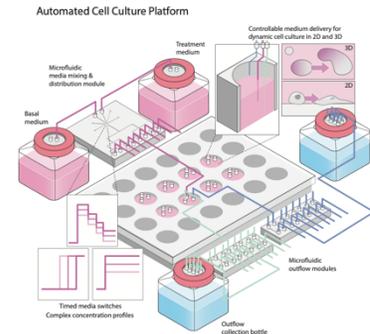


## Student Assistant (R&D Engineer, 3-month mission)

### Automated microfluidic-based system for the multiplexed culture & dynamic stimulation of 3D cell models in standard multi-well plates



Part time: 15h/week

Duration: ASAP until end of 2023

Location: EPFL Bioengineering & Organoids Technology platform (PTBET), Agora Building (close to CHUV - Lausanne)

#### Your mission

The School of Life Sciences of the École Polytechnique Fédérale de Lausanne (EPFL) invites applications for the position of an R&D Engineer (Student Assistant) at the Bioengineering and Organoids Technology platform (PTBET) in collaboration with the EPFL School of Engineering and the Technology Transfer Office (TTO). We are looking for a technology-driven engineering student to join our inter-disciplinary team and build on our proprietary microfluidic-based system for the automated culture and dynamic stimulation of stem cells, organoids, and tissue explants.

#### Main tasks & responsibilities

- Analyze and challenge URS (User Requirements Needs)
- Assess technical feasibility for demonstrator and upcoming series
- Perform make or buy analysis
- Prepare System Requirements and Product Breakdown Structure
- Take over the work and data generated by the previous engineers
- Have discussions with potential suppliers for equipment, modules, components
- Supply and build demonstrator
- Report work progression with basic project management tools (planning, action list...)

#### Your Profile

##### Technical skills

- Knowledge in microfluidics (design & manufacturing: prototyping and small series)
- Micromechanics and microengineering
- Mechanical design (SolidWorks CAD required and computer graphics knowledge a plus)
- Electrical systems, automation/robotics
- Lab equipment and components
- Software design a plus
- Knowledge in regulatory aspects (CE marking, FDA...) a plus
- Interest in MedTech/Life Sciences a plus

##### Soft skills

- Creative
- Autonomous
- Excellent communicator
- Good team spirit and enjoy working in an interdisciplinary environment

Working Language: English B2 required

Education: EPFL, HES or equivalent master's degree/program in engineering.

## We offer

- An exciting opportunity to be part of a dynamic research team at the forefront of bioengineering and cell culture technologies, and to gain work experience and key expertise in this area
- The unique chance to play a central role in enhancing the technology readiness level of a recently developed (published in *Cell Reports Methods*, July 18, 2022 <sup>1</sup>; provisional patent filed) automated cell culturing system that has been selected by the EPFL Technology Transfer Office (TTO) as a promising technology with potential towards commercialisation
- The opportunity to collaborate with key stakeholders in the project, such as the team of the EPFL Bioengineering and Organoids Technology platform, a leading microfluidics lab at EPFL, and the EPFL TTO
- Access to and training in state-of-the-art cleanroom, imaging, and organoid culture facilities

## References

1. Tischler, J. *et al.* An automated do-it-yourself system for dynamic stem cell and organoid culture in standard multi-well plates. *Cell Rep. Methods* **2**, 100244 (2022).

## Contact

If interested, please send a CV and letter outlining your motivation by email to Dr Julia Tischler: [julia.tischler@epfl.ch](mailto:julia.tischler@epfl.ch)

