Organ on chip: technologies, applications and new challenges for personalized medicine

Inserm Workshop 290

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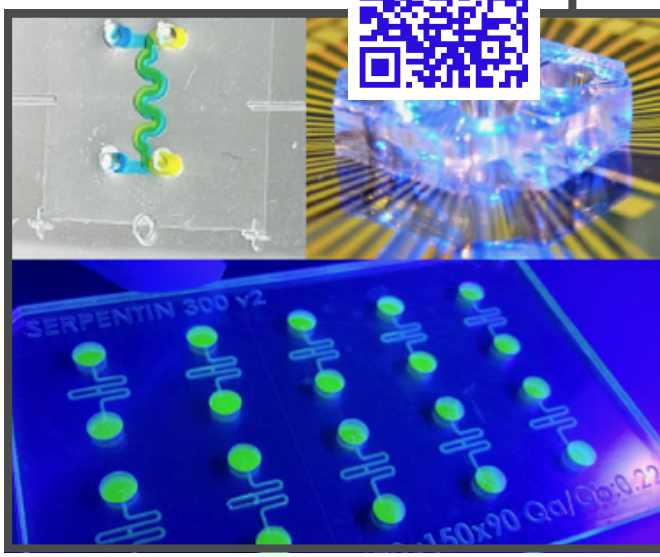
The aim of this 2-step workshop is first to provide to the French scientific community an overview of the latest advances in the field of organ-on-chip, from general introduction to recent advance-ments regarding pathophysiology research (metabolic process-es/neuroscience/cancer/infection/immunity) including biosensors' integration.

Deadline: **July 3, 2026**



PHASE I THEORETICAL

October 5-7, 2026 — **Bordeaux**

ORGAN ON CHIP TECHNOLOGY
Peter LOSKILL (University of Tubingen, DEU), Gaëlle RECHER (University of Bordeaux, FRA) and Peter D. JONES (University of Tubingen, DEU)

ORGAN ON CHIP FOR STUDYING HUMAN PHYSIOLOGY
Cecile LEGALAIS (UTC, FRA), Matthieu RAOUX (University of Bordeaux, FRA), Christine MURMMERY (Leiden University, NLD), Franck HALARY (CR2TI UMR1064, FRA), Severine LE GAC (University of Twente, NLD) and Fabrice NAVARRO (CEA, FRA)

ORGAN ON CHIP FOR MODELLING CHRONIC DISEASES
Maxime CAZORLA (Institut de Neurosciences de la Timone, FRA), Pim PIJNAPPEL (Erasmus MC Sophia Children's Hospital, NLD) and Danijela MATIC VIGNJEVIC (Institut Curie, FRA)

ORGAN ON CHIP FOR MODELLING INFECTIOUS DISEASES & IMMUNITY
Maria BERNABEU AZNAR (EMBL, ESP), Linda GRIFFITH (MIT, USA), Vivek THACKER (Heidelberg University Hospital, DEU) and Alexander MOSIG (University Hospital Jena, DEU)

PHASE II PRACTICAL

November 2-6, 2026 — **Lille & Montpellier**

WORKSHOP 1 : Travaux pratiques à Montpellier
The aim of these practical sessions will be to learn how to manufacture and prepare microfluidic circuits and microelectrode arrays in a clean room, then to use these devices in experiments studying blood flow and electrophysiology with cardiomyocytes.
Participants will spend three days in clean rooms learning lithography techniques using SU8 photoresists on silicon, followed by the production of microfluidic circuits in PDMS bonded to glass. They will also participate in the manufacture of MEAs (microelectrode arrays) using lift-off and plasma etching techniques. One day will be devoted to microfluidics experiments, studying blood flow under a microscope using replicas of vascular networks, and finally one day will be dedicated to recording electrical activity on cardiomyocytes cultured on MEAs.

SELECTION: 6 trainees for Lille and 10 trainees for Montpellier will be selected among Phase I participants.

INFORMATION & **REGISTRATION** CLICK HERE

*Ateliers Inserm - Réalisation : DRH - SDevRH - Crédit image : Canva - Décembre 2025

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