

Age-associated Differences in the Human Lung Extracellular Matrix

Authors and affiliations

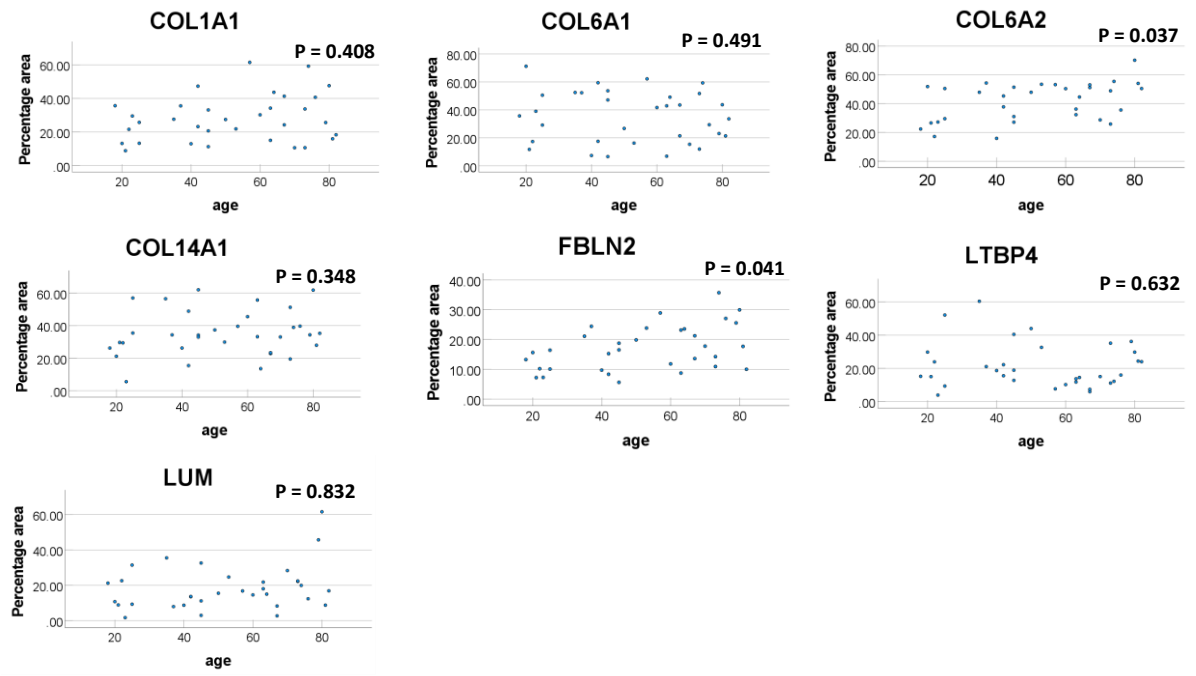
Maunick Lefin Koloko Ngassie^{1,2}, M. De Vries^{2,3}, T. Borghuis¹, W. Timens^{1,2}, Don D. Sin⁴, D. Nickle⁵, P. Joubert⁶, P. Horvatovich⁷, G. Marko-Varga⁸, J.J. Teske⁹, J.M. Vonk^{2,3}, R. Gosens^{2,10}, Y.S. Prakash⁹, J.K. Burgess^{1,2*}, C.A. Brandsma^{1,2*}

¹University of Groningen, University Medical Center Groningen, Department of Pathology and Medical Biology, Groningen, Netherlands; ²University of Groningen, University Medical Center Groningen, Groningen Research Institute for Asthma and COPD, Groningen, Netherlands; ³University of Groningen, University Medical Center Groningen, Department of Epidemiology, Groningen, Netherlands; ⁴Centre for Heart Lung Innovation at St. Paul's Hospital, University of British Columbia, Vancouver, Canada; ⁵Monoceros Bio, San Diego, CA, USA; ⁶Institut Universitaire de Cardiologie et de Pneumologie de Québec, QC, Canada; ⁷University of Groningen, Department of Analytical Biochemistry, Groningen Research Institute of Pharmacy, Groningen, Netherlands; ⁸Lund University, Center of Excellence in Biological and Medical Mass Spectrometry, Biomedical Center, Lund, Sweden; ⁹Department of Anesthesiology and Perioperative Medicine, Mayo Clinic, Rochester, Minnesota, USA; ¹⁰University of Groningen, Department of Molecular Pharmacology, Groningen, Netherlands. * Contributed equally to this study.

