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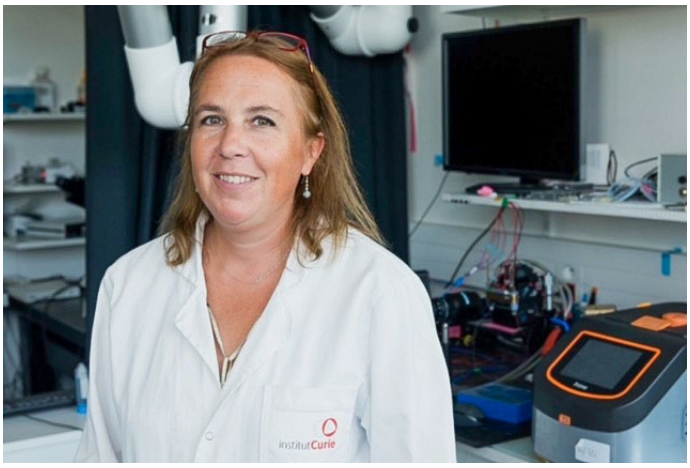

Stéphanie Descroix is team leader of the MMBM team at Institut Curie Paris and Institut Pierre Gilles De Gennes. Her team is worldly renowned for development of microfluidic device and concepts for fundamental biology, biophysics and clinic, with a strong commitment to technology transfer in the field of medicine and life sciences. The MMBM team is cofounder of the Institut Pierre Gilles De Gennes for Microfluidics.
Stéphanie Descroix is currently CNRS Research Director. She previously worked at ESPCI on miniaturized bioanalytical devices, in particular for allergy diagnosis. In 2011, she moved to Institut Curie to take benefit of this unique interdisciplinary and clinical environment. She is a specialist in microfluidic development for biomedical and biophysical applications, in particular in the field of Organ-on-Chip. She is deputy director of the French national network on Microfluidics (GDR MNF). She has authored over 90 scientific publications. She has been involved in several highly selective EU projects among them 3 FET OPEN projects. She has successfully co-launched in 2016 the microfluidics-based company *Inorevia* that was awarded as a laureate by different prestigious French and European institutions. She is currently deputy director of the Institut Pierre Gilles de Gennes.

Abstract

Developing gut on chip model for biology and biophysics

The development of a new generation of in vitro models is of interest in various fields, notably in basic life science research to decipher physiological and patho-physiological mechanisms. They could also represent an important asset for biophysical studies.
In this presentation, we will discuss how microfluidics and microfabrication can be used to develop new relevant in vitro models and how imaging is essential to characterize these devices. In particular, we will focus on a gut-on-a-chip model that integrates both the epithelial and stromal compartments to study in a 3D scaffold how the intestinal epithelium is affected by the presence and nature of fibroblasts.