Supplementary material: Lysosomal polygenic risk is associated with the severity of neuropathology in Lewy body disease

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Supplementary table 1: Number of SNPs used to build each PRS in the NBB and Mayo Clinic samples.

PRS	NBB SNPs, n	Mayo Clinic SNPs, n	SNPs in common, n
PD-PRS	181	186	180
Adaptive immunity	17	17	17
Alpha synuclein	9	7	7
Endocytic membrane trafficking	10	9	9
Innate immunity	10	10	10
Lysosomal	12	12	11
Lysosomal excluding GBA	11	11	11
Microglia	45	45	45
Mitochondria	2	2	2
Monocytes	44	44	44
AD-PRS	81	82	78
AD-PRS excluding APOE	34	34	34

Supplementary table 2: SNPs used to calculate the PD-PRS (NBB)
Description of SNPs, weights and p values used to calculate the PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	155014968	1:155014968	T	G	0.9864	-0.2715	1.33E-08
1	155033317	1:155033317	T	C	0.3189	0.0724	7.92E-13
1	155135036	1:155135036	A	G	0.0169	0.6068	1.72E-70
1	155685477	1:155685477	A	G	0.9082	-0.1133	2.09E-09
1	156007988	1:156007988	A	G	0.0192	0.4784	2.87E-39
1	156300731	1:156300731	T	C	0.9828	-0.3482	1.06E-10
1	161478859	1:161478859	T	C	0.4948	-0.0643	8.03E-12
1	161617516	1:161617516	A	G	0.8556	-0.1042	2.48E-08
1	171719769	1:171719769	T	C	0.1949	-0.0704	4.47E-09
1	205642390	1:205642390	T	C	0.182	0.0886	6.08E-13
1	205723572	1:205723572	T	C	0.566	0.1066	1.11E-29
1	205723619	1:205723619	A	C	0.0503	-0.1369	7.64E-10
1	226916078	1:226916078	T	C	0.7196	0.0833	1.38E-15
1	226983330	1:226983330	T	C	0.7796	-0.0794	1.21E-11
1	232669682	1:232669682	T	G	0.1418	0.1113	4.94E-17
2	96025765	2:96025765	A	G	0.8428	0.0783	1.63E-08
2	102468624	2:102468624	A	G	0.7042	0.0762	1.27E-12
2	135443940	2:135443940	A	G	0.8109	0.0757	1.22E-09
2	135464616	2:135464616	A	G	0.7185	0.0807	4.55E-14
2	168979290	2:168979290	T	C	0.3351	-0.0563	3.50E-08
2	169023263	2:169023263	T	C	0.9867	-0.3186	4.03E-11
2	169110394	2:169110394	T	C	0.1312	0.1796	2.54E-39
2	169161223	2:169161223	T	C	0.6061	0.0541	4.49E-08
3	18361759	3:18361759	A	C	0.9592	-0.1693	5.94E-13
3	28700178	3:28700178	A	G	0.3782	0.0655	7.94E-12
3	48333546	3:48333546	T	C	0.4867	-0.0612	7.65E-09
3	48748989	3:48748989	T	G	0.6476	0.0636	1.36E-10

3	49025101	3:49025101	A	C	0.3425	-0.0584	4.04E-09
3	122196892	3:122196892	T	C	0.1722	0.0861	9.98E-12
3	151112968	3:151112968	A	C	0.3691	-0.0631	9.53E-11
3	161077630	3:161077630	A	G	0.6742	-0.0616	5.01E-10
3	182760073	3:182760073	T	G	0.8112	0.1485	1.22E-34
3	182852214	3:182852214	T	C	0.0213	-0.2404	4.01E-08
4	734351	4:734351	A	G	0.4825	0.0678	1.49E-12
4	759463	4:759463	A	G	0.0838	0.0927	3.36E-08
4	802144	4:802144	T	C	0.0354	-0.2113	1.65E-12
4	925149	4:925149	T	C	0.6308	0.1074	1.36E-27
4	951161	4:951161	T	C	0.1656	0.1127	2.44E-19
4	951947	4:951947	T	C	0.8065	-0.2126	9.98E-70
4	982345	4:982345	T	C	0.0237	0.2103	2.88E-09
4	15620408	4:15620408	T	C	0.9022	0.1014	2.53E-10
4	15737348	4:15737348	A	G	0.5529	0.1035	2.06E-28
4	15757601	4:15757601	T	C	0.9593	0.1785	6.27E-13
4	15829612	4:15829612	A	G	0.3186	0.0574	1.03E-08
4	17976846	4:17976846	A	C	0.163	-0.0818	3.16E-10
4	77111032	4:77111032	T	C	0.3099	-0.0624	9.53E-10
4	77147969	4:77147969	A	G	0.7107	-0.0912	4.97E-19
4	77198054	4:77198054	T	C	0.3632	-0.0912	5.82E-21
4	77202861	4:77202861	A	G	0.4148	-0.0546	4.30E-08
4	77280542	4:77280542	A	G	0.0686	0.1309	1.61E-08
4	90368545	4:90368545	A	G	0.0299	0.1983	1.75E-10
4	90431418	4:90431418	T	C	0.3673	0.0695	1.32E-12
4	90474291	4:90474291	T	C	0.6745	0.0684	1.08E-11
4	90503603	4:90503603	A	G	0.0529	0.1383	2.72E-10
4	90594987	4:90594987	A	G	0.209	-0.0995	1.93E-13
4	90606518	4:90606518	T	G	0.8674	0.1055	4.16E-13
4	90608959	4:90608959	T	C	0.1171	-0.1109	1.44E-13
4	90626111	4:90626111	A	G	0.6278	-0.2774	3.89E-154
4	90653134	4:90653134	T	C	0.0833	0.1586	1.12E-15
4	90684278	4:90684278	A	G	0.9264	-0.337	3.03E-82
4	90742296	4:90742296	A	G	0.0115	-0.2565	4.16E-08
4	90757294	4:90757294	A	C	0.2115	-0.2042	2.21E-68
4	90774120	4:90774120	T	C	0.9687	0.2697	1.13E-13
4	90803192	4:90803192	T	C	0.0361	-0.1975	4.93E-13
4	90835558	4:90835558	T	C	0.0374	0.1871	1.83E-10
4	90843448	4:90843448	T	G	0.043	0.1272	4.48E-08
4	90848275	4:90848275	T	G	0.9335	-0.1765	1.06E-15
4	91010118	4:91010118	T	G	0.9515	-0.2539	2.00E-26
4	91024178	4:91024178	T	G	0.0331	-0.2342	2.75E-08
4	91307991	4:91307991	A	G	0.971	-0.2868	2.87E-21
4	114369065	4:114369065	T	C	0.1744	0.0875	9.82E-13
4	170583157	4:170583157	A	G	0.3264	-0.0638	2.00E-10
5	59872406	5:59872406	T	C	0.0712	0.1302	7.92E-13
5	60137959	5:60137959	A	G	0.9019	-0.1554	2.52E-23
5	60461194	5:60461194	A	C	0.1084	0.1393	7.37E-21
5	102363402	5:102363402	T	C	0.6996	0.0608	2.42E-09
5	124110273	5:124110273	T	C	0.0986	0.1141	1.02E-08
5	133930528	5:133930528	A	G	0.1025	-0.0874	2.10E-08
5	134199105	5:134199105	A	C	0.102	-0.0916	7.16E-09
6	27298905	6:27298905	T	C	0.2393	0.0614	1.41E-08
6	27564830	6:27564830	A	G	0.1231	-0.0851	1.32E-08

6	27738801	6:27738801	A	G	0.2081	0.0833	5.62E-12
6	28054198	6:28054198	A	G	0.9175	-0.0926	2.94E-08
6	30108683	6:30108683	T	C	0.2451	-0.0635	1.62E-08
6	31590354	6:31590354	A	G	0.8498	-0.0752	1.94E-08
6	31846234	6:31846234	A	G	0.2004	0.079	3.65E-11
6	32303848	6:32303848	A	G	0.1902	-0.0929	8.25E-13
6	32395036	6:32395036	T	C	0.7033	-0.0727	8.39E-12
6	32578772	6:32578772	A	C	0.163	-0.1676	6.96E-28
6	32941506	6:32941506	T	C	0.0299	-0.1718	1.50E-08
6	72489033	6:72489033	T	C	0.2844	0.0657	1.60E-10
6	112243291	6:112243291	A	G	0.8049	0.0714	1.84E-09
6	133210361	6:133210361	T	C	0.9673	-0.2207	1.04E-10
7	23300049	7:23300049	A	C	0.5939	0.1016	5.25E-26
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16
8	16697593	8:16697593	T	G	0.2682	-0.0856	2.72E-15
8	22525980	8:22525980	T	C	0.3604	0.0556	1.16E-08
8	130901909	8:130901909	T	C	0.7225	-0.0605	1.81E-08
9	17579690	9:17579690	T	G	0.3422	-0.0859	8.72E-18
9	17724256	9:17724256	A	G	0.7421	-0.0905	1.66E-17
9	34046391	9:34046391	T	C	0.7336	-0.0615	6.58E-09
10	15557406	10:15557406	T	C	0.6892	0.0735	3.41E-13
10	104015279	10:104015279	A	G	0.8514	-0.079	1.05E-09
10	121260786	10:121260786	A	G	0.9855	-0.3967	5.39E-15
10	121361986	10:121361986	T	C	0.4119	-0.0557	4.27E-09
10	121459087	10:121459087	A	G	0.5276	-0.0697	1.47E-13
10	121536327	10:121536327	A	G	0.0166	0.4354	2.36E-28
10	121667020	10:121667020	T	C	0.7334	0.0658	2.45E-09
10	121842595	10:121842595	A	G	0.0391	0.1927	1.30E-11
11	10558777	11:10558777	A	G	0.8776	0.087	2.12E-09
11	83487277	11:83487277	A	C	0.4148	-0.0645	2.61E-10
11	133727086	11:133727086	A	C	0.7324	0.0605	1.55E-08
11	133787001	11:133787001	T	G	0.2054	0.1073	6.26E-20
12	32491673	12:32491673	A	G	0.9879	-0.2978	2.54E-10
12	33683842	12:33683842	A	G	0.0159	0.3087	8.41E-10
12	40349236	12:40349236	A	G	0.0374	0.1589	2.84E-09
12	40378773	12:40378773	T	C	0.2863	0.0649	5.32E-10
12	40388109	12:40388109	T	C	0.0257	0.3869	2.69E-37
12	40437969	12:40437969	A	G	0.978	-0.3028	1.50E-21
12	40614656	12:40614656	A	G	0.331	-0.0878	1.91E-18
12	40616414	12:40616414	A	G	0.9472	0.12	2.10E-08
12	40617202	12:40617202	T	C	0.8783	-0.1276	7.75E-20
12	40774678	12:40774678	A	G	0.0262	0.2488	6.07E-16
12	40885549	12:40885549	T	C	0.0219	0.4182	4.49E-25
12	40989183	12:40989183	A	G	0.6325	0.0558	4.23E-08
12	41251554	12:41251554	A	G	0.9743	-0.2393	4.50E-16
12	46419086	12:46419086	T	C	0.404	-0.0539	3.96E-08
12	123123414	12:123123414	A	G	0.2514	0.0703	1.63E-10
12	123195310	12:123195310	T	C	0.6175	0.0558	4.17E-08
12	123326598	12:123326598	T	G	0.364	0.1478	1.47E-37
12	123488399	12:123488399	A	C	0.0214	0.2528	1.80E-08
12	123656809	12:123656809	A	G	0.3784	0.0612	3.23E-10
12	133058157	12:133058157	A	G	0.5061	0.0599	1.64E-10
13	49927732	13:49927732	T	C	0.7397	0.0617	1.15E-08
13	50296115	13:50296115	T	C	0.8615	-0.0972	2.24E-08

