

Citrus-Gene Interaction and Melanoma Risk in the UK Biobank

By Andrew R. Marley, Ming Li, Victoria L. Champion, Yiqing Song, Jiali Han, and Xin Li

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Table S1. All SNPs found significant at 5E-08 according to the joint two-degree-of-freedom test

SNP ID	Chr	Position	Closest mapped gene	Ref allele	Minor allele	MAF	Info score	p-2DF	p-1DF
rs183783391	3	69950451	<i>MITF</i>	C	T	0.013	0.95	4.25E-08	0.73
rs10114692	9	21725261	<i>RN7SL151P</i>	C	C	0.474	1.00	3.65E-09	0.44
rs10116090	9	21723055	<i>RN7SL151P</i>	T	T	0.475	1.00	2.20E-09	0.40
rs10116451	9	21727352	<i>RN7SL151P</i>	G	G	0.474	1.00	3.99E-09	0.42
rs10116546	9	21727693	<i>RN7SL151P</i>	G	G	0.475	1.00	3.33E-09	0.45
rs10116567	9	21727702	<i>RN7SL151P</i>	G	G	0.473	1.00	4.28E-09	0.48
rs10118262	9	21759891	<i>MTAP</i>	C	C	0.474	1.00	4.36E-09	0.44
rs10119658	9	21757590	<i>MTAP</i>	T	T	0.475	1.00	4.68E-09	0.47
rs10283756	9	21731529	<i>RN7SL151P</i>	A	A	0.474	1.00	4.63E-09	0.49
rs10637623	9	21722394	<i>RN7SL151P</i>	G	G	0.474	0.99	6.37E-09	0.48
rs10738595	9	21745004	<i>RN7SL151P</i>	T	T	0.475	1.00	5.61E-09	0.48
rs10738597	9	21746396	<i>RN7SL151P</i>	T	T	0.474	1.00	5.59E-09	0.48
rs10738599	9	21774467	<i>MTAP</i>	T	T	0.475	1.00	2.28E-09	0.38
rs10757236	9	21715890	<i>RN7SL151P</i>	G	G	0.486	0.99	2.30E-09	0.19
rs10757237	9	21727369	<i>RN7SL151P</i>	G	G	0.474	1.00	3.67E-09	0.44
rs10757238	9	21732466	<i>RN7SL151P</i>	C	C	0.474	1.00	3.85E-09	0.46
rs10757239	9	21733113	<i>RN7SL151P</i>	G	G	0.476	0.99	4.45E-09	0.48
rs10757240	9	21734449	<i>RN7SL151P</i>	G	G	0.474	1.00	4.02E-09	0.46
rs10757241	9	21734480	<i>RN7SL151P</i>	G	G	0.474	1.00	4.06E-09	0.46
rs10757242	9	21739592	<i>RN7SL151P</i>	G	G	0.475	1.00	5.94E-09	0.52
rs10757243	9	21744802	<i>RN7SL151P</i>	C	C	0.475	1.00	5.51E-09	0.48
rs10757245	9	21746496	<i>RN7SL151P</i>	C	C	0.474	1.00	5.59E-09	0.48
rs10757246	9	21746587	<i>RN7SL151P</i>	A	A	0.475	1.00	5.70E-09	0.48
rs10757247	9	21747859	<i>RN7SL151P</i>	C	C	0.474	1.00	5.60E-09	0.48
rs10757250	9	21754226	<i>MTAP</i>	C	C	0.475	1.00	4.66E-09	0.47

rs10757251	9	21754372	<i>MTAP</i>	T	T	0.474	1.00	4.60E-09	0.47
rs10757252	9	21754588	<i>MTAP</i>	C	C	0.475	1.00	4.65E-09	0.47
rs10757253	9	21772267	<i>MTAP</i>	T	T	0.475	1.00	2.68E-09	0.38
rs10757254	9	21775061	<i>MTAP</i>	A	A	0.474	1.00	2.17E-09	0.38
rs10757255	9	21776631	<i>MTAP</i>	G	G	0.475	0.99	1.98E-09	0.37
rs10811583	9	21698355	<i>RN7SL151P</i>	G	G	0.488	0.94	1.42E-08	0.95
rs10811584	9	21701005	<i>RN7SL151P</i>	T	T	0.461	0.99	4.23E-09	0.65
rs10811592	9	21715201	<i>RN7SL151P</i>	A	G	0.488	0.99	1.51E-08	0.18
rs10811595	9	21715801	<i>RN7SL151P</i>	T	G	0.486	0.99	2.32E-09	0.18
rs10811596	9	21720826	<i>RN7SL151P</i>	T	T	0.477	0.99	3.50E-09	0.61
rs10811600	9	21734802	<i>RN7SL151P</i>	A	A	0.474	1.00	4.08E-09	0.46
rs10811601	9	21734833	<i>RN7SL151P</i>	G	G	0.474	1.00	4.08E-09	0.46
rs10811602	9	21734836	<i>RN7SL151P</i>	C	C	0.474	1.00	4.08E-09	0.46
rs10811604	9	21738437	<i>RN7SL151P</i>	C	C	0.474	1.00	5.73E-09	0.49
rs10811605	9	21738444	<i>RN7SL151P</i>	T	T	0.474	1.00	5.95E-09	0.49
rs10811613	9	21775342	<i>MTAP</i>	C	C	0.474	1.00	2.76E-09	0.37
rs10811617	9	21790067	<i>MTAP</i>	A	A	0.469	0.99	1.23E-09	0.23
rs10811618	9	21790142	<i>MTAP</i>	G	G	0.469	0.99	1.22E-09	0.23
rs10965122	9	21775508	<i>MTAP</i>	A	A	0.474	1.00	2.03E-09	0.38
rs10965127	9	21778976	<i>MTAP</i>	A	A	0.474	1.00	1.24E-09	0.37
rs113126107	9	21803729	<i>MTAP</i>	T	T	0.477	0.99	3.38E-10	0.21
rs113276233	9	21723265	<i>RN7SL151P</i>	T	T	0.473	0.99	5.05E-09	0.47
rs11384803	9	21760452	<i>MTAP</i>	T	T	0.476	0.99	3.83E-09	0.49
rs11394388	9	21710108	<i>RN7SL151P</i>	T	T	0.453	1.00	2.30E-08	0.54
rs12344842	9	21793177	<i>MTAP</i>	T	T	0.470	0.99	1.40E-09	0.18
rs12380505	9	21695893	<i>KHSRPP1</i>	A	A	0.463	0.98	5.01E-09	0.81
rs1335498	9	21711637	<i>RN7SL151P</i>	A	A	0.452	0.99	3.28E-08	0.53
rs1335499	9	21711647	<i>RN7SL151P</i>	C	C	0.454	1.00	3.03E-08	0.57

