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Dear Action for Pulmonary Fibrosis,

Re: APF American Thoracic Society Attendance Awards 2020

I would like to extend my sincerest gratitude to the fundraisers of Action for Pulmonary Fibrosis for generously funding my attendance at the American Thoracic Society 2020 Virtual Conference. Like so many others, this was my first online conference experience, and it was hugely valuable and enjoyable. I have always found the ATS conference an incredibly inspiring event as it brings together the very best in pulmonary fibrosis research from internationally renowned leaders in the field, and this year was no exception.

I am a specialist registrar in respiratory medicine and am currently taking time away from my clinical role to complete a PhD. My research focuses on the role of cells lining our airways (epithelial cells) and the lung environment in idiopathic pulmonary fibrosis (IPF). The ATS 2020 conference was pertinent for me as I was fortunate to have some of my own research findings showcased as an abstract. For this research, I used cutting-edge technologies to study gene expression changes in cells in the airways of IPF patients and healthy volunteers, to help better understand the mechanisms driving the disease.

During the conference, I attended a variety of scientific symposia and viewed a range of captivating talks that were directly relevant to my research. In the session entitled '*ATS mythbusters: Novel single cell profiling technologies will have a significant impact on the understanding and management of pulmonary fibrosis*', there were some fascinating talks discussing new discoveries made through use of new genomic approaches which provide information about the gene expression of individual cells in the lung. Naftali Kaminski, a pioneer in the field from Yale School of Medicine, demonstrated how his research group had used this technology to study large numbers of cells from the lungs of patients with IPF, chronic obstructive pulmonary disease (COPD) and controls to generate an 'IPF cell atlas'. This led to the discovery of a new cell type unique to the IPF lung called 'aberrant basaloid cells' which may play an important role in mechanisms underlying the disease. Following the other interesting talks in this session, there was a thought-provoking debate between leading researchers on the extent to which studying cells in the lung with these new technologies have advanced our understanding of IPF and how this would translate into improved treatments for patients. The debate was elevated by the valuable viewpoint of Sharon Rajnic, a patient with IPF from Warrington, PA. As always, the talk on the patient's perspective was crucially important in providing context to the scientific findings and important insight into the patient experience of IPF.

Another highlight was the session, "*The Matrix Revealed: Understanding Extracellular Matrix Influences on lung Diseases".* In this session, Daniel Tschumperlin from the Mayo Clinic described how changes to the stiffness of the lung scaffolding (extracellular matrix) in IPF, can actually activate fibroblasts, a key cell type orchestrating pulmonary fibrosis.

Overall, the ATS international conference has broadened my knowledge and understanding by discussing new concepts and research techniques that I hope to use to advance my own research in IPF. It has been particularly motivational at a time when I am evaluating and writing up my own research findings for my PhD thesis, and focusing on the next steps in my career as a physician-scientist.

I am once again incredibly grateful for the support of AFP in attending this invaluable conference.

Dr Richard J Hewitt