

Seminars in Precision Medicine

Sponsored by the [Center for Precision Medicine and Genomics](#), the [Precision Medicine Resource of the Irving Institute for Clinical and Translational Research](#), and the [Columbia Precision Medicine Initiative](#)

“Leveraging Preclinical SFTPC Models To Advance Precision Medicine For Pulmonary Fibrosis: Uncovering Emerging Cell Populations and Endophenotypes In The Fibrotic Niche”



Dr. Michael F. Beers, MD

***Robert L. Mayock and David A. Cooper Professor
in Pulmonary Medicine, Perelman School of
Medicine***

Idiopathic Pulmonary fibrosis (IPF) is a devastating interstitial lung disease of older adults characterized by disruption of distal lung architecture that ultimately leads to scar formation, abnormal gas exchange, and respiratory failure. The identification of rare IPF-associated genetic variants coupled with new preclinical models and single cell transcriptomics has provided valuable insight into cells and pathways that participate in fibrotic lung remodeling as part of a shifting paradigm whereby IPF can be viewed as a polycellular disease in which dysfunctional AT2 cells serve as a proximal driver of the fibrotic cascade. When combined with the recent identification of a population of “reprogrammed” AT2 cells deficient in classic AT2 transcriptional programs and enriched in profibrotic mediators as well as the recognition of multiple aberrant mesenchymal populations in human IPF lungs, new opportunities are emerging for precision medicine approaches to therapeutic discovery for IPF. In this seminar we will leverage recently generated preclinical models expressing IPF-associated SP-C gene (SFTPC) variants to explore the biology of the fibrotic niche of the distal lung. The data will be translated and discussed in terms of underrepresented pathways of IPF pathogenesis and the added equipoise for using an array of experimental platforms to catalyze discovery and testing of new IPF therapies.

Date: Thursday, February 29, 2024

Time: 4:00 – 5:00 p.m.

Location (Hybrid): Presbyterian Hospital, 622 W 168th St, PH10-405A/B

[Register Here](#)

Contact Information: Anna Abreu

Aa5133@cumc.columbia.edu