13	97865021	13:97865021	T	C	0.2295	0.0675	1.45E-09
14	37989270	14:37989270	T	C	0.4376	-0.0529	3.54E-08
14	55348869	14:55348869	T	C	0.3245	-0.0842	1.66E-16
14	55967795	14:55967795	T	C	0.3003	-0.0586	4.00E-08
14	56191413	14:56191413	T	C	0.4408	-0.0566	1.56E-09
14	75373034	14:75373034	A	C	0.7866	0.0707	1.92E-09
14	88472612	14:88472612	T	C	0.4405	0.0612	5.81E-11
15	61997385	15:61997385	T	C	0.1417	-0.1186	6.08E-18
16	19279380	16:19279380	T	C	0.451	0.0621	3.90E-11
16	28952638	16:28952638	T	C	0.3062	-0.0644	1.20E-09
16	30977799	16:30977799	A	G	0.6442	0.0907	5.12E-20
16	31004169	16:31004169	T	C	0.7352	0.0757	4.36E-09
16	50736656	16:50736656	A	G	0.5985	0.0586	1.82E-09
16	52636242	16:52636242	A	C	0.4343	0.0668	1.29E-12
16	52969426	16:52969426	A	G	0.0932	-0.1156	1.08E-10
16	52973421	16:52973421	A	G	0.4608	-0.056	2.82E-08
17	7355621	17:7355621	A	C	0.6484	-0.0565	1.01E-08
17	40741013	17:40741013	T	C	0.7349	0.0642	1.40E-09
17	40782389	17:40782389	T	C	0.1951	0.0686	4.43E-08
17	42294462	17:42294462	A	G	0.6529	0.0631	5.99E-10
17	42434630	17:42434630	A	G	0.6056	-0.071	1.29E-11
17	43278576	17:43278576	T	C	0.3175	-0.0653	6.84E-09
17	43445792	17:43445792	A	G	0.3388	-0.0833	9.02E-15
17	43472507	17:43472507	A	G	0.7297	-0.0806	1.63E-13
17	43744203	17:43744203	T	C	0.1552	-0.27	3.58E-68
17	43798308	17:43798308	A	G	0.067	-0.2324	6.71E-16
17	43848495	17:43848495	T	G	0.6364	-0.0861	1.00E-17
17	43935838	17:43935838	T	C	0.3447	0.0975	1.51E-19
17	44019712	17:44019712	A	G	0.3726	0.0707	2.39E-12
17	44071851	17:44071851	A	G	0.4078	-0.1289	2.45E-39
17	44141223	17:44141223	T	C	0.0719	0.1529	4.98E-08
17	44189067	17:44189067	A	G	0.6094	0.1351	1.84E-40
17	44808902	17:44808902	A	G	0.2311	-0.2043	7.95E-67
17	44852612	17:44852612	A	C	0.7272	-0.0962	9.03E-14
17	44908263	17:44908263	T	C	0.6511	0.0622	3.87E-09
17	59917366	17:59917366	T	C	0.1641	0.082	9.28E-10
17	60188441	17:60188441	A	G	0.1614	0.078	2.65E-09
17	76419637	17:76419637	T	C	0.8299	0.0759	3.12E-09
18	31304318	18:31304318	T	G	0.4983	0.0531	1.69E-08
18	40673380	18:40673380	A	G	0.6816	-0.0983	3.80E-23
18	40852502	18:40852502	A	C	0.9153	-0.1071	4.73E-10
18	48683589	18:48683589	T	G	0.5496	-0.0578	1.41E-08
19	2341047	19:2341047	T	C	0.6937	-0.0696	4.18E-10
20	3164686	20:3164686	T	C	0.6105	0.0622	8.45E-11
20	6008226	20:6008226	A	C	0.8692	-0.0788	7.89E-09
21	38852361	21:38852361	A	G	0.2828	0.0714	2.74E-11

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 3: SNPs used to calculate the adaptive immunity PD-PRS (NBB)

Description of SNPs, weights and p values used to calculate the adaptive immunity PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	161617516	1:161617516	A	G	0.8556	-0.1042	2.48E-08	FCGR2B
3	48962128	3:48962128	T	G	0.3433	-0.0593	2.64E-09	ARIH2
3	122289005	3:122289005	A	G	0.8323	-0.0834	1.19E-09	DTX3L
4	15680918	4:15680918	A	G	0.63	0.067	4.64E-12	FBXL5
5	134036784	5:134036784	A	G	0.0993	-0.0916	1.51E-08	SEC24A
6	32371915	6:32371915	T	C	0.2078	-0.1114	9.13E-20	BTNL2
6	32429594	6:32429594	A	G	0.4296	0.0611	1.13E-09	HLA-DRB3
6	32796310	6:32796310	A	G	0.9741	0.2022	3.86E-09	TAP2
6	112164313	6:112164313	A	G	0.143	-0.0802	3.25E-09	FYN
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
9	17579690	9:17579690	T	G	0.3422	-0.0859	8.72E-18	SH3GL2
9	17724256	9:17724256	A	G	0.7421	-0.0905	1.66E-17	SH3GL2
9	33894945	9:33894945	T	C	0.2685	0.0595	1.56E-08	UBE2R2
14	75173490	14:75173490	A	G	0.2145	-0.0675	3.47E-08	AREL1
16	30943096	16:30943096	A	G	0.3488	-0.0907	7.55E-20	FBXL19
17	43370481	17:43370481	T	C	0.2642	-0.0786	4.36E-13	MAP3K14
18	48722080	18:48722080	A	G	0.546	-0.0557	2.85E-08	MEX3C

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 4: SNPs used to calculate the alpha synuclein PD-PRS (NBB)

Description of SNPs, weights and p values used to calculate the alpha synuclein PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
4	90648686	4:90648686	A	G	0.9894	-0.3031	4.22E-08	SNCA
4	90666041	4:90666041	T	C	0.6149	-0.2504	5.16E-149	SNCA
4	90671549	4:90671549	A	G	0.9201	-0.3213	4.36E-77	SNCA
4	90700329	4:90700329	T	C	0.9622	-0.1696	6.22E-10	SNCA
4	90708507	4:90708507	T	C	0.0115	0.4472	5.71E-20	SNCA
4	90742296	4:90742296	A	G	0.0115	-0.2565	4.16E-08	SNCA
4	90757294	4:90757294	A	C	0.2115	-0.2042	2.21E-68	SNCA
6	112164313	6:112164313	A	G	0.143	-0.0802	3.25E-09	FYN
10	121178783	10:121178783	T	C	0.0252	0.1912	4.30E-08	GRK5

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 5: SNPs used to calculate the innate immunity PD-PRS (NBB)

Description of SNPs, weights and p values used to calculate the innate immunity PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	161478859	1:161478859	T	C	0.4948	-0.0643	8.03E-12	FCGR2A
3	48719638	3:48719638	T	C	0.3562	-0.0603	1.55E-08	NCKIPSD
4	15728176	4:15728176	A	G	0.0308	-0.1919	9.25E-11	BST1
4	15737348	4:15737348	A	G	0.5529	0.1035	2.06E-28	BST1
6	31881731	6:31881731	A	G	0.6614	-0.065	3.64E-10	C2
6	112164313	6:112164313	A	G	0.143	-0.0802	3.25E-09	FYN
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
16	50736656	16:50736656	A	G	0.5985	0.0586	1.82E-09	NOD2
17	42430244	17:42430244	T	C	0.293	0.0672	1.20E-08	GRN
17	43370481	17:43370481	T	C	0.2642	-0.0786	4.36E-13	MAP3K14

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 6: SNPs used to calculate the lysosomal PD-PRS (NBB)

Description of SNPs, weights and p values used to calculate the innate lysosomal PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	155205378	1:155205378	T	C	0.0161	0.6506	3.72E-48	GBA
3	182851513	3:182851513	A	G	0.8726	0.1252	1.48E-18	LAMP3
3	182867869	3:182867869	A	G	0.8314	0.073	6.15E-09	LAMP3
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29	IDUA
4	982345	4:982345	T	C	0.0237	0.2103	2.88E-09	IDUA
4	989022	4:989022	A	G	0.8773	-0.1646	4.64E-24	IDUA
4	77111032	4:77111032	T	C	0.3099	-0.0624	9.53E-10	SCARB2
4	77134786	4:77134786	T	C	0.3451	0.0747	3.39E-14	SCARB2
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
12	123424071	12:123424071	A	G	0.5862	-0.0706	2.75E-13	ABCB9
12	123457143	12:123457143	T	C	0.022	0.2479	2.39E-08	ABCB9
14	88410811	14:88410811	A	C	0.6258	-0.0614	2.62E-10	GALC

