TAG SNPs Identification Papers

PMID: 35970579

From the paper

The subsequent meta-analysis of COURAGE-PD and IPDGC datasets (Ntotal = 25,950) led to the identification of 2 genome-wide significant association signals on Chr 4, including the previously reported SNCA locus (rs983361) and a novel BST1 locus (rs4698412).

riskAllele	pValue	riskFrequency	mappedGenes	traitName	efoTraits	locations
rs983361-T	3E-09	0.204	SNCA-AS1	Age of onset of parkinson disease	age of onset of Parkinson disease	4:89840793
rs4698412-A	4E-08	0.562	BST1	Age of onset of parkinson disease	age of onset of Parkinson disease	4:15735725

ref: rs4698412

hg19 LD R-squared

4	15737101	rs11724635	4	15737348	rs4698412	0.999308
4	15737348	rs4698412	4	15730146	rs34559912	0.966445
4	15737348	rs4698412	4	15730398	rs4389574	0.963118
4	15737348	rs4698412	4	15737101	rs11724635	0.999308
4	15737348	rs4698412	4	15737348	rs4698412	1
4	15737348	rs4698412	4	15737882	rs4698413	0.993086

ref: rs983361

g19	LD R-squared					
4	90753180	rs2737002	4	90761944	rs983361	0.817636
4	90757294	rs1372518	4	90761944	rs983361	0.836286
4	90757505	rs1372520	4	90761944	rs983361	0.8542
4	90761944	rs983361	4	90750326	rs2583978	0.800937
4	90761944	rs983361	4	90750588	rs2583979	0.803922
4	90761944	rs983361	4	90753180	rs2737002	0.817636
4	90761944	rs983361	4	90754313	rs1471484	0.825711
4	90761944	rs983361	4	90754771	rs990085	0.819515
4	90761944	rs983361	4	90757294	rs1372518	0.836286
4	90761944	rs983361	4	90757309	rs1372519	0.838199
4	90761944	rs983361	4	90757505	rs1372520	0.8542
4	90761944	rs983361	4	90761944	rs983361	1
4	90761944	rs983361	4	90771499	rs2583990	0.842982
4	90761944	rs983361	4	90775649	rs1442152	0.851479
4	90761944	rs983361	4	90776257	rs2736989	0.842982
4	90761944	rs983361	4	90779758	rs2583961	0.838894
4	90761944	rs983361	4	90779823	rs2737026	0.838894

PDID: 30957308

From the paper

We found two genome-wide significant association signals, one at SNCA and the other a protein-coding variant in TMEM175, both of which are known PD risk loci and a Bonferroni corrected significant effect at other known PD risk loci, GBA, INPP5F/BAG3, FAM47E/SCARB2, and MCCC1. Notably, SNCA, TMEM175.

1

riskAllele	pValue	mappedGenes	traitName	efoTraits	locations	
rs356203-?	2E-12	SNCA	Parkinson's disease (age of onset)	age at onset,Parkinson disease	4:89744890	
rs34311866-C	1E-08	TMEM175	Parkinson's disease (age of onset)	age at onset,Parkinson disease	4:958159	

rs356203

rs3	4311866					
4	90666041	rs356203	4	90666041	rs356203	1
4	90666041	rs356203	4	90646886	rs356165	0.994704
4	90666041	rs356203	4	90641340	rs356220	0.985644
4	90666041	rs356203	4	90637601	rs356219	0.962572
4	90666041	rs356203	4	90636561	rs356215	0.844504
4	90666041	rs356203	4	90635606	rs356209	0.845618
4	90641340	rs356220	4	90666041	rs356203	0.985644
4	90637601	rs356219	4	90666041	rs356203	0.962572

rs34311866 4

rs6532192

951947

4	90	743331	rs100	005233	4 9	0764131	rs6532192	0.803553
	4	90750025	rs	6828271	4	90764131	rs6532192	0.807909
	4	90757272	rs	3756059	4	90764131	rs6532192	0.845287

951947

rs34311866

4 90757394 rs3756063 4 90764131 rs6532192 0.852115 4 90759556 rs3806789 4 90764131 rs6532192 0.988154 4 90763360 rs7680557 4 90764131 rs6532192 0.992393

