL BARRIERS

G. De Negri Atanasio, "The Endocrine disruptors and their impact on human physiology"

G. Sancini, "Environmental stressors and barrier dysfunctions: assessing the impact on human health and diseases"

10.40 - 11.10 COFFEE BREAK

11.10
12.10

ORGAN-ON-A-CHIP & MICROPHYSIOLOGICAL SYSTEMS

C. Mattu, "In vitro models of cancer tissue: preclinical validation of advanced therapies for melanoma and glioblastoma"

T. Sbrana, "Fluidic platforms to simulate the human environment"

M. Innocenti, "Organ on chip based endothelium and tumor spheroids"

12.10 - 14.00 LUNCH

14.00
15.30

MILLIFLUIDIC PLATFORMS

S. Quaglia, "5D in-vitro models: how to gradually increase the correlation with human reality"

15.30 - 16.00 COFFEE BREAK

16.00
17.30

TISSUE ENGINEERING & ORGAN-ON-A-CHIP MODELS

C. Tonda Turo, "Setup and characterisation of thin and thick alveolar-capillary barriers"

C. Mattu, "Vascularised versus non-vascularised in vitro models of melanoma"

PRACTICE



DAY 3

THEORY

9.30
10.00

KEYNOTE

G. Chirico, "Data analysis for in vivo optical label-free imaging"

10.00
11.00

EMERGING TECHNOLOGIES

E. Marcello, "Bioprinting for soft tissue modelling"
D. Di Lisa, "The emerging role of micro-electrode array technologies for electrophysiological characterization of advanced 3D in vitro models of brain tissue"

11.00 - 11.30 COFFEE BREAK

11.30
12.10

NOVEL IN SILICO TOOLS

E. Botte, "Modelling mitosis, morphogenesis and metabolism in 3D tissues"
C. Magliaro, "Image processing: a manual for survival"

12.10 - 14.00 LUNCH

14.00
15.30

3D BIOPRINTING

E. Marcello G. Ruocco D Testore & G.P. Stola, "Printing hydrogel scaffolds for cardiac tissue modelling"

15.30-16.00 COFFEE BREAK

16.00
17.30

IMAGING

P. Mancini & C. Magliaro, "Honey, I shrunk the kids: tips and tricks for observing mini-organs"

PRACTICE

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SPEAKERS



Bottani E., Università di Verona
Botte E., Università di Pisa
Chirico G., Università di Milano Bicocca
Ciarpella F., Università di Verona
De Negri Atanasio G., Università degli Studi di Genova
Decimo I., Università di Verona
Di Lisa D., Università degli Studi di Genova
Dondero L., Università degli Studi di Genova
Sancini G., Università di Milano Bicocca
Grasselli E., Università degli Studi di Genova
Innocenti M., Università di Milano Bicocca
Letasiova S., MatTek IVLSL, Slovakia
Magliaro C., Università di Pisa
Mancini P., Università di Pisa
Marcello E., Politecnico di Torino
Stola G.P., Politecnico di Torino
Markus J., MatTek IVLSL, Slovakia
Mattu C., Politecnico di Torino
Quaglia S., IVTech srl, Italia
Rovida C., Team Mastery
Ruocco G., Politecnico di Torino
Sbrana T., IVTech srl, Italia
Sottile V., Università di Pavia
Stola G.P., Politecnico di Torino
Testore D., Politecnico di Torino
Tirendi S., Università degli Studi di Genova
Tonda Turo C., Politecnico di Torino
Vernazza S., Università degli Studi di Genova

REGISTRATION

The registration can be done online until June 30th, filling the form available on the [website](#).

After confirming the registration, the fee has to be paid through Bank Transfer, payable to: Ggallery srl – Banco di Credito Azzoaglio, Filiale di Cengio (SV), Via Bagnolo 1, 17056
IBAN IT87Z0342549370CC0260111990, Re: SUMM3R SCHOOL
2025

The receipt of payment has to be sent by email (moira.nevins@gallerygroup.it) or in person to Ggallery srl.