Miguel Solsona
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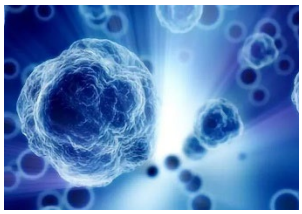
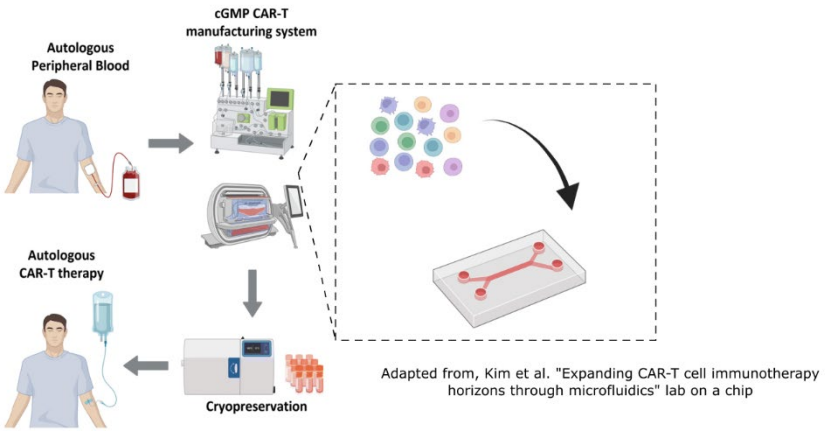


# Master thesis position:
# Development of the Next Generation Transfection system for Cell and Gene Therapy applications

At BCellOne, a startup project at EPFL, we focus on advancing cell and gene therapy technologies. More specifically, we are developing a novel microfluidic chip designed to enhance the transfection process used in cellular engineering. Currently, standard methods for cell/gene therapy development often lead to significant cell damage, which can impede clinical outcomes. Traditional approaches require bulky equipment and often result in low cell quality. By miniaturizing the process on a chip and optimizing parameters, our technology aims to provide a better platform.




This master's thesis project will focus on optimizing the design and functionality of the microfluidic chip to improve its integration into clinical workflows. The project will involve:

- The iterative testing and refinement of chip architecture and transfection protocols
- Collaborate closely with bioengineers and clinicians from CHUV.

This project will provide a valuable experience in device engineering, cellular biology, and the regulatory landscape of medical device development. It not only offers a deep dive into cutting-edge biomedical engineering but also provides a platform for contributing to meaningful advancements in therapeutic technologies.

**Advisor:** Prof. Dr. Carlotta Guiducci

**Supervisor:** Dr. Miguel Solsona

**Duration:** 4 months minimum

**Prerequisites:** Students with a background in Micro-engineering, biomedical engineering, biochemistry or biology.

In case of interest, send your CV & your motivational letter to: Miguel.solsona@epfl.ch