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 7: SNPs used to calculate the lysosomal PD-PRS excluding GBA (NBB)

Description of SNPs, weights and p values used to calculate the lysosomal PD-PRS excluding GBA in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
3	182851513	3:182851513	A	G	0.8726	0.1252	1.48E-18	LAMP3
3	182867869	3:182867869	A	G	0.8314	0.073	6.15E-09	LAMP3
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29	IDUA
4	982345	4:982345	T	C	0.0237	0.2103	2.88E-09	IDUA
4	989022	4:989022	A	G	0.8773	-0.1646	4.64E-24	IDUA
4	77111032	4:77111032	T	C	0.3099	-0.0624	9.53E-10	SCARB2
4	77134786	4:77134786	T	C	0.3451	0.0747	3.39E-14	SCARB2
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
12	123424071	12:123424071	A	G	0.5862	-0.0706	2.75E-13	ABCB9
12	123457143	12:123457143	T	C	0.022	0.2479	2.39E-08	ABCB9
14	88410811	14:88410811	A	C	0.6258	-0.0614	2.62E-10	GALC

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 8: SNPs used to calculate the endocytic membrane trafficking PD-PRS (NBB)

Description of SNPs, weights and p values used to calculate the endocytic membrane trafficking PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	171673236	1:171673236	A	G	0.1957	-0.0697	6.53E-09	VAMP4
4	863579	4:863579	A	G	0.9692	-0.2063	6.65E-09	GAK
4	893712	4:893712	T	C	0.161	0.1142	1.02E-18	GAK
4	906903	4:906903	T	C	0.1158	0.1681	2.22E-30	GAK
4	925149	4:925149	T	C	0.6308	0.1074	1.36E-27	GAK
9	17579690	9:17579690	T	G	0.3422	-0.0859	8.72E-18	SH3GL2
9	17724256	9:17724256	A	G	0.7421	-0.0905	1.66E-17	SH3GL2
12	123379193	12:123379193	T	C	0.2984	-0.0828	4.22E-09	VPS37B
17	43565690	17:43565690	T	C	0.7804	-0.0869	2.39E-08	PLEKHM1
18	40852502	18:40852502	A	C	0.9153	-0.1071	4.73E-10	SYT4

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 9: SNPs used to calculate the mitochondria PD-PRS (NBB)

Description of SNPs, weights and p values used to calculate the mitochondria PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
12	123424071	12:123424071	A	G	0.5862	-0.0706	2.75E-13	ABCB9
16	31121793	16:31121793	A	G	0.3853	0.0743	1.49E-14	BCKDK

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 10: SNPs used to calculate the microglia PD-PRS (NBB)
Description of SNPs, weights and p values used to calculate the microglia PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	155108167	1:155108167	A	G	0.0174	0.6343	1.68E-54
1	171711152	1:171711152	A	C	0.8055	0.0674	1.32E-08
1	205719532	1:205719532	A	G	0.5657	0.1063	1.14E-29
1	226912135	1:226912135	A	G	0.385	-0.0581	1.63E-09
2	102389681	2:102389681	A	G	0.6653	-0.0683	3.57E-12
2	135464616	2:135464616	A	G	0.7185	0.0807	4.55E-14
2	169067946	2:169067946	T	C	0.1663	0.0789	3.60E-10
3	18199602	3:18199602	A	G	0.9707	-0.1919	3.68E-10
3	49045355	3:49045355	T	C	0.3416	-0.059	4.10E-09
3	122135255	3:122135255	T	G	0.8378	-0.0848	2.70E-11
3	151109711	3:151109711	A	G	0.6324	0.0624	1.47E-10
3	161051793	3:161051793	A	G	0.3223	0.0573	8.36E-09
3	182803656	3:182803656	T	C	0.1341	-0.138	4.37E-23
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29
4	18024121	4:18024121	T	C	0.1622	-0.0813	9.64E-10
4	77140733	4:77140733	T	C	0.4107	0.0779	1.76E-16
4	77420822	4:77420822	A	C	0.4815	-0.052	3.13E-08
4	90750844	4:90750844	T	C	0.7933	0.1909	3.41E-39
4	90810807	4:90810807	T	C	0.0431	0.2917	2.09E-38
4	114369065	4:114369065	T	C	0.1744	0.0875	9.82E-13
5	59930164	5:59930164	A	C	0.068	0.1369	1.22E-13
5	60240986	5:60240986	A	G	0.3591	0.0644	1.20E-10
5	133922901	5:133922901	T	C	0.8881	0.0826	4.39E-08
6	27722064	6:27722064	T	C	0.7631	-0.0712	9.38E-11
6	31707730	6:31707730	T	C	0.0671	0.12	2.54E-09
6	32294992	6:32294992	A	G	0.4063	-0.0558	2.82E-08
6	32577715	6:32577715	T	G	0.7211	-0.0722	2.00E-09
6	32577973	6:32577973	T	G	0.8406	0.1637	9.19E-28
7	23245569	7:23245569	A	G	0.6077	0.1025	1.15E-25
8	11702375	8:11702375	A	G	0.2595	-0.0879	1.89E-15
8	16716926	8:16716926	T	G	0.7304	0.0791	1.06E-13
10	121410917	10:121410917	T	C	0.0175	0.4152	3.27E-21
10	121484999	10:121484999	A	G	0.4088	0.0586	5.58E-10
12	40500195	12:40500195	A	C	0.0236	0.185	1.46E-09
12	40602765	12:40602765	T	C	0.0716	0.1403	2.00E-15
14	55348869	14:55348869	T	C	0.3245	-0.0842	1.66E-16
14	75359730	14:75359730	T	C	0.133	-0.082	1.34E-08
14	88472612	14:88472612	T	C	0.4405	0.0612	5.81E-11
16	30934075	16:30934075	A	G	0.6531	0.09	1.47E-19
16	50715185	16:50715185	A	G	0.4306	-0.0577	6.01E-09
17	40706273	17:40706273	A	C	0.2709	-0.0632	8.79E-09
17	44270181	17:44270181	A	G	0.4131	0.097	1.32E-15
17	60142898	17:60142898	A	G	0.1622	0.0756	3.77E-09
18	48724724	18:48724724	T	C	0.4525	0.0556	3.00E-08
20	5986950	20:5986950	A	G	0.1307	0.0765	2.89E-08

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 11: SNPs used to calculate the monocytes PD-PRS (NBB)
Description of SNPs, weights and p values used to calculate the monocytes PD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	155074903	1:155074903	T	G	0.4902	-0.0516	4.27E-08
1	155108167	1:155108167	A	G	0.0174	0.6343	1.68E-54
1	171711152	1:171711152	A	C	0.8055	0.0674	1.32E-08
1	205719532	1:205719532	A	G	0.5657	0.1063	1.14E-29
2	102353345	2:102353345	T	G	0.6669	-0.0671	9.79E-12
2	135516504	2:135516504	A	G	0.8381	0.0745	1.90E-08
2	169067946	2:169067946	T	C	0.1663	0.0789	3.60E-10
3	48779715	3:48779715	T	C	0.6566	0.0589	3.76E-09
3	49045355	3:49045355	T	C	0.3416	-0.059	4.10E-09
3	122135255	3:122135255	T	G	0.8378	-0.0848	2.70E-11
3	182880480	3:182880480	A	G	0.9158	0.0988	3.32E-08
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29
4	15685051	4:15685051	T	C	0.5986	0.0647	1.03E-11
4	15758235	4:15758235	T	C	0.794	0.1	3.93E-17
4	15810779	4:15810779	T	G	0.0448	-0.1551	4.05E-11
4	18024121	4:18024121	T	C	0.1622	-0.0813	9.64E-10
4	77134786	4:77134786	T	C	0.3451	0.0747	3.39E-14
4	90750844	4:90750844	T	C	0.7933	0.1909	3.41E-39
5	59995742	5:59995742	A	C	0.0701	0.1315	3.57E-13
6	31707730	6:31707730	T	C	0.0671	0.12	2.54E-09
6	32405192	6:32405192	T	G	0.3314	0.0558	4.61E-08
6	32577715	6:32577715	T	G	0.7211	-0.0722	2.00E-09
6	32577973	6:32577973	T	G	0.8406	0.1637	9.19E-28
6	112261489	6:112261489	T	C	0.8552	0.0786	5.51E-09
7	23221870	7:23221870	T	C	0.6082	0.1007	4.36E-25
8	11660051	8:11660051	A	G	0.251	-0.0778	7.72E-12
8	11681825	8:11681825	T	C	0.4341	0.0582	8.65E-10
8	11714941	8:11714941	T	G	0.8588	0.0797	2.13E-08
8	22457388	8:22457388	A	G	0.3342	0.0543	4.90E-08
9	33818257	9:33818257	T	C	0.7346	-0.0604	2.59E-08
10	104005410	10:104005410	T	C	0.8543	-0.0795	1.24E-09
10	121410917	10:121410917	T	C	0.0175	0.4152	3.27E-21
12	40602765	12:40602765	T	C	0.0716	0.1403	2.00E-15
12	40616414	12:40616414	A	G	0.9472	0.12	2.10E-08
12	40620815	12:40620815	A	G	0.6716	0.0871	1.53E-12
12	40620881	12:40620881	T	C	0.0334	0.2103	1.34E-10
14	88472612	14:88472612	T	C	0.4405	0.0612	5.81E-11
16	30934075	16:30934075	A	G	0.6531	0.09	1.47E-19
16	50715185	16:50715185	A	G	0.4306	-0.0577	6.01E-09
17	44270181	17:44270181	A	G	0.4131	0.097	1.32E-15
17	60142898	17:60142898	A	G	0.1622	0.0756	3.77E-09
17	76413476	17:76413476	T	C	0.1711	-0.0735	2.06E-08
18	48724724	18:48724724	T	C	0.4525	0.0556	3.00E-08
20	5986950	20:5986950	A	G	0.1307	0.0765	2.89E-08