rs1335500	9	21711675	<i>RN7SL151P</i>	G	G	0.454	1.00	2.90E-08	0.56
rs1335501	9	21711815	<i>RN7SL151P</i>	C	C	0.459	0.98	2.09E-08	0.63
rs1335502	9	21736274	<i>RN7SL151P</i>	A	A	0.474	1.00	4.05E-09	0.46
rs1335504	9	21743393	<i>RN7SL151P</i>	C	C	0.474	1.00	5.35E-09	0.48
rs1335505	9	21748484	<i>RN7SL151P</i>	C	C	0.475	1.00	5.56E-09	0.49
rs1335506	9	21750267	<i>RN7SL151P</i>	G	G	0.475	1.00	5.32E-09	0.48
rs1335507	9	21750445	<i>RN7SL151P</i>	C	C	0.474	1.00	5.42E-09	0.48
rs1335508	9	21750587	<i>RN7SL151P</i>	T	T	0.475	1.00	5.47E-09	0.48
rs1335512	9	21761440	<i>MTAP</i>	C	C	0.475	1.00	3.98E-09	0.44
rs1345022	9	21785304	<i>MTAP</i>	C	C	0.469	1.00	1.27E-09	0.27
rs1345025	9	21745412	<i>RN7SL151P</i>	G	G	0.475	1.00	5.64E-09	0.48
rs1345027	9	21751962	<i>MTAP</i>	A	A	0.474	1.00	6.49E-09	0.45
rs1345028	9	21752068	<i>MTAP</i>	G	G	0.475	1.00	4.63E-09	0.47
rs1372057	9	21747110	<i>RN7SL151P</i>	T	T	0.474	1.00	5.58E-09	0.48
rs1372058	9	21747311	<i>RN7SL151P</i>	G	G	0.474	1.00	5.53E-09	0.48
rs1372059	9	21747420	<i>RN7SL151P</i>	C	C	0.474	1.00	5.53E-09	0.48
rs1414228	9	21773541	<i>MTAP</i>	A	A	0.474	1.00	1.76E-09	0.39
rs1414232	9	21711062	<i>RN7SL151P</i>	G	G	0.453	1.00	4.46E-08	0.60
rs1414233	9	21711125	<i>RN7SL151P</i>	C	C	0.453	1.00	4.65E-08	0.60
rs1414234	9	21712193	<i>RN7SL151P</i>	C	C	0.453	0.99	2.82E-08	0.55
rs1414235	9	21726306	<i>RN7SL151P</i>	G	G	0.474	1.00	3.36E-09	0.44
rs1414236	9	21732544	<i>RN7SL151P</i>	C	C	0.474	1.00	4.10E-09	0.46
rs1414237	9	21732912	<i>RN7SL151P</i>	G	G	0.474	1.00	3.99E-09	0.46
rs1414238	9	21737149	<i>RN7SL151P</i>	C	C	0.474	1.00	4.64E-09	0.48
rs1414240	9	21743650	<i>RN7SL151P</i>	G	G	0.475	1.00	5.69E-09	0.48
rs1414241	9	21744392	<i>RN7SL151P</i>	G	G	0.475	1.00	5.67E-09	0.48
rs1414242	9	21748239	<i>RN7SL151P</i>	T	T	0.478	1.00	4.65E-09	0.69
rs1414244	9	21748532	<i>RN7SL151P</i>	A	A	0.475	1.00	5.81E-09	0.48

rs1414245	9	21750069	<i>RN7SL151P</i>	A	A	0.475	1.00	5.50E-09	0.48
rs1414246	9	21750075	<i>RN7SL151P</i>	A	A	0.475	1.00	5.48E-09	0.48
rs1414247	9	21750170	<i>RN7SL151P</i>	T	T	0.475	1.00	5.26E-09	0.47
rs1414248	9	21750884	<i>RN7SL151P</i>	C	C	0.475	1.00	5.47E-09	0.48
rs1414249	9	21750980	<i>RN7SL151P</i>	T	T	0.475	1.00	7.36E-09	0.47
rs1414250	9	21754947	<i>MTAP</i>	T	T	0.475	1.00	4.83E-09	0.47
rs1414251	9	21755030	<i>MTAP</i>	A	A	0.475	1.00	4.80E-09	0.47
rs1414252	9	21755140	<i>MTAP</i>	C	C	0.475	1.00	4.69E-09	0.47
rs1414255	9	21755894	<i>MTAP</i>	A	A	0.476	1.00	4.77E-09	0.48
rs1414256	9	21755896	<i>MTAP</i>	G	G	0.479	0.98	4.81E-09	0.43
rs1414257	9	21757767	<i>MTAP</i>	T	T	0.474	1.00	4.55E-09	0.47
rs143899253	9	21698799	<i>RN7SL151P</i>	C	C	0.481	0.94	1.05E-08	0.90
rs1452658	9	21700795	<i>RN7SL151P</i>	G	G	0.461	0.99	3.84E-09	0.64
rs145511817	9	21702286	<i>RN7SL151P</i>	A	A	0.462	0.99	5.78E-09	0.68
rs1542074	9	21786304	<i>MTAP</i>	C	C	0.469	1.00	1.25E-09	0.26
rs1542075	9	21790669	<i>MTAP</i>	C	C	0.469	0.99	9.92E-10	0.20
rs1542076	9	21790755	<i>MTAP</i>	A	A	0.480	0.99	5.03E-10	0.24
rs1556696	9	21741985	<i>RN7SL151P</i>	C	C	0.475	1.00	5.69E-09	0.48
rs1556697	9	21741993	<i>RN7SL151P</i>	A	A	0.475	1.00	8.38E-09	0.47
rs1561651	9	21742746	<i>RN7SL151P</i>	T	T	0.475	1.00	5.63E-09	0.48
rs1561652	9	21742816	<i>RN7SL151P</i>	T	T	0.475	1.00	5.62E-09	0.48
rs1832075	9	21726490	<i>RN7SL151P</i>	A	A	0.474	1.00	3.35E-09	0.44
rs1832076	9	21726664	<i>RN7SL151P</i>	A	A	0.474	1.00	3.34E-09	0.44
rs1840050	9	21700530	<i>RN7SL151P</i>	C	C	0.462	0.99	4.59E-09	0.67
rs1889680	9	21695460	<i>KHSRPP1</i>	T	T	0.461	0.98	1.10E-09	0.76
rs1932236	9	21725149	<i>RN7SL151P</i>	G	G	0.474	1.00	3.53E-09	0.44
rs1932237	9	21758768	<i>MTAP</i>	G	G	0.474	1.00	4.29E-09	0.44
rs1965153	9	21752105	<i>MTAP</i>	T	T	0.475	1.00	4.74E-09	0.47