Supplementary file 5: Supplemental figures showing the scatter plots representing correlation between the primary data of the percentage area or mean intensity of COL1A1, COL6A1, COL6A2, COL14A1, FBLN2, LTBP4 and LUM in the whole tissue (figure 1), parenchyma (figure 2), airway wall (figure 3), blood vessel (figure 4), and bronchial epithelium (figure 5) (only for COL14A1, LTBP4 and LUM) with age. These plots represent the data from the never-smoker control patients. N = number of tissues used in each graph.

Whole tissue

Percentage area



Mean intensity

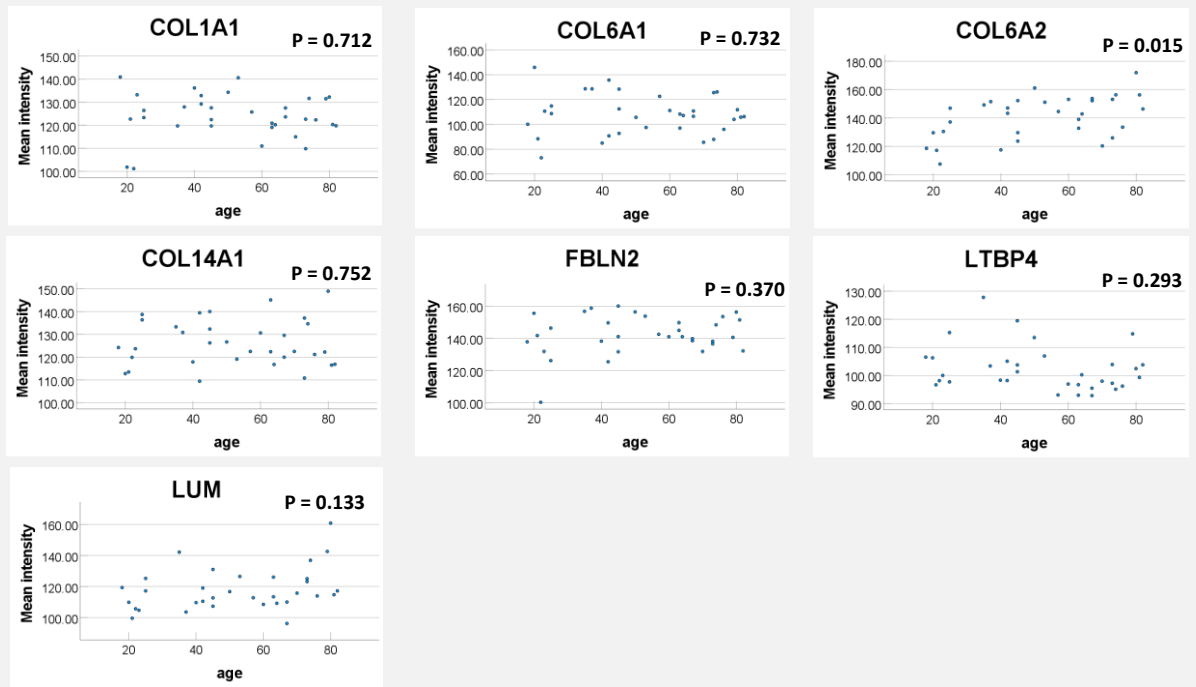
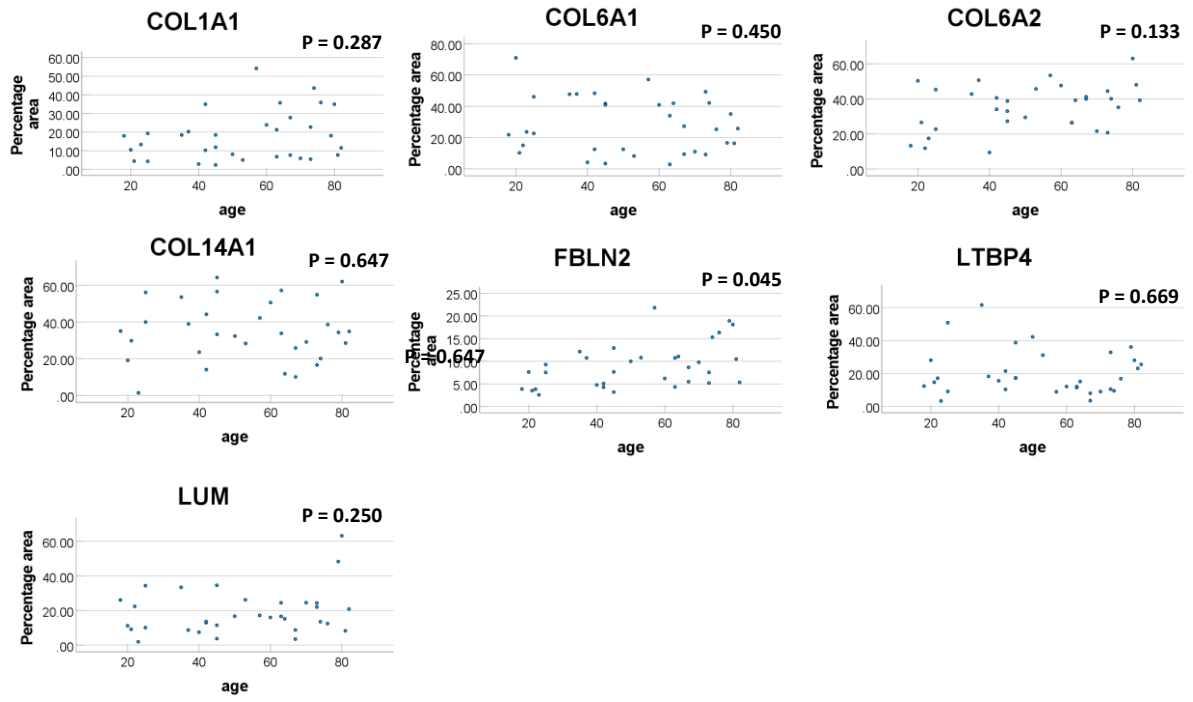


