“Omics” Strategies To Provide The Interface Between Clinical Cancer Care And Oncology Research For Human Hepatocellular Carcinoma

Professor HUI Kam Man

Laboratory of Cancer Genomics, Division of Cellular and Molecular Research, Humphrey Oei Institute of Cancer Research, NCC.
Cancer & Stem Cell Biology Program, Duke-NUS GMS.
Department of Biochemistry, YLL SoM, NUS.
Institute of Molecular and Cell Biology, A*STAR.

Abstract

Hepatocellular carcinoma (HCC) is the commonest primary cancer of the liver and is the third most frequent cause of cancer-related deaths in the world, with more than 660,000 deaths per annum. The translational research program on HCC in our laboratory seeks to determine how best to translate molecular data into clinically relevant applications to improve the diagnosis, outcome and management of patients with HCC. HCC was selected, in large part on the basis of its contribution to the public health burden, especially in the Asia-Pacific region in general, and Singapore in particular, where it ranks the fifth most common cancer and the third most common cause of cancer mortality. Surgery currently offers the only possibility of prolonged survival for HCC patients; however, here in Singapore and mostly elsewhere, almost 80% of those patients are inoperable at diagnosis and face a dismal prognosis with no proven survival-prolonging treatment modality available. The principal objectives of our program is to take observed clinical queries associated with HCC from the patient’s bedside to the laboratory and back again to create a virtuous loop aiming to convert fundamental knowledge and technological know-how into powerful tools to diagnose, treat and prevent HCC. Some of the research projects in our program will be presented.

Selected Publications


