

Supplementary Online Content

Saunders-Pullman R, Mirelman A, Alcalay RN, et al; *LRRK2* Ashkenazi Jewish Consortium. Progression in the *LRRK2*-associated Parkinson disease population. *JAMA Neurol*. Published online January 8, 2018. doi:10.1001/jamaneurol.2017.4019

eTable. Models Comparing Rate Change in UPDRS III, MoCA, and H&Y; *LRRK2* PD vs IPD (Among Participants With ≥ 2 Visits)

eFigure 1. Longitudinal Trajectories of Mean UPDRS III Scores in *LRRK2* PD Compared With IPD Restricted to Those With at Least Two Visits

eFigure 2. Longitudinal Trajectories of MoCA Scores in *LRRK2* PD Compared With IPD Restricted to Those With at Least Two Visits

eFigure 3. Longitudinal Trajectories of Mean UPDRS III Scores in *LRRK2* PD Compared With IPD Among Those With 20 Years of Disease or Less: Mean Trajectories From Models Restricted to Disease Duration ≤ 20 Years

eFigure 4. Longitudinal Trajectories of MoCA Scores in *LRRK2* PD Compared With IPD Among Those With 20 Years of Disease or Less

eFigure 5. Spaghetti Plots Demonstrating Change in UPDRS III Scores Relative to Time Since Baseline in *LRRK2* PD and IPD

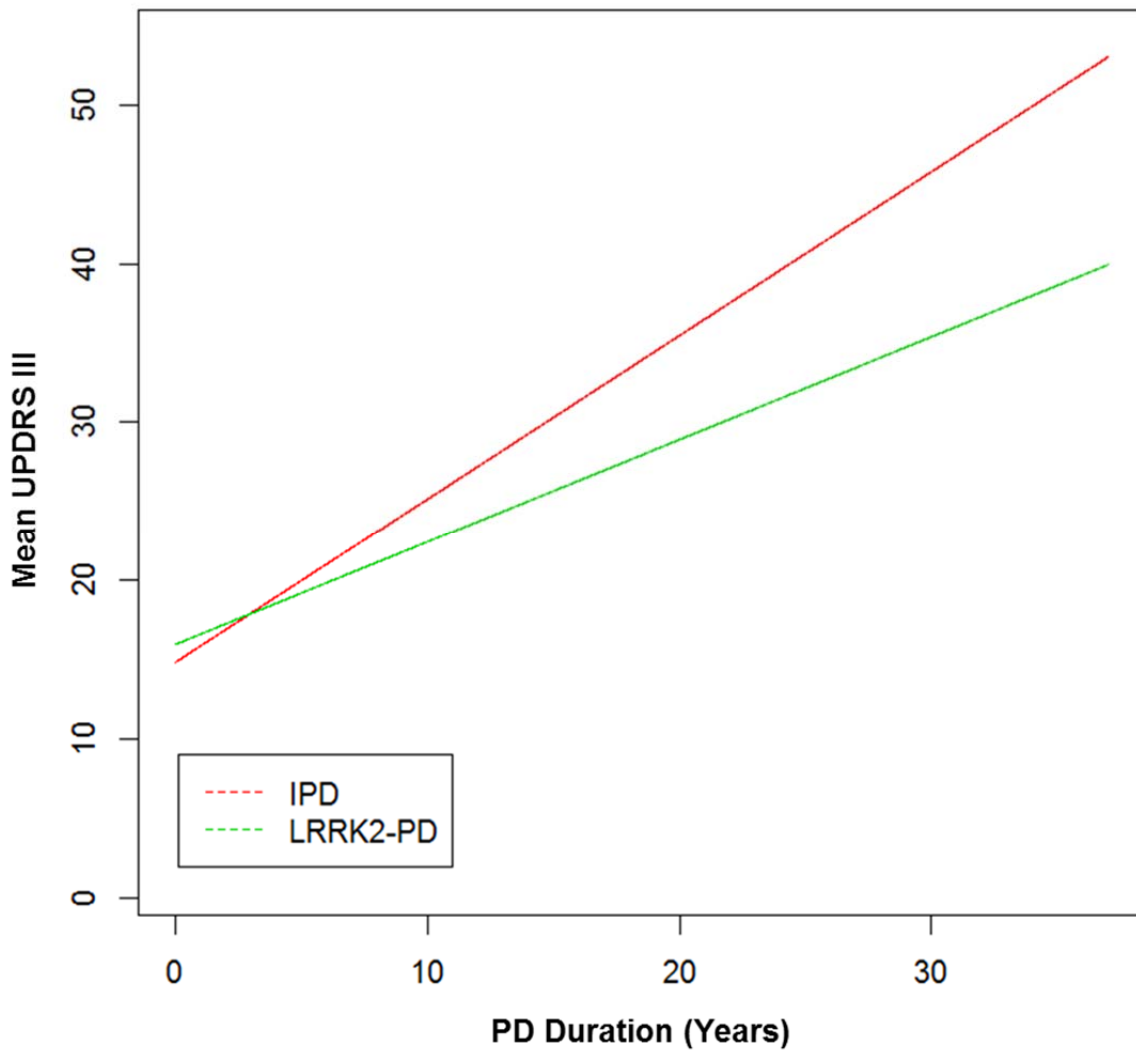
This supplementary material has been provided by the authors to give readers additional information about their work.

