

May
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2026

4:00PM CET
VIRTUAL

iPSZÜRICH

A Lecture Series Focused on Induced Pluripotent Stem Cells



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Duke | BIOMEDICAL
ENGINEERING

ENGINEERING HUMAN BLOOD VESSELS FOR MODELING AND THERAPEUTICS

The differentiation, morphogenesis, and homeostasis of blood vessels occur in a complex and dynamic environment. As a result, the microenvironment plays a crucial role in vascular development and regeneration, which can be disrupted by injury or disease.

Understanding how this microenvironment influences cellular decisions can help us create improved models that mimic both healthy and diseased blood vessels, as well as develop countermeasures to prevent deterioration and therapeutics to guide regeneration.

In this presentation, I will share our latest work on how microenvironmental cues and signaling pathways influence vascular differentiation, assembly, and function. We aim to leverage these insights to create microphysiological models of blood vessels, enhancing our understanding of their roles in tissue performance, aging, disease, and regeneration.

