

City University of Hong Kong
Department of Biomedical Sciences
presents a seminar



“THE ROLE OF EPIGENETICS IN CANCER MUTAGENESIS”

by

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Date : 22 June 2016 (Wednesday)

Time: 10.00am to 11.30am

Venue: B5-310 (Blue Zone), 5/F (near Lift 3), Academic 1 Building, CityU

Abstract

Somatic mutations are the main trigger that initiates the formation of cancer. Even though mutations occur at random, they are not evenly distributed across the genome. Sequence composition, age and exposure to different mutagens can all influence regional mutation frequencies.

The work of my group is focused on exploring the causes of mutation rate heterogeneity. In 2011, we discovered that certain histone modifications are associated with elevated rates of mutations in a range of cancer types. More recently, our focus has shifted to the effect of cytosine modifications. We found that hydroxy-methylcytosine, a further modification of methylated cytosine, exhibits a markedly reduced mutation rate across a range of different tissue types. These observations point to an important effect of epigenetic marks in the accumulation of somatic mutations.

Contact

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All are welcome