Figure 1: Scatter plots showing the correlation between the percentage area or mean intensity of COL1A1, COL6A1, COL6A2, COL14A1, FBLN2, LTBP4 and LUM in the whole tissue with age. N: number of tissues used in each graph.

	N
COL1A1	33
COL6A1	33
COL6A2	32
COL14A1	33
FBLN2	33
LTBP4	33
LUM	33

Parenchyma

Percentage area



Mean intensity

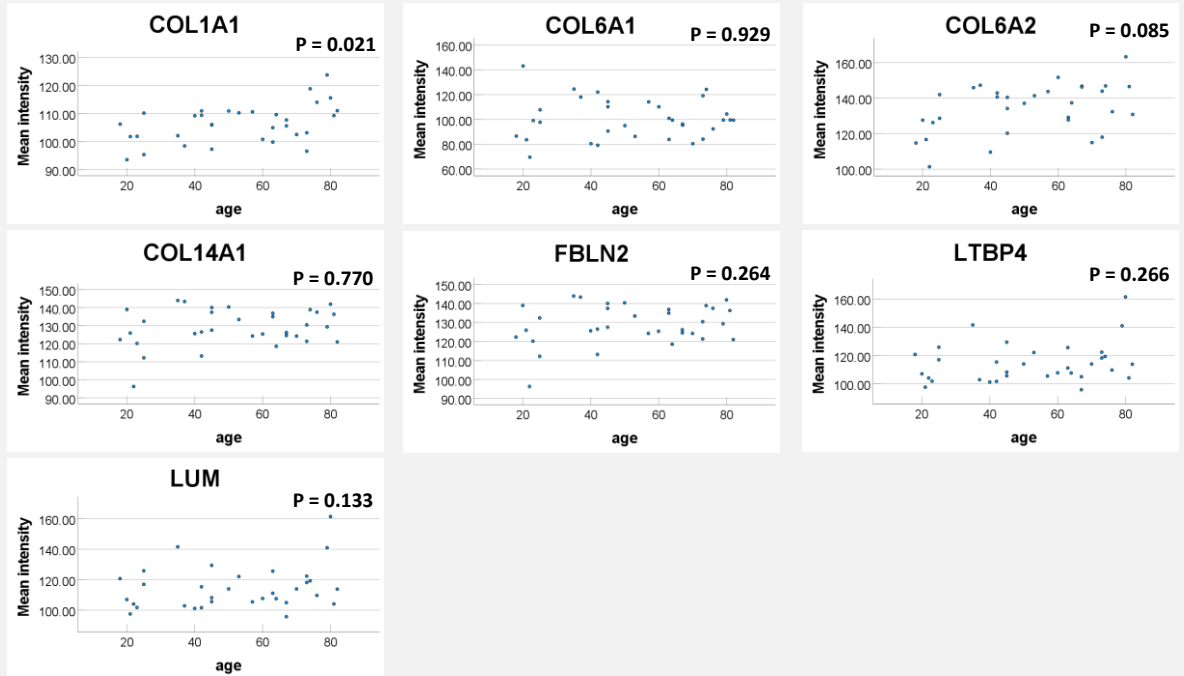
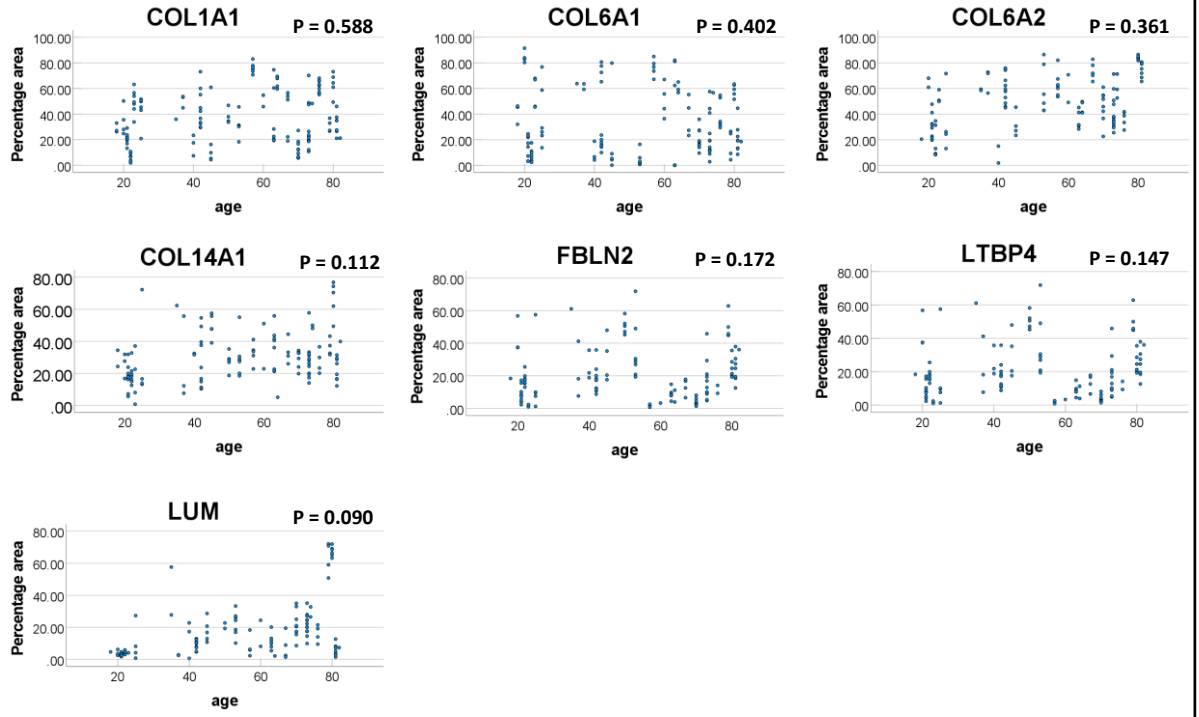


Figure 2: Scatter plots showing the correlation between the percentage area or mean intensity of COL1A1, COL6A1, COL6A2, COL14A1, FBLN2, LTBP4 and LUM in the parenchyma with age. N: number of tissues used in each graph.

