DukeNUS Medical School

Signature Seminar Series

Cancer Immunotherapies: From Bed To Bench Then Back To Bed, A Necessary Journey

ABOUT THE LECTURE

Cancer immunotherapies have made groundbreaking progress and become a major pillar. Clinicians who face daily therapeutic challenges frequently provide important clues for scientists to follow and resolve clinically critical questions. In analyzing immune signatures of melanoma responses to treatment, we identified a role of complement in regulating intratumoral cytotoxic CD8+ T lymphocyte antitumor function that inhibits the production of IL-10, a cytokine critical for expanding CD8+ TILs. Lung cancer patients with exceptional outcomes have developed an autoantibody against complement factor H (CFH). Anti-CFH antibody showed potent antitumor activities in different animal tumor models due to its reprogramming the tumor microenvironment. Clinical trials of an anti-CFH antibody have shown encouraging clinical efficacies in refractory NSCLC. By teaming with neurosurgeons, we have developed novel technology platforms of mRNA cancer vaccines in treating glioblastoma. Our experience of learning from frontline clinicians on critical unmet needs, developing resolutions, and testing the solutions in the clinic again suggests that this is a necessary journey for effective medicine.



Speaker: **Prof You-Wen He, MD, PhD**
Professor of Integrative Immunobiology
Department of Integrative Immunobiology
Duke University School of Medicine

Host: **Prof David Virshup**
Director
Cancer & Stem Cell Biology Programme
Duke-NUS Medical School

Date: **Wednesday, 17 April 2024**

Time: **12.00 PM - 1.00 PM**

Venue: **Duke-NUS Medical School**
Amphitheatre, Level 2

Contact Person: **Ms Serene Wie (serene.wie@duke-nus.edu.sg)**
Duke-NUS Research Affairs Department

ABOUT THE SPEAKER

Dr. He obtained M.D. in 1986 and Ph.D. in Immunology in 1996. He completed postdoctoral training at HHMI/University of Washington and subsequently held positions as Assistant, Associate, and Full Professor at Duke University since 2000. Dr. He's research has centered on T cell biology in health and diseases and innate immune recognition. His current focus lies in developing innovative strategies for cancer therapy, including mRNA cancer vaccines and autoantibodies isolated from cancer patients.

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