rs2004627	9	21707492	<i>RN7SL151P</i>	C	C	0.455	1.00	2.33E-08	0.49
rs2027162	9	21737916	<i>RN7SL151P</i>	A	A	0.474	1.00	5.91E-09	0.49
rs2027163	9	21738133	<i>RN7SL151P</i>	T	T	0.474	1.00	5.17E-09	0.47
rs2043991	9	21731081	<i>RN7SL151P</i>	A	A	0.474	1.00	3.78E-09	0.46
rs2119465	9	21723709	<i>RN7SL151P</i>	T	T	0.475	1.00	2.46E-09	0.39
rs2119466	9	21745990	<i>RN7SL151P</i>	T	T	0.475	1.00	5.68E-09	0.48
rs2119467	9	21746107	<i>RN7SL151P</i>	C	C	0.474	1.00	5.60E-09	0.48
rs2152272	9	21773416	<i>MTAP</i>	A	A	0.474	1.00	1.75E-09	0.39
rs2152273	9	21773347	<i>MTAP</i>	C	C	0.475	0.99	2.95E-09	0.38
rs2165408	9	21802469	<i>MTAP</i>	A	G	0.457	0.93	1.63E-08	0.51
rs2165411	9	21730818	<i>RN7SL151P</i>	T	T	0.474	1.00	3.75E-09	0.46
rs2184551	9	21773222	<i>MTAP</i>	A	A	0.475	0.99	2.55E-09	0.38
rs2210777	9	21721455	<i>RN7SL151P</i>	A	A	0.475	1.00	2.67E-09	0.39
rs2210778	9	21721585	<i>RN7SL151P</i>	C	C	0.475	1.00	2.85E-09	0.39
rs2210780	9	21721714	<i>RN7SL151P</i>	G	G	0.475	1.00	2.67E-09	0.39
rs2218220	9	21756089	<i>MTAP</i>	C	C	0.475	1.00	4.81E-09	0.47
rs2383186	9	21728051	<i>RN7SL151P</i>	T	T	0.474	1.00	5.76E-09	0.48
rs2383202	9	21710215	<i>RN7SL151P</i>	C	C	0.453	1.00	4.58E-08	0.60
rs2891159	9	21747672	<i>RN7SL151P</i>	G	G	0.474	1.00	5.60E-09	0.48
rs2891160	9	21732999	<i>RN7SL151P</i>	C	C	0.474	1.00	4.79E-09	0.46
rs2891161	9	21728291	<i>RN7SL151P</i>	C	C	0.474	1.00	3.19E-09	0.44
rs2891164	9	21711735	<i>RN7SL151P</i>	C	C	0.453	1.00	2.24E-08	0.55
rs2891165	9	21711801	<i>RN7SL151P</i>	G	G	0.460	0.98	1.11E-08	0.62
rs2891166	9	21726819	<i>RN7SL151P</i>	C	C	0.474	1.00	3.34E-09	0.44
rs34435506	9	21743330	<i>RN7SL151P</i>	C	C	0.475	1.00	5.59E-09	0.48
rs35974503	9	21741129	<i>RN7SL151P</i>	A	A	0.478	0.99	6.06E-09	0.55
rs3849929	9	21769412	<i>MTAP</i>	G	G	0.474	1.00	1.92E-09	0.39
rs3927737	9	21827992	<i>MTAP</i>	G	G	0.470	0.99	6.14E-09	0.38

rs4275294	9	21727225	<i>RN7SL151P</i>	A	A	0.474	1.00	3.33E-09	0.44
rs4300088	9	21755266	<i>MTAP</i>	C	C	0.475	1.00	4.82E-09	0.47
rs4341236	9	21727208	<i>RN7SL151P</i>	A	A	0.474	1.00	3.33E-09	0.44
rs4350062	9	21733008	<i>RN7SL151P</i>	T	T	0.474	1.00	4.80E-09	0.46
rs4352937	9	21747749	<i>RN7SL151P</i>	C	C	0.474	1.00	5.60E-09	0.48
rs4364717	9	21801530	<i>MTAP</i>	A	G	0.456	0.99	4.83E-08	0.25
rs4384075	9	21736034	<i>RN7SL151P</i>	G	G	0.475	1.00	3.93E-09	0.42
rs4431674	9	21822483	<i>MTAP</i>	G	G	0.470	0.99	2.30E-09	0.30
rs4560881	9	21700409	<i>RN7SL151P</i>	A	A	0.461	0.99	3.28E-09	0.69
rs4595216	9	21719872	<i>RN7SL151P</i>	G	G	0.475	1.00	3.27E-09	0.39
rs4620362	9	21711788	<i>RN7SL151P</i>	A	A	0.461	0.98	1.73E-08	0.65
rs4620363	9	21711789	<i>RN7SL151P</i>	A	A	0.457	0.99	7.56E-09	0.52
rs4636294	9	21747803	<i>RN7SL151P</i>	A	A	0.474	1.00	5.63E-09	0.47
rs4637939	9	21727963	<i>RN7SL151P</i>	T	T	0.474	1.00	3.17E-09	0.44
rs5009176	9	21726573	<i>RN7SL151P</i>	T	T	0.474	1.00	1.01E-08	0.50
rs5009177	9	21726572	<i>RN7SL151P</i>	A	A	0.474	1.00	1.01E-08	0.50
rs5009178	9	21726571	<i>RN7SL151P</i>	C	C	0.474	1.00	1.01E-08	0.50
rs55948515	9	21696979	<i>KHSRPP1</i>	C	C	0.463	0.97	4.61E-09	0.67
rs568707466	9	21698955	<i>RN7SL151P</i>	C	C	0.477	0.96	5.10E-09	0.69
rs5896948	9	21726628	<i>RN7SL151P</i>	T	T	0.474	1.00	5.45E-09	0.50
rs6475549	9	21700927	<i>RN7SL151P</i>	A	A	0.462	0.99	3.35E-09	0.67
rs6475550	9	21701451	<i>RN7SL151P</i>	A	A	0.462	0.99	3.26E-09	0.68
rs6475551	9	21701639	<i>RN7SL151P</i>	A	A	0.462	0.99	3.19E-09	0.68
rs6475552	9	21701674	<i>RN7SL151P</i>	G	G	0.462	0.99	3.50E-09	0.68
rs6475554	9	21716887	<i>RN7SL151P</i>	T	A	0.486	0.99	3.09E-09	0.19
rs6475555	9	21716997	<i>RN7SL151P</i>	A	G	0.486	0.99	3.01E-09	0.20
rs6475556	9	21718297	<i>RN7SL151P</i>	T	T	0.475	1.00	2.85E-09	0.40
rs6475557	9	21718479	<i>RN7SL151P</i>	A	A	0.475	1.00	3.17E-09	0.39