eTable. Models Comparing Rate Change in UPDRS-III, MoCA, and H&Y; *LRRK2* PD vs IPD (Among Participants With ≥ 2 Visits)

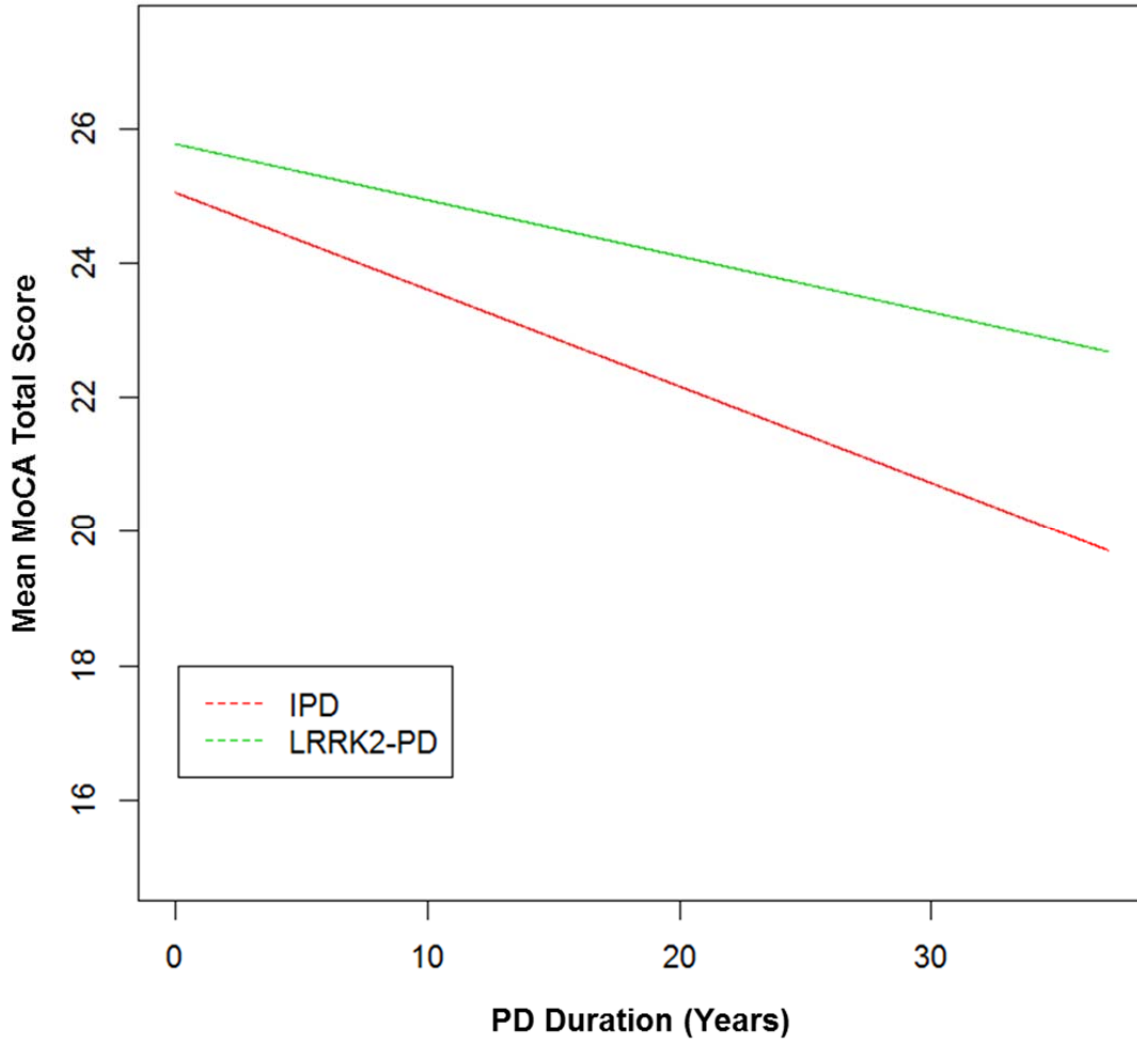
Predictors	UPDRS III			H&Y			MoCA		
	B	95% CI	P	B	95% CI	P	B	95% CI	P
Rate difference, years^b	-0.38	-0.73, -0.04	0.031	-0.01	-0.04, 0.02	0.471	0.06	-0.06, 0.18	0.314
Baseline age, years	0.24	0.12, 0.37	<0.001	0.02	0.01, 0.03	<0.001	-0.15	-0.20, -0.10	<0.001
Sex, female reference	3.68	1.38, 5.98	0.002	0.03	-0.12, 0.18	0.725	-0.51	-1.26, 0.24	0.185
<i>LRRK2</i> status, IPD reference	1.12	-2.68, 4.92	0.562	-0.09	-0.34, 0.16	0.470	0.71	-0.43, 1.85	0.22
Site									
MSBI	-5.05	-7.72, -2.37	<0.001	-0.03	-0.20, 0.13	0.690	0.28	-0.64, 0.02	0.547
CUMC	0.32	2.37, 3.38	0.839	0.17	-0.04, 0.39	0.103	1.01	1.21, 2.01	0.047
Baseline duration, years	-0.32	-0.72, 0.08	0.116	-0.05	-0.08, 0.02	0.003	0.06	-0.13, 0.25	<0.001
LEDD	0.00	0.00, 0.00	0.651	0.00	0.00, 0.00	0.562	0.00	0.00, 0.00	<0.001
MoCA	-0.45	-0.66, -0.24	<0.001	-0.03	-0.06, 0.01	0.004	--	--	--
PD duration at visit, years ^a	1.03	0.64, 1.42	<0.001	0.10	0.07, 0.12	<0.001	-0.15	-0.37, 0.06	0.154

^a Relative to IPD; ^b Between *LRRK2* carriers and IPD. TA: Tel Aviv; MSBI: Mount Sinai Beth Israel; CUMC: Columbia University Medical Center; LEDD: Levodopa equivalent daily dose; MoCA: Montreal Cognitive Assessment

