

eTable 1. PON1 Leu-Met 55 Genotype Frequencies and adjusted Odds Ratios (OR) among Caucasians

	Cases (n=282)	Controls (n=290)	Unadjusted	Adjusted ^a
	No. (%)	No. (%)	OR (95% CI)	OR (95% CI)
PON1-55				
LL ^b	118 (42)	133 (46)	1.00	1.00
LM	122 (43)	128 (44)	1.07 (0.76-1.53)	1.04 (0.73-1.49)
MM	42 (15)	29 (10)	1.63 (0.96-2.79)	1.58 (0.91-2.74)
LL+LM ^b	240 (85)	261 (90)	1.00	1.00
MM	42 (15)	29 (10)	1.58 (0.95-2.61)	1.55 (0.92-2.61)

^a Adjusted for age (continuous), sex, ever smoked, county, education (school years)

^b Reference category

eTable 2. Association of Residential Exposure to Chlorpyrifos, Diazinon, Parathion with Parkinson Disease among Caucasians

	Cases (n=282)	Controls (n=290)	Unadjusted	Adjusted ^a
	No. (%)	No. (%)	OR (95% CI)	OR (95% CI)
Diazinon				
Zero ^b	122 (43)	148 (51)	1.00	1.00
Low	66 (23)	74 (25)	1.08 (0.72-1.63)	1.07 (0.69-1.66)
High	94(33)	68 (23)	1.68 (1.13-2.49)	1.56 (1.01-2.41)
Chlorpyrifos				
Zero ^b	141 (50)	176 (61)	1.00	1.00
Low	77 (27)	57 (21)	1.69 (1.12-2.54)	1.70 (1.10-2.61)
High	64 (23)	57 (21)	1.40 (0.92, 2.13)	1.41 (0.88-2.26)
Parathion				
Zero ^b	155 (55)	162 (56)	1.00	1.00
Low	61 (22)	68 (24)	0.94 (0.62-1.41)	0.81 (0.52-1.26)
High	66 (23)	60 (21)	1.15 (0.76-1.74)	1.02 (0.64-1.61)

^a Adjusted for age (continuous), sex, ever smoked, county, education (school years)

^b Reference category

eTable 3. Interaction between PON1 Leu-Met 55 and Diazinon, Chlorpyrifos, and Parathion exposure in association with Parkinson Disease among Caucasians

	Zero Exposure			Low/High Exposure		
	No. Cases/Controls	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)	No. Cases/Controls	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)
Diazinon						
PON1-55						
LL+LM	107/130	1.00 ^b	1.00 ^b	133/131	1.23 (0.87-1.75)	1.18 (0.80-1.75)
MM	15/18	1.01 (0.49-2.10)	1.05 (0.50-2.21)	27/11	2.98 (1.41-6.29)	2.68 (1.23-5.83)
OR (95%) for Interaction					2.95 (1.11-7.85)	2.56 (0.94-6.97)
Chlorpyrifos						
PON1-55						
LL+LM	122/157	1.00 ^b	1.00 ^b	118/104	1.46 (1.03-2.08)	1.48 (1.00-2.17)
MM	19/19	1.29 (0.65-2.54)	1.25 (0.63-2.50)	23/10	2.96 (1.36-6.45)	2.95 (1.31-6.64)
OR (95%) for Interaction					2.30 (0.86-6.11)	2.23 (0.82-6.07)
Parathion						
PON1-55						
LL+LM	129/143	1.00 ^b	1.00 ^b	111/118	1.04 (0.73-1.48)	0.91 (0.61-1.34)
MM	26/19	1.52 (0.80-2.87)	1.50 (0.78-2.87)	16/10	1.77 (0.78-4.05)	1.47 (0.62-3.51)
OR (95%) for Interaction					1.17 (0.44-3.14)	1.08 (0.39-2.99)

^a Adjusted for age (continuous), sex, ever smoked, county, education (school years)

^b Reference category

eTable 4. Interaction between PON1 Leu-Met 55 and high Diazinon exposure in association with Parkinson Disease

	Zero/Low Exposure			High Exposure		
	No. Cases/Controls	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)	No. Cases/Controls	Unadjusted OR (95% CI)	Adjusted ^a OR (95% CI)
PON1-55						
Entire Population						
LL+LM	197/243	1.00 ^b	1.00 ^b	106/85	1.54 (1.09-2.17)	1.38 (0.81-1.89)
MM	29/31	1.15 (0.67-1.98)	1.08 (0.62-1.88)	19/4	5.86 (1.96-17.50)	5.30 (1.71-16.44)
OR (95%) for Interaction					5.08 (1.54-16.71)	4.59 (1.37-15.42)
Caucasians Only						
LL+LM	162/195	1.00 ^b	1.00 ^b	78/66	1.42 (0.97-2.10)	1.32 (0.87-1.99)
MM	26/27	1.16 (0.65-2.07)	1.12 (0.62-2.02)	16/2	9.63 (2.18-42.50)	9.07 (2.00-41.16)
OR (95%) for Interaction					8.31 (1.74-39.75)	7.74 (1.59-37.69)

^a Adjusted for age (continuous), sex, ever smoked, county, education (school years)

^b Reference category