	Tissue Volume vs DFCO	Tissue Volume vs G	Tissue Volume vs C_{st}	Tissue Volume vs E_{rs}	Tissue Volume vs H	Tissue Volume vs k
R^2 (Non-Linear Fit)	0.7009	0.4093	0.606	0.4639	0.4292	0.7025
Spearman's Correlation (Rho)	-0.7739	0.5623	-0.687	0.6265	0.4862	-0.5826
Spearman's p value	<0.0001	0.0052	0.0002	0.0014	0.0187	0.0028
Significance	****	**	***	**	*	**

Supplemental Table 1. Regression analysis between pulmonary physiology outcome measures and lung tissue volume finds significant correlations with multiple outcome measures. PFT and micro-CT data for all 24 mice in this study were combined for non-linear regression and correlation analyses (n=24). Correlations were calculated for the diffusion factor of carbon monoxide (DFCO), tissue dampening (G), static compliance (C_{st}), total respiratory elastance (E_{rs}), tissue elastance (H), and the shape constant of the pressure-volume curve (k). Spearman's correlations for each set of parameters are listed for all data points (*p<0.05, **p<0.01, ***p<0.001, ****p<0.0001).