

Microfluidics Innovation Center

Expertise and skills



Scientific projects:

What we can do:

Instrumentation: Our aim is the development of next-generation instrumentation for fine-tuned pressure, volume and flow control to help researchers to surpass the state-of-the-art in their scientific field. We can build innovative systems and instruments corresponding to your specific needs. Feel free to ask our experts!

Examples: portable flow controller for point of care applications, flow controller and gas mixer to pressurize your solutions with a precise mixture of gasses, high precision flow rate sensor, viscosimeter, CO₂/O₂/pH sensors, temperature controller for microfluidic devices, variable fluidic resistance to adjust very easily the flow rate inside the chip, low volume valve...

Flow control setup: We know how time-consuming it can be to optimize the parameters of your micro- and millifluidics experiment. Using our instruments, we can achieve complex fluid handling and automate tasks, so that you can focus on what matters for your research.

Examples: continuous cell culture including a recirculation system (for media recirculation), microfluidic mixer, injection of complex reagents/drugs sequences in lab-on-chip or organ-on-chip devices, flow control in printing and coating processes like slot-die coating, inkjet printing...

User-friendly microfluidic platform: The European Commission encourages interdisciplinary collaborations. Most of our project partners do not have knowledge in microfluidics, but are interested in this technology to improve their experiments. To democratize the use of microfluidics, we propose to develop user-friendly platforms. Our objective: at the end of the project, you simply have to set up your parameters, press one button, and your experiment is running!

Examples: cell culture platform (automation of the basic steps), high-volume droplet generation platform, volume dispensing pack...

What we cannot do:

- Chip design
- Complex chip microfabrication

Non-scientific skills:

- Start-up inception, entrepreneurship
- Innovation, development of products that fit the market
- Scientific communication and SEO (search engine optimization)

Our facilities:

- Fully equipped lab for microfluidic flow control to build microfluidic setups
- Microfabrication lab to make simple microfluidic devices
- Mechanical and electronic engineering service
- Cell culture room for in vitro experiments
- Microscopy equipment