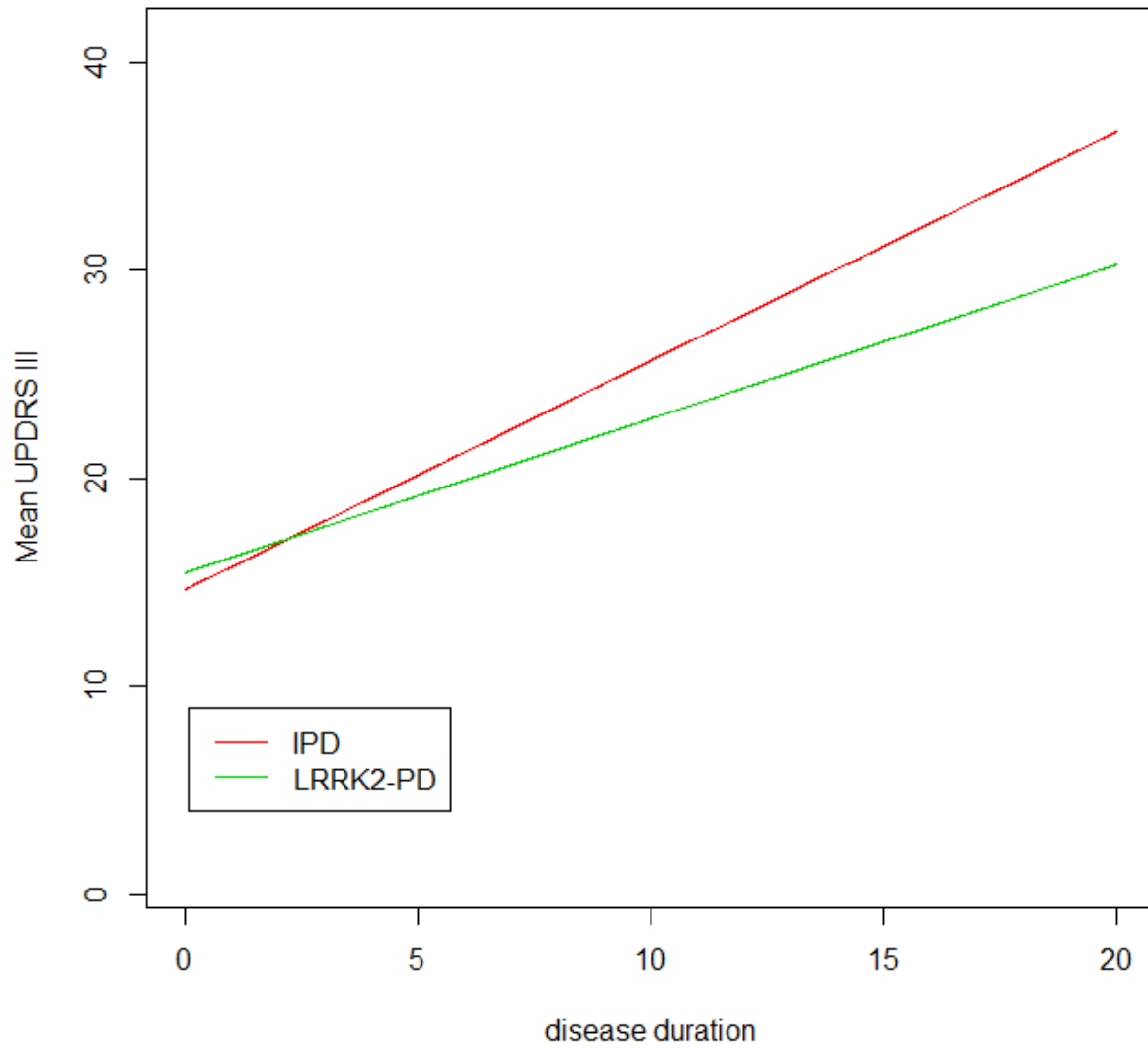
eFigure 1. Longitudinal Trajectories of Mean UPDRS III Scores in *LRRK2* PD Compared With IPD Restricted to Those With at Least Two Visits
Individuals had between 0 and 6 follow-up visits, and not all were followed for the duration noted on the x-axis. *The mean longitudinal trajectory is based on longitudinal data with up to 6.5 years of follow-up time adjusting for baseline disease duration and other covariates.*



