

CANCER SCIENCE INSTITUTE OF SINGAPORE

SEMINAR ANNOUNCEMENT

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New Approaches to Target and Monitor Breast Cancer Progression and Therapeutic Resistance

Date: Friday, 2 September 2016

Time: 2pm – 3pm

Venue: LT35, Level 1 Auditorium, CeTM (14 Medical Drive, Singapore 117599)

Abstract:

Clinical management of aggressive breast cancer remains a challenge due to high risk of tumor recurrence and distant metastasis. Although chemotherapy may be effective initially, a subset of patients often progress aggressively due to acquired chemoresistance, resulting in metastatic relapse. Despite being a major cause of mortality, treatment options for advanced disease remains limited, necessitating identification of new therapeutic strategies that target metastatic recurrence and chemoresistance. Our research has been focused on the fundamental biology questions related to the above clinical problems and wish to identify new treatment strategies that may lead to improved patient survival. Towards this goal, we have identified a number of potential actionable targets which can be exploited to target breast cancer metastasis and drug resistance. In addition, we are also interested in developing diagnostic test which can be used to predict and monitor the disease progression. To this end, we have identified a genetic marker associated with tumor initiating cells and translated this finding into a liquid biopsy test. Through intensive collaborations with both local and overseas clinicians, we are able to show that the blood-based cell-free DNA test we have developed is robust in identifying breast cancer patients at high risk for recurrence and also has the potential for post-treatment surveillance. In this presentation, I will highlight our work in both discovery and translational and discuss our plan for further clinical validation and applications.

Biography:

Dr. Qiang Yu is currently a Senior Group Leader of Cancer Therapeutics and Stratified Oncology Program at the Genome Institute of Singapore (GIS). He also has adjunct professorship appointments at Yong Loo Lin School of Medicine of National University of Singapore and DUKE-NUS Medical School. He obtained his medical training in China and got his Ph.D from Queen's University in Canada. After his postdoctoral training at National Cancer Institute of NIH, he joined GIS in 2002 as a Principal Investigator till now. His lab has been studying genetic and epigenetic mechanisms that allow cancer cells to escape apoptotic cell death in response to treatments. In recent years, his lab is more focused on translational cancer research with the aim at developing new therapeutic strategies as well as diagnostic solutions. His lab is located at the Genome Institute of Singapore, where he uses integrative approaches including genomics and large scale functional analysis to conduct both basic and translational research.