

“Highlights of Findings from Nasopharyngeal Carcinoma (NPC) Studies in Taiwan and China”

Dr Allan Hildesheim
National Cancer Institute, USA

Date : 07 May 2019

Time : 14:30 - 16:00

Venue : Chu Wong Yim Fong Classroom (P4704), 4/F, Yeung Kin Man Academic Building

Abstract

Nasopharyngeal carcinoma (NPC) is a cancer with heterogeneous incidence across the globe, being rare in most of the Western world but common in regions of Southeast Asia. Epstein-Barr virus (EBV) infection is the acknowledged primary cause of NPC, but only a small subset of individuals infected with EBV develop NPC in their lifetime. Individuals who develop NPC have been shown to have altered antibody responses to EBV characterized by elevated levels of IgA antibodies to EBV proteins. Among EBV infected individuals, the strongest known co-factor associated with NPC is a family history of the disease and studies have consistently shown that human leukocyte antigen (HLA) genes are robustly associated with NPC development. Our understanding of the central role of EBV in causing NPC provides unique opportunities for prevention (through vaccination) and control (through screening) of this disease in high risk regions of the world. In addition, the fact that family history is an important co-factor and that HLA genes are associated with NPC suggest that further characterization of genetic factors linked to NPC could lead to the discovery of important cancer mechanisms mediated through their modulation/control of EBV infection. Our group has been collaborating with research teams in Taiwan and Mainland China for over 25 years to better understand the etiology of NPC and to translate new etiologic leads into practical public health prevention and control measures. In this lecture, we will summarize recent findings from our efforts in Taiwan and Mainland China, focusing on findings that inform the utility of EBV screening for the early detection of NPC, the potential for EBV vaccination to prevent NPC, and the role of genes involved in the response to and modulation of EBV infection in NPC pathogenesis.

About the Speaker

Dr. Hildesheim was Chief of the Infections and Immunoepidemiology Branch, Division of Cancer Epidemiology and Genetics, NCI, from 2008-2017. He received his Ph.D. in epidemiology from The Johns Hopkins School of Hygiene and Public Health in 1991 and has been at the NCI since 1987. Dr. Hildesheim's research focuses on understanding host and viral factors involved in the pathogenesis of DNA virus-related tumors. He investigates two groups of tumors—female gynecological cancers linked to HPV and nasopharyngeal cancer (NPC) linked to Epstein-Barr virus (EBV). Both viral and non-viral factors hypothesized to be involved in the pathogenesis of HPV- and EBV-related cancers are examined, since infection alone is rarely sufficient for the development of cancer. Dr. Hildesheim is also the co-lead on studies to evaluate the long-term impact of HPV vaccination and the immunological mechanisms involved in long-term vaccine efficacy.

Enquiries:

Dr Zongli Zheng (3442-2199, zongli.zheng@cityu.edu.hk)

Ms Natalie Wong (3442-4902, natalie.w@cityu.edu.hk)

All are welcome!