CSCB Seminar Series

Title:

"Nanometer chemical engineering for biophysical analysis of human telomerase holoenzyme."

Abstract:

Human telomerase holoenzyme functions to maintain the telomere length equilibrium in proliferating cells. Its upregulated activity is a hallmark of ~90% human cancers, and its inhibitors have been pursued as an anti-cancer therapy. Despite past intensive studies, the fundamental biophysical and biochemical properties of the human telomerase holoenzyme remain poorly understood, largely due to the technical difficulties in quantitative analysis of telomerase activity, splicing variations, conformational and compositional heterogeneity, and very low abundance of the enzymes in cells. We developed new technologies for quantitative analysis of the catalytic properties of the enzyme and for keeping the telomerase holoenzyme in the right conformational state for cryoEM studies. I will describe our recent progress in these directions.

Date:

20th November 2017 (Monday)

Time:

10:00 AM to 11:00 AM

Venue:

Room 2C, Level 2
Duke-NUS Medical School
8 College Road, S169857

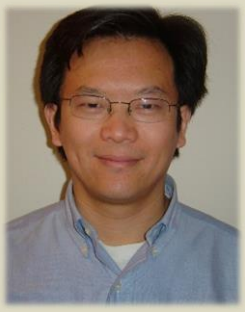
(Opposite Singapore General Hospital, Block 6/7)

Host:

Shang LI, MD, PhD
Associate Professor
Programme in Cancer & Stem Cell Biology
Duke-NUS Medical School

"No registration is required."
Any enquiry, please contact Lilian Poon (Tel: 6601 3779)

Speaker:



Qiu-Xing JIANG, Ph.D.
Associate Professor
Electron Microscopy Faculty Director
Interdisciplinary Center for Biotechnology Research (ICBR)
Department Microbiology & Cell Science
IFAS
University of Florida, USA

Biography:

Dr. Jiang obtained his PhD in Cellular and Molecular Physiology from Yale University and did his postdoctoral training at the Rockefeller University before he started his own lab at UT Southwestern Medical Center in 2007. He moved his lab to University of Florida in 2015. His lab of molecular biophysics and cellular physiology focuses on elucidating the structural basis for macromolecular complexes using different biophysical, biochemical and cell-based methods.