

Supplementary Table 1: Genomewide linkage analysis for FEV₁ in all subjects, non-smokers (NS), and smokers-only (S). All LOD scores >1 (including empirical p-values) are shown.

Chromosome	cM	Pre-bronchodilator			Post-bronchodilator		
		All	NS	S	All	NS	S
1	24			1.10 (0.020)			1.46 (0.0097)
1	62						1.07 (0.022)
1	70				1.04 (0.019)	1.33 (0.0086)	
1	84			1.30 (0.013)			
1	175			1.87 (0.0042)			1.12 (0.020)
2	84			1.52 (0.0084)			
2	87						2.20 (0.0022)
2	108				1.14 (0.015)		
2	116			1.75 (0.0053)			
2	147						1.32 (0.013)
3	118			1.30 (0.013)			
3	241			2.74 (0.0008)			
4	14			1.26 (0.014)			1.31 (0.014)
4	99						1.01 (0.025)
4	104			1.38 (0.011)			
4	135	1.49 (0.0059)	1.02 (0.016)				
4	138						2.66 (0.0009)
4	140			2.70 (0.0009)			
5	54						1.19 (0.017)
6	49	1.01 (0.018)					

6	127	1.63 (0.0041)					
7	11	1.53 (0.0054)					
7	25						1.31 (0.016)
7	27			1.49 (0.0088)			
7	75						1.29 (0.014)
7	84			1.11 (0.020)			
7	150				2.13 (0.0015)	1.73 (0.0031)	
8	24			2.04 (0.0029)			1.96 (0.0036)
9	153		1.09 (0.014)				
12	152			1.20 (0.016)			1.11 (0.020)
13	60					1.08 (0.015)	
14	11						1.09 (0.021)
14	46			1.39 (0.011)			2.05 (0.0029)
14	65					1.09 (0.015)	
15	127						1.15 (0.019)
15	134				1.69 (0.0043)		
16	69	1.06 (0.016)			1.10 (0.016)		
16	115	1.02 (0.017)					
20	26						1.33 (0.013)

Supplementary Table 2: Genomewide linkage analysis for FEV₁/FVC in all subjects, non-smokers (NS), and smokers-only (S). All LOD scores >1 (including empirical p-values) are shown.

Chromosome	cM	Pre-bronchodilator			Post-bronchodilator		
		All	NS	S	All	NS	S
1	18			1.14 (0.0073)			
1	20						1.19 (0.011)
1	170				1.08 (0.016)		
1	175						1.95 (0.0015)
2	83		1.26 (0.0076)			1.20 (0.012)	
2	245	1.53 (0.0035)					
3	28				1.13 (0.014)	1.23 (0.011)	
3	190		1.00 (0.016)				
4	95	1.50 (0.0038)	1.50 (0.0040)		1.25 (0.011)	1.22 (0.012)	
4	135				1.18 (0.012)		
4	152			1.19 (0.0060)			
4	155						1.38 (0.0065)
5	49						3.27 (<0.0001)
5	122					1.08 (0.017)	
6	68		1.07 (0.013)			1.22 (0.012)	
6	96			1.02 (0.0112)			
7	74	1.15 (0.0097)	1.27 (0.0075)		1.40 (0.0071)	1.34 (0.0085)	
9	72			1.52 (0.0020)			1.25 (0.0093)
13	41		1.15 (0.011)				
16	10						1.20 (0.011)

17	51			1.33 (0.0036)			1.33 (0.0075)
18	118					1.46 (0.0058)	
20	106				1.03 (0.018)		

Supplementary Table 3: Genomewide linkage analysis for bronchodilator responsiveness (BDR) in all subjects, non-smokers (NS), and in smokers-only (S). All LOD scores >1 (including empirical p-values) are shown.

Chromosome	cM	BDR base*			BDR pred*			BDR abs*		
		All	NS	S	All	NS	S	All	NS	S
3	44									1.13 (0.022)
4	70	1.26 (0.0081)	1.48 (0.0030)		1.07 (0.011)	1.27 (0.0063)			1.07 (0.0076)	
5	167			1.12 (0.028)			1.11 (0.023)			1.15 (0.021)
9	49	1.12 (0.012)	1.43 (0.0035)		1.25 (0.0066)	1.54 (0.0027)		1.53 (0.0032)	1.72 (0.0008)	
10	31		1.59 (0.0021)			1.69 (0.0016)			1.63 (0.0011)	
11	118			1.19 (0.024)			1.15 (0.021)			
12	149			1.10 (0.029)			1.09 (0.024)			1.11 (0.022)
13	10	1.04 (0.015)			1.12 (0.0097)					
16	66			1.31 (0.019)			1.22 (0.018)			1.60 (0.012)
17	67		1.11 (0.0094)			1.32 (0.0054)				
20	26				1.11 (0.010)			1.17 (0.0098)		

*Definitions of BDR phenotypes:

$$\text{BDRbase} = (\text{FEV}_{1\text{postbronchodilator}} - \text{FEV}_{1\text{prebronchodilator}}) / \text{FEV}_{1\text{prebronchodilator}} \times 100\%$$

$$\text{BDRpred} = (\text{FEV}_{1\text{postbronchodilator}} - \text{FEV}_{1\text{prebronchodilator}}) / \text{FEV}_{1\text{predicted}} \times 100\%$$

$$\text{BDRabs} = (\text{FEV}_{1\text{postbronchodilator}} - \text{FEV}_{1\text{prebronchodilator}})$$

All three BDR variables were \log_{10} -transformed for analysis.