

# ENHANCER PROFILING OF GLIOBLASTOMA UNCOVERS CORE ONCOGENIC DEPENDENCY AND THERAPEUTIC OPPORTUNITY

Glioblastoma (GBM) is the most aggressive and therapy-refractory brain tumor in adults. Although both tumor-intrinsic and subtype-specific transcription has been appreciated, little is known about enhancer architectures and regulatory programs governing the GBM identity. Here, by mapping deposition of active histone marks, we describe the active regulatory landscapes across GBM and normal brain tissues. Analysis of differentially regulated enhancer loci (especially super-enhancers) uncovered unrecognized layers of oncogenic dependency and inter-tumor heterogeneity. Moreover, we demonstrate the functional relevance of leading candidates of super-enhancer-driven transcriptional modulators, long non-coding RNAs, and druggable targets in GBM. Our integrative study provides clinically relevant insights into GBM pathogenesis and therapeutic innovations.

## *ABOUT THE SPEAKER*

Dr XU Liang obtained his Bachelor's Degree (2011) from Zhejiang University (China) and doctoral degree (2015) from Cancer Science Institute of Singapore (CSI), National University of Singapore. He is currently mentored by Prof. H. Phillip Koeffler at CSI. So far, he has published more than 15 research papers (H-index: 11) in peer-reviewed journals, including Nature Genetics, PNAS, Nucleic Acids Research, and Cancer Research. His research interests include genomic abnormalities in human cancers, and epigenetic mechanisms of oncogenic transcriptional addiction.

Monday

12 November 2018

3.00 pm – 4.00 pm

Seminar Room, MD10

Level 2, Anatomy Museum

## DR XU LIANG

Research Fellow

Cancer Science Institute (CSI)

NUS Medicine, Singapore

