Epithelial precursor cells

Mesenchymal precursor cells

Epithelial cell senescence

Pneumocyte Apoptosis and activation

Notch1

EMT

BMP

Caveolin-1

TA-p63 c-Myc

p53-p21

Wnt

TGFβ

c-MYC

Cyclin-D1

MMP7

Twist

 Slug

Snail

ΔN-p63

ROS

Lung carcinoma

Fibrosis

Honeycombing

Mesenchymal precursor cell senescence

Extracellular matrix proteins decrease

Mesenchymal insufficiency

Elastin

Fibronectin

Collagen

Alveolar vanishing

Decreased mechanical stimuli

emphysema

Notch1

Caveolin-1

Impaired immunoregulatory functions

Airway inflammation and remodelling

IPF

COPD