	N
COL1A1	32
COL6A1	33
COL6A2	32
COL14A1	32
FBLN2	33
LTBP4	33
LUM	33

Airway wall

Percentage area



Mean intensity

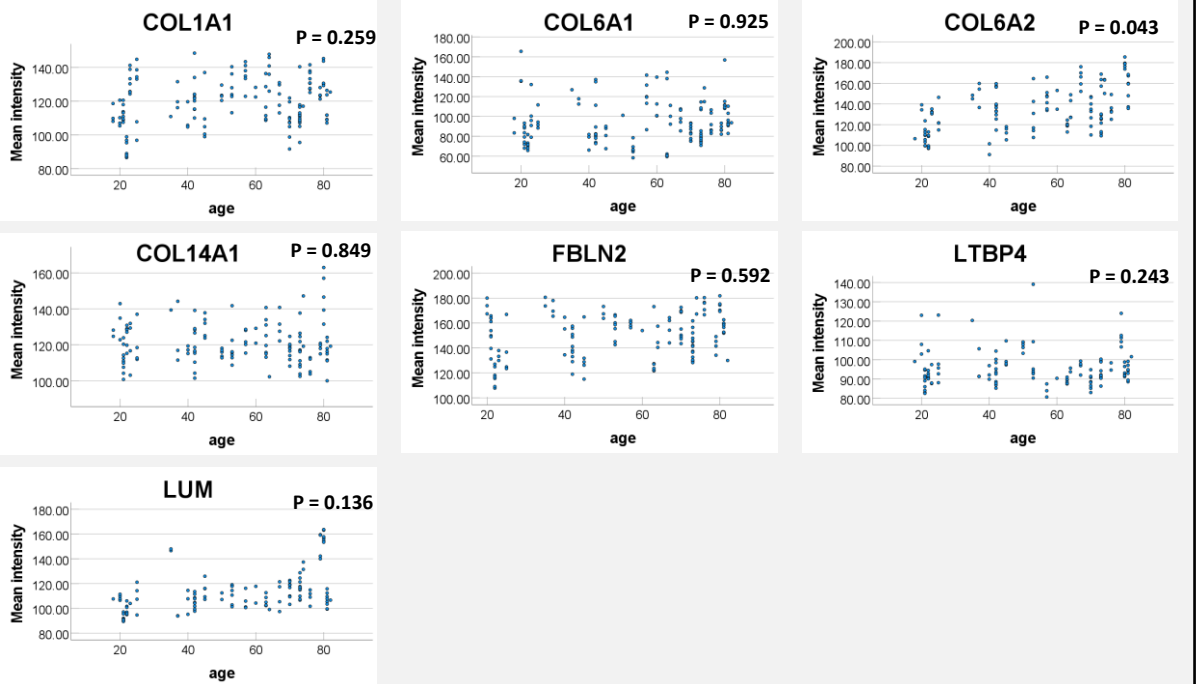
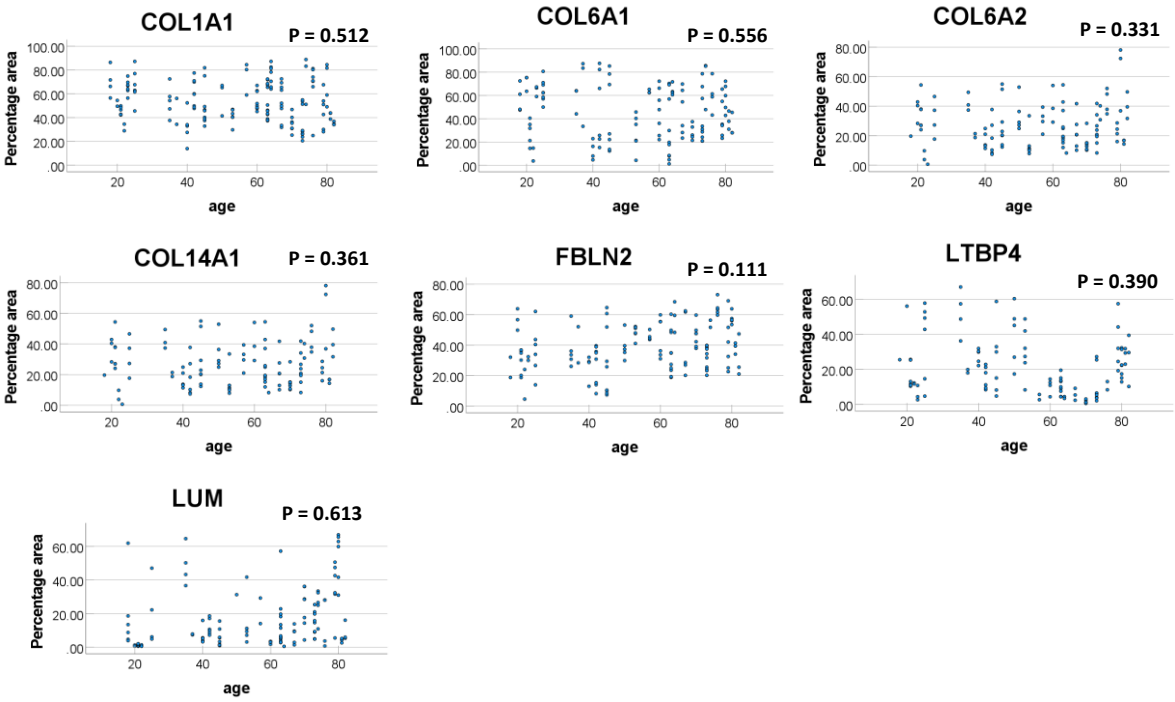


