中央研究院統計科學研究所
學　術　演　講

講　題：Exploring the disease association using the microRNA biomarker distance distribution

演講人：Prof. Hsiuying Wang（王秀瑛 教授）

Institute of Statistics, National Yang Ming Chiao Tung University

（國立陽明交通大學統計學研究所）

時　間：2021年11月15日（星期一）上午10:30-12:00

地　點：中央研究院統計科學研究所 B1F 演講廳

※茶 會：上午10：10開始

※實體與線上視訊同步進行

Abstract

microRNAs (miRNAs) are small single-stranded non-coding RNAs of approximately 22 nucleotides that play an important role in cell differentiation, development, regulation of cell cycle, and apoptosis. miRNAs target many disease-related genes so that they can be used as biomarkers for many diseases. The relationships between different diseases were investigated and discussed based on their miRNA biomarkers in literature as well as the relationships between vaccines and diseases. So far, there are around 2000 miRNAs that have been discovered in humans.

In this study, we calculate the pairwise distances of these human miRNAs and then fit statistical models for these distances. Then we use these distance distributions to discuss the disease associations in some examples.

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