

Supplementary Table 1: Mitochondrial Electron Transport Defects in Platelets of Parkinson's Disease Subjects

Study	Results	N	Preparation
Parker et al (1989) (29)	-54% complex I	10	m
Mann et al (1992) (30)	No difference	14	c
Bravi et al (1992) (31)	No difference	17	m
Yoshino et al (1992) (11)	-26% complex I		
	-20% complex II	20	c
Krige et al (1992) (32)	-16% complex I	25	m
Benecke et al (1993) (33)	-52% complex I		
	-30% complex IV	27	m
Haas et al (1995) (5)	-25% complex I		
	-20% complex II/III		
	No difference	13	m
	complex IV		
Blake et al (1997) (34)	No difference	13	c
Hanagasi et al (2005) (35)	No difference	22	c
Varghese et al (2009) (36)	-50% complex I	10	c

m = ETC activity measured in isolated mitochondria. C = ETC activity measured in crude homogenates.

Supplementary Table 3: Demographics of Subjects and Exposure to Mitochondrial Inhibiting Pesticides

Variable	Mitochondrial Complex I Inhibitors		
	Unexposed (n=37)	Exposed (n=9)	p-value*
<i>Demographics</i>			
Age (mean \pm SD)	70.8 (9.7)	70.6 (14.6)	0.95
Female (%)	51.4	66.7	0.41
Never Smokers (%)	40.5	44.4	0.77
Non-Caucasian (%)	16.2	11.1	-
<i>Health Indicators</i>			
MMSE score (mean \pm SD)	27.8 (3.4)	28.6 (1.2)	0.29
<i>Mitochondrial Function:</i>			
Complex I (CI) (mean \pm SD)	15.6 (9.0)	14.5 (7.7)	0.72
Citrate synthase (CS) (mean \pm SD)	394.0 (185.7)	354.0 (214.4)	0.58
CI/CS (mean \pm SD)	0.041 (0.01)	0.048 (0.02)	0.18
NCCR (mean \pm SD)†	34.0 (22.5)	22.9 (15.3)	0.19
NCCR/CS (mean \pm SD)†	0.081 (0.03)	0.056 (0.02)	0.03

*P-value based on ttest or chi-square, Exposed vs Unexposed.

† 1 additional PD case and 1 control failed NCCR experiment (n=44).

Supplementary Table 4: Exposure by Pesticide Class

Pesticide Exposure Class	Exposure within 5 year of biologic sample draw		
	Exposed	Unexposed	Median # of chemicals
	n (%)	n (%)	exposed to (range)
Any Pesticide	25 (54.4)	21 (46.7)	26 (1-130)
Organophosphates	19 (41.3)	27 (58.7)	4 (1-9)
Organochlorines	13 (28.3)	33 (71.7)	1 (1-3)
Dithiocarbamates	11 (23.9)	35 (76.1)	1 (1-3)
Mitochondrial Complex I Inhibitors	9 (19.6)	37 (80.4)	1 (1-3)

Supplementary Table 5: PD Medications at Time of Enrollment

Medication	Dose	Pills / day	PD Patients n (%)
Amantadine	100 mg	2	1 (2.1)
Artane	2 mg	4	1 (2.1)
Carbidopa/levodopa	10/100	3	1 (2.1)
	25/100	2-4	10 (21.3)
	25/250	3	1 (2.1)
Carbidopa/levodopa (CR, ER, or XR)	25/100	2-3	2 (4.3)
	50/200	1-4	6 (12.8)
Mirapex	5 mg	3	1 (2.1)
	25 mg	1	1 (2.1)
	125 mg	3	2 (4.3)
Permax	1 mg	2-3	3 (6.4)
	5 mg	4	1 (2.1)
Requip	1 mg	2	1 (2.1)
	4 mg	3	1 (2.1)
Selegeline	5 mg	2	2 (4.3)

*NOTE participants may be taking more than one medication and included in more than one category above

Supplementary Table 6: All Non-PD Medications at Time of Enrollment

Medication	Controls n=23	PD Patients n=23
Acetaminophen, n (%)	1 (0.04)	2 (0.09)
Aspirin	3 (0.13)	3 (0.13)
Other pain medications	5 (0.21)	5 (0.22)
Anxiety Medications		
<i>Chlordiazepoxide</i>	0	1 (0.04)
Blood Pressure Medications		
<i>Amlodipine</i>	1 (0.04)	0
<i>Atenolol</i>	2 (0.09)	0
<i>Captopril</i>	0	1 (0.04)
<i>Diltiazem</i>	1 (0.04)	0
<i>Enalapril</i>	0	2 (0.09)
<i>Furosemide</i>	1 (0.04)	0
<i>Hydrochlorothiazide</i>	0	1 (0.04)
<i>Irbesartan and Hydrochlorothiazide</i>	1 (0.04)	0
<i>Lisinopril</i>	2 (0.09)	2 (0.09)
<i>Lisinopril and Hydrochlorothiazide</i>	1 (0.04)	0
<i>Metoprolol</i>	1 (0.04)	0
<i>Nifedipine</i>	1 (0.04)	0
<i>Propranolol</i>	0	1 (0.04)
<i>Terazosin</i>	1 (0.04)	0
<i>Valsartan and Hydrochlorothiazide</i>	1 (0.04)	0
Depression Medications		
<i>Bupropion</i>	1 (0.04)	1 (0.04)
<i>Paroxetine</i>	2 (0.09)	0
<i>Imipramine</i>	0	1 (0.04)
<i>Fluoxetine</i>	1 (0.04)	0
Diabetes Medications		
<i>Glipizide</i>	1 (0.04)	0
<i>Glyburide</i>	0	1 (0.04)
<i>Pioglitazone</i>	1 (0.04)	0
Other Medications		
<i>Alendronate</i>	2 (0.09)	1 (0.04)
<i>Atorvastatin</i>	1 (0.04)	0
<i>Coumadin</i>	1 (0.04)	0
<i>Clopidogrel</i>	0	1 (0.04)
<i>Diazepam</i>	1 (0.04)	0
<i>Digoxin</i>	1 (0.04)	0
<i>Fexofenadine</i>	1 (0.04)	1 (0.04)
<i>Levothyroxine</i>	1 (0.04)	2 (0.09)
<i>Lovastatin</i>	1 (0.04)	0

<i>Minocycline</i>	0	1 (0.04)
<i>Ofloxacin Otic</i>	1 (0.04)	0
<i>Potassium Chloride</i>	1 (0.04)	0
<i>Propafenone</i>	1 (0.04)	0
<i>Ranitidine</i>	1 (0.04)	0
<i>Spironolactone</i>	0	1 (0.04)

*NOTE participants may be taking more than one medication and included in more than one category above