Additional file 4. Association of MMPs and TIMPs with measures of IPF severity, adjusted for anti-fibrotic treatment.

Protein	Association with FVC % predicted		Association with DL$_{CO}$ % predicted		Association with CPI	
	Estimated effect* (β)	Corrected p-value[†]	Estimated effect* (β)	Corrected p-value[†]	Estimated effect* (β)	Corrected p-value[†]
MMP1	-0.69	0.7391	-1.79	0.2615	1.27	0.3376
MMP2	4.86	0.3012	-1.38	0.7044	0.08	0.9725
MMP3	2.34	0.7391	-4.01	0.2615	2.26	0.4278
MMP7	-10.49	0.1465	*-13.63*	*0.0080*	*11.20*	*0.0049*
MMP8	-6.49	0.1465	*-6.06*	*0.0359*	*5.57*	*0.0140*
MMP9	-8.14	0.1359	-3.97	0.2615	*5.44*	*0.0260*
MMP12	-3.91	0.1942	*-5.53*	*0.0084*	*4.42*	*0.0073*
MMP13	-2.97	0.2547	*-6.36*	*0.0006*	*4.71*	*0.0017*
TIMP1	-1.48	0.8237	0.22	0.9684	1.37	0.8309
TIMP2	-3.54	0.7391	-6.82	0.4064	5.61	0.4278
TIMP4	-2.83	0.7391	*-11.90*	*0.0257*	*8.10*	*0.0460*

*Estimated effect (β) is the estimated difference in disease severity measure per 10-fold increase in protein concentration, as determined by linear regression.

†p-value determined by linear regression corrected for multiplicity using the Benjamini-Hochberg method to control the false discovery rate at 5%.

CPI, composite physiologic index; DL$_{CO}$, diffusing capacity of the lungs for carbon monoxide; FVC, forced vital capacity.