



Multiscale Biofabrication for 'Engineering' Biology



Professor Shery Huang
Professor of Bioengineering
University of Cambridge

Date : 27 July 2026 (Monday)
Time : 2:30 pm
Venue : Room 405, William M W Mong Engineering Building, CUHK

Abstract

The impact of technology on the life science and biomedical field has been truly remarkable. Whilst these innovations have direct health and economic benefits in the near and intermediate terms, current life science discovery and medical research development could be resource and carbon intensive, which might not be sustainable in the long term. This presentation will illustrate my group's research work on three themes (i) organ-on-a-chip, organoid, tumoroid bioassembly; (ii) 3D printing of soft and biological materials; and (iii) fibre biofabrication for wearable sensors and bioelectronics. I will also discuss an outlook on how multiscale biofabrication can be harnessed to broaden the impacts of system 'engineering biology' - through creating more complex in vitro models, and to make sustainable e-textile or imperceptible bioelectronic interfaces for living systems.

Biography

Professor Shery Huang is Professor of Bioengineering at the University of Cambridge, where she leads the Biointerface research group. Her interdisciplinary research focuses on biofabrication, including 3D bioprinting, tissue engineering, and organ-on-a-chip systems for sustainable healthcare applications. She integrates advanced manufacturing, nanotechnology, and artificial intelligence to develop biomimetic systems for engineering biology. Professor Huang is a recipient of an ERC Starting Grant and the BioMedEng Innovation Award, and is a Fellow of the Institute of Materials, Minerals and Mining. She also serves as Associate Editor for ACS Applied Materials & Interfaces and Bio-Design and Manufacturing, and sits on the editorial board of Bioactive Materials.

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For enquiries, please contact Ms. Joyce Chan, Department of Biomedical Engineering at 3943 8278