

Supplemental Material, Table S2

Supplemental Material, Table S2. Stratum-specific estimates (OR, 95% CI) and relative excess risk due to interaction (RERI, 95% CI) for each SNP-mercury association using single-referent coding, adjusting for education and ancestry

Chr.	Gene*	rs number	Mercury Exposure	SNP	OR (95% CI)	PD	RERI (95% CI)
5	<i>IL7R</i>	rs6897932	No	No	1.00		
				Yes	0.95 (0.64, 1.40)	-0.05	
			Yes	No	1.86 (0.80, 4.31)		
6	<i>TNF<math>\alpha</math></i>	rs1799964	No	No	1.00		
				Yes	2.21 (0.86, 5.65)	0.35	0.40 (-2.10, 2.91)
			Yes	No	2.40 (1.12, 5.13)		
		rs1800629	No	No	1.00		
				Yes	0.89 (0.55, 1.42)	-0.11	
			Yes	No	1.90 (0.91, 3.93)		
	<i>TNF<math>\beta</math></i>	rs3093671	No	No	1.00		
				Yes	2.37 (0.73, 7.68)	0.48	0.59 (-2.38, 3.57)
			Yes	No	2.14 (1.11, 4.12)		
		rs769178	No	No	1.00		
				Yes	0.00 (0.00, 0.00)	-2.14	-2.08 (-4.11, -0.05)
			Yes	No	1.86 (0.89, 3.90)		
		rs769177	No	No	1.00		
				Yes	2.01 (0.64, 6.36)	0.15	0.43 (-2.09, 2.95)
				Yes	0.69 (0.24, 1.96)	-0.31	
	Yes		2.00 (1.04, 3.81)				
	Yes		0.74 (0.46, 1.18)	-1.25	-0.68 (0.00, 0.00)		
	Yes		0.74 (0.46, 1.18)				
<i>HLA-DRB1*1501</i>	rs3135388	No	No	1.00			
			Yes	2.51 (1.02, 6.18)	1.46	1.84 (-0.52, 4.19)	
		Yes	No	3.69 (2.31, 5.88)	2.69		
	rs9471958	No	No	1.00			
			Yes	5.03 (1.85, 13.67)	2.53	-0.16 (-5.48, 5.16)	
		Yes	No	2.50 (1.03, 6.06)			
<i>PTCRA</i>	rs9471958	No	No	1.00			
			Yes	1.08 (0.73, 1.62)	0.08		
		Yes	No	2.30 (0.92, 5.78)			
	rs6901007	No	No	1.00			
			Yes	2.01 (0.80, 5.03)	-0.29	-0.37 (-3.10, 2.35)	
		Yes	No	2.01 (0.80, 5.03)			
	Yes	1.00 (0.66, 1.53)	0.00				
	Yes	No	3.19 (0.88, 11.64)				
	Yes	Yes	1.76 (0.79, 3.94)	-1.43	-1.43 (-5.71, 2.85)		

Supplemental Material, Table S2

Chr.	Gene*	rs number	Mercury Exposure	SNP	OR (95% CI)	PD	RERI (95% CI)		
7	<i>TCA-β</i>	rs17133575	No	No	1.00				
				Yes	0.96 (0.61, 1.51)	-0.04			
			Yes	No	1.44 (0.64, 3.28)				
				Yes	3.27 (1.13, 9.46)	1.83	1.87 (-1.67, 5.42)		
			rs17243	No	No	1.00			
				Yes	No	1.47 (0.42, 5.20)	-0.13		
10	<i>IL2RA</i>	rs2104286	No	No	1.00				
				Yes	0.97 (0.64, 1.46)	-0.03			
			Yes	No	1.95 (0.81, 4.70)				
				Yes	2.34 (0.85, 6.40)	0.39	0.42 (-2.43, 3.28)		
			rs2248098	No	No	1.00			
				Yes	No	2.65 (0.54, 12.95)	0.22		
12	<i>VDR</i>	rs7975128	No	No	1.00				
				Yes	1.00 (0.65, 1.54)	0.00			
			Yes	No	2.55 (0.81, 8.05)				
				Yes	1.92 (0.87, 4.24)	-0.64	-0.64 (-3.77, 2.49)		
			rs2248098	No	No	1.00			
					Yes	1.22 (0.75, 1.97)	0.22		
				Yes	No	2.65 (0.54, 12.95)			
					Yes	2.89 (1.24, 6.73)	0.24	0.02 (-4.51, 4.55)	
				rs2239182	No	No	1.00		
					Yes	No	1.27 (0.78, 2.06)	0.27	
				Yes	No	1.67 (0.41, 6.83)			
				Yes	2.77 (1.24, 6.21)	1.10	0.83 (-2.13, 3.79)		
			rs2107301	No	No	1.00			
					Yes	1.10 (0.73, 1.67)	0.10		
				Yes	No	1.35 (0.54, 3.38)			
					Yes	3.21 (1.37, 7.54)	1.87	1.77 (-1.05, 4.58)	
				rs1540339	No	No	1.00		
					Yes	No	1.06 (0.70, 1.62)	0.06	
				Yes	No	0.94 (0.32, 2.77)			
				Yes	3.46 (1.47, 8.17)	2.52	2.46 (-0.47, 5.38)		
			rs2239179	No	No	1.00			
					Yes	0.98 (0.64, 1.51)	-0.02		
				Yes	No	2.25 (0.85, 5.96)			
					Yes	1.87 (0.81, 4.29)	-0.38	-0.37 (-2.85, 2.11)	
rs2189480	No	No		1.00					
	Yes	No		1.12 (0.72, 1.74)	0.12				
	Yes	No	0.78 (0.23, 2.66)						
	Yes	3.98 (1.73, 9.17)	3.20	3.08 (-0.14, 6.29)					
rs3819545	No	No	1.00						
		Yes	0.98 (0.64, 1.49)	-0.02					
	Yes	No	1.52 (0.45, 5.12)						