rs6475558	9	21718639	<i>RN7SL151P</i>	A	A	0.475	1.00	3.21E-09	0.39
rs6475559	9	21718655	<i>RN7SL151P</i>	T	T	0.475	1.00	3.21E-09	0.39
rs6475561	9	21725649	<i>RN7SL151P</i>	A	A	0.474	1.00	3.25E-09	0.44
rs6475562	9	21725765	<i>RN7SL151P</i>	C	C	0.474	1.00	3.84E-09	0.44
rs6475563	9	21726778	<i>RN7SL151P</i>	G	G	0.474	1.00	3.34E-09	0.44
rs6475564	9	21728683	<i>RN7SL151P</i>	T	T	0.474	1.00	3.37E-09	0.44
rs6475565	9	21731867	<i>RN7SL151P</i>	G	G	0.474	1.00	4.56E-09	0.49
rs6475566	9	21733500	<i>RN7SL151P</i>	G	G	0.474	1.00	4.06E-09	0.46
rs6475568	9	21733706	<i>RN7SL151P</i>	G	G	0.474	1.00	4.10E-09	0.46
rs6475569	9	21733889	<i>RN7SL151P</i>	A	A	0.474	1.00	4.08E-09	0.46
rs6475571	9	21736017	<i>RN7SL151P</i>	C	C	0.474	1.00	4.94E-09	0.48
rs6475572	9	21736020	<i>RN7SL151P</i>	T	T	0.474	1.00	4.96E-09	0.48
rs6475574	9	21736052	<i>RN7SL151P</i>	C	C	0.475	1.00	3.73E-09	0.42
rs6475576	9	21765601	<i>MTAP</i>	C	C	0.475	1.00	3.72E-09	0.39
rs6475577	9	21769869	<i>MTAP</i>	T	T	0.474	0.99	2.22E-09	0.39
rs6475578	9	21769897	<i>MTAP</i>	G	G	0.474	1.00	1.70E-09	0.40
rs6475579	9	21771756	<i>MTAP</i>	A	A	0.475	1.00	2.67E-09	0.38
rs6475585	9	21826538	<i>MTAP</i>	G	G	0.471	0.99	5.79E-09	0.37
rs66922395	9	21702293	<i>RN7SL151P</i>	G	G	0.460	0.99	6.31E-09	0.66
rs7018772	9	21787402	<i>MTAP</i>	G	G	0.469	1.00	1.15E-09	0.26
rs7019601	9	21741797	<i>RN7SL151P</i>	T	T	0.475	1.00	5.65E-09	0.48
rs7021012	9	21775957	<i>MTAP</i>	G	G	0.474	1.00	1.97E-09	0.38
rs7021538	9	21733204	<i>RN7SL151P</i>	C	C	0.474	1.00	4.72E-09	0.46
rs7022856	9	21788523	<i>MTAP</i>	A	A	0.469	1.00	1.07E-09	0.25
rs7023299	9	21728406	<i>RN7SL151P</i>	G	G	0.474	1.00	3.28E-09	0.43
rs7024027	9	21772930	<i>MTAP</i>	T	T	0.475	0.99	2.66E-09	0.38
rs7027989	9	21817754	<i>MTAP</i>	A	A	0.469	1.00	3.19E-09	0.34
rs7028913	9	21717395	<i>RN7SL151P</i>	A	A	0.475	1.00	3.12E-09	0.40

rs7029040	9	21717441	<i>RN7SL151P</i>	A	A	0.475	1.00	3.15E-09	0.40
rs7029166	9	21717509	<i>RN7SL151P</i>	A	A	0.475	0.99	2.90E-09	0.40
rs7029274	9	21717599	<i>RN7SL151P</i>	A	A	0.475	1.00	3.03E-09	0.40
rs7033503	9	21799598	<i>MTAP</i>	T	T	0.466	0.99	2.52E-10	0.19
rs7036249	9	21745114	<i>RN7SL151P</i>	T	T	0.475	1.00	5.66E-09	0.48
rs7036257	9	21745120	<i>RN7SL151P</i>	T	T	0.475	1.00	5.64E-09	0.48
rs7037577	9	21772037	<i>MTAP</i>	G	G	0.474	1.00	1.91E-09	0.39
rs7038708	9	21788081	<i>MTAP</i>	T	T	0.468	1.00	1.23E-09	0.25
rs7039487	9	21709997	<i>MTAP</i>	C	C	0.453	1.00	4.56E-08	0.60
rs7040998	9	21725512	<i>RN7SL151P</i>	C	C	0.474	1.00	3.51E-09	0.44
rs7041104	9	21725430	<i>RN7SL151P</i>	G	G	0.475	1.00	2.48E-09	0.39
rs7043827	9	21731447	<i>RN7SL151P</i>	A	A	0.474	1.00	3.93E-09	0.46
rs7044070	9	21731586	<i>RN7SL151P</i>	C	C	0.474	1.00	4.65E-09	0.49
rs7044199	9	21731694	<i>RN7SL151P</i>	C	C	0.474	1.00	4.56E-09	0.49
rs7045768	9	21770709	<i>MTAP</i>	T	T	0.474	1.00	1.80E-09	0.39
rs7047136	9	21704021	<i>RN7SL151P</i>	A	A	0.454	0.99	1.30E-08	0.43
rs71334592	9	21699618	<i>RN7SL151P</i>	T	T	0.469	0.96	3.24E-09	0.56
rs71334597	9	21741166	<i>RN7SL151P</i>	A	A	0.491	0.97	1.63E-08	0.42
rs72691561	9	21813241	<i>MTAP, RP11-145E5.5</i>	T	C	0.446	0.99	3.06E-08	0.63
rs72691562	9	21813303	<i>MTAP, RP11-145E5.5</i>	A	C	0.446	0.99	3.07E-08	0.63
rs72691563	9	21813495	<i>MTAP, RP11-145E5.5</i>	C	T	0.444	0.99	1.41E-08	0.58
rs72691564	9	21813518	<i>MTAP, RP11-145E5.5</i>	C	T	0.446	0.99	2.92E-08	0.63
rs751173	9	21707372	<i>RN7SL151P</i>	C	C	0.455	1.00	4.06E-08	0.45
rs7846749	9	21780251	<i>MTAP</i>	A	A	0.469	1.00	1.79E-09	0.29
rs7846852	9	21718193	<i>RN7SL151P</i>	T	T	0.475	1.00	2.85E-09	0.40
rs7846943	9	21720108	<i>RN7SL151P</i>	C	C	0.475	1.00	3.51E-09	0.39
rs7847070	9	21720225	<i>RN7SL151P</i>	C	C	0.475	1.00	2.69E-09	0.42
rs7847574	9	21720481	<i>RN7SL151P</i>	G	G	0.475	1.00	2.95E-09	0.42