Figure 3: Scatter plots showing the correlation between the percentage area or mean intensity of COL1A1, COL6A1, COL6A2, COL14A1, FBLN2, LTBP4 and LUM in the airway wall with age. N: number of tissues used in each graph.

	N
COL1A1	142
COL6A1	131
COL6A2	120
COL14A1	129
FBLN2	126
LTBP4	117
LUM	120

Blood vessel

Percentage area



Mean intensity

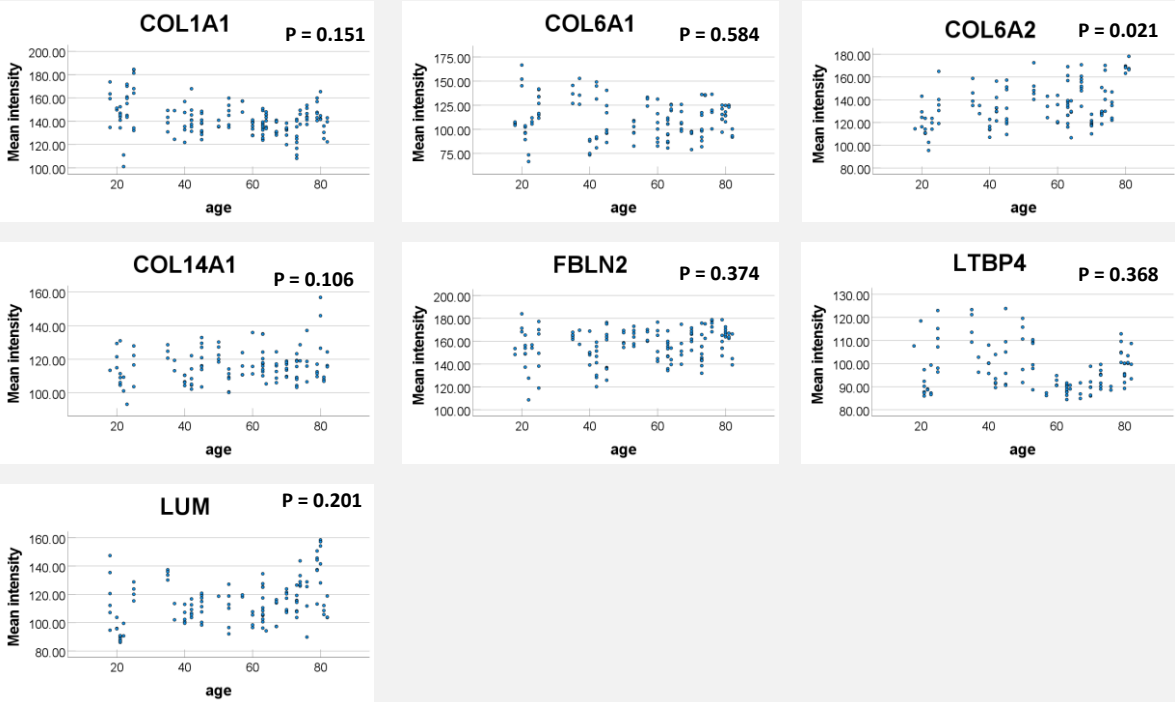
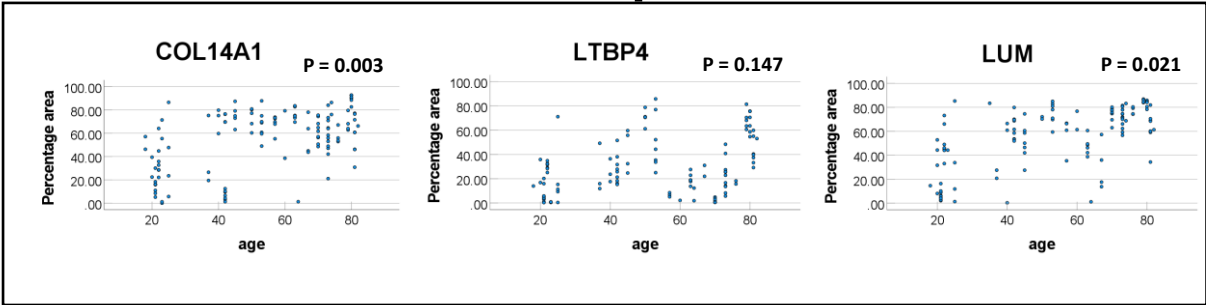


Figure 4: Scatter plots showing the correlation between the percentage area or mean intensity of