



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY
Division of Life Science

Reconstitution of human liver development from pluripotent stem cell

by

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Abstract

Human-induced pluripotent stem cells (iPSC) have highly promising applications in regenerative medicine, drug discovery, and disease modeling, as well as in investigations of developmental biology. To recapitulate early organogenesis, we recently showed that specified hepatic cells self-organized into 3-D iPSC-derived liver buds (iPSC-LB) when co-cultivated on solidified Matrigel with multiple stromal cell populations. By transplanting in vitro grown organ bud, we have demonstrated the vascularized and functional liver tissues in an immunodeficient animal with therapeutic potential (Nature, 2013). Furthermore, we use single-cell RNA-seq to deconstruct heterogeneity during LB self-organization. In this talk, I will summarize the organ bud based approaches, and discuss their future potential applications.

Date : **22 February 2017 (Wednesday)**
Time : **3:00 - 4:30 p.m.**
Venue : **Classroom 5619 (Lift 31/32)**
**The Hong Kong University of Science
& Technology**
Clear Water Bay, Kowloon

(Host faculty: Dr. Angela Wu)

All are Welcome!!