rs7848230	9	21720921	<i>RN7SL151P</i>	G	G	0.475	1.00	2.68E-09	0.39
rs7850446	9	21763742	<i>MTAP</i>	G	G	0.474	1.00	3.71E-09	0.44
rs7851439	9	21721248	<i>RN7SL151P</i>	G	G	0.475	1.00	3.24E-09	0.39
rs7851460	9	21719507	<i>RN7SL151P</i>	T	T	0.475	1.00	3.21E-09	0.39
rs7852450	9	21825075	<i>MTAP, RP11-145E5.5</i>	T	T	0.465	0.99	9.22E-09	0.31
rs7852710	9	21760254	<i>MTAP</i>	T	T	0.474	1.00	4.21E-09	0.44
rs7852900	9	21746796	<i>RN7SL151P</i>	A	A	0.474	1.00	5.58E-09	0.48
rs7853131	9	21746976	<i>RN7SL151P</i>	A	A	0.474	1.00	5.52E-09	0.48
rs7854018	9	21734366	<i>RN7SL151P</i>	C	C	0.474	1.00	4.02E-09	0.46
rs7854222	9	21734348	<i>RN7SL151P</i>	G	G	0.474	1.00	3.69E-09	0.46
rs7854990	9	21725962	<i>RN7SL151P</i>	T	T	0.474	1.00	4.00E-09	0.45
rs7855242	9	21729327	<i>RN7SL151P</i>	C	C	0.474	1.00	6.31E-09	0.47
rs7855253	9	21729366	<i>RN7SL151P</i>	C	C	0.474	1.00	4.35E-09	0.46
rs7855464	9	21729383	<i>RN7SL151P</i>	G	G	0.474	1.00	4.46E-09	0.46
rs7856941	9	21761322	<i>MTAP</i>	T	T	0.475	1.00	3.90E-09	0.44
rs7857279	9	21717884	<i>RN7SL151P</i>	A	A	0.475	1.00	2.85E-09	0.40
rs7857636	9	21700172	<i>RN7SL151P</i>	A	A	0.462	0.99	3.39E-09	0.68
rs7858959	9	21700932	<i>RN7SL151P</i>	G	G	0.462	0.99	3.18E-09	0.68
rs7858991	9	21735856	<i>RN7SL151P</i>	G	G	0.474	1.00	3.45E-09	0.45
rs7860576	9	21714920	<i>RN7SL151P</i>	T	C	0.493	0.99	3.12E-09	0.16
rs7865156	9	21719375	<i>RN7SL151P</i>	G	G	0.475	1.00	3.25E-09	0.39
rs7865620	9	21719996	<i>RN7SL151P</i>	A	A	0.475	1.00	3.40E-09	0.39
rs7866540	9	21760396	<i>MTAP</i>	C	C	0.476	1.00	4.44E-09	0.44
rs7866787	9	21760639	<i>MTAP</i>	A	A	0.476	1.00	4.92E-09	0.44
rs7866885	9	21760621	<i>MTAP</i>	C	C	0.475	1.00	4.79E-09	0.44
rs7867994	9	21697689	<i>KHSRPP1</i>	G	G	0.461	0.98	8.97E-09	0.71
rs7868008	9	21697805	<i>KHSRPP1</i>	C	C	0.463	0.98	7.74E-09	0.65
rs7868091	9	21697699	<i>KHSRPP1</i>	G	G	0.461	0.98	7.11E-09	0.69

rs7871138	9	21722453	<i>RN7SL151P</i>	T	T	0.475	1.00	2.66E-09	0.39
rs7871242	9	21722521	<i>RN7SL151P</i>	T	T	0.470	0.99	1.07E-08	0.60
rs7871256	9	21722562	<i>RN7SL151P</i>	T	T	0.475	0.99	2.67E-09	0.40
rs7871345	9	21729895	<i>RN7SL151P</i>	T	T	0.474	1.00	3.58E-09	0.45
rs7874319	9	21735881	<i>RN7SL151P</i>	T	T	0.474	1.00	3.45E-09	0.45
rs796910922	9	21720827	<i>RN7SL151P</i>	G	G	0.476	0.99	4.75E-09	0.65
rs80138396	9	21805208	<i>MTAP, RP11-145E5.5</i>	C	C	0.476	0.99	2.63E-10	0.23
rs869329	9	21804693	<i>MTAP, RP11-145E5.5</i>	A	A	0.476	1.00	1.98E-10	0.24
rs869330	9	21804617	<i>MTAP, RP11-145E5.5</i>	A	A	0.476	1.00	2.37E-10	0.24
rs871024	9	21803880	<i>MTAP, RP11-145E5.5</i>	C	C	0.476	1.00	2.07E-10	0.23
rs9298821	9	21699406	<i>RN7SL151P</i>	G	G	0.461	0.99	4.64E-09	0.68
rs9298822	9	21699444	<i>RN7SL151P</i>	C	C	0.461	0.99	4.57E-09	0.67
rs9298823	9	21749607	<i>RN7SL151P</i>	T	T	0.475	1.00	5.99E-09	0.48
rs9298824	9	21749663	<i>RN7SL151P</i>	T	T	0.474	1.00	5.73E-09	0.46
rs9298825	9	21749670	<i>RN7SL151P</i>	T	T	0.475	1.00	8.57E-09	0.47
rs935053	9	21783922	<i>MTAP</i>	G	G	0.469	1.00	1.27E-09	0.26
rs935055	9	21803183	<i>MTAP, RP11-145E5.5</i>	G	G	0.476	1.00	2.22E-10	0.22
rs950770	9	21741662	<i>RN7SL151P</i>	C	C	0.474	1.00	5.61E-09	0.48
rs9644821	9	21741197	<i>RN7SL151P</i>	C	C	0.477	1.00	1.25E-08	0.49
rs9644858	9	21741050	<i>RN7SL151P</i>	C	C	0.475	1.00	5.75E-09	0.48
rs9695494	9	21727799	<i>RN7SL151P</i>	C	C	0.474	1.00	3.43E-09	0.44
rs9886831	9	21773167	<i>MTAP</i>	C	C	0.475	0.99	2.69E-09	0.39
rs11076649	16	90059336	<i>AFG3L1P</i>	C	G	0.170	0.99	6.47E-10	0.05
rs111460975	16	89434541	<i>ANKRD11</i>	A	G	0.142	1.00	4.24E-08	0.65
rs111822773	16	90054089	<i>AFG3L1P</i>	A	C	0.109	0.98	3.62E-09	0.04
rs112001009	16	90047605	<i>AFG3L1P</i>	A	G	0.106	1.00	3.06E-09	0.05
rs112119225	16	90063461	<i>AFG3L1P</i>	T	G	0.096	1.00	1.67E-11	0.06
rs112153252	16	90059712	<i>AFG3L1P</i>	A	G	0.107	0.99	6.22E-09	0.05

