

Supplementary Table 1. Hardy-Weinberg equilibrium (HWE) in cases and control groups.

SNP	COPD-BS		p-value	BBES		p-value
	Obs. Het.	Pred. Het.		Obs. Het.	Pred. Het.	
rs28929474	0.01	0.011	0.96	NA	NA	NA
rs17580	0.11	0.102	0.56	0.011	0.014	0.93
SNP	COPD-S		p-value	SWOC		p-value
	Obs. Het.	Pred. Het.		Obs. Het.	Pred. Het.	
rs28929474	0.021	0.018	0.84	0.009	0.011	<0.01
rs17580	0.123	0.115	0.19	0.061	0.059	0.94

Supplementary Table 2. Hardy-Weinberg equilibrium (HWE) in populational included groups.

SNP	Mexican-Mestizo groups								
	North			Central			Southeast		
	Obs. Het.	Pred. Het.	p	Obs. Het.	Pred. Het.	p	Obs. Het.	Pred. Het.	p
rs28929474	0.058	0.056	0.74	0.038	0.037	0.62	0.014	0.014	0.92
rs17580	0.106	0.098	0.53	0.046	0.044	0.55	0.037	0.036	0.78
Mexican-indigenous groups									
SNP	Otomi			Maya			Mazahua		
	Obs. Het.	Pred. Het.	p	Obs. Het.	Pred. Het.	p	Obs. Het.	Pred. Het.	p
rs28929474	NA	NA	NA	0.053	0.051	0.87	NA	NA	NA
rs17580	0.048	0.046	0.8	0.053	0.051	0.87	0.011	0.011	0.93

COPD-S: COPD patients secondary to tobacco smoking; SWOC: Smokers without COPD; COPD-BS: COPD patients secondary to biomass-burning smoke exposure; BBES: Biomass-burning exposed subjects without COPD.

Supplementary Table 3. Genotype and allele frequencies in both comparisons.

SNP	COPD-S	SWOC	p	OR	95% CI	COPD-BS	BBES	p	OR	95% CI
<b>rs28929474 (PiZ)</b>										
Genotype										
GG	97.9	99.0		1.0		98.9	100.0			
GA	2.1	0.9	1.9E-01	2.24	0.87-5.71	1.02	0	4.7E-01	0	
AA	0.0	0.009		0		0	0			
Allele										
G	98.9	99.5				99.4	100.0			
A	1.1	0.5	2.6E-01	1.85	0.75-4.55	0.6	0	4.7E-01	0	
<b>rs17580 (PiS)</b>										
Genotype										
AA	87.7	93.8				88.8	97.9			
AT	12.3	6.7	1.0E-04	2.16	1.46-3.18	11.2	2.0	1.8E-02	6.06	1.30-28.14
TT	0.0	0.09				0	0			
Allele										
A	93.9	96.9				94.4	98.9			
T	6.1	3.1	3.5E-04	2.03	1.35-3.02	5.6	1.0	2.4E-02	5.77	1.26-26.37

Supplementary Table 4. Statistical differences among the comparison between each population included.

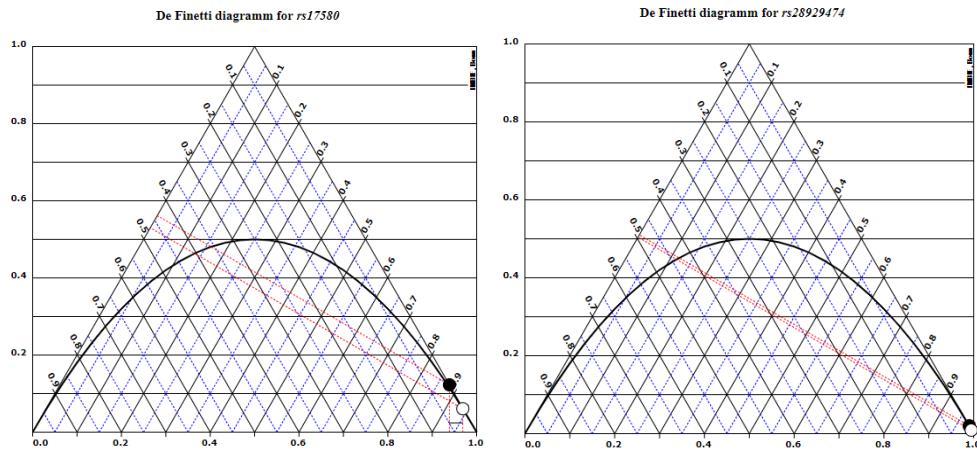
Comparison	rs17580 (PiS)		rs28929474 (PiZ)	
	AT	T	GA	A
N vs. C	<b>0.00021</b>	<b>0.00039</b>	<b>0.02295</b>	<b>0.02383</b>
N vs. SE	<b>0.00138</b>	<b>0.00166</b>	<b>0.03675</b>	<b>0.03819</b>
N vs. O	NS	NS	NA	NA
N vs. My	NS	NS	NS	NS
N vs. Mz	<b>0.000003</b>	<b>0.000002</b>	NA	NA
C vs. SE	NS	NS	NS	NS
C vs. O	NS	NS	NA	NA
C vs. My	NS	NS	NS	NS
C vs. Mz	<b>0.01250</b>	<b>0.00879</b>	NA	NA
SE vs. O	NS	NS	NA	NA
SE vs. My	NS	NS	NS	NS
SE vs. Mz	NS	NS	NA	NA
O vs. My	NS	NS	NA	NA
O vs. Mz	NS	NS	NA	NA
My vs. Mz	NS	NS	NA	NA

NS, not significant data; N, North; C, Central; SE, Southeast; O, Otomi; My, Maya; Mz, Mazahua.

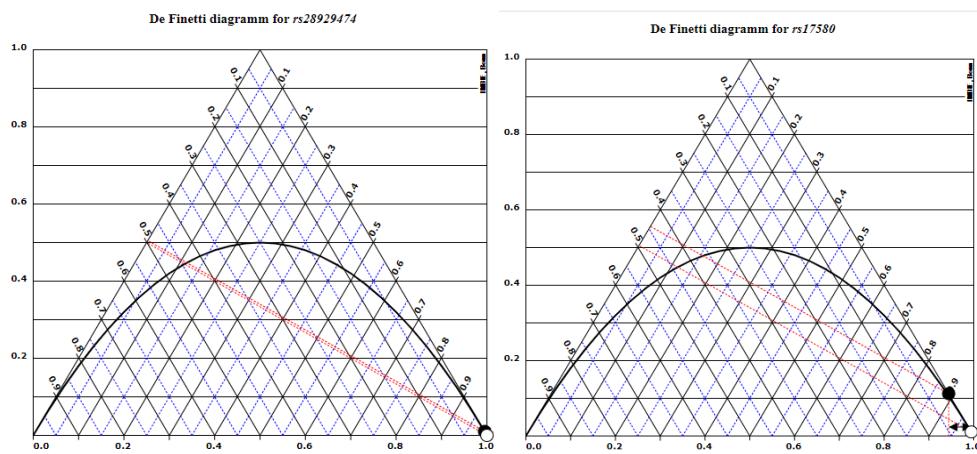
Supplementary Figure 1. Mexican states and their location regarding grouping.



Supplementary Figure 2. The De Finetti plot of the PiS and PiZ alleles.



De Finetti plot of the PiS and PiZ alleles for the comparison of COPD-S vs. SWOC.



De Finetti plot of the PiS and PiZ alleles for the comparison of COPD-BS vs. BBES.