



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

Interrogating Tumor Immunology by Genomics and Genome Engineering Tools

by

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Abstract:

Advances in genome sequencing and related technology have led to unprecedented pace at which we can identify genomic and epigenetic changes associated with human diseases. For this purpose, genome editing tools adapted from CRISPR-Cas system can be employed for modifying genomic sequences at massive scale. I discuss here how genome engineering technology based on the CRISPR system can be deployed as versatile discovery and therapeutics tool. I will focus on the power and precision of novel technology development and describing its potential ex vivo and in vivo applications. In addition, I will highlight the emerging trend on how genomics analysis could be integrated to transform our ability to understand and treat human diseases, particularly complex diseases such as cancer via tumor immunology approaches.

Short Bio:

Dr. Le Cong obtained B.S. with highest honor from Tsinghua University, and a Ph.D. from Harvard University. He worked in Dr. Zihe Rao's lab at Tsinghua, then completed doctoral work primarily in Dr. Feng Zhang's lab, where he published seminal study demonstrating the harnessing of CRISPR-Cas9 for genome editing, the most highly cited paper in the CRISPR field. He subsequently had multiple high-impact works further advancing CRISPR system for gene and cell therapy. As co-inventor on multiple CRISPR and therapeutics technology, he holds over 12 US and EU patents licensed to Editas Medicine, Monsanto/Bayer AG, etc. He is applying genomics and engineering approaches for studying cancer immunology in Dr. Aviv Regev's lab. Dr. Cong received multiple awards for his pioneering and translational work including Howard Hughes Medical Institute (HHMI) International Research Fellowship, Cancer Research Institute (CRI) Irvington Fellowship Award, and *Forbes* 30 Under 30 Asia in its 2017 class.

Date : **5 June 2017 (Monday)**
Time : **11:00 a.m. - 12:30 p.m.**
Venue : **Classroom 4502 (Lift 25/26)**
**The Hong Kong University of Science
& Technology**
Clear Water Bay, Kowloon

(Host faculty: Dr. Angela Wu)

All are Welcome!!