Presentation 1:

Translating New Gene Regulatory Mechanisms into Effective Cancer Immunotherapy

Prof Alfred CHENG Sze-lok
Professor and Chief (Cancer Biology and Experimental Therapeutics)
School of Biomedical Sciences
The Chinese University of Hong Kong

Summary:

Immune-checkpoint blockade (ICB) therapies have revolutionized cancer treatment. Hepatocellular carcinoma (HCC) is highly-prevalent in China and Southeast Asia. In Hong Kong, HCC is currently the fifth leading cancer type and the third largest cause of cancer deaths. Despite unprecedented success in recent clinical trials, no biomarker to predict response to immunotherapy exists in HCC. Since the majority of patients still do not respond to ICB therapies, our overall objective is to discover new combination strategies to maximize the clinical benefits of immunotherapy. With the generous support from HMRF and other funding agencies, we have elucidated new transcriptional and epigenetic mechanisms by which HCC cells avoid immune destruction. Unraveling the molecular and cellular crosstalk that establishes the immunosuppressive tumor microenvironment holds the key to the development of effective cancer immunotherapy, which will have major impact in both basic research and clinical services for this fatal malignancy.