

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



“A VIEW TO THE INTRACELLULAR JOURNEY OF DENGUE VIRUS”

By

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Time: 11am to 12.30pm

Venue: Room 2-130, 1/F, Block 2, To Yuen Building, City University of Hong Kong, Kowloon Tong

Abstract

Dengue virus is responsible for 50-100 million infections annually in over 100 endemic countries. Viral particles assemble and bud into the ER lumen, translocate to the Golgi to complete their maturation and are released by exocytosis. During infection there is a massive overproduction of cargo (newly assembled virions in the endoplasmic reticulum) that needs to be coupled to accelerated transportation. We had previously produced dengue recombinant subviral particles (RSPs) by expressing the two major structural glycoproteins, Envelope (E) and pre-Membrane (prM), and showed that RSPs can be used as proxies to mimic the secretion of dengue virus. Using RSPs, we have identified KDEL receptors, whose main function is to capture endoplasmic reticulum-resident chaperones in the acidic environment of the Golgi apparatus, by recognizing their C-terminal motif, as the first intracellular receptor required for viral egress.

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All are welcome