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 12: SNPs used to calculate the AD-PRS (NBB)
Description of SNPs, weights and p values used to calculate the AD-PRS in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	161155392	1:161155392	A	G	0.228026	0.016411633	1.90E-10
1	207750568	1:207750568	T	C	0.171481	0.025417699	6.83E-19
2	127891427	2:127891427	C	A	0.411349	0.031095063	1.45E-44
2	234069512	2:234069512	C	A	0.466846	0.012969003	2.50E-09
4	11026028	4:11026028	A	G	0.262473	0.014704637	1.98E-09
6	32415153	6:32415153	T	C	0.165368	0.018782338	9.91E-11
6	32571122	6:32571122	T	C	0.13012	-0.020827485	8.55E-11
6	32572082	6:32572082	C	T	0.431906	0.012420404	2.09E-08
6	41129207	6:41129207	T	C	0.00746843	0.073707877	3.02E-08
6	47432637	6:47432637	C	T	0.355744	0.0144515	1.99E-10
7	99785750	7:99785750	T	C	0.153295	0.016803856	3.29E-08
7	99971834	7:99971834	A	G	0.32433	-0.018395737	1.80E-15
7	143108158	7:143108158	T	C	0.485387	-0.01451867	2.89E-11
8	27195121	8:27195121	C	T	0.365676	0.015322448	8.49E-12
8	27322974	8:27322974	A	G	0.0860179	-0.022969232	2.79E-09
8	27464929	8:27464929	A	G	0.377826	-0.020161433	1.48E-19
8	27494366	8:27494366	C	T	0.0339544	-0.032869537	3.59E-08
10	11717397	10:11717397	C	T	0.360964	0.012943374	1.04E-08
11	59958380	11:59958380	A	C	0.382122	-0.017870026	1.11E-15
11	85776544	11:85776544	G	A	0.317416	-0.020428916	1.48E-18
11	121435587	11:121435587	C	T	0.0440715	-0.035926385	8.12E-12
14	92938855	14:92938855	A	G	0.33648	-0.014826611	1.32E-10
15	59022615	15:59022615	C	T	0.354342	-0.013721107	1.22E-09
15	63569902	15:63569902	T	C	0.124823	0.01802674	3.44E-08
16	31133100	16:31133100	A	G	0.298476	-0.012985226	3.73E-08
17	5138980	17:5138980	A	G	0.126086	0.019985799	7.91E-10
17	47450775	17:47450775	A	G	0.453265	0.01230151	1.68E-08
18	56189459	18:56189459	C	T	0.0111949	0.0567967	3.38E-08
19	1043638	19:1043638	T	C	0.247644	0.015923035	2.38E-10
19	45020859	19:45020859	A	G	0.0308747	0.044234873	1.28E-12
19	45048858	19:45048858	A	G	0.0326609	0.045591355	1.49E-12
19	45078886	19:45078886	G	A	0.370126	-0.017057993	3.36E-14
19	45125218	19:45125218	C	T	0.266261	0.014992131	9.81E-10
19	45137322	19:45137322	C	T	0.00782261	0.087405371	1.98E-11
19	45152394	19:45152394	C	T	0.284078	-0.019942754	7.68E-17
19	45196964	19:45196964	A	G	0.0128734	-0.062843126	7.05E-10
19	45198477	19:45198477	T	C	0.0407607	-0.034570888	2.63E-10
19	45202052	19:45202052	T	C	0.364998	-0.016713326	8.52E-14
19	45231821	19:45231821	A	G	0.0857099	-0.037473406	2.65E-22
19	45233503	19:45233503	T	G	0.0115029	0.071164404	4.45E-11
19	45240584	19:45240584	C	T	0.12624	0.04628154	7.37E-45
19	45251156	19:45251156	C	A	0.413998	-0.035063874	9.24E-58
19	45302951	19:45302951	G	A	0.128149	-0.033533096	4.32E-25
19	45324138	19:45324138	A	G	0.291346	0.060741893	1.08E-144
19	45331994	19:45331994	A	G	0.237527	-0.02237755	1.11E-18
19	45343579	19:45343579	A	G	0.120172	-0.029036799	2.95E-18
19	45357939	19:45357939	A	G	0.481337	-0.093037189	1.35E-69
19	45360488	19:45360488	G	T	0.00950108	0.165797318	9.62E-45
19	45363820	19:45363820	G	T	0.00680628	0.225470931	6.45E-66
19	45370941	19:45370941	T	C	0.0343086	-0.047431249	1.83E-15

19	45378719	19:45378719	T	C	0.055867	-0.042842615	7.63E-20
19	45382717	19:45382717	G	A	0.396212	0.043738423	4.03E-86
19	45384931	19:45384931	A	G	0.0100554	0.195491888	7.98E-65
19	45387596	19:45387596	A	G	0.129489	0.165266132	0
19	45395266	19:45395266	G	A	0.376763	-0.070610622	1.88E-221
19	45403924	19:45403924	T	C	0.052279	-0.045356269	8.87E-21
19	45405499	19:45405499	A	G	0.0223899	-0.046348902	2.11E-10
19	45412079	19:45412079	T	C	0.0721435	-0.088453729	4.73E-100
19	45412955	19:45412955	C	A	0.0260548	0.220257934	1.16E-232
19	45421100	19:45421100	A	G	0.414891	-0.127218135	2.09E-125
19	45431403	19:45431403	T	C	0.0305051	-0.03874658	6.44E-10
19	45461996	19:45461996	G	A	0.0536495	-0.031183381	8.07E-11
19	45463386	19:45463386	A	G	0.0091777	0.171677454	3.96E-50
19	45477111	19:45477111	T	C	0.234447	-0.014806885	6.24E-09
19	45490192	19:45490192	G	A	0.34053	0.02297834	7.25E-24
19	45491032	19:45491032	T	C	0.0123037	-0.057649908	3.18E-08
19	45543755	19:45543755	G	A	0.0276101	0.058144769	8.95E-17
19	45549135	19:45549135	A	G	0.0213582	0.06874778	8.66E-18
19	45552587	19:45552587	C	T	0.010656	0.085265371	2.62E-14
19	45580372	19:45580372	T	C	0.041546	0.042832376	2.25E-15
19	45592475	19:45592475	T	C	0.113258	-0.019445276	1.22E-08
19	45655333	19:45655333	C	T	0.10154	0.046612785	1.07E-38
19	45657486	19:45657486	C	T	0.488328	-0.012558924	5.82E-09
19	45708408	19:45708408	C	T	0.177087	0.028203502	4.65E-23
19	45712679	19:45712679	A	G	0.0170465	0.079489896	1.57E-21
19	45722743	19:45722743	A	G	0.0405143	0.032350982	2.57E-08
19	45729123	19:45729123	C	T	0.0567755	0.033465391	7.60E-13
19	45734751	19:45734751	G	A	0.389128	-0.016143004	4.49E-13
19	45830947	19:45830947	A	G	0.392116	-0.012247909	3.21E-08
19	51727962	19:51727962	A	C	0.299276	-0.013757048	5.15E-09
20	54998544	20:54998544	G	A	0.0950416	-0.022894258	5.38E-10

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 13: SNPs used to calculate the AD-PRS excluding APOE (NBB)

Description of SNPs, weights and p values used to calculate the AD-PRS excluding APOE in NBB samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	161155392	1:161155392	A	G	0.228026	0.016411633	1.90E-10
1	207750568	1:207750568	T	C	0.171481	0.025417699	6.83E-19
2	127891427	2:127891427	C	A	0.411349	0.031095063	1.45E-44
2	234069512	2:234069512	C	A	0.466846	0.012969003	2.50E-09
4	11026028	4:11026028	A	G	0.262473	0.014704637	1.98E-09
6	32415153	6:32415153	T	C	0.165368	0.018782338	9.91E-11
6	32571122	6:32571122	T	C	0.13012	-0.020827485	8.55E-11
6	32572082	6:32572082	C	T	0.431906	0.012420404	2.09E-08
6	41129207	6:41129207	T	C	0.00746843	0.073707877	3.02E-08
6	47432637	6:47432637	C	T	0.355744	0.0144515	1.99E-10
7	99785750	7:99785750	T	C	0.153295	0.016803856	3.29E-08
7	99971834	7:99971834	A	G	0.32433	-0.018395737	1.80E-15
7	143108158	7:143108158	T	C	0.485387	-0.01451867	2.89E-11

8	27195121	8:27195121	C	T	0.365676	0.015322448	8.49E-12
8	27322974	8:27322974	A	G	0.0860179	-0.022969232	2.79E-09
8	27464929	8:27464929	A	G	0.377826	-0.020161433	1.48E-19
8	27494366	8:27494366	C	T	0.0339544	-0.032869537	3.59E-08
10	11717397	10:11717397	C	T	0.360964	0.012943374	1.04E-08
11	59958380	11:59958380	A	C	0.382122	-0.017870026	1.11E-15
11	85776544	11:85776544	G	A	0.317416	-0.020428916	1.48E-18
11	121435587	11:121435587	C	T	0.0440715	-0.035926385	8.12E-12
14	92938855	14:92938855	A	G	0.33648	-0.014826611	1.32E-10
15	59022615	15:59022615	C	T	0.354342	-0.013721107	1.22E-09
15	63569902	15:63569902	T	C	0.124823	0.01802674	3.44E-08
16	31133100	16:31133100	A	G	0.298476	-0.012985226	3.73E-08
17	5138980	17:5138980	A	G	0.126086	0.019985799	7.91E-10
17	47450775	17:47450775	A	G	0.453265	0.01230151	1.68E-08
18	56189459	18:56189459	C	T	0.0111949	0.0567967	3.38E-08
19	1043638	19:1043638	T	C	0.247644	0.015923035	2.38E-10
19	45020859	19:45020859	A	G	0.0308747	0.044234873	1.28E-12
19	45048858	19:45048858	A	G	0.0326609	0.045591355	1.49E-12
19	45078886	19:45078886	G	A	0.370126	-0.017057993	3.36E-14
19	51727962	19:51727962	A	C	0.299276	-0.013757048	5.15E-09
20	54998544	20:54998544	G	A	0.0950416	-0.022894258	5.38E-10

