DukeNUS Medical School

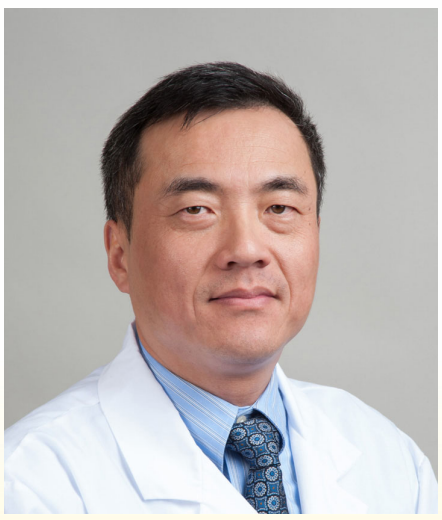
Signature Seminar Series (Virtual)

Molecules, Pathways and Systems - From Mechanism to Therapy for Cardiac and Metabolic Diseases

ABOUT THE LECTURE

The pathogenesis of heart failure and metabolic disorder is highly heterogenous and complex, involving many genetic and environmental factors. These complexities post real challenge for us to establish disease mechanisms and to develop more effective and personalized therapies. In the past decade, we have developed a novel approach by integrating comprehensive phenotype and omics studies with systems analysis across a hybrid mouse diversity panel (HMDP) under well-defined pathological stressors. These studies leverage the power of genetics with unbiased omics based analysis to uncover novel genes and gene modules associated with specific clinical features of cardiometabolic diseases. In particular, we discovered several novel mechanisms contributing to the onset of cardiometabolic diseases, including RNA processing, long non-coding RNA mediated epigenetic modulation and branched-chain amino acid catabolism in the onset and progression of heart failure, diabetes and obesity. These findings highlight the power of genetics combined with systems approach in studying complex human diseases.

Speaker: **Prof Wang Yibin, PH.D.**
Vice Chairman, Molecular, Cellular and Integrated Physiology
Department of Anesthesiology, Physiology and Medicine
UCLA Health



Host: **Prof Jonathan Crowston**
Neuroscience and Behavioural Disorders Programme
Duke-NUS Medical School

Date: **Tuesday, 15 September 2020**

Time: **2.00 PM - 3.00 PM**

Contact Person: **Ms Kathleen Chan (kathleen.chan@duke-nus.edu.sg)**
Duke-NUS Research Affairs Department

ABOUT THE SPEAKER

Dr. Wang received his Ph.D. in molecular genetics and cell biology from Baylor College of Medicine and post-doctoral training in neurobiology and molecular cardiology at The Scripps Research Institute and University of California at San Diego. Dr. Wang received an Established Investigator Award from American Heart Association and was the recipient of Thomas Smith Memorial Lecture award at 2016 American Heart Association Scientific Session.

Please click here for registration