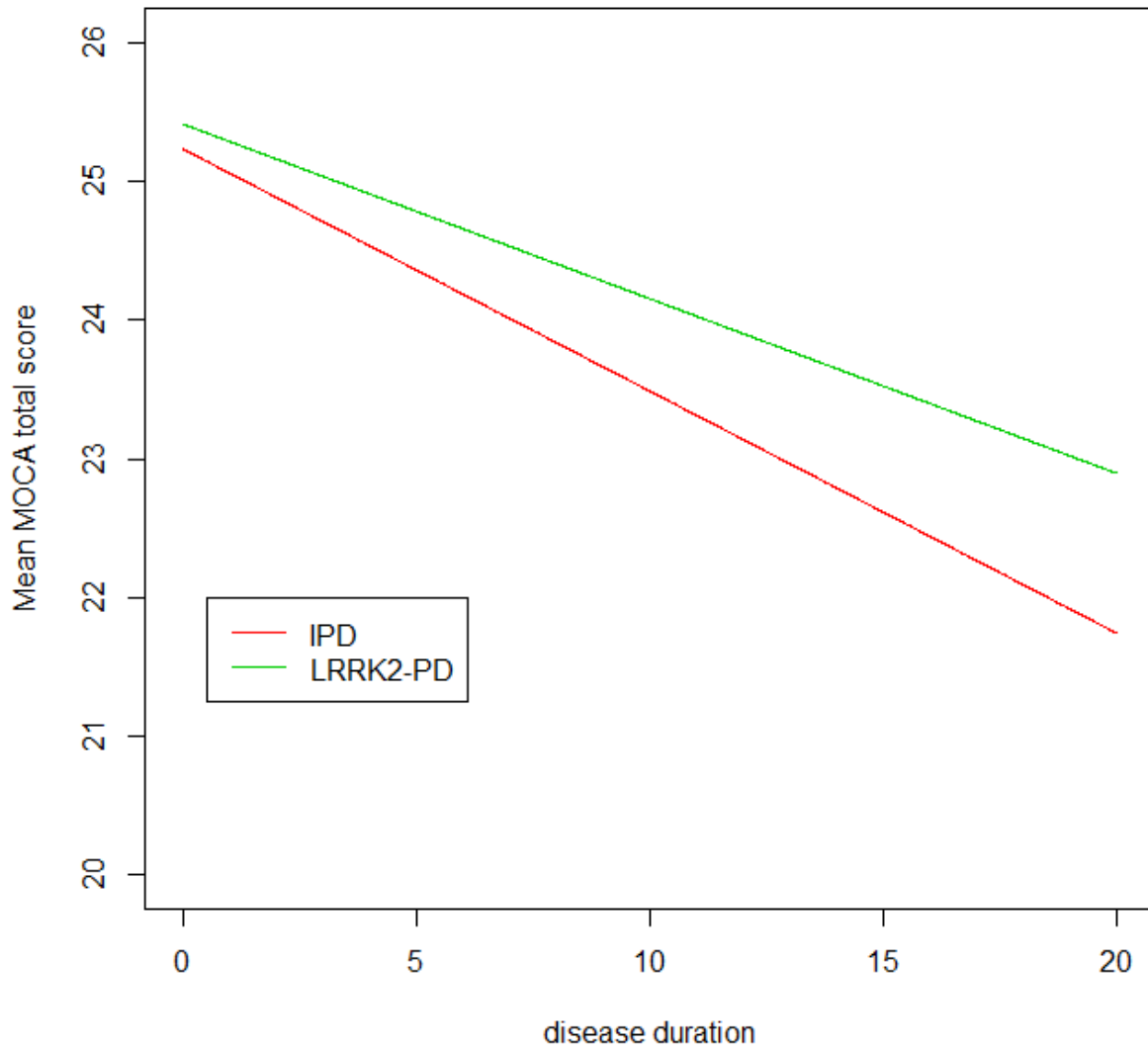
eFigure 2. Longitudinal Trajectories of MoCA Scores in *LRRK2* PD Compared With IPD Restricted to Those With at Least Two Visits
Individuals had between 0 and 6 follow-up visits, and not all were followed for the duration noted on the x-axis. *The mean longitudinal trajectory is based on longitudinal data with up to 6.5 years of follow-up time adjusting for baseline disease duration and other covariates.*



eFigure 3. Longitudinal Trajectories of Mean UPDRS III Scores in *LRRK2* PD Compared With IPD Among Those With 20 Years of Disease or Less: Mean Trajectories From Models Restricted to Disease Duration ≤ 20 Years



eFigure 4. Longitudinal Trajectories of MoCA Scores in *LRRK2* PD Compared With IPD Among Those With 20 Years of Disease or Less



eFigure 5. Spaghetti Plots Demonstrating Change in UPDRS III Scores Relative to Time Since Baseline in *LRRK2* PD and IPD