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 14: SNPs used to calculate the PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	155014968	1:155014968	T	G	0.9864	-0.2715	1.33E-08
1	155033317	1:155033317	T	C	0.3189	0.0724	7.92E-13
1	155135036	1:155135036	A	G	0.0169	0.6068	1.72E-70
1	155685477	1:155685477	A	G	0.9082	-0.1133	2.09E-09
1	156007988	1:156007988	A	G	0.0192	0.4784	2.87E-39
1	156300731	1:156300731	T	C	0.9828	-0.3482	1.06E-10
1	161478859	1:161478859	T	C	0.4948	-0.0643	8.03E-12
1	161617516	1:161617516	A	G	0.8556	-0.1042	2.48E-08
1	171719769	1:171719769	T	C	0.1949	-0.0704	4.47E-09
1	205642390	1:205642390	T	C	0.182	0.0886	6.08E-13
1	205723572	1:205723572	T	C	0.566	0.1066	1.11E-29
1	205723619	1:205723619	A	C	0.0503	-0.1369	7.64E-10
1	226916078	1:226916078	T	C	0.7196	0.0833	1.38E-15
1	226983330	1:226983330	T	C	0.7796	-0.0794	1.21E-11
1	232669682	1:232669682	T	G	0.1418	0.1113	4.94E-17
2	96025765	2:96025765	A	G	0.8428	0.0783	1.63E-08
2	102468624	2:102468624	A	G	0.7042	0.0762	1.27E-12
2	135443940	2:135443940	A	G	0.8109	0.0757	1.22E-09
2	135464616	2:135464616	A	G	0.7185	0.0807	4.55E-14
2	168979290	2:168979290	T	C	0.3351	-0.0563	3.50E-08
2	169023263	2:169023263	T	C	0.9867	-0.3186	4.03E-11
2	169110394	2:169110394	T	C	0.1312	0.1796	2.54E-39
2	169161223	2:169161223	T	C	0.6061	0.0541	4.49E-08
3	18361759	3:18361759	A	C	0.9592	-0.1693	5.94E-13
3	28700178	3:28700178	A	G	0.3782	0.0655	7.94E-12

3	48333546	3:48333546	T	C	0.4867	-0.0612	7.65E-09
3	48748989	3:48748989	T	G	0.6476	0.0636	1.36E-10
3	49025101	3:49025101	A	C	0.3425	-0.0584	4.04E-09
3	122196892	3:122196892	T	C	0.1722	0.0861	9.98E-12
3	151112968	3:151112968	A	C	0.3691	-0.0631	9.53E-11
3	161077630	3:161077630	A	G	0.6742	-0.0616	5.01E-10
3	182760073	3:182760073	T	G	0.8112	0.1485	1.22E-34
3	182852214	3:182852214	T	C	0.0213	-0.2404	4.01E-08
4	734351	4:734351	A	G	0.4825	0.0678	1.49E-12
4	759463	4:759463	A	G	0.0838	0.0927	3.36E-08
4	802144	4:802144	T	C	0.0354	-0.2113	1.65E-12
4	925149	4:925149	T	C	0.6308	0.1074	1.36E-27
4	951161	4:951161	T	C	0.1656	0.1127	2.44E-19
4	951947	4:951947	T	C	0.8065	-0.2126	9.98E-70
4	982345	4:982345	T	C	0.0237	0.2103	2.88E-09
4	15620408	4:15620408	T	C	0.9022	0.1014	2.53E-10
4	15737348	4:15737348	A	G	0.5529	0.1035	2.06E-28
4	15757601	4:15757601	T	C	0.9593	0.1785	6.27E-13
4	15829612	4:15829612	A	G	0.3186	0.0574	1.03E-08
4	17976846	4:17976846	A	C	0.163	-0.0818	3.16E-10
4	77111032	4:77111032	T	C	0.3099	-0.0624	9.53E-10
4	77147969	4:77147969	A	G	0.7107	-0.0912	4.97E-19
4	77198054	4:77198054	T	C	0.3632	-0.0912	5.82E-21
4	77202861	4:77202861	A	G	0.4148	-0.0546	4.30E-08
4	77280542	4:77280542	A	G	0.0686	0.1309	1.61E-08
4	90368545	4:90368545	A	G	0.0299	0.1983	1.75E-10
4	90431418	4:90431418	T	C	0.3673	0.0695	1.32E-12
4	90474291	4:90474291	T	C	0.6745	0.0684	1.08E-11
4	90503603	4:90503603	A	G	0.0529	0.1383	2.72E-10
4	90594987	4:90594987	A	G	0.209	-0.0995	1.93E-13
4	90606518	4:90606518	T	G	0.8674	0.1055	4.16E-13
4	90608959	4:90608959	T	C	0.1171	-0.1109	1.44E-13
4	90626111	4:90626111	A	G	0.6278	-0.2774	3.89E-154
4	90627967	4:90627967	A	G	0.0189	-0.3116	7.26E-12
4	90653134	4:90653134	T	C	0.0833	0.1586	1.12E-15
4	90684278	4:90684278	A	G	0.9264	-0.337	3.03E-82
4	90742296	4:90742296	A	G	0.0115	-0.2565	4.16E-08
4	90757294	4:90757294	A	C	0.2115	-0.2042	2.21E-68
4	90774120	4:90774120	T	C	0.9687	0.2697	1.13E-13
4	90803192	4:90803192	T	C	0.0361	-0.1975	4.93E-13
4	90835558	4:90835558	T	C	0.0374	0.1871	1.83E-10
4	90843448	4:90843448	T	G	0.043	0.1272	4.48E-08
4	90848275	4:90848275	T	G	0.9335	-0.1765	1.06E-15
4	91010118	4:91010118	T	G	0.9515	-0.2539	2.00E-26
4	91024178	4:91024178	T	G	0.0331	-0.2342	2.75E-08
4	91307991	4:91307991	A	G	0.971	-0.2868	2.87E-21
4	114369065	4:114369065	T	C	0.1744	0.0875	9.82E-13
4	170583157	4:170583157	A	G	0.3264	-0.0638	2.00E-10
5	59872406	5:59872406	T	C	0.0712	0.1302	7.92E-13
5	60137959	5:60137959	A	G	0.9019	-0.1554	2.52E-23
5	60461194	5:60461194	A	C	0.1084	0.1393	7.37E-21
5	102363402	5:102363402	T	C	0.6996	0.0608	2.42E-09
5	124110273	5:124110273	T	C	0.0986	0.1141	1.02E-08
5	133930528	5:133930528	A	G	0.1025	-0.0874	2.10E-08

5	134199105	5:134199105	A	C	0.102	-0.0916	7.16E-09
6	27298905	6:27298905	T	C	0.2393	0.0614	1.41E-08
6	27564830	6:27564830	A	G	0.1231	-0.0851	1.32E-08
6	27738801	6:27738801	A	G	0.2081	0.0833	5.62E-12
6	28054198	6:28054198	A	G	0.9175	-0.0926	2.94E-08
6	30108683	6:30108683	T	C	0.2451	-0.0635	1.62E-08
6	31590354	6:31590354	A	G	0.8498	-0.0752	1.94E-08
6	31846234	6:31846234	A	G	0.2004	0.079	3.65E-11
6	32303848	6:32303848	A	G	0.1902	-0.0929	8.25E-13
6	32395036	6:32395036	T	C	0.7033	-0.0727	8.39E-12
6	32578772	6:32578772	A	C	0.163	-0.1676	6.96E-28
6	32941506	6:32941506	T	C	0.0299	-0.1718	1.50E-08
6	72489033	6:72489033	T	C	0.2844	0.0657	1.60E-10
6	112243291	6:112243291	A	G	0.8049	0.0714	1.84E-09
6	133210361	6:133210361	T	C	0.9673	-0.2207	1.04E-10
7	23300049	7:23300049	A	C	0.5939	0.1016	5.25E-26
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16
8	16697593	8:16697593	T	G	0.2682	-0.0856	2.72E-15
8	22525980	8:22525980	T	C	0.3604	0.0556	1.16E-08
8	130901909	8:130901909	T	C	0.7225	-0.0605	1.81E-08
9	17579690	9:17579690	T	G	0.3422	-0.0859	8.72E-18
9	17724256	9:17724256	A	G	0.7421	-0.0905	1.66E-17
9	34046391	9:34046391	T	C	0.7336	-0.0615	6.58E-09
10	15557406	10:15557406	T	C	0.6892	0.0735	3.41E-13
10	104015279	10:104015279	A	G	0.8514	-0.079	1.05E-09
10	121260786	10:121260786	A	G	0.9855	-0.3967	5.39E-15
10	121361986	10:121361986	T	C	0.4119	-0.0557	4.27E-09
10	121459087	10:121459087	A	G	0.5276	-0.0697	1.47E-13
10	121536327	10:121536327	A	G	0.0166	0.4354	2.36E-28
10	121667020	10:121667020	T	C	0.7334	0.0658	2.45E-09
10	121842595	10:121842595	A	G	0.0391	0.1927	1.30E-11
11	10558777	11:10558777	A	G	0.8776	0.087	2.12E-09
11	83487277	11:83487277	A	C	0.4148	-0.0645	2.61E-10
11	133727086	11:133727086	A	C	0.7324	0.0605	1.55E-08
11	133787001	11:133787001	T	G	0.2054	0.1073	6.26E-20
12	32491673	12:32491673	A	G	0.9879	-0.2978	2.54E-10
12	32979905	12:32979905	A	G	0.99	-0.4402	2.63E-10
12	33722644	12:33722644	A	G	0.0162	0.3051	7.97E-10
12	33990346	12:33990346	T	G	0.0156	0.3058	1.38E-09
12	34246508	12:34246508	A	G	0.9894	-0.6826	5.29E-18
12	40349236	12:40349236	A	G	0.0374	0.1589	2.84E-09
12	40378773	12:40378773	T	C	0.2863	0.0649	5.32E-10
12	40388109	12:40388109	T	C	0.0257	0.3869	2.69E-37
12	40437969	12:40437969	A	G	0.978	-0.3028	1.50E-21
12	40614656	12:40614656	A	G	0.331	-0.0878	1.91E-18
12	40616414	12:40616414	A	G	0.9472	0.12	2.10E-08
12	40617202	12:40617202	T	C	0.8783	-0.1276	7.75E-20
12	40774678	12:40774678	A	G	0.0262	0.2488	6.07E-16
12	40885549	12:40885549	T	C	0.0219	0.4182	4.49E-25
12	40989183	12:40989183	A	G	0.6325	0.0558	4.23E-08
12	41251554	12:41251554	A	G	0.9743	-0.2393	4.50E-16
12	42535403	12:42535403	T	C	0.9856	-0.3993	1.82E-10
12	46419086	12:46419086	T	C	0.404	-0.0539	3.96E-08
12	123123414	12:123123414	A	G	0.2514	0.0703	1.63E-10

