

CARNEGIE MELLON UNIVERSITY BME 2021 FALL SEMINAR SERIES

Understanding Lung Diseases in the Era of Multi-omics



PRESENTED BY

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SCHEDULE

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(10:15AM-11:15AM)

Recent omics studies use high-throughput technologies such as transcriptomics, epigenetics, single cell sequencing, and spatial transcriptomics to provide an unbiased and whole-genome survey of biological systems. Pulmonary medicine benefits from these technologies for understanding the pathogenesis of lung diseases such as asthma, acute respiratory distress syndrome, and lung infection. However, there are many technical and computational challenges in the analysis of single-omics data or joint analysis of multi-omics data. In this talk, I will discuss several examples how bioinformatic and computational tools together with cutting-edge multi-omics data can advance our understanding of genomic basis of lung diseases, facilitate disease diagnosis, and generate new biological hypothesis towards personalized medicine in lung diseases.