COL1A1, COL6A1, COL6A2, COL14A1, FBLN2, LTBP4 and LUM in the blood vessel with age. N: number of tissues used in each graph.

	N
COL1A1	148
COL6A1	122
COL6A2	112
COL14A1	112
FBLN2	131
LTBP4	107
LUM	121

Bronchial epithelium

Percentage area



Mean intensity

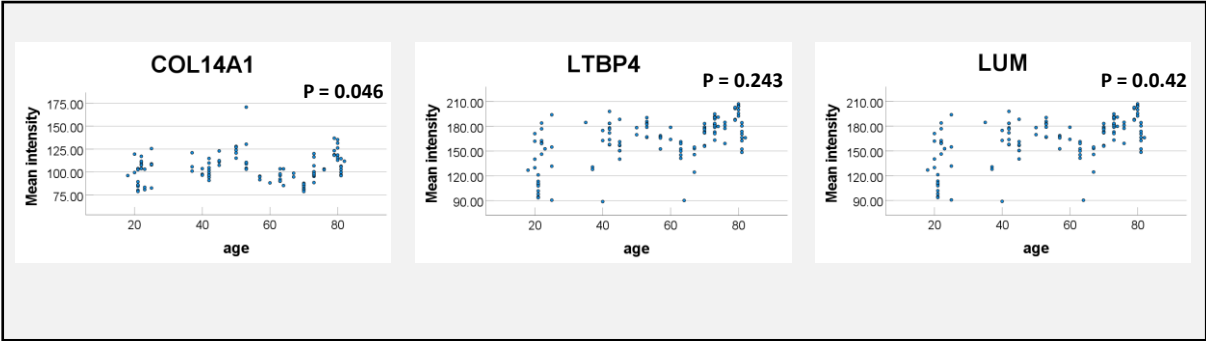


Figure 5: Scatter plots showing the correlation between the percentage area or mean intensity of COL14A1, LTBP4 and LUM in the bronchial epithelium with age. N: number of tissues used in each graph.

	N
COL14A1	131
LTBP4	112
LUM	121