12	123195310	12:123195310	T	C	0.6175	0.0558	4.17E-08
12	123326598	12:123326598	T	G	0.364	0.1478	1.47E-37
12	123488399	12:123488399	A	C	0.0214	0.2528	1.80E-08
12	123656809	12:123656809	A	G	0.3784	0.0612	3.23E-10
12	133058157	12:133058157	A	G	0.5061	0.0599	1.64E-10
13	49927732	13:49927732	T	C	0.7397	0.0617	1.15E-08
13	50296115	13:50296115	T	C	0.8615	-0.0972	2.24E-08
13	97865021	13:97865021	T	C	0.2295	0.0675	1.45E-09
14	37989270	14:37989270	T	C	0.4376	-0.0529	3.54E-08
14	55348869	14:55348869	T	C	0.3245	-0.0842	1.66E-16
14	55967795	14:55967795	T	C	0.3003	-0.0586	4.00E-08
14	56191413	14:56191413	T	C	0.4408	-0.0566	1.56E-09
14	75373034	14:75373034	A	C	0.7866	0.0707	1.92E-09
14	88472612	14:88472612	T	C	0.4405	0.0612	5.81E-11
15	61997385	15:61997385	T	C	0.1417	-0.1186	6.08E-18
16	19279380	16:19279380	T	C	0.451	0.0621	3.90E-11
16	28952638	16:28952638	T	C	0.3062	-0.0644	1.20E-09
16	30977799	16:30977799	A	G	0.6442	0.0907	5.12E-20
16	31004169	16:31004169	T	C	0.7352	0.0757	4.36E-09
16	50736656	16:50736656	A	G	0.5985	0.0586	1.82E-09
16	52636242	16:52636242	A	C	0.4343	0.0668	1.29E-12
16	52969426	16:52969426	A	G	0.0932	-0.1156	1.08E-10
16	52973421	16:52973421	A	G	0.4608	-0.056	2.82E-08
17	7355621	17:7355621	A	C	0.6484	-0.0565	1.01E-08
17	40741013	17:40741013	T	C	0.7349	0.0642	1.40E-09
17	40782389	17:40782389	T	C	0.1951	0.0686	4.43E-08
17	42294462	17:42294462	A	G	0.6529	0.0631	5.99E-10
17	42434630	17:42434630	A	G	0.6056	-0.071	1.29E-11
17	43278576	17:43278576	T	C	0.3175	-0.0653	6.84E-09
17	43445792	17:43445792	A	G	0.3388	-0.0833	9.02E-15
17	43472507	17:43472507	A	G	0.7297	-0.0806	1.63E-13
17	43744203	17:43744203	T	C	0.1552	-0.27	3.58E-68
17	43798308	17:43798308	A	G	0.067	-0.2324	6.71E-16
17	43848495	17:43848495	T	G	0.6364	-0.0861	1.00E-17
17	43935838	17:43935838	T	C	0.3447	0.0975	1.51E-19
17	44019712	17:44019712	A	G	0.3726	0.0707	2.39E-12
17	44071851	17:44071851	A	G	0.4078	-0.1289	2.45E-39
17	44141223	17:44141223	T	C	0.0719	0.1529	4.98E-08
17	44189067	17:44189067	A	G	0.6094	0.1351	1.84E-40
17	44808902	17:44808902	A	G	0.2311	-0.2043	7.95E-67
17	44852612	17:44852612	A	C	0.7272	-0.0962	9.03E-14
17	44908263	17:44908263	T	C	0.6511	0.0622	3.87E-09
17	59917366	17:59917366	T	C	0.1641	0.082	9.28E-10
17	60188441	17:60188441	A	G	0.1614	0.078	2.65E-09
17	76419637	17:76419637	T	C	0.8299	0.0759	3.12E-09
18	31304318	18:31304318	T	G	0.4983	0.0531	1.69E-08
18	40673380	18:40673380	A	G	0.6816	-0.0983	3.80E-23
18	40852502	18:40852502	A	C	0.9153	-0.1071	4.73E-10
18	48683589	18:48683589	T	G	0.5496	-0.0578	1.41E-08
19	2341047	19:2341047	T	C	0.6937	-0.0696	4.18E-10
20	3164686	20:3164686	T	C	0.6105	0.0622	8.45E-11
20	6008226	20:6008226	A	C	0.8692	-0.0788	7.89E-09
21	38852361	21:38852361	A	G	0.2828	0.0714	2.74E-11

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 15: SNPS used to calculate the adaptive immunity PD-PRS, Mayo Clinic

Description of SNPs, weights and p values used to calculate the adaptive immunity PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	161617516	1:161617516	A	G	0.8556	-0.1042	2.48E-08	FCGR2B
3	48962128	3:48962128	T	G	0.3433	-0.0593	2.64E-09	ARIH2
3	122289005	3:122289005	A	G	0.8323	-0.0834	1.19E-09	DTX3L
4	15680918	4:15680918	A	G	0.63	0.067	4.64E-12	FBXL5
5	134036784	5:134036784	A	G	0.0993	-0.0916	1.51E-08	SEC24A
6	32371915	6:32371915	T	C	0.2078	-0.1114	9.13E-20	BTNL2
6	32429594	6:32429594	A	G	0.4296	0.0611	1.13E-09	HLA-DRB3
6	32796310	6:32796310	A	G	0.9741	0.2022	3.86E-09	TAP2
6	112164313	6:112164313	A	G	0.143	-0.0802	3.25E-09	FYN
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
9	17579690	9:17579690	T	G	0.3422	-0.0859	8.72E-18	SH3GL2
9	17724256	9:17724256	A	G	0.7421	-0.0905	1.66E-17	SH3GL2
9	33894945	9:33894945	T	C	0.2685	0.0595	1.56E-08	UBE2R2
14	75173490	14:75173490	A	G	0.2145	-0.0675	3.47E-08	AREL1
16	30943096	16:30943096	A	G	0.3488	-0.0907	7.55E-20	FBXL19
17	43370481	17:43370481	T	C	0.2642	-0.0786	4.36E-13	MAP3K14
18	48722080	18:48722080	A	G	0.546	-0.0557	2.85E-08	MEX3C

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 16: SNPs used to calculate the alpha synuclein PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the alpha synuclein PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
4	90666041	4:90666041	T	C	0.6149	-0.2504	5.16E-149	SNCA
4	90671549	4:90671549	A	G	0.9201	-0.3213	4.36E-77	SNCA
4	90700329	4:90700329	T	C	0.9622	-0.1696	6.22E-10	SNCA
4	90742296	4:90742296	A	G	0.0115	-0.2565	4.16E-08	SNCA
4	90757294	4:90757294	A	C	0.2115	-0.2042	2.21E-68	SNCA
6	112164313	6:112164313	A	G	0.143	-0.0802	3.25E-09	FYN
10	121178783	10:121178783	T	C	0.0252	0.1912	4.30E-08	GRK5

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 17: SNPs used to calculate the innate immunity PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the innate immunity PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	161478859	1:161478859	T	C	0.4948	-0.0643	8.03E-12	FCGR2A
3	48719638	3:48719638	T	C	0.3562	-0.0603	1.55E-08	NCKIPSD
4	15728176	4:15728176	A	G	0.0308	-0.1919	9.25E-11	BST1
4	15737348	4:15737348	A	G	0.5529	0.1035	2.06E-28	BST1
6	31881731	6:31881731	A	G	0.6614	-0.065	3.64E-10	C2
6	112164313	6:112164313	A	G	0.143	-0.0802	3.25E-09	FYN
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
16	50736656	16:50736656	A	G	0.5985	0.0586	1.82E-09	NOD2
17	42430244	17:42430244	T	C	0.293	0.0672	1.20E-08	GRN
17	43370481	17:43370481	T	C	0.2642	-0.0786	4.36E-13	MAP3K14

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 18: SNPs used to calculate the lysosomal PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the lysosomal PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	155206167	1:155206167	T	C	0.0162	0.6357	9.13E-48	GBA
3	182851513	3:182851513	A	G	0.8726	0.1252	1.48E-18	LAMP3
3	182867869	3:182867869	A	G	0.8314	0.073	6.15E-09	LAMP3
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29	IDUA
4	982345	4:982345	T	C	0.0237	0.2103	2.88E-09	IDUA
4	989022	4:989022	A	G	0.8773	-0.1646	4.64E-24	IDUA
4	77111032	4:77111032	T	C	0.3099	-0.0624	9.53E-10	SCARB2
4	77134786	4:77134786	T	C	0.3451	0.0747	3.39E-14	SCARB2
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
12	123424071	12:123424071	A	G	0.5862	-0.0706	2.75E-13	ABCB9
12	123457143	12:123457143	T	C	0.022	0.2479	2.39E-08	ABCB9
14	88410811	14:88410811	A	C	0.6258	-0.0614	2.62E-10	GALC

