BRIGHAM AND WOMEN'S HOSPITAL
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Department of Medicine
Channing Division of Network Medicine

Channing Microbiome Seminar

November 10 (Friday), 2023, 8:30AM (ET)

Zoom: https://us02web.zoom.us/j/81070959105?pwd=RFJNd3dSZmR6dXJZNjJiYVVzQ3NEQT09
Meeting ID: 810 7095 9105
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The Respiratory Microbiome in COPD

Once thought to be sterile, the human lung is now well recognized to harbor a consortium of microorganisms collectively known as the lung microbiome or airway microbiome. The airway microbiome is implicated in an array of lung diseases including chronic obstructive pulmonary disease (COPD). Our work has 1) demonstrated the potential of the airway microbiome in distinguishing key COPD clinical phenotypes; 2) elucidated the relationship between microbiome and COPD inflammatory endotypes and uncovered a new disease subtype with neutrophilic inflammation and balanced microbial composition, 3) delineated the 'airway microbiome-metabolite-host' interaction landscape and uncovered molecular mechanisms of microbiome-host interaction in COPD, 4) characterized the interaction between environmental exposure and airway microbiome and its potential role in early-stage COPD. In this presentation, we will introduce what we have done and plan to do in the airway microbiome in COPD.

Bio: Zhang Wang is Professor in School of Life Sciences, South China Normal University, Guangzhou, China. Zhang obtained his doctoral degree in University of Virginia, USA and worked as a post-doctoral fellow and an investigator in GlaxoSmithKline, Pennsylvania, USA, before joining South China Normal University as a faculty member. His lab is interested in the airway microbiome and its roles in chronic respiratory diseases. Much of his recent work involves the utilization of the multi-omic approaches to understand how the airway microbes interact with host in chronic obstructive pulmonary disease. He has more than 50 publications in Nature Medicine, Cell Host & Microbe, Nature Microbiology, American Journal of Respiratory and Critical Care Medicine, European Respiratory Journal, Thorax, The ISME Journal and so on, with an H-index of 25. He obtained funds from the National Key R&D program of China, National Natural Science Foundation of China and so on. He serves as an editorial board member in Medicine in Microecology, iMeta, and Frontiers in Microbiology.

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