BRIGHAM AND WOMEN'S HOSPITAL

HARVARD MEDICAL SCHOOL

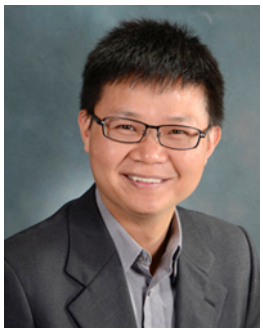
CDNM Tuesday Omics Meeting

12:30-1:30, September 21st, 2021

https://harvard.zoom.us/j/96103887061?pwd=SzhRRHpLdkhuZXV3MjZaaDh2dEh6QT09

Molecular Characterization of COVID-19 Lung

Presenter



Jianwen Que, MD, PhD.

Professor of Medicine

Center for Human Development

Columbia University

Dr. Que will discuss his recent work on single cell analysis of COVID-19 lungs. (https://www.nature.com/articles/s41586-021-03569-1.pdf). Dr. Que and his collaborators used single-nucleus RNA sequencing analysis to characterize COVID-19 lungs and showed aberrant activation of macrophage and compromised T cell response. Further inference of protein activity and ligand–receptor interactions identified putative drug targets to disrupt deleterious circuits. The cellular atlas may inform our understanding of long-term complications of COVID-19 survivors, and provide an important resource for therapeutic development.

Dr. Que obtained his MD in Psychiatry from Peking University Health Science Center and PhD in Cell Biology from the National University of Singapore. He had his postdoctoral training at Duke University with Dr. Brigid Hogan before starting an independent scientific career at the University of Rochester. In 2015, he was recruited to Columbia University. Research in the Que Laboratory is focused on the development and regeneration of the foregut-derived organs including the esophagus, trachea and lung. He employs mouse genetics, human iPS cells and patient organoids to model diseases in these foregut organs, meanwhile finding novel drugs to treat diseases including pulmonary fibrosis and esophageal cancer. Dr. Que recently made a foray into the COVID-19 pandemic and contributed to the understanding of the mechanisms leading to lung inflammation and regeneration following SARS-CoV2 viral infection. In last few years, Dr. Que's group has made multiple breakthrough findings published in Nature, Cell Stem Cell and Dev Cell.

Hosted by: Xiaobo Zhou (Xiaobo.zhou@channing.harvard.edu)