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 19: SNPs used to calculate the lysosomal PD-PRS excluding GBA (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the lysosomal PD-PRS excluding GBA in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
3	182851513	3:182851513	A	G	0.8726	0.1252	1.48E-18	LAMP3
3	182867869	3:182867869	A	G	0.8314	0.073	6.15E-09	LAMP3
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29	IDUA
4	982345	4:982345	T	C	0.0237	0.2103	2.88E-09	IDUA
4	989022	4:989022	A	G	0.8773	-0.1646	4.64E-24	IDUA
4	77111032	4:77111032	T	C	0.3099	-0.0624	9.53E-10	SCARB2

4	77134786	4:77134786	T	C	0.3451	0.0747	3.39E-14	SCARB2
8	11712443	8:11712443	A	C	0.7444	0.093	3.99E-16	CTSB
12	123424071	12:123424071	A	G	0.5862	-0.0706	2.75E-13	ABCB9
12	123457143	12:123457143	T	C	0.022	0.2479	2.39E-08	ABCB9
14	88410811	14:88410811	A	C	0.6258	-0.0614	2.62E-10	GALC

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 20: SNPs used to calculate the endocytic membrane trafficking PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the endocytic membrane trafficking PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
1	171673236	1:171673236	A	G	0.1957	-0.0697	6.53E-09	VAMP4
4	893712	4:893712	T	C	0.161	0.1142	1.02E-18	GAK
4	906903	4:906903	T	C	0.1158	0.1681	2.22E-30	GAK
4	925149	4:925149	T	C	0.6308	0.1074	1.36E-27	GAK
9	17579690	9:17579690	T	G	0.3422	-0.0859	8.72E-18	SH3GL2
9	17724256	9:17724256	A	G	0.7421	-0.0905	1.66E-17	SH3GL2
12	123379193	12:123379193	T	C	0.2984	-0.0828	4.22E-09	VPS37B
17	43565690	17:43565690	T	C	0.7804	-0.0869	2.39E-08	PLEKHM1
18	40852502	18:40852502	A	C	0.9153	-0.1071	4.73E-10	SYT4

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 21: SNPs used to calculate the mitochondria PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the mitochondria PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P	gene
12	123424071	12:123424071	A	G	0.5862	-0.0706	2.75E-13	ABCB9
16	31121793	16:31121793	A	G	0.3853	0.0743	1.49E-14	BCKDK

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 22: SNPs used to calculate the microglia PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the microglia PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	155108167	1:155108167	A	G	0.0174	0.6343	1.68E-54
1	171711152	1:171711152	A	C	0.8055	0.0674	1.32E-08
1	205719532	1:205719532	A	G	0.5657	0.1063	1.14E-29
1	226912135	1:226912135	A	G	0.385	-0.0581	1.63E-09
2	102389681	2:102389681	A	G	0.6653	-0.0683	3.57E-12
2	135464616	2:135464616	A	G	0.7185	0.0807	4.55E-14
2	169067946	2:169067946	T	C	0.1663	0.0789	3.60E-10
3	18199602	3:18199602	A	G	0.9707	-0.1919	3.68E-10

3	49045355	3:49045355	T	C	0.3416	-0.059	4.10E-09
3	122135255	3:122135255	T	G	0.8378	-0.0848	2.70E-11
3	151109711	3:151109711	A	G	0.6324	0.0624	1.47E-10
3	161051793	3:161051793	A	G	0.3223	0.0573	8.36E-09
3	182803656	3:182803656	T	C	0.1341	-0.138	4.37E-23
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29
4	18024121	4:18024121	T	C	0.1622	-0.0813	9.64E-10
4	77140733	4:77140733	T	C	0.4107	0.0779	1.76E-16
4	77420822	4:77420822	A	C	0.4815	-0.052	3.13E-08
4	90750844	4:90750844	T	C	0.7933	0.1909	3.41E-39
4	90810807	4:90810807	T	C	0.0431	0.2917	2.09E-38
4	114369065	4:114369065	T	C	0.1744	0.0875	9.82E-13
5	59930164	5:59930164	A	C	0.068	0.1369	1.22E-13
5	60240986	5:60240986	A	G	0.3591	0.0644	1.20E-10
5	133922901	5:133922901	T	C	0.8881	0.0826	4.39E-08
6	27722064	6:27722064	T	C	0.7631	-0.0712	9.38E-11
6	31707730	6:31707730	T	C	0.0671	0.12	2.54E-09
6	32294992	6:32294992	A	G	0.4063	-0.0558	2.82E-08
6	32577715	6:32577715	T	G	0.7211	-0.0722	2.00E-09
6	32577973	6:32577973	T	G	0.8406	0.1637	9.19E-28
7	23245569	7:23245569	A	G	0.6077	0.1025	1.15E-25
8	11702375	8:11702375	A	G	0.2595	-0.0879	1.89E-15
8	16716926	8:16716926	T	G	0.7304	0.0791	1.06E-13
10	121410917	10:121410917	T	C	0.0175	0.4152	3.27E-21
10	121484999	10:121484999	A	G	0.4088	0.0586	5.58E-10
12	40500195	12:40500195	A	C	0.0236	0.185	1.46E-09
12	40602765	12:40602765	T	C	0.0716	0.1403	2.00E-15
14	55348869	14:55348869	T	C	0.3245	-0.0842	1.66E-16
14	75359730	14:75359730	T	C	0.133	-0.082	1.34E-08
14	88472612	14:88472612	T	C	0.4405	0.0612	5.81E-11
16	30934075	16:30934075	A	G	0.6531	0.09	1.47E-19
16	50715185	16:50715185	A	G	0.4306	-0.0577	6.01E-09
17	40706273	17:40706273	A	C	0.2709	-0.0632	8.79E-09
17	44270181	17:44270181	A	G	0.4131	0.097	1.32E-15
17	60142898	17:60142898	A	G	0.1622	0.0756	3.77E-09
18	48724724	18:48724724	T	C	0.4525	0.0556	3.00E-08
20	5986950	20:5986950	A	G	0.1307	0.0765	2.89E-08

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 23: SNPs used to calculate the monocytes PD-PRS (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the monocytes PD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	155074903	1:155074903	T	G	0.4902	-0.0516	4.27E-08
1	155108167	1:155108167	A	G	0.0174	0.6343	1.68E-54
1	171711152	1:171711152	A	C	0.8055	0.0674	1.32E-08
1	205719532	1:205719532	A	G	0.5657	0.1063	1.14E-29
2	102353345	2:102353345	T	G	0.6669	-0.0671	9.79E-12
2	135516504	2:135516504	A	G	0.8381	0.0745	1.90E-08
2	169067946	2:169067946	T	C	0.1663	0.0789	3.60E-10
3	48779715	3:48779715	T	C	0.6566	0.0589	3.76E-09
3	49045355	3:49045355	T	C	0.3416	-0.059	4.10E-09
3	122135255	3:122135255	T	G	0.8378	-0.0848	2.70E-11
3	182880480	3:182880480	A	G	0.9158	0.0988	3.32E-08
4	980896	4:980896	A	C	0.4209	-0.115	4.09E-29
4	15685051	4:15685051	T	C	0.5986	0.0647	1.03E-11
4	15758235	4:15758235	T	C	0.794	0.1	3.93E-17
4	15810779	4:15810779	T	G	0.0448	-0.1551	4.05E-11
4	18024121	4:18024121	T	C	0.1622	-0.0813	9.64E-10
4	77134786	4:77134786	T	C	0.3451	0.0747	3.39E-14
4	90750844	4:90750844	T	C	0.7933	0.1909	3.41E-39
5	59995742	5:59995742	A	C	0.0701	0.1315	3.57E-13
6	31707730	6:31707730	T	C	0.0671	0.12	2.54E-09
6	32405192	6:32405192	T	G	0.3314	0.0558	4.61E-08
6	32577715	6:32577715	T	G	0.7211	-0.0722	2.00E-09
6	32577973	6:32577973	T	G	0.8406	0.1637	9.19E-28
6	112261489	6:112261489	T	C	0.8552	0.0786	5.51E-09
7	23221870	7:23221870	T	C	0.6082	0.1007	4.36E-25
8	11660051	8:11660051	A	G	0.251	-0.0778	7.72E-12
8	11681825	8:11681825	T	C	0.4341	0.0582	8.65E-10
8	11714941	8:11714941	T	G	0.8588	0.0797	2.13E-08
8	22457388	8:22457388	A	G	0.3342	0.0543	4.90E-08
9	33818257	9:33818257	T	C	0.7346	-0.0604	2.59E-08
10	104005410	10:104005410	T	C	0.8543	-0.0795	1.24E-09
10	121410917	10:121410917	T	C	0.0175	0.4152	3.27E-21
12	40602765	12:40602765	T	C	0.0716	0.1403	2.00E-15
12	40616414	12:40616414	A	G	0.9472	0.12	2.10E-08
12	40620815	12:40620815	A	G	0.6716	0.0871	1.53E-12
12	40620881	12:40620881	T	C	0.0334	0.2103	1.34E-10
14	88472612	14:88472612	T	C	0.4405	0.0612	5.81E-11
16	30934075	16:30934075	A	G	0.6531	0.09	1.47E-19
16	50715185	16:50715185	A	G	0.4306	-0.0577	6.01E-09
17	44270181	17:44270181	A	G	0.4131	0.097	1.32E-15
17	60142898	17:60142898	A	G	0.1622	0.0756	3.77E-09
17	76413476	17:76413476	T	C	0.1711	-0.0735	2.06E-08
18	48724724	18:48724724	T	C	0.4525	0.0556	3.00E-08
20	5986950	20:5986950	A	G	0.1307	0.0765	2.89E-08

