

2022 年度 第2回 生命科学技術国際卓越講義



*World-leading Innovative Lectures
in Life Science & Technology
The University of Tokyo*



Simplifying complex cell-based models for mechanobiological studies and screening application

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Date: Monday, 6th, June, 2022

Time: 14:00PM ~ 15:20PM

Venue: Zoom (meeting URL will be sent after registering)

Participants: Up to 500 participants

Please register by this QR code or clicking the following link

[Registration Form](#)



Abstract:

As our ability to control cellular niche improves, researchers desire to build more complex models such as organoids with multi-cell types, or inter-tissue structures, assembloids, organs-on-chip, 3D-printed and decellulized models. The complexity and heterogeneity make these

models difficult to be used in application. We will discuss efforts and trends in developing simpler models that faithfully recapitulate key features of the *in vivo* process, are easier to be interrogated for better understanding of the tissue morphogenesis and disease progression, and provide robust assay for screening application. We shall see how to dissect a complex process to identify the key features of interest. We shall also discuss how dimension reduction is a useful engineering principle to alleviate and exploit the complexity and heterogeneity challenges in constructing cell-based models.

Organizer: World-leading Innovative Graduate Study Program for Life Science and Technology

Cooperation: Graduate Program for Leaders in Life Innovation, The University of Tokyo

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