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

Life Science Seminar Series

From DNA Damage to Chromatin Modifications and DNA Repair – Right Place, Right Time, Right Dose

by

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<u>Abstract</u>

Cells respond to DNA double-strand breaks (DSBs) by mounting a ubiquitin-driven signaling cascade that culminate in cell cycle arrest and DNA repair. Defective ubiquitin-signaling paralyses DNA damage responses (DDRs), and contributes to genome instability and a host of human diseases, including cancer and neurodevelopmental defects.

Our major research focus centers on the molecular makeup and the functional connectivity of the mammalian DDR protein network. In particular, we have been interested in the entities that drive the progressive maturation of the DSB landscape that, in turn, permits docking of DNA repair proteins. We have also more recently begun to explore how the ubiquitin landscape at DSBs is dynamically maintained and confined to prevent excessive loading of DNA-modifying activities onto otherwise intact chromosomal loci. How do cells coordinate DSB repair with nearby ongoing chromatin transactions? Is DNA repair all good? Do cells actively disarm ubiquitin signals to avoid cell commitment to apoptosis and senescence? These are outstanding questions that we are currently aiming to address.

Date	:	20 March 2015 (Friday)
Time	:	4:00 p.m. – 5:30 p.m.
Venue	:	Lee Wing Tat Lecture Theater LT-D
		The HK University of Science & Technology,
		Clear Water Bay, Kowloon
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(Host faculty: Dr. T. Ishibashi)

All are Welcome!!