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 24: SNPs used to calculate the AD-PRS (Mayo Clinic)
Description of SNPs, weights and p values used to calculate the AD-PRS in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	161155392	1:161155392	A	G	0.228026	0.016411633	1.90E-10
1	207750568	1:207750568	T	C	0.171481	0.025417699	6.83E-19
2	127891427	2:127891427	C	A	0.411349	0.031095063	1.45E-44
2	234069512	2:234069512	C	A	0.466846	0.012969003	2.50E-09
4	11026028	4:11026028	A	G	0.262473	0.014704637	1.98E-09
6	32415153	6:32415153	T	C	0.165368	0.018782338	9.91E-11
6	32571122	6:32571122	T	C	0.13012	-0.020827485	8.55E-11
6	32572082	6:32572082	C	T	0.431906	0.012420404	2.09E-08
6	41129207	6:41129207	T	C	0.00746843	0.073707877	3.02E-08
6	47432637	6:47432637	C	T	0.355744	0.0144515	1.99E-10
7	99785750	7:99785750	T	C	0.153295	0.016803856	3.29E-08
7	99971834	7:99971834	A	G	0.32433	-0.018395737	1.80E-15
7	143108158	7:143108158	T	C	0.485387	-0.01451867	2.89E-11
8	27195121	8:27195121	C	T	0.365676	0.015322448	8.49E-12
8	27322974	8:27322974	A	G	0.0860179	-0.022969232	2.79E-09
8	27464929	8:27464929	A	G	0.377826	-0.020161433	1.48E-19
8	27494366	8:27494366	C	T	0.0339544	-0.032869537	3.59E-08
10	11717397	10:11717397	C	T	0.360964	0.012943374	1.04E-08
11	59958380	11:59958380	A	C	0.382122	-0.017870026	1.11E-15
11	85776544	11:85776544	G	A	0.317416	-0.020428916	1.48E-18
11	121435587	11:121435587	C	T	0.0440715	-0.035926385	8.12E-12
14	92938855	14:92938855	A	G	0.33648	-0.014826611	1.32E-10
15	59022615	15:59022615	C	T	0.354342	-0.013721107	1.22E-09
15	63569902	15:63569902	T	C	0.124823	0.01802674	3.44E-08
16	31133100	16:31133100	A	G	0.298476	-0.012985226	3.73E-08
17	5138980	17:5138980	A	G	0.126086	0.019985799	7.91E-10
17	47450775	17:47450775	A	G	0.453265	0.01230151	1.68E-08
18	56189459	18:56189459	C	T	0.0111949	0.0567967	3.38E-08
19	1043638	19:1043638	T	C	0.247644	0.015923035	2.38E-10
19	45020859	19:45020859	A	G	0.0308747	0.044234873	1.28E-12
19	45048858	19:45048858	A	G	0.0326609	0.045591355	1.49E-12
19	45078886	19:45078886	G	A	0.370126	-0.017057993	3.36E-14
19	45125218	19:45125218	C	T	0.266261	0.014992131	9.81E-10
19	45137322	19:45137322	C	T	0.00782261	0.087405371	1.98E-11
19	45152394	19:45152394	C	T	0.284078	-0.019942754	7.68E-17
19	45198477	19:45198477	T	C	0.0407607	-0.034570888	2.63E-10
19	45202052	19:45202052	T	C	0.364998	-0.016713326	8.52E-14
19	45223490	19:45223490	A	G	0.0109178	0.106461335	5.34E-21
19	45231821	19:45231821	A	G	0.0857099	-0.037473406	2.65E-22
19	45233503	19:45233503	T	G	0.0115029	0.071164404	4.45E-11
19	45240584	19:45240584	C	T	0.12624	0.04628154	7.37E-45
19	45251156	19:45251156	C	A	0.413998	-0.035063874	9.24E-58
19	45302951	19:45302951	G	A	0.128149	-0.033533096	4.32E-25
19	45324138	19:45324138	A	G	0.291346	0.060741893	1.08E-144
19	45331994	19:45331994	A	G	0.237527	-0.02237755	1.11E-18
19	45343579	19:45343579	A	G	0.120172	-0.029036799	2.95E-18
19	45357939	19:45357939	A	G	0.481337	-0.093037189	1.35E-69
19	45360488	19:45360488	G	T	0.00950108	0.165797318	9.62E-45
19	45363820	19:45363820	G	T	0.00680628	0.225470931	6.45E-66

19	45370941	19:45370941	T	C	0.0343086	-0.047431249	1.83E-15
19	45378719	19:45378719	T	C	0.055867	-0.042842615	7.63E-20
19	45382717	19:45382717	G	A	0.396212	0.043738423	4.03E-86
19	45384931	19:45384931	A	G	0.0100554	0.195491888	7.98E-65
19	45387596	19:45387596	A	G	0.129489	0.165266132	0
19	45395266	19:45395266	G	A	0.376763	-0.070610622	1.88E-221
19	45403924	19:45403924	T	C	0.052279	-0.045356269	8.87E-21
19	45405499	19:45405499	A	G	0.0223899	-0.046348902	2.11E-10
19	45412079	19:45412079	T	C	0.0721435	-0.088453729	4.73E-100
19	45412955	19:45412955	C	A	0.0260548	0.220257934	1.16E-232
19	45421100	19:45421100	A	G	0.414891	-0.127218135	2.09E-125
19	45431403	19:45431403	T	C	0.0305051	-0.03874658	6.44E-10
19	45461996	19:45461996	G	A	0.0536495	-0.031183381	8.07E-11
19	45463386	19:45463386	A	G	0.0091777	0.171677454	3.96E-50
19	45477111	19:45477111	T	C	0.234447	-0.014806885	6.24E-09
19	45490192	19:45490192	G	A	0.34053	0.02297834	7.25E-24
19	45530351	19:45530351	T	C	0.4095	-0.034456262	1.41E-10
19	45542471	19:45542471	T	C	0.00612873	0.081532538	4.00E-08
19	45543755	19:45543755	G	A	0.0276101	0.058144769	8.95E-17
19	45549135	19:45549135	A	G	0.0213582	0.06874778	8.66E-18
19	45580372	19:45580372	T	C	0.041546	0.042832376	2.25E-15
19	45592475	19:45592475	T	C	0.113258	-0.019445276	1.22E-08
19	45655333	19:45655333	C	T	0.10154	0.046612785	1.07E-38
19	45657486	19:45657486	C	T	0.488328	-0.012558924	5.82E-09
19	45697020	19:45697020	A	C	0.0379119	0.036489973	1.35E-09
19	45708408	19:45708408	C	T	0.177087	0.028203502	4.65E-23
19	45712679	19:45712679	A	G	0.0170465	0.079489896	1.57E-21
19	45722743	19:45722743	A	G	0.0405143	0.032350982	2.57E-08
19	45729123	19:45729123	C	T	0.0567755	0.033465391	7.60E-13
19	45734751	19:45734751	G	A	0.389128	-0.016143004	4.49E-13
19	45830947	19:45830947	A	G	0.392116	-0.012247909	3.21E-08
19	51727962	19:51727962	A	C	0.299276	-0.013757048	5.15E-09
20	54998544	20:54998544	G	A	0.0950416	-0.022894258	5.38E-10

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.

Supplementary table 25: SNPs used to calculate the AD-PRS excluding APOE (Mayo Clinic)

Description of SNPs, weights and p values used to calculate the AD-PRS excluding APOE in the Mayo Clinic samples.

CHR	BP	SNP	A1	A2	freq	beta (weight)	P
1	161155392	1:161155392	A	G	0.228026	0.016411633	1.90E-10
1	207750568	1:207750568	T	C	0.171481	0.025417699	6.83E-19
2	127891427	2:127891427	C	A	0.411349	0.031095063	1.45E-44
2	234069512	2:234069512	C	A	0.466846	0.012969003	2.50E-09
4	11026028	4:11026028	A	G	0.262473	0.014704637	1.98E-09
6	32415153	6:32415153	T	C	0.165368	0.018782338	9.91E-11
6	32571122	6:32571122	T	C	0.13012	-0.020827485	8.55E-11
6	32572082	6:32572082	C	T	0.431906	0.012420404	2.09E-08
6	41129207	6:41129207	T	C	0.00746843	0.073707877	3.02E-08
6	47432637	6:47432637	C	T	0.355744	0.0144515	1.99E-10
7	99785750	7:99785750	T	C	0.153295	0.016803856	3.29E-08

7	99971834	7:99971834	A	G	0.32433	-0.018395737	1.80E-15
7	143108158	7:143108158	T	C	0.485387	-0.01451867	2.89E-11
8	27195121	8:27195121	C	T	0.365676	0.015322448	8.49E-12
8	27322974	8:27322974	A	G	0.0860179	-0.022969232	2.79E-09
8	27464929	8:27464929	A	G	0.377826	-0.020161433	1.48E-19
8	27494366	8:27494366	C	T	0.0339544	-0.032869537	3.59E-08
10	11717397	10:11717397	C	T	0.360964	0.012943374	1.04E-08
11	59958380	11:59958380	A	C	0.382122	-0.017870026	1.11E-15
11	85776544	11:85776544	G	A	0.317416	-0.020428916	1.48E-18
11	121435587	11:121435587	C	T	0.0440715	-0.035926385	8.12E-12
14	92938855	14:92938855	A	G	0.33648	-0.014826611	1.32E-10
15	59022615	15:59022615	C	T	0.354342	-0.013721107	1.22E-09
15	63569902	15:63569902	T	C	0.124823	0.01802674	3.44E-08
16	31133100	16:31133100	A	G	0.298476	-0.012985226	3.73E-08
17	5138980	17:5138980	A	G	0.126086	0.019985799	7.91E-10
17	47450775	17:47450775	A	G	0.453265	0.01230151	1.68E-08
18	56189459	18:56189459	C	T	0.0111949	0.0567967	3.38E-08
19	1043638	19:1043638	T	C	0.247644	0.015923035	2.38E-10
19	45020859	19:45020859	A	G	0.0308747	0.044234873	1.28E-12
19	45048858	19:45048858	A	G	0.0326609	0.045591355	1.49E-12
19	45078886	19:45078886	G	A	0.370126	-0.017057993	3.36E-14
19	51727962	19:51727962	A	C	0.299276	-0.013757048	5.15E-09
20	54998544	20:54998544	G	A	0.0950416	-0.022894258	5.38E-10

CHR: Chromosome, BP: Base Pair, A1: Effect allele, A2: Other allele, freq: Frequency, Beta: Beta-coefficient (weight), P: P value.