

Research Award:

Can we treat Idiopathic pulmonary fibrosis (IPF) patients by promoting autophagy (“self-eating”)?

Awarded to: Yihau Wang **Amount:** £10,000

Lay summary

IPF is a life threatening condition of the lungs where tissue becomes thickened, stiff, and scarred due to an unknown cause, which limits the amount of oxygen that gets into the blood. With less oxygen in the blood, IPF patients can get breathlessness from everyday activities like walking. Latest research suggests about 6,000 people are diagnosed with IPF every year in the UK. At the moment, there is no cure available for the disease and a better understanding of how it develops is therefore urgently needed to help us find more effective, long-lasting treatments.

In this project, we will look at a body mechanism called ‘autophagy’ (from the Greek for ‘self-eating’) and its potential link to the development of IPF: a healthy cell performs an ongoing clean-up process to keep functioning normally, by digesting built-up internal structures. In patients suffering from IPF, previously healthy cells become damaged through scar tissue, and we believe that this could be due to the healthy cells losing their ability to ‘self-eat’. In our research, we will test this theory by developing a 3-dimensional cellular model of IPF to get a better understanding how the disease develops.

The results of the project will help us inform further research and new treatments for sufferers to reduce symptoms of this devastating disease and improve their quality of life.