Supplemental Material, Table S2

Chr.	Gene*	rs number	Mercury Exposure	SNP	OR (95% CI)	PD	RERI (95% CI)
				Yes	2.20 (1.00, 4.85)	0.68	0.70 (-1.60, 3.01)
		rs3782905	No	No	1.00		
				Yes	0.92 (0.61, 1.38)	-0.08	
			Yes	No	2.42 (1.00, 5.87)		
				Yes	1.59 (0.61, 4.12)	-0.84	-0.75 (-3.29, 1.79)
		rs2239186	No	No	1.00		
				Yes	0.85 (0.54, 1.34)	-0.15	
			Yes	No	1.05 (0.44, 2.49)		
				Yes	4.27 (1.63, 11.17)	3.22	3.37 (-0.72, 7.45)
		rs2228570	No	No	1.00		
				Yes	0.89 (0.58, 1.37)	-0.11	
			Yes	No	1.16 (0.35, 3.78)		
				Yes	2.40 (1.05, 5.46)	1.24	1.35 (-0.92, 3.62)
		rs2254210	No	No	1.00		
				Yes	0.88 (0.57, 1.37)	-0.12	
			Yes	No	1.66 (0.55, 5.04)		
				Yes	2.29 (1.06, 4.98)	0.63	0.75 (-1.65, 3.15)
		rs2238136	No	No	1.00		
				Yes	1.16 (0.75, 1.77)	0.16	
			Yes	No	2.05 (0.82, 5.14)		
				Yes	2.22 (0.88, 5.57)	0.16	0.01 (-2.67, 2.69)
		rs2853564	No	No	1.00		
				Yes	1.09 (0.70, 1.70)	0.09	
			Yes	No	1.69 (0.54, 5.33)		
				Yes	2.60 (1.16, 5.81)	0.90	0.82 (-1.88, 3.51)
		rs4760648	No	No	1.00		
				Yes	1.03 (0.66, 1.61)	0.03	
			Yes	No	2.13 (0.78, 5.83)		
				Yes	1.89 (0.74, 4.83)	-0.25	-0.27 (-2.84, 2.29)
		rs11168287	No	No	1.00		
				Yes	1.18 (0.74, 1.90)	0.18	
			Yes	No	2.52 (0.72, 8.80)		
				Yes	2.36 (1.03, 5.40)	-0.17	-0.35 (-3.84, 3.14)
		rs4328262	No	No	1.00		
				Yes	1.37 (0.88, 2.13)	0.37	
			Yes	No	3.68 (1.14, 11.88)		
				Yes	2.22 (0.96, 5.10)	-1.46	-1.83 (-6.37, 2.71)
		rs4237855	No	No	1.00		
				Yes	0.82 (0.53, 1.26)	-0.18	
			Yes	No	1.49 (0.51, 4.33)		
				Yes	2.48 (1.05, 5.90)	0.99	1.17 (-1.29, 3.63)
		rs7136534	No	No	1.00		
				Yes	1.41 (0.93, 2.14)	0.41	

