



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

LIFS Seminar Series

**Spatiotemporal regulation of cancer,
stem and neuronal cells in the gut**

by

Dr. Xiling SHEN

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Abstract:

Tissue progression and disease development is a dynamic process that happens over space and time, but this perspective is often overlooked. The first part of the talk will describe in vivo models to recapitulate colon cancer metastasis and cancer interaction with immune cells. The models reveal how cancer cells undergo transformations during metastasis, and how new therapeutic strategies can be developed to target them. The second part of the talk will discuss how non-coding RNA can regulate normal stem cells to behave differently under stress (such as inflammatory) conditions, and how such mechanisms evolve in cancer stem cells. The last part of the talk will describe new technology we are developing to understand the enteric nervous system and its interaction with the microbiota.

Bio:

Dr. Shen received his BS, MS, and PhD degrees from Stanford University. He was an assistant professor at Cornell University from 2009 to 2015 and won the NSF career award before joining the Biomedical Engineering Department and Center for Genomics and Computational Biology at Duke University as an associate professor. The Shen lab uses systems biology to study spatiotemporal controls of multicellular systems in the gut, and how their subversion lead to diseases. Ongoing projects include colon cancer metastasis, normal and cancer stem cells, non-coding RNA, metabolic reprogramming, and the enteric nervous system.

Date : **31 March 2017 (Friday)**
Time : **4:00 p.m.**
Venue : **Lecture Theatre C**
The Hong Kong University of Science & Technology
Clear Water Bay, Kowloon

(Host faculty: Prof. Karl Herrup)

All are Welcome!!