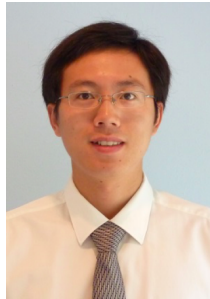




Channing Network Science Seminar

September 28 (Friday), 2018, 11am @ 5th-floor conference room



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Department of Medicine
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Integrative omics study of atrial fibrillation: the Framingham Heart Study

Abstract: Atrial fibrillation (AF) is the most common arrhythmia affecting more than 30 million people worldwide. AF is heritable, and approximately one in four AF patients has a first-degree affected relative. We are leveraging the rich data collection from the Framingham Heart Study to study AF, which a community-based observational cohort initiated in 1948. Three generations of participants have been enrolled and followed up regularly. We have performed a variety of molecular profiling on samples from these participants, including genome-wide genotyping, whole genome sequencing, gene expression and DNA methylation. In this talk, I will discuss our work to relate different omics data with AF and identify multiple AF-related molecular signatures. Our study may enable a better understanding of AF pathogenesis and potentially inform future development of therapies for AF.

Bio: Dr. Honghuang Lin is an Assistant Professor of Medicine at Boston University School of Medicine. He received BS in Mathematics from Peking University, PhD in Bioinformatics from National University of Singapore, and had his postdoctoral training in cancer immunoinformatics at Dana-Farber Cancer Institute. Dr. Lin's research is focused on the development of computational methods to study cardiovascular disease and Alzheimer's disease using multi-omics data. He is also building machine learning models for the early diagnosis of diseases using a large collection of blood biomarkers, images, and electronic health records. The long-term goal is to develop new strategies for the disease prevention, risk stratification, and intervention.

Hosted by Yang-Yu Liu