PMID: <u>27402877</u>

From the paper

CHR	Gene	SNP	MAF	Discovery (NGRC)					Replication					Discovery + Replication				
GWAS Test Cox regression		Effect on AAO Linear regression			Test Cox regression		Effect on AAO Linear regression			Test Cox regression		Effect on AAO Linear regression						
HR	Р	Beta	95% CI	P	HR	Р	Beta	95% CI	Р	HR	Р	Beta	95% CI	P				
5	LHFPL2	rs10035651	0.016	4.76	3E-8	- 12.31	-18.42; -6.19	8E-5	_	_	-	_	-	_	_	_	_	-
5	LHFPL2	rs344650	0.016	4.77	3E-8	12.33	-18.45;	8E-5	2.68	2E-5	-8.03	-13.11; -2.95	1E-3	3.40	1E-11	-9.79	- 13.70; -5.88	9E-7
5	LHFPL2	rs344657	0.016	4.77	3E-8	- 12.33	-18.45; -6.21	8E-5	_	_	-	_	_	_	_	-	_	-
8	TRPS1	rs74335301	0.014	4.46	3E-8	- 11.76	-17.98; -5.54	2E-4	1.39	0.07	0.44	-4.34; 5.23	0.86*	2.20	3E-6	-4.09	-7.89; -0.30	0.03
14	KLHDC1	rs79503702	0.012	6.95	7E-9	- 14.81	-22.00; -7.62	5E-5	1.89	0.04	-2.03	-10.46; 6.41	0.32	3.82	5E-8	-9.43	- 14.90; -3.96	7E-4
14	KLHDC1_ARF6	rs192855008	0.012	7.12	4E-9	- 15.01	-22.22; -7.79	5E-5	_	_	-	_	_	_	_	-	_	-
15	TPM1	rs117267308	0.012	6.47	2E-8	- 15.30	-22.49; -8.10	3E-5	3.20	2E-4	-9.29	-16.79; -1.79	8E-3	4.55	9E-11		- 17.61; -7.23	3E-6
15	TPM1	rs141049631	0.012	6.47	2E-8	- 15.30	-22.49; -8.10	3E-5	-	_	-	_	_	_	-	-	_	-
15	TPM1	rs116860970	0.013	6.52	8E-9	- 15.13	-22.17; -8.09	3E-5	_	_	-	_	_	_	_	-	_	-
15	TPM1	rs77362326	0.012	6.47	2E-8	- 15.30	-22.49; -8.10	3E-5	_	_	-	_	_	_	_	-	_	-
15	TPM1	rs201411148	0.012	6.47	2E-8	- 15.30	-22.49;	3E-5	_	_	-	_	_	_	_	-	_	-
15	TPM1	rs142383316	0.012	6.47	2E-8	15.30	-22.49;	3E-5	_	_	-	_	_	_	-	-	-	-
15	TPM1	rs117484764	0.012	6.46	2E-8	- 15.29	-22.49;	3E-5	_	_	-	_	_	_	-	-	_	-

rs10035651

5 77860608 rs344650 5 77837737 rs10035651 0.926268

rs344650

5 77860608 rs344650 5 77837737 rs10035651 0.926268

5 77860608 rs344650 5 77860608 rs344650

rs394521 0.901537 5 77860608 rs344650 5 77871164

rs344657

None

rs74335301

8 116638637 rs74335301 8 116638637 rs74335301

rs79503702

14 50206170 rs79503702 14 50206170 rs79503702

rs192855008

None

rs141049631

None

rs116860970

15 63346376 rs117267308 15 63351500 rs116860970 0.929039

rs77362326

15 63346376 rs77362326 0.913295 rs117267308 15 63353865

rs201411148

15 63346376 rs201411148 0.964033 rs117267308 15 63356439

rs142383316

15 63346376 rs117267308 15 63364309 rs142383316 0.929039

rs117484764

15 63346376 rs117267308 15 63365502 rs117484764 0.929039

PMID: <u>33884653</u>

From the paper

One novel significant intergenic locus rs9783733 (NDN; PWRN4) was identified (P = 3.14E-09, beta = 2.30, SE = 0.39).

riskAllele	pValue	riskFrequency	beta	ci	mappedGenes	traitName	efoTraits	accessionId	locations
rs9783733-?	3E-09	NR	2.3 unit increase	[1.54-3.06]	PWRN4	Parkinson's disease (age of onset)	age at onset.Parkinson disease	GCST011677	15:2392380

rs9783733

15	24168950	rs9783733	15	24168950	rs9783733	1
15	24168950	rs9783733	15	24177901	rs28671452	0.947717

PMID: <u>19772629</u>

From the paper

riskAllele	pValue	mappedGenes	traitName	efoTraits	locations
rs7577851-T	9E-06	AAK1	Parkinson's disease (age of onset)	age at onset, Parkinson disease	2:69496578

rs7577851

2	69723710	rs7577851	2	69723494	rs71840259	0.996326
2	69723710	rs7577851	2	69723710	rs7577851	1
2	69723710	rs7577851	2	69724366	rs202069720	0.997797
2	69723710	rs7577851	2	69724371	rs201872917	0.997797
2	69723710	rs7577851	2	69724649	rs111258456	0.997798