

New study to improve early diagnosis and survival rate for nose cancer

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Nose cancer is the second most common cancer in adult males in Singapore between the age 40 and 49 years

A team of researchers led by A*STAR's Genome Institute of Singapore (GIS), along with the National University Cancer Institute, Singapore (NCIS) and National Cancer Centre Singapore (NCCS), was awarded the prestigious Open Fund-Large Collaborative Grant (OF-LCG), which is supported by the National Research Foundation, Singapore (NRF) and administered by the Singapore Ministry of Health's National Medical Research Council (NMRC), to establish an integrated research programme to improve the early diagnosis and survival rate of patients with nasopharyngeal cancer (NPC).

Commonly referred to as nose cancer, NPC occurs in the upper part of the throat, behind the nose. It is the second most common cancer in adult males in Singapore between the ages of 40 to 49 years. It affects people of Chinese ancestry, particularly from Southern China, as well as the Malay and indigenous Southeast Asian populations.

NPC is consistently associated with Epstein-Barr virus (EBV) infection, but it is still unclear why only some individuals, particularly the Southern Chinese, develop NPC, while over 90% of world population are infected by EBV. An early study¹ by the team revealed that specific EBV high-risk strains are driving NPC development in populations from Southern China. However, it is unknown if this is also occurring in other NPC-endemic regions, such as Southeast Asia.

This new research programme aims to develop EBV-centric strategies to enable effective population screening for early diagnosis of NPC and advance personalised treatment.

*Image caption- L-R- Associate Prof Melvin L. K. Chua, Head and Senior Consultant, Department of Head and Neck and Thoracic, Division of Radiation Oncology at NCCS; Prof Liu Jian Jun, Distinguished Institute Fellow at A*STAR's GIS, and leading Principal Investigator of this research programme; and Associate Prof Thomas Loh Kwok Seng, Senior Consultant, Department of Otolaryngology – Head & Neck Surgery, National University Hospital (NUH) and Division of Surgical Oncology, NCIS*