Supplemental Material, Table S2

Chr.	Gene*	rs number	Mercury Exposure	SNP	OR (95% CI)	PD	RERI (95% CI)	
18	<i>MBP</i>	rs7299460	Yes	No	3.06 (1.31, 7.16)			
			No	Yes	2.22 (0.83, 5.90)	-0.84	-1.26 (-4.46, 1.95)	
		rs4760658	No	No	1.00			
			Yes	Yes	1.40 (0.93, 2.11)	0.40		
		rs4516035	Yes	No	2.41 (1.02, 5.69)			
			Yes	Yes	2.68 (1.03, 7.00)	0.27	-0.13 (-3.19, 2.93)	
		rs17026	No	No	1.00			
			Yes	Yes	0.99 (0.65, 1.51)	-0.01		
		rs470724	Yes	No	1.29 (0.47, 3.52)			
			Yes	Yes	2.83 (1.20, 6.69)	1.54	1.55 (-1.08, 4.18)	
		rs470550	No	No	1.00			
			Yes	Yes	0.83 (0.53, 1.30)	-0.17		
		rs9676113	Yes	No	1.16 (0.38, 3.53)			
			Yes	Yes	2.33 (1.02, 5.33)	1.17	1.34 (-0.84, 3.53)	
		rs11661054	No	No	1.00			
			Yes	Yes	1.14 (0.76, 1.69)	0.14		
		rs4890785	Yes	No	1.78 (0.80, 3.95)			
			Yes	Yes	3.10 (1.01, 9.54)	1.33	1.19 (-2.40, 4.78)	
		rs11661755	No	No	1.00			
			Yes	Yes	1.14 (0.76, 1.73)	0.14		
		rs9675994	Yes	No	1.63 (0.66, 4.02)			
			Yes	Yes	3.15 (1.22, 8.13)	1.52	1.37 (-1.78, 4.53)	
		rs4890785	No	No	1.00			
			Yes	Yes	1.55 (0.96, 2.51)	0.55		
		rs11661054	Yes	No	8.65 (1.88, 39.70)			
			Yes	Yes	2.24 (0.99, 5.10)	-6.41	-6.96 (-20.15, 6.24)	
		rs4890785	No	No	1.00			
			Yes	Yes	0.66 (0.44, 0.99)	-0.34		
		rs11661755	Yes	No	2.64 (1.07, 6.51)			
			Yes	Yes	1.13 (0.44, 2.87)	-1.51	-1.17 (-3.74, 1.40)	
		rs4890785	No	No	1.00			
			Yes	Yes	1.37 (0.88, 2.13)	0.37		
rs11661755	Yes	No	4.43 (1.46, 13.42)					
	Yes	Yes	2.03 (0.88, 4.69)	-2.39	-2.76 (-7.74, 2.22)			
rs9675994	No	No	1.00					
	Yes	Yes	0.70 (0.46, 1.05)	-0.30				
rs9675994	Yes	No	2.54 (1.02, 6.31)					
	Yes	Yes	1.28 (0.50, 3.29)	-1.26	-0.96 (-3.53, 1.61)			
rs9675994	No	No	1.00					
	Yes	Yes	1.39 (0.91, 2.13)	0.39				
rs9675994	Yes	No	4.60 (1.41, 14.98)					
	Yes	Yes	1.96 (0.85, 4.53)	-2.63	-3.02 (-8.61, 2.56)			
rs9675994	No	No	1.00					

Supplemental Material, Table S2

Chr.	Gene*	rs number	Mercury Exposure	SNP	OR (95% CI)	PD	RERI (95% CI)
				Yes	0.89 (0.57, 1.37)	-0.11	
			Yes	No	3.78 (1.48, 9.66)		
		rs8090438		Yes	1.07 (0.43, 2.62)	-2.71	-2.60 (-6.23, 1.03)
			No	No	1.00		
				Yes	1.20 (0.77, 1.85)	0.20	
			Yes	No	3.79 (1.12, 12.85)		
		rs8094402		Yes	2.03 (0.88, 4.65)	-1.77	-1.96 (-6.75, 2.83)
			No	No	1.00		
				Yes	1.48 (0.97, 2.25)	0.48	
			Yes	No	2.60 (0.97, 6.98)		
		rs12456341		Yes	2.55 (1.06, 6.15)	-0.04	-0.52 (-3.81, 2.76)
			No	No	1.00		
				Yes	1.21 (0.79, 1.85)	0.21	
			Yes	No	3.49 (1.25, 9.73)		
		rs17576751		Yes	1.65 (0.69, 3.97)	-1.83	-2.04 (-5.72, 1.64)
			No	No	1.00		
				Yes	1.18 (0.76, 1.84)	0.18	
			Yes	No	1.75 (0.67, 4.54)		
		rs3794848		Yes	2.98 (1.17, 7.62)	1.24	1.06 (-1.99, 4.11)
			No	No	1.00		
				Yes	1.30 (0.86, 1.97)	0.30	
			Yes	No	2.35 (0.84, 6.59)		
		rs4890875		Yes	2.39 (1.05, 5.42)	0.04	-0.26 (-3.19, 2.66)
			No	No	1.00		
				Yes	1.18 (0.79, 1.78)	0.18	
			Yes	No	3.75 (1.39, 10.16)		
		rs595997		Yes	1.75 (0.75, 4.10)	-2.00	-2.19 (-6.08, 1.70)
			No	No	1.00		
				Yes	0.59 (0.38, 0.91)	-0.41	
			Yes	No	1.70 (0.72, 4.02)		
		rs2974260		Yes	1.49 (0.56, 3.98)	-0.22	0.19 (-1.81, 2.19)
			No	No	1.00		
				Yes	1.99 (1.24, 3.20)	0.99	
			Yes	No	3.40 (0.95, 12.20)		
		rs2051344		Yes	3.23 (1.43, 7.30)	-0.17	-1.16 (-6.05, 3.73)
			No	No	1.00		
				Yes	0.89 (0.60, 1.32)	-0.11	
			Yes	No	1.78 (0.68, 4.67)		
		rs470681		Yes	2.03 (0.88, 4.68)	0.25	0.36 (-1.86, 2.59)
			No	No	1.00		
				Yes	0.68 (0.44, 1.03)	-0.32	
			Yes	No	1.63 (0.68, 3.89)		
				Yes	1.93 (0.76, 4.89)	0.30	0.62 (-1.52, 2.76)

