Supplementary Material

Three-dimensional whole-organ characterization of the regional alveolar morphology in normal murine lungs
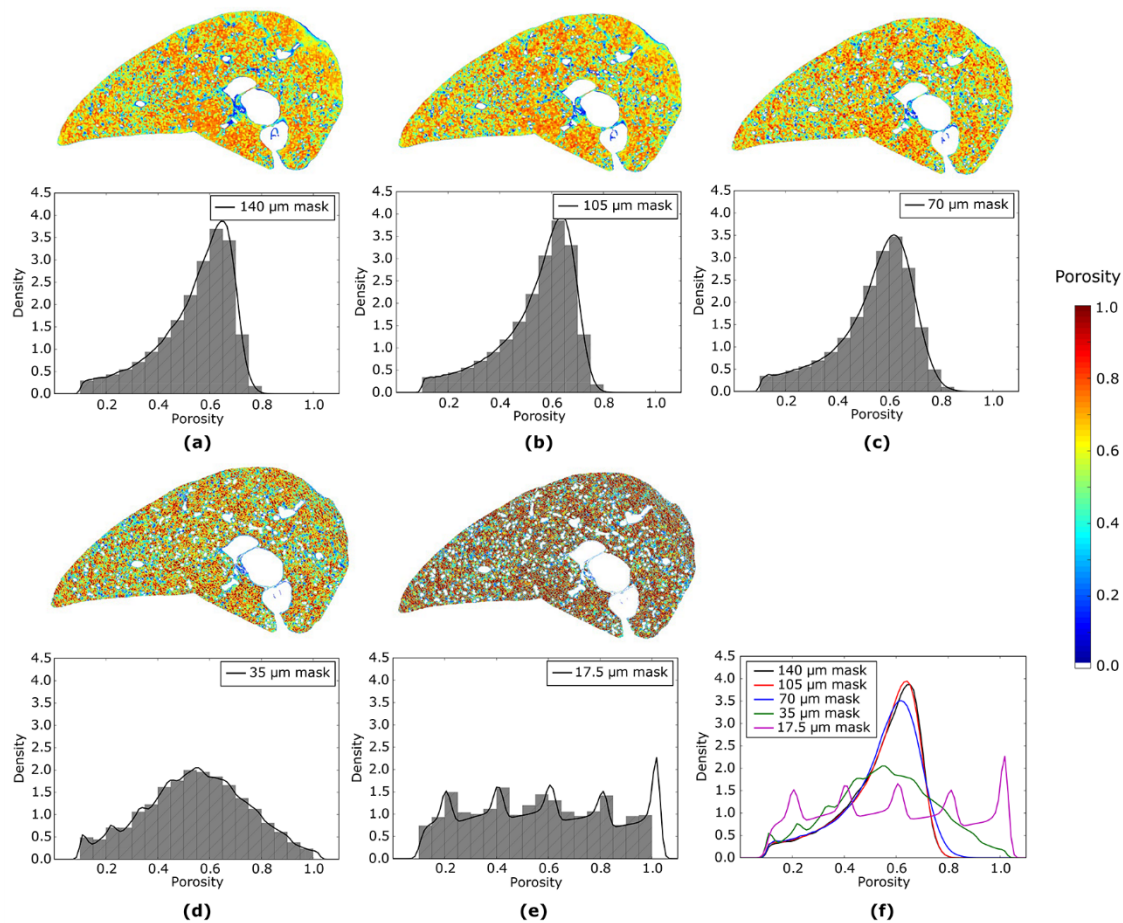

Figure 1s. Sensitivity analysis of the mask size in the generation of porosity maps. Histograms for the medium zone of a representative subject from the MAF group were constructed from porosity maps that employed a mask size of **(a)** 140 μm, **(b)** 105 μm, **(c)** 70 μm, **(d)** 35 μm, and **(e)** 17.5 μm. Density functions fitted to histograms for all cases are shown in **(f)** for comparison purposes.
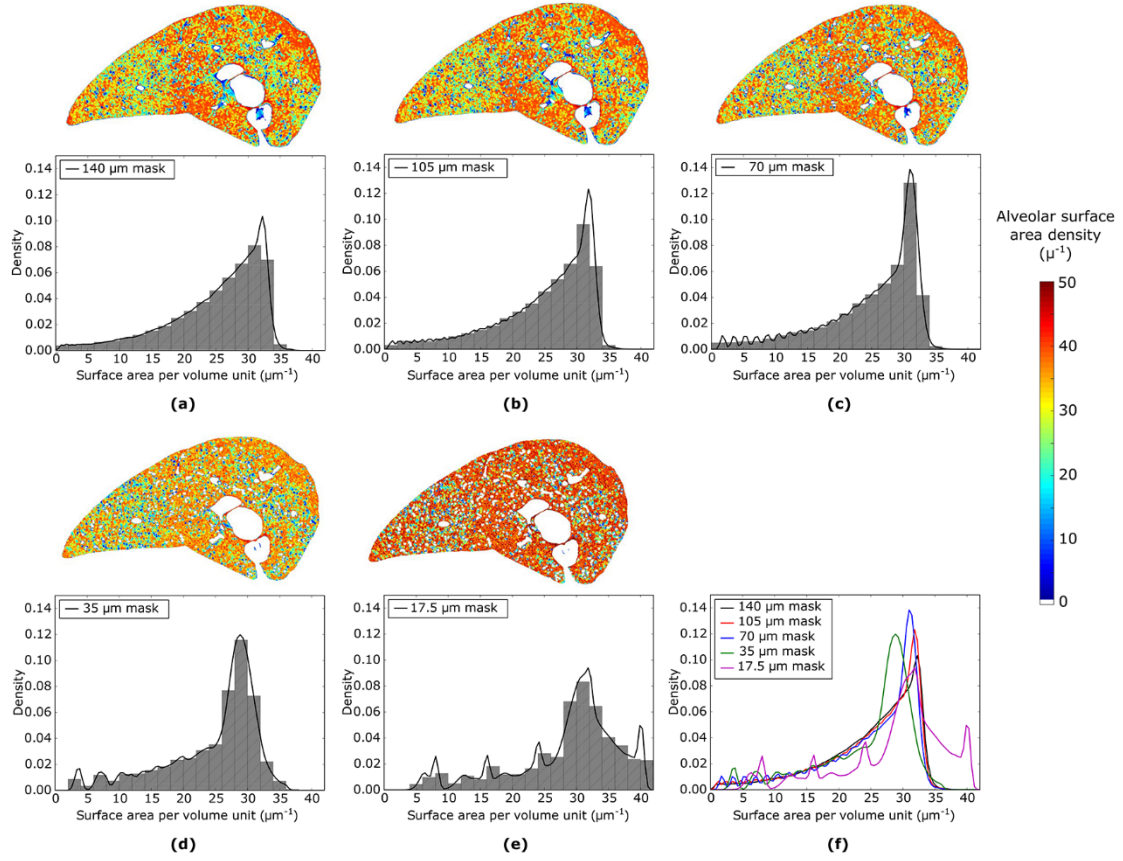
Figure 2s. Sensitivity analysis of the mask size in the generation of alveolar surface area density maps. Histograms for the medium zone of a representative subject from the MAF group were constructed from alveolar surface area density maps that employed a mask size of **(a)** 140 μm, **(b)** 105 μm, **(c)** 70 μm, **(d)** 35 μm, and **(e)** 17.5 μm. Density functions fitted to histograms for all cases are shown in **(f)** for comparison purposes.

