



17 JUNE

11 AM
ROOM A102
POVO 1

MARC BICKLE

SWITZERLAND

The beautiful Organoid: High Content Screening in 3D

Biology is undergoing a revolution, driven by groundbreaking developments in stem cell biology (e.g., organoids), genome editing technologies like CRISPR, and the integration of microfluidic platforms such as Organ-on-a-Chip systems. These innovations have been amplified by the rise of powerful artificial intelligence tools and unprecedented access to high-performance computing, both in the cloud and on-premises. Together, they hold transformative potential for drug discovery, enabling the development of more physiologically relevant models for identifying and testing novel therapies.

However, despite their promise, these technologies are not without significant challenges. The cultivation and maintenance of complex, stem cell-based systems are both technically demanding and costly. They require specialized expertise, substantial resources, and long timelines- factors that limit scalability and broad adoption.

In this context, I will explore **key barriers to the industrialization of complex 3D cell culture systems** and propose **strategies for their automation**. By addressing these hurdles, we can move closer to realizing the full potential of complex biology in accelerating and enhancing the drug discovery process.

CIBIO EXTERNAL SEMINAR



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