Department of Biomedical Sciences
presents a departmental seminar

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"Assessing the genetics of metabolic diseases: from disease genes identification to disease risk prediction"

Date : **24 March 2017**
Time: **3:30pm to 4:30pm**
Venue: **2-130, 1/F, Block 2, To Yuen Building, City University of Hong Kong**

Dr Katie Chan
The Chinese University of Hong Kong
Brown University

Abstract

Different analytical approaches have been utilized to dissect the complex genetic architecture of metabolic diseases such as diabetes, cardiovascular diseases (CVD), and cancer. Increasing integration of cutting edge genomic science into population-based epidemiologic investigation has been not only accelerating and ameliorating the understanding of the genetic susceptibility of these complex traits, but also utilizing the identified genes for disease intervention and risk prediction. This presentation will include: 1) the investigation of biological pathways and gene networks shared between diabetes and CVD using integrative genomics approach; 2) the identification of genetic variation in magnesium-related ion channels affecting diabetes risk; 3) examples showing some applications of disease genes identification. The work illustrated in this presentation represents a tip of effort toward the ultimate improvement of the prediction, diagnosis, treatment and prevention of metabolic diseases in human populations.

About the speaker

Kei Hang Katie Chan obtained her Bachelor of Information Engineering degree from the University of Hong Kong. She then received her Master of Public Health in Epidemiology and Biostatistics from the University of Southern California. With the Burroughs Wellcome Fund Inter-school Training Program in Metabolic Diseases Fellowship, she attained he Doctor of Philosophy in Epidemiology from the University of California, Los Angeles (UCLA). After several years of postdoctoral training at UCLA and Brown University, she returned to her home town, Hong Kong and joins the Hong Kong Institute of Diabetes and Obesity in the Chinese University Hong Kong (CUHK) as a Research Assistant Professor in 2016. She is also an Adjunct Assistant Professor at the Center for Global Cardiometabolic Health in the Department of Epidemiology in Brown University. In 2017, she is invited to be engaged as Assistant Professor (by courtesy) in the Department of Medicine and Therapeutics in CUHK. Katie's research interest is in Genetic and Molecular Epidemiology, Systems Biology, Computational Biology and Bioinformatics. Her research focuses on investigating the complex network of multifaceted diseases with major global burden by integrating genetic variants, biomarkers and environmental data collected in diverse populations, which may deliver a novel preventive approach, diagnoses, and treatment.

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All are welcome !