Table 1s. ANOVA results for the analysis of lung porosity in single lungs of groups SAF, MAF, SAF-HMDS.

<div align="center">ANOVA Summary</div>

		Source	Degrees of Freedom (DF)	Sum of Squares (SS)	Mean Square (MS)	F-Stat	P-Value
SAF Group	**L01**	Between Groups	2	0.0643	0.0321	49.605	0.0222
		Within Groups	15	0.0971	0.0065		
		Total:	17	0.1614			
	L02	Between Groups	2	0.0819	0.041	30.5011	0
		Within Groups	15	0.0201	0.0013		
		Total:	17	0.1021			
	L03	Between Groups	2	0.0718	0.0359	26.818	0
		Within Groups	15	0.0201	0.0013		
		Total:	17	0.0919			
MAF Group	**L01**	Between Groups	2	0.0007	0.0003	0.6786	0.5223
		Within Groups	15	0.0076	0.0005		
		Total:	17	0.0083			
	L02	Between Groups	2	0.0017	0.0009	1.1193	0.3523
		Within Groups	15	0.0117	0.0008		
		Total:	17	0.0134			
	L03	Between Groups	2	0.0014	0.0007	1.8254	0.1952
		Within Groups	15	0.0059	0.0004		
		Total:	17	0.0073			
SAF-HDMS Group	**L01**	Between Groups	2	0.0008	0.0004	0.6225	0.5499
		Within Groups	15	0.0093	0.0006		
		Total:	17	0.0101			
	L02	Between Groups	2	0.0028	0.0014	5.69	0.0145
		Within Groups	15	0.0037	0.0002		
		Total:	17	0.0065			
	L03	Between Groups	2	0.0003	0.0001	0.1214	0.8865
		Within Groups	15	0.0177	0.0012		
		Total:	17	0.018			

Table 2s. ANOVA results for the analysis of alveolar surface density in single lungs of groups SAF, MAF, SAF-HMDS.

			ANOVA Summary				
		Source	Degrees of Freedom (DF)	Sum of Squares (SS)	Mean Square (MS)	F-Stat	P-Value
SAF Group	**L01**	Between Groups	2	0.772	0.386	0.0679	0,9347
		Within Groups	15	85.3204	5.688		
		Total:	17	86.0924			
	L02	Between Groups	2	15.1533	7.5767	62.657	0.0105
		Within Groups	15	18.1383	1.2092		
		Total:	17	33.2917			
	L03	Between Groups	2	0.4137	0.2069	0.1187	0.8889
		Within Groups	15	26.1509	1.7434		
		Total:	17	26.5646			
MAF Group	**L01**	Between Groups	2	20.888	1.0444	0.2362	0.7925
		Within Groups	15	66.322	4.4215		
		Total:	17	68.4108			
	L02	Between Groups	2	60.506	3.0253	0.5072	0.6122
		Within Groups	15	89.4727	5.9648		
		Total:	17	95.5233			
	L03	Between Groups	2	60.104	3.0052	0.8977	0.4283
		Within Groups	15	50.2137	3.3476		
		Total:	17	56.2242			
SAF-HDMS Group	**L01**	Between Groups	2	0.9522	0.4761	0.1009	0.9047
		Within Groups	15	70.8119	4.7208		
		Total:	17	71.7641			
	L02	Between Groups	2	2.7754	1.3877	0.6373	0.5424
		Within Groups	15	32.6616	2.1774		
		Total:	17	35.437			
	L03	Between Groups	2	14.6665	7.3333	0.9183	0.4205
		Within Groups	15	119.7805	7.9854		
		Total:	17	13.4447			