rs112233725	16	89693191	<i>DPEP1</i>	T	C	0.088	0.95	1.96E-08	0.26
rs112460025	16	90051337	<i>AFG3L1P</i>	T	G	0.095	1.00	8.68E-12	0.06
rs112556696	16	90054018	<i>AFG3L1P</i>	A	G	0.110	0.96	5.52E-09	0.09
rs113178244	16	90056195	<i>AFG3L1P</i>	C	G	0.107	0.99	5.00E-09	0.05
rs113753049	16	90052934	<i>AFG3L1P</i>	A	C	0.321	0.96	8.55E-09	0.43
rs113891247	16	90047757	<i>AFG3L1P</i>	T	A	0.091	1.00	1.43E-11	0.07
rs113923060	16	90054015	<i>AFG3L1P</i>	G	A	0.096	0.99	1.11E-11	0.05
rs113955373	16	90043036	<i>AFG3L1P</i>	C	A	0.089	0.98	1.13E-10	0.11
rs113955902	16	89395438	<i>ANKRD11</i>	G	A	0.077	0.97	1.10E-09	0.22
rs11648898	16	90045986	<i>AFG3L1P</i>	A	G	0.170	1.00	5.87E-13	0.18
rs11866420	16	90054704	<i>AFG3L1P</i>	C	C	0.422	0.99	6.14E-12	0.08
rs12921383	16	89859753	<i>FANCA</i>	T	C	0.111	0.99	7.39E-09	0.15
rs12924124	16	89791126	<i>ZNF276</i>	C	T	0.095	1.00	1.83E-10	0.22
rs12925026	16	89792856	<i>ZNF276</i>	C	T	0.095	1.00	1.47E-10	0.21
rs12931267	16	89818732	<i>FANCA</i>	C	G	0.097	1.00	5.79E-11	0.24
rs146972365	16	90022693	<i>DEF8</i>	T	C	0.091	0.99	5.27E-12	0.06
rs164741	16	89692298	<i>DPEP1</i>	A	A	0.336	0.98	7.83E-09	0.53
rs164752	16	89722390	<i>CHMP1A</i>	G	G	0.118	0.99	2.16E-08	0.40
rs1805007	16	89986117	<i>MC1R</i>	C	T	0.098	1.00	5.31E-13	0.30
rs1991508	16	89672155	<i>DPEP1</i>	C	T	0.091	0.99	3.08E-09	0.33
rs2280374	16	89687407	<i>DPEP1</i>	C	T	0.099	1.00	1.43E-10	0.17
rs258322	16	89755903	<i>CDK10</i>	A	A	0.121	1.00	3.95E-08	0.27
rs34265416	16	89769725	<i>SPATA2L</i>	C	A	0.114	0.99	3.89E-08	0.24
rs34323930	16	89691045	<i>DPEP1</i>	C	T	0.098	0.99	1.27E-10	0.16
rs34395984	16	89659511	<i>CPNE7</i>	C	T	0.086	0.99	9.24E-11	0.28
rs34659644	16	89796017	<i>ZNF276</i>	G	A	0.095	0.99	2.46E-10	0.22
rs34714188	16	89781756	<i>VPS9D1</i>	T	A	0.096	0.99	3.94E-10	0.24
rs34934239	16	89675579	<i>DPEP1</i>	G	A	0.098	0.99	1.04E-11	0.22

rs35026726	16	89791279	<i>ZNF276</i>	C	T	0.095	1.00	1.38E-10	0.21
rs35063026	16	89736157	<i>SPATA33</i>	C	T	0.095	0.99	3.19E-09	0.26
rs35414122	16	89742979	<i>CDK10</i>	A	G	0.114	0.99	2.87E-08	0.28
rs35749174	16	89716493	<i>CHMP1A</i>	G	A	0.096	0.99	1.97E-09	0.28
rs35850949	16	89720724	<i>CHMP1A</i>	C	A	0.096	0.99	3.04E-09	0.28
rs369230	16	89645437	<i>CPNE7</i>	G	G	0.310	0.98	1.03E-09	0.64
rs375738481	16	89744876	<i>CDK10</i>	CT	C	0.158	0.91	9.37E-10	0.21
rs3764253	16	89686693	<i>DPEP1</i>	G	A	0.099	1.00	1.51E-10	0.81
rs3803683	16	90060281	<i>AFG3LIP</i>	T	C	0.175	0.99	3.55E-10	0.05
rs4248913	16	89693099	<i>DPEP1</i>	C	A	0.100	0.93	1.61E-08	0.34
rs4268748	16	90026512	<i>DEF8</i>	T	C	0.309	0.99	3.03E-12	0.27
rs452176	16	89653032	<i>CPNE7</i>	G	G	0.459	0.96	3.90E-08	0.83
rs45610233	16	90048395	<i>AFG3LIP</i>	C	T	0.087	1.00	4.55E-11	0.12
rs4968051	16	89714981	<i>CHMP1A</i>	T	C	0.108	0.99	3.56E-08	0.22
rs4968054	16	89690079	<i>DPEP1</i>	C	T	0.099	1.00	1.25E-10	0.16
rs533139343	16	90286407	<i>AC137934.1</i>	C	T	0.071	0.63	6.52E-09	0.53
rs56850194	16	90043531	<i>AFG3LIP</i>	C	A	0.090	1.00	5.92E-11	0.09
rs57856222	16	89682190	<i>DPEP1</i>	C	T	0.100	1.00	2.36E-10	0.15
rs58656226	16	89745091	<i>CDK10</i>	T	G	0.108	0.99	2.94E-08	0.17
rs58827852	16	90058754	<i>AFG3LIP</i>	G	A	0.110	0.99	5.71E-09	0.07
rs59038611	16	90065956	<i>AFG3LIP</i>	G	C	0.095	1.00	1.16E-11	0.05
rs59574756	16	90067513	<i>AFG3LIP</i>	A	G	0.095	1.00	1.85E-11	0.05
rs61408277	16	89685234	<i>DPEP1</i>	G	T	0.099	1.00	1.55E-10	0.17
rs62052243	16	90026152	<i>DEF8</i>	A	G	0.349	0.99	9.42E-09	0.28
rs62054570	16	90063890	<i>AFG3LIP</i>	T	G	0.160	0.99	2.03E-12	0.05
rs71396949	16	89714844	<i>CHMP1A</i>	G	A	0.095	0.98	3.50E-09	0.19
rs71396950	16	89726550	<i>SPATA33</i>	G	A	0.096	0.99	3.09E-09	0.28
rs71396951	16	89726593	<i>SPATA33</i>	G	C	0.096	0.99	3.08E-09	0.28

rs7191697	16	89678165	<i>DPEPI</i>	G	A	0.100	0.99	1.09E-11	0.19
rs73283845	16	90055664	<i>AFG3LIP</i>	C	T	0.106	0.99	5.01E-09	0.05
rs73283859	16	90062520	<i>AFG3LIP</i>	G	C	0.092	1.00	1.45E-11	0.06
rs73283867	16	90066260	<i>AFG3LIP</i>	T	G	0.096	1.00	9.54E-12	0.05
rs73283869	16	90067184	<i>AFG3LIP</i>	G	A	0.092	1.00	1.21E-11	0.05
rs73283871	16	90067202	<i>AFG3LIP</i>	T	C	0.096	1.00	1.09E-11	0.05
rs74336735	16	90065033	<i>AFG3LIP</i>	T	A	0.096	1.00	1.49E-11	0.06
rs74583214	16	90110798	<i>GAS8</i>	C	T	0.098	0.96	5.57E-09	0.04
rs74800773	16	90024970	<i>DEF8</i>	C	G	0.105	1.00	7.99E-12	0.22
rs74836424	16	89507330	<i>ANKRD</i>	C	T	0.079	1.00	7.69E-10	0.18
rs75319471	16	90064454	<i>AFG3LIP</i>	A	G	0.095	1.00	1.47E-11	0.06
rs75570604	16	89846677	<i>FANCA</i>	G	C	0.096	1.00	1.01E-10	0.23
rs75923656	16	89690990	<i>DPEPI</i>	T	C	0.096	0.97	9.10E-11	0.17
rs76265950	16	90085139	<i>DBNDD1</i>	A	C	0.100	0.99	3.19E-09	0.06
rs76581091	16	90065100	<i>AFG3LIP</i>	T	C	0.096	1.00	1.58E-11	0.06
rs77110324	16	89683288	<i>DPEPI</i>	G	A	0.089	1.00	4.58E-10	0.19
rs77270200	16	90093075	<i>GAS8</i>	G	A	0.099	1.00	2.07E-09	0.05
rs77381714	16	90078022	<i>DBNDD1</i>	T	C	0.091	0.99	4.39E-11	0.05
rs77603042	16	90083239	<i>DBNDD1</i>	A	G	0.100	0.99	3.45E-09	0.06
rs77606435	16	90053691	<i>AFG3LIP</i>	C	G	0.094	1.00	1.59E-11	0.06
rs77733403	16	90080723	<i>DBNDD1</i>	T	C	0.179	0.98	2.48E-08	0.32
rs77770855	16	90043010	<i>AFG3LIP</i>	G	A	0.088	0.98	1.05E-10	0.11
rs78536691	16	90100471	<i>GAS8</i>	T	C	0.097	0.98	1.92E-09	0.07
rs78800020	16	90067136	<i>AFG3LIP</i>	G	C	0.096	1.00	1.12E-11	0.05
rs79138604	16	89690991	<i>DPEPI</i>	G	A	0.096	0.97	9.11E-11	0.17
rs79139787	16	89795360	<i>ZNF276</i>	C	T	0.086	0.92	8.87E-11	0.15
rs79172130	16	89687812	<i>DPEPI</i>	G	A	0.099	1.00	1.53E-10	0.17
rs79418450	16	90100505	<i>GAS8</i>	G	C	0.097	0.98	1.73E-09	0.06