Supplemental Material, Table S2

Chr.	Gene*	rs number	Mercury Exposure	SNP	OR (95% CI)	PD	RERI (95% CI)
19	<i>APOE</i>	rs12967023	No	No	1.00		
			Yes	No	1.84 (1.19, 2.85)	0.84	
			Yes	Yes	2.58 (1.08, 6.17)		
			Yes	No	3.23 (1.23, 8.53)	0.65	-0.19 (-3.86, 3.48)
			Yes	Yes	1.09 (0.71, 1.66)	0.09	
			Yes	No	2.30 (0.83, 6.40)		
		rs4890788	No	No	1.00		
			Yes	No	2.01 (0.87, 4.69)	-0.29	-0.37 (-3.10, 2.35)
			Yes	Yes	1.05 (0.68, 1.62)	0.05	
			Yes	No	1.87 (0.70, 5.00)		
			Yes	Yes	2.32 (1.00, 5.39)	0.45	0.40 (-2.03, 2.84)
			Yes	No	1.93 (1.19, 3.12)	0.93	
		rs8096433	No	No	1.00		
			Yes	No	8.44 (2.31, 30.90)		
			Yes	Yes	2.21 (0.97, 5.04)	-6.23	-7.16 (-18.20, 3.88)
			Yes	No	0.81 (0.54, 1.21)	-0.19	
			Yes	Yes	1.77 (0.77, 4.10)	-0.06	0.13 (-2.02, 2.28)
			Yes	No	1.57 (0.76, 3.28)		
		rs17660901	No	No	1.00		
			Yes	No	4.28 (1.25, 14.66)	2.70	2.80 (-2.51, 8.11)
			Yes	Yes	0.90 (0.56, 1.44)	-0.10	
			Yes	No	1.57 (0.76, 3.28)		
			Yes	Yes	4.28 (1.25, 14.66)	2.70	2.80 (-2.51, 8.11)
			Yes	No	1.57 (0.76, 3.28)		
rs429358	No	No	1.00				
	Yes	No	1.57 (0.76, 3.28)				
	Yes	Yes	4.28 (1.25, 14.66)	2.70	2.80 (-2.51, 8.11)		
	Yes	No	0.94 (0.53, 1.65)	-0.06			
	Yes	Yes	1.86 (0.90, 3.84)				
	Yes	No	1.86 (0.90, 3.84)				
rs7412	No	No	1.00				
	Yes	No	1.86 (0.90, 3.84)				
	Yes	Yes	2.81 (0.74, 10.64)	0.95	1.02 (-2.94, 4.97)		
	Yes	No	1.86 (0.90, 3.84)				
	Yes	Yes	2.81 (0.74, 10.64)	0.95	1.02 (-2.94, 4.97)		
	Yes	No	1.86 (0.90, 3.84)				

Abbreviations: *APOE*, Apolipoprotein E; CI=confidence interval; *HLA*, Human leukocyte antigen; *IL2RA*, Interleukin-2 receptor alpha; *IL7RA*, Interleukin-7 receptor alpha; MAF, minor allele frequency; *MBP*, Myelin basic protein; OR, prevalence odds ratio; PD, prevalence difference; SNP, single nucleotide polymorphism; *TCA-β*, T cell antigen receptor beta; *TNFα*, Tumor necrosis factor alpha; *TNFβ*, Tumor necrosis factor beta; *VDR*, Vitamin D receptor.