CSCB Seminar Series

Title:

Liver cancer – Genetics, cell signalling, cancer stem cells and their translational implications

Abstract:

We investigated the mutational landscape of mTOR signaling cascade in hepatocellular carcinoma (HCC). W detected frequent mutations of TSC1/2 genes in HCCs, which likely disrupt the functions in suppressing the downstream mTOR activity and lead to aggressive tumor behavior. There are therapeutic benefits of the hyper-sensitivity towards Rapamycin. TSC1/2 mutations may define a molecular subset of HCC with potential significance of specific drug therapy. In addition, cancer stem cells (CSCs) are capable of self-renewal, maintaining tumor propagation, metastasis and chemo-resistance. In HCC, we have identified CD24 and CD47, among others, as novel liver CSC markers. HCC cells positive for these markers are more chemoresistant than marker-negative cells. They are functional markers that drive hepatocarcinogenesis through specific signaling pathways. Our work using antibodies targeting these markers has shown promising data in animal models. Furthermore, tumor microenvironment plays an important role in regulating cancer cells. The potential interaction of liver CSCs and tumor microenvironment as exemplified by cancer-associated fibroblasts will be presented.

Date:

26 October 2017, Thursday

Time:

4.30pm – 5.30pm

Venue:

Amphitheatre, Level 2
Duke-NUS Medical School
8 College Road, S169857
(Opposite Singapore General Hospital, Block 6/7)

Host:

Professor Pierce CHOW, MBBS, FRCSEd, MMed (Surg), PhD, FAMS
Senior Consultant
Division of Surgical Oncology
National Cancer Centre Singapore

Speaker:



Professor Irene Oi-Lin NG
Loke Yew Professor in Pathology,
Chair Professor and Head, Department of Pathology,
Director of State Key Laboratory for Liver Research, The University of Hong Kong

Biography:

Professor Irene Ng is Chair Professor, Loke Yew Professor, and Head in Department of Pathology at The University of Hong Kong. She is also Chief of Service of Pathology at Queen Mary Hospital.

Prof. Ng's research work focuses on the molecular mechanism of liver cancer. She has published more than 380 journal articles. She has received awards including The World Academy of Science (Medical Science) 2014, Croucher Senior Medical Fellowship (2013 and 2005), and HKU Outstanding Researcher Award.

No registration is required. All are welcome
Any enquiry, please contact: Amanda Chan (Tel: 6601 5700)