rs8049897	16	90024202	<i>DEF8</i>	G	A	0.170	1.00	5.48E-13	0.15
rs8051733	16	90024206	<i>DEF8</i>	A	G	0.343	0.99	2.12E-09	0.27
rs8063160	16	90054709	<i>AFG3LIP</i>	T	C	0.106	0.99	3.17E-09	0.04
rs9926296	16	89818089	<i>FANCA</i>	A	A	0.488	1.00	3.54E-08	0.69

Abbreviations: Chr, chromosome; Ref allele, reference allele; MAF, minor allele frequency; Info score, imputation quality score; p-1DF, p-value for the conventional 1 degree-of-freedom test; p-2DF, p-value for the 2 degree-of-freedom joint test

Analysis of SNPs identified by Landi et al.

A recent analysis by Landi et al.¹ identified 86 melanoma susceptibility loci based on 36,760 melanoma cases and 375,188 controls from across the United Kingdom, United States, Northern and Western Europe, and the Mediterranean. Most of these participants (67% of cases and 96% of controls) had not been included in a previous melanoma genome-wide association study. We tested these variants for significance in our dataset (Table S2). In total, eight SNPs identified by Landi et al. were statistically significant in our analysis according to the 2-df test after adjusting for multiple comparisons ($p < 0.05/86 = 0.00058$). These SNPs included rs76798800 on chromosome 1, rs149617956 on chromosome 3, rs13178866 and rs16891982 on chromosome 5, rs871024 on chromosome 9, rs1126809 on chromosome 11, rs1805007 on chromosome 16, and rs6059655 on chromosome 20. The SNPs on chromosomes 9 and 16 are in high linkage disequilibrium with the index SNPs ($r^2 = 0.98$ and 0.68 , respectively). Of these SNPs, only rs13178866 on chromosome 5 (mapped to *TERT*) showed any evidence of interaction according to the 1-df test ($p = 0.05$). Although the 2-df p-value was too large to be identified in the main analysis ($p = 1.21E-06$), an interaction with this SNP is biologically plausible. *TERT* has been implicated in melanogenesis^{2,3} and evidence suggests that this may be due to mechanisms related to UV radiation exposure.⁴ If *TERT* does impact melanoma risk via UV exposure, then an interaction with citrus consumption, by which ingested furocoumarins increase skin sensitivity to UV radiation, is certainly plausible.⁵ Further research is needed to confirm this finding, particularly since the 2-df p-value did not reach $5E-08$ in our population.

Table S2. SNPs identified by Landi et al. and their results in the current analysis

SNP ID	Chr / Pos	Mapped Gene(s)	MAF	Info score	p-2DF	p-1DF
rs670318	1 / 63727542	<i>FOXD3</i>	0.047	1.00	0.034	0.92
rs8444	1 / 150938571	<i>RP11-3l6M1.12, CERS2, CTSS, ARNT</i>	0.36	1.00	0.18	0.079
rs76798800	1 / 154994978	<i>ZBTB7A, ADAM15, GBA</i>	0.26	1.00	0.00027*	0.46
rs2695237	1 / 226603635	<i>PARP1</i>	0.34	0.99	0.0035	0.65
rs195720	1 / 24787947	<i>NIPAL3</i>	0.39	0.98	0.21	0.98
rs34517439	1 / 78450517	<i>DNAJB4</i>	0.12	0.97	0.018	0.80
rs7533482	1 / 214673271	<i>PTPN14</i>	0.19	0.97	0.016	0.45
rs2369633	1 / 205181062	<i>DSTYK</i>	0.089	1.00	0.014	0.92
rs1800440	2 / 38298139	<i>CYP1B1</i>	0.18	1	0.24	0.23
rs10931936	2 / 202143928	<i>CASP8</i>	0.27	1	0.61	0.44
rs6745983	2 / 135430709	<i>TMEM163</i>	0.41	0.99	0.024	0.21
rs16849932	2 / 214065880	<i>IKZF2</i>	0.079	0.99	0.27	0.19
rs11677464	2 / 240065356	<i>HDAC4</i>	0.10	0.99	0.45	0.85
rs12473635	2 / 25778637	<i>DTNB</i>	0.22	1.00	0.90	0.83
rs149617956^a	3 / 70014091	<i>MITF</i>	0.0035	0.92	2.10E-08*	0.71
rs3950296	3 / 169493283	<i>TERC</i>	0.24	1.00	0.13	0.36
rs11730662	4 / 37470753	<i>KIAA1239</i>	0.32	1.00	0.91	0.95
rs7714232	5 / 56011357	<i>MAP3K1</i>	0.17	1.00	0.25	0.80
rs12523094	5 / 90262612	<i>GPR98</i>	0.40	0.99	0.14	0.64
rs13178866	5 / 1323212	<i>TERT</i>	0.43	1.00	1.21E-06*	0.050
rs16891982	5 / 33951693	<i>SLC45A2</i>	0.069	1.00	8.94E-05*	0.43
rs32578	5 / 149211868	<i>PPARGC1B</i>	0.32	1.00	0.098	0.078
rs12215602	6 / 1145265	<i>IRF4</i>	0.29	1.00	0.059	0.55
rs72834823	6 / 22719379	<i>HDGFL1</i>	0.17	0.99	0.012	0.34
rs28986343	6 / 32748953	<i>HLA-DQB2</i>	0.041	0.78	0.26	0.53
rs6908626	6 / 91005743	<i>BACH2</i>	0.17	0.99	0.63	0.54
rs6914598	6 / 21163919	<i>CDKAL1</i>	0.33	0.98	0.048	0.44
rs75818295	6 / 7189567	<i>RREB1</i>	0.049	0.95	0.34	0.49
rs548304	6 / 11637483	<i>ADTRP</i>	0.19	0.97	0.40	0.51
rs10949304	6 / 15503696	<i>DTNBP1</i>	0.43	0.98	0.69	0.94
rs2857482	6 / 50790642	<i>TFAP2B</i>	0.11	0.99	0.22	0.97
rs10434895	6 / 151577739	<i>AKAP12</i>	0.45	1.00	0.14	0.55
rs10434896	6 / 151577739	<i>AKAP12</i>	0.45	1.00	0.13	0.52
rs117132860	7 / 17134708	<i>AGR3</i>	0.025	1.00	0.26	0.63
rs12539524	7 / 22115454	<i>RAPGEF5</i>	0.14	0.99	0.35	0.30

