

Characterization of Cancer Stem Cells in Hepatocellular Carcinoma

By

Prof Xin-Yuan Guan

Department of Clinical Oncology Director
Centre for Cancer Research
The University of Hong Kong

Date: 10 September 2015 (Thursday)

Time: 2:00 pm- 3:30 pm

**Venue: Leung Ko Yuk Tak Lecture Theatre (LT14)
4/F, Academic 1,
City University of Hong Kong
Tat Chee Avenue, Kowloon Tong**

For abstract, please refer to the attachment.

Contact: Ms Irene Wong (3442-4707, irene.wong@cityu.edu.hk)

~ All are Welcome ~

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Abstract

The discovery of the role of cancer stem cells (CSCs) in cancer has profoundly altered the landscape of cancer research and changed the way researchers and clinicians view the disease. A better understanding of the characteristics of CSCs will aid in the improvement of more effective cancer therapies against this disease. We, for the first time in the world, identified CD133 as a marker for liver CSCs in HCC. Compared to CD133⁻ cells, CD133⁺ liver CSCs can enhance the ability to initiate tumor and confer chemo-resistance. Further study finds that miR-130b regulates the growth and self-renewal of CD133⁺ liver CSCs via the direct targeting of TP53INP1. We also find that CD133⁺ CSCs can promote tumor angiogenesis, growth, and self-renewal through activating interleukin-8/CXCL1 signaling. In addition, we find down-regulation of ATOH8 is able to reprogram a non-CSC cell into a CSC in HCC.