

Chr15q25 genetic variant (rs16969968) independently confers risk of lung cancer, COPD and smoking intensity in a prospective study of high risk smokers.

Supplementary Table 1. Models of best fit using the Likelihood Ratio Test (LR Test).

(a) Odds of COPD (GOLD 2-4) (cross-sectional, N=8,299) compared to controls (“No Airflow limitation”) from logistic regression models.

Model	Type of model	group	Odds Ratio (95% CI)	p-value	AIC	BIC	LR test p-value
Unadjusted	Genotype (general)	AA vs GG	1.41 (1.21, 1.64)	<0.001	9911.6	9932.6	Reference
		AG vs GG	1.23 (1.11, 1.36)	<0.001			
	Recessive	AA vs AG/GG	1.26 (1.10, 1.45)	<0.001	9925.2	9939.3	<0.0001
	Allelic (log additive)	Per A allele*	1.20 (1.12, 1.29)	<0.001	9910.1	9924.1	0.490
Adjusted for pack years	Genotype (general)	AA vs GG	1.32 (1.13, 1.54)	<0.001	9750.7	9778.8	Reference
		AG vs GG	1.20 (1.08, 1.33)	0.001			
	Recessive	AA vs AG/GG	1.19 (1.04, 1.38)	0.014	9760.8	9781.9	0.0005
	Allelic (log additive)	Per A allele*	1.16 (1.08, 1.25)	<0.001	9749.5	9770.6	0.387

*coded as 0=GG 1=AG 2=AA

(b) Hazard of lung cancer diagnosis (prospective, N=9,270) from Cox proportional hazards models.

Model	Type of model	group	Hazard Ratio (95% CI)	p-value	AIC	BIC	LR test p-value
Unadjusted	Genotype (general)	AA vs GG	1.48 (1.09, 2.01)	0.011	6736.9	6751.1	Reference
		AG vs GG	1.17 (0.93, 1.46)	0.177			
	Recessive	AA vs AG/GG	1.36 (1.03, 1.80)	0.028	6736.7	6743.8	0.175
	Allelic (log additive)	Per A allele*	1.21 (1.04, 1.40)	0.012	6735.0	6742.1	0.692
Adjusted for pack years	Genotype (general)	AA vs GG	1.39 (1.02, 1.88)	0.034	6708.6	6730.0	Reference
		AG vs GG	1.14 (0.91, 1.43)	0.243			
	Recessive	AA vs AG/GG	1.29 (0.98, 1.70)	0.070	6708.0	6722.3	0.242
	Allelic (log additive)	Per A allele*	1.17 (1.01, 1.36)	0.035	6706.7	6721.0	0.770

*coded as 0=GG 1=AG 2=AA

Legend: AIC=Akaike Information Criterion, BIC=Bayesian Information Criterion.