rs4731207	7 / 124396645	<i>POT1</i>	0.45	1.00	0.023	0.20
rs7778378	7 / 130738666	<i>MKLN1</i>	0.22	1.00	0.11	0.85
rs6994183	8 / 21951009	<i>FAM160B2</i>	0.12	0.99	0.35	0.35
rs13263376	8 / 72864240	<i>RP11-383H13.1, MSC</i>	0.36	0.99	0.10	0.32
rs111595456	8 / 13138979	<i>ASAP1</i>	0.035	0.98	0.095	0.21
rs520015	9 / 211762	<i>CBWD1</i>	0.49	1.00	0.017	0.47
rs593179	9 / 235201	<i>CBWD1</i>	0.44	0.99	0.089	0.67
rs10960710	9 / 12587153	<i>TYRP1</i>	0.37	0.99	0.37	0.71
rs1339759	9 / 110711586	<i>KLF4</i>	0.37	0.99	0.0022	0.090
rs3780269	9 / 134457580	<i>RAPGEF1</i>	0.32	0.99	0.0050	0.035
rs871024^b	9 / 21803880	<i>MTAP, CDK2NA</i>	0.48	1.00	2.10E-10*	0.23
rs10739220	9 / 109054417	<i>TMEM38B</i>	0.23	1.00	0.37	0.35
rs7902587	10 / 105694301	<i>OBFC1</i>	0.098	0.98	0.011	0.087
rs76154345	10 / 5767177	<i>GDI2</i>	0.22	1.00	0.71	0.74
rs11194997	10 / 111889779	<i>MXI1</i>	0.19	1.00	0.11	0.62
rs11041426	11 / 7543519	<i>PPFIBP2</i>	0.38	0.99	0.40	0.96
rs10897275	11 / 62203865	<i>AHNAK</i>	0.32	0.99	0.019	0.78
rs12225068	11 / 91616691	<i>FAT3</i>	0.071	0.92	0.13	0.79
rs7941496	11 / 16041305	<i>SOX6</i>	0.48	0.98	0.42	0.51
rs4354713	11 / 69380898	<i>CCND1</i>	0.34	0.99	0.0075	0.36
rs1126809	11 / 89017961	<i>TYR</i>	0.29	1.00	0.00036*	0.30
rs1801516	11 / 108175462	<i>ATM</i>	0.14	1.00	0.00079	0.77
rs12290699	11 / 120195702	<i>TMEM136</i>	0.24	1.00	0.13	0.16
rs1056927	12 / 13070752	<i>MIR614, GPRC5A, APOLD1, RPL13AP20</i>	0.42	1.00	0.72	0.84
rs4237963	12 / 17275460	<i>LMO3</i>	0.19	1.00	0.21	0.091
rs10859996	12 / 96378807	<i>HAL, RP11-256L6.3</i>	0.36	1.00	0.00080	0.81
rs113469387	12 / 116580291	<i>MED13L</i>	0.11	1.00	0.20	0.66
rs1278768	13 / 113535949	<i>MCF2L</i>	0.47	1.00	0.35	0.60
rs474240	13 / 76351286	<i>LMO7</i>	0.35	1.00	0.38	0.43
rs75414584	13 / 114744546	<i>RASA3</i>	0.10	0.88	0.23	0.18
rs10873172	14 / 64390030	<i>SYNE2</i>	0.28	0.99	0.69	0.97
rs11625064	14 / 69226931	<i>ZFP36L1</i>	0.37	0.99	0.43	0.29
rs4904871	14 / 92795912	<i>SLC24A4</i>	0.45	0.98	0.16	0.40
rs2273699	14 / 103923475	<i>MARK3</i>	0.34	1.00	0.62	0.77
rs117648907	15 / 33277710	<i>FNMI</i>	0.024	1.00	0.49	0.26
rs2675345	15 / 48400199	<i>SLC24A5</i>	0.027	0.96	0.35	0.15
rs12913832	15 / 28365618	<i>OCA2</i>	0.26	1.00	0.44	0.56
rs62034121	16 / 54118132	<i>FTO</i>	0.16	0.99	0.030	0.035

rs62034139	16 / 54131939	<i>FTO</i>	0.17	1.00	0.11	0.16
rs12930459	16 / 55322732	<i>IRX6</i>	0.19	1.00	0.82	0.60
rs1805007^c	16 / 89986117	<i>MC1R</i>	0.098	1	5.31E-13*	0.30
rs4420522	16 / 68822971	<i>CDH1, ZFP90, FTLP14</i>	0.30	1.00	0.014	0.17
rs2967383	16 / 82217153	<i>MPHOSPH6</i>	0.28	1.00	0.26	0.44
rs78378222	17 / 7571752	<i>TP53</i>	0.012	0.95	0.0018	0.74
rs12984831	19 / 3540539	<i>MFS12</i>	0.0086	0.91	0.013	0.043
rs143190905	20 / 62291767	<i>RETL1</i>	0.080	0.99	0.74	0.79
rs6059655	20 / 32665748	<i>ASIP</i>	0.099	0.96	0.00022*	0.061
rs408825	21 / 42743496	<i>MX2</i>	0.40	1.00	0.10	0.83
rs5766565	22 / 45622684	<i>KIAA0930</i>	0.34	0.99	0.39	0.19
rs79966207	22 / 50722408	<i>PLXNB2</i>	0.17	1.00	0.030	0.38
rs132941	22 / 38545942	<i>MAFF</i>	0.45	1.00	0.010	0.47

Abbreviations: Chr, chromosome; Pos, position; MAF, minor allele frequency; p-1DF, p-value for the conventional 1 degree-of-freedom test; p-2DF, p-value for the 2 degree-of-freedom joint test; LD, linkage disequilibrium.

*Significant SNPs identified by 2-df test after adjusting for multiple comparisons ($p < 0.05/86 = 0.00058$) are highlighted in bold.

^a LD r^2 with index SNP rs183783391 on chromosome 3 is 0.2.

^b LD r^2 with index SNP rs8693299 on chromosome 9 is 0.98.

^c LD r^2 with index SNP rs11446223 on chromosome 16 is 0.68.

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