

**Supplementary Table S6.** Association between serum cytokine levels and lung cancer among European Americans from NCI-MD and PLCO studies, by smoking status

Cytokine level <sup>a</sup>	OR (95% CI) <sup>b</sup>					
	NCI-MD			PLCO		
	Never smokers (N = 86/22)	Former smokers (N = 150/121)	Current smokers (N = 59/127)	Never smokers (N = 105/37)	Former smokers (N = 286/291)	Current smokers (N = 203/204)
<b>IL-1<math>\beta</math></b>						
First quartile	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Second quartile	1.19 (0.23-6.24)	0.81 (0.41-1.57)	0.96 (0.34-2.76)	0.99 (0.28-3.46)	1.34 (0.79-2.27)	1.13 (0.58-2.20)
Third quartile	2.64 (0.62-11.15)	1.05 (0.56-1.98)	0.91 (0.36-2.26)	0.65 (0.18-2.32)	1.64 (0.96-2.79)	1.13 (0.59-2.17)
Fourth quartile	1.94 (0.40-9.42)	0.72 (0.37-1.43)	0.71 (0.29-1.71)	1.40 (0.43-4.54)	1.33 (0.79-2.26)	0.84 (0.42-1.69)
<i>P</i> <sub>trend</sub> <sup>c</sup>	0.23	0.57	0.41	0.66	0.32	0.54
<b>IL-6</b>						
First quartile	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Second quartile	1.77 (0.27-11.60)	1.16 (0.48-2.83)	0.38 (0.10-1.44)	1.15 (0.37-3.62)	1.00 (0.61-1.61)	1.34 (0.68-2.64)
Third quartile	4.94 (0.85-28.58)	2.44 (1.09-5.43)	1.06 (0.31-3.59)	1.62 (0.54-4.82)	1.45 (0.87-2.37)	1.03 (0.53-2.02)
Fourth quartile	13.18 (2.53-68.61)	4.66 (2.09-10.40)	0.78 (0.25-2.44)	1.47 (0.46-4.64)	1.67 (1.05-2.66)	1.26 (0.64-2.51)
<i>P</i> <sub>trend</sub> <sup>c</sup>	<0.001	<0.001	0.74	0.40	0.01	0.82
<b>IL-8</b>						
First quartile	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Second quartile	1.48 (0.12-17.54)	1.51 (0.62-3.71)	0.98 (0.32-3.06)	1.00 (0.33-3.05)	1.04 (0.62-1.72)	0.90 (0.48-1.67)
Third quartile	9.20 (1.03-82.35)	2.55 (1.15-5.67)	2.72 (0.94-7.85)	1.29 (0.44-3.75)	1.43 (0.87-2.36)	1.46 (0.81-2.66)
Fourth quartile	13.45 (1.54-117.19)	2.03 (0.91-4.54)	1.53 (0.56-4.14)	0.76 (0.21-2.79)	1.46 (0.90-2.38)	2.08 (1.15-3.76)
<i>P</i> <sub>trend</sub> <sup>c</sup>	0.001	0.05	0.25	0.91	0.06	0.004
<b>IL-10</b>						
First quartile	1.00 (reference)	1.00 (reference)	1.00 (reference)	N.D.	N.D.	N.D.
Second quartile	0.70 (0.14-3.59)	1.40 (0.69-2.84)	1.22 (0.45-3.32)			
Third quartile	1.68 (0.39-7.31)	1.56 (0.79-3.08)	1.26 (0.48-3.29)			
Fourth quartile	2.56 (0.69-9.49)	1.35 (0.66-2.76)	1.32 (0.52-3.32)			
<i>P</i> <sub>trend</sub> <sup>c</sup>	0.08	0.41	0.59			
<b>TNF<math>\alpha</math></b>						
First quartile	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Second quartile	0.90 (0.18-4.63)	1.97 (0.91-4.25)	1.20 (0.45-3.23)	0.95 (0.29-3.10)	0.95 (0.58-1.57)	0.96 (0.54-1.69)
Third quartile	3.09 (0.67-14.20)	1.64 (0.79-3.40)	0.75 (0.29-1.95)	0.74 (0.21-2.62)	1.09 (0.66-1.79)	1.07 (0.58-1.95)
Fourth quartile	2.87 (0.61-13.53)	1.90 (0.91-3.95)	1.34 (0.51-3.50)	1.42 (0.41-4.92)	1.80 (1.09-2.96)	1.05 (0.57-1.92)

$P_{trend}^c$                       0.06                      0.19                      0.71                      |                      0.64                      0.01                      0.81

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Abbreviations: NCI-MD, National Cancer Institute-Maryland; OR, odds ratio; CI, confidence interval; IL, interleukin; GMCSF, granulocyte-macrophage colony-stimulating factor; IFN, interferon; TNF, tumor necrosis factor.

<sup>a</sup>Quartiles were based on serum cytokine cut-off levels among controls within each study.

<sup>b</sup>Multivariate unconditional logistic regression analysis adjusted for age (continuous), sex, smoking pack-years (continuous), smoking status (never, former quit  $\leq 15$  years, former quit  $> 15$  years, and current).

<sup>c</sup> $P$  values were calculated using a two-sided Wald  $\chi^2$  statistic.