

## Supplemental files

### **Association of Kco with emphysema progression and lung function decline in heavy smokers**

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#### **Results with using %950 HU as emphysema severity measurement**

Baseline median (inter quartile) %950 was 8.7% (4.5-15). Kco at baseline significantly ( $p=0.004$ ) correlated with %950 at baseline,  $r = -0.13$ .

Follow-up median (inter quartile) %950 was 14.23% (7.4-19.7). The statistical model explained 73% of the variance in %950 after follow-up. The significant covariates and their estimated effects are listed in Tables S1 and S2.

**Table S1.** Results from the multiple linear regression analyses showing the estimated effects of baseline Kco and other significant covariates on %950 after follow-up.

Estimated effects of changes in parameters on %950 in % after follow-up				
Covariate	Increment or comparison	Change in %950 (%)	CI95%	p-value
Kco baseline	0.25 decrease	+0.65 %	0.2 – 1.1	0.01
Baseline FEV <sub>1</sub> /FVC [%]	1% decrease	+0.14 %	0.08 – 0.19	<0.001
Smoking status	Current versus ex-smoker	-1.2 %	-2.0 – -0.30	0.012
Baseline %950	1% increase	+0.77 %	-0.61 – -0.72	<0.001