

Supplementary Table 3. Previously reported genome-wide significant signals stratified by family history

Chr	Gene	SNP [Ref]	BP	Original report			NGRC All-PD			Familial-PD			Sporadic-PD		
				OR	SE	P	OR	SE	P	OR	SE	P	OR	SE	P
1	GBA	rs2230288 [1]	155206167	0.02	1.71	5E-8	1.57	0.27	9E-3	1.94	0.49	8E-3	1.49	0.27	0.03
1	PARK16	rs708723 [2]	205739266	0.44	0.91	1E-12	0.88	0.04	6E-3	0.85	0.07	0.04	0.89	0.05	0.02
2	STK39	rs2102808 [3]	169117025	0.13	1.28	2E-11	1.20	0.08	8E-3	1.31	0.14	0.01	1.17	0.09	0.03
3	NMD3	rs34016896 [2]	160992864	0.31	1.14	2E-8	1.10	0.06	0.05	0.98	0.08	0.83	1.15	0.06	0.01
3	MCCC1/LAMP3	rs10513789 [4]	182760073	0.20	0.80	3E-10	0.95	0.06	0.40	1.00	0.10	1.00	0.93	0.06	0.25
3	MCCC1/LAMP3	rs11711441 [3]	182821275	0.14	0.82	1E-8	0.91	0.06	0.17	0.90	0.11	0.39	0.90	0.07	0.16
4	GAK/DGKQ	rs11248051 [5]	858332	0.11	1.46	3E-9	1.32	0.10	3E-4	1.14	0.15	0.32	1.38	0.11	8E-5
4	GAK/DGKQ	rs11248060 [1]	964359	0.12	1.35	2E-9	1.23	0.09	5E-3	1.05	0.13	0.72	1.29	0.10	1E-3
4	BST1	rs11724635 [3]	15737101	0.45	0.87	2E-8	0.89	0.04	0.01	0.95	0.07	0.53	0.86	0.04	3E-3
4	SCARB2	rs6812193 [4]	77198986	0.37	0.84	8E-10	0.96	0.05	0.42	1.02	0.08	0.79	0.95	0.05	0.36
4	SNCA	rs356219 [3]	90637601	0.39	1.30	1E-26	1.37	0.07	1E-10	1.39	0.11	3E-5	1.36	0.07	4E-9
4	SNCA	rs356220 [5]	90641340	0.40	1.38	3E-11	1.38	0.07	3E-11	1.40	0.11	2E-5	1.37	0.07	1E-9
4	SNCA	rs2736990 [6]	90678541	0.49	1.23	2E-16	1.30	0.06	5E-8	1.37	0.10	5E-5	1.28	0.06	1E-6
4	SNCA	rs356198 [1]	90682504	0.18	0.82	5E-9	0.79	0.05	1E-4	0.76	0.08	0.01	0.78	0.05	3E-4
6	HLA	rs2395163 [1]	32387809	0.20	0.81	3E-11	0.80	0.05	2E-4	0.87	0.09	0.16	0.78	0.05	9E-5
6	HLA	rs3129882 [5]	32409530	0.43	1.26	2E-10	1.31	0.06	3E-8	1.12	0.09	0.15	1.38	0.07	5E-10
7	GPNMB	rs156429 [2]	23306020	0.40	0.89	3E-10	0.91	0.04	0.04	0.87	0.07	0.09	0.91	0.05	0.07
8	FGF20	rs591323 [2]	16697091	0.27	0.88	7E-11	0.92	0.05	0.13	0.90	0.08	0.22	0.93	0.05	0.19
8	MMP16	rs60298754 [2]	89373041	0.02	1.38	2E-9	1.04	0.16	0.78	1.15	0.28	0.58	1.00	0.17	0.98
10	ITGA8	rs7077361 [7]	15561543	0.12	0.88	2E-8	0.94	0.07	0.39	1.00	0.11	0.99	0.93	0.07	0.33
12	LRRK2	rs1491942 [3]	40620808	0.21	1.19	3E-8	1.22	0.07	6E-4	1.37	0.12	6E-4	1.17	0.07	9E-3
16	STX1B	rs4889603 [2]	30982225	0.41	1.12	3E-12	1.01	0.05	0.90	1.07	0.08	0.40	0.99	0.05	0.91
17	MAPT	rs2942168 [3]	43714850	0.22	0.76	4E-19	0.76	0.05	5E-6	0.64	0.07	2E-5	0.79	0.05	3E-4
18	RIT2	rs12456492 [1]	40673380	0.34	1.19	2E-10	1.09	0.06	0.10	1.22	0.10	0.02	1.06	0.06	0.28

Included in this table are results of prior GWAS that reached genome-wide significance in whites of European decent, and for which data (genotyped or imputed) were available in NGRC GWAS. BP=position in Build 37. All analyses are adjusted for age, sex, PC1, and PC2.

1. Pankratz N, Beecham GW, DeStefano AL, Dawson TM, Doheny KF, Factor SA, Hamza TH, Hung AY, Hyman BT, Ivinston AJ et al: **Meta-analysis of Parkinson's disease: identification of a novel locus, RIT2.** *Ann Neurol* 2012, **71**(3):370-384.
2. International Parkinson's Disease Genomics C, Wellcome Trust Case Control C: **A two-stage meta-analysis identifies several new loci for Parkinson's disease.** *PLoS genetics* 2011, **7**(6):e1002142.
3. Nalls MA, Plagnol V, Hernandez DG, Sharma M, Sheerin UM, Saad M, Simon-Sanchez J, Schulte C, Lesage S, Sveinbjornsdottir S et al: **Imputation of sequence variants for identification of genetic risks for Parkinson's disease: a meta-analysis of genome-wide association studies.** *Lancet* 2011, **377**(9766):641-649.
4. Do CB, Tung JY, Dorfman E, Kiefer AK, Drabant EM, Francke U, Mountain JL, Goldman SM, Tanner CM, Langston JW et al: **Web-based genome-wide association study identifies two novel loci and a substantial genetic component for Parkinson's disease.** *PLoS genetics* 2011, **7**(6):e1002141.
5. Hamza TH, Zabetian CP, Tenesa A, Laederach A, Montimurro J, Yearout D, Kay DM, Doheny KF, Paschall J, Pugh E et al: **Common genetic variation in the HLA region is associated with late-onset sporadic Parkinson's disease.** *Nat Genet* 2010, **42**(9):781-785.
6. Simon-Sanchez J, Schulte C, Bras JM, Sharma M, Gibbs JR, Berg D, Paisan-Ruiz C, Lichtner P, Scholz SW, Hernandez DG et al: **Genome-wide association study reveals genetic risk underlying Parkinson's disease.** *Nat Genet* 2009, **41**(12):1308-1312.
7. Lill CM, Roehr JT, McQueen MB, Kavvoura FK, Bagade S, Schjeide LM, Meissner E, Zauft U, Allen NC et al: **Comprehensive Research Synopsis and Systematic Meta-Analyses in Parkinson's Disease Genetics: The PDGene Database.** *PLoS genetics* 2012, **8**(3):e1002548.