SUPPLEMENTAL MATERIAL

Supplementary Table 1. SNPs reaching alpha levels of significance of (P<1.97*10^{-5}) in genome-wide association analyses with VLDL particle diameters in the GOLDN population (n=817).

Snp	Chromosome	Gene[a]	GOLDN				MESA			Combined P[b]
			Position	Beta	SE	P	Beta	SE	P	
rs2011688	1	*APOB*	110530927	-0.058	0.012	4.42*10-06	0.009	0.011	0.390	0.017
rs6711016	2	*APOB*	20986833	0.036	0.008	2.46*10-06	-0.014	0.006	0.018	0.00003
rs6728178	2	*APOB*	21047434	0.043	0.008	1.95*10-08	-0.019	0.006	0.001	1.68*10-07
rs11902417	2	*APOB*	21052397	0.043	0.008	2.07*10-08	-0.019	0.006	0.001	1.11*10-07
rs10184054	2	*APOB*	21057374	-0.043	0.008	1.88*10-08	0.019	0.006	0.001	1.58*10-07
rs6544366	2	*APOB*	21057522	-0.043	0.008	1.88*10-08	0.019	0.006	0.001	1.61*10-07
rs4564803	2	*APOB*	21059007	-0.043	0.008	1.86*10-08	0.019	0.006	0.001	1.20*10-07
rs6754295	2	*APOB*	21059688	0.043	0.008	1.81*10-08	-0.019	0.006	0.001	1.18*10-07
rs7557067	2	*APOB*	21061717	-0.044	0.008	1.74*10-08	0.019	0.006	0.001	1.20*10-07
rs1042034	2	*APOB*	21078786	0.041	0.008	2.52*10-07	-0.016	0.006	0.009	9.65*10-06
rs2678379	2	*APOB*	21080065	0.041	0.008	2.54*10-07	-0.016	0.006	0.010	0.00001
rs676210	2	*APOB*	21085029	0.041	0.008	2.56*10-07	-0.016	0.006	0.011	1.49*10-05
rs673548	2		21091049	0.041	0.008	3.54*10-07	-0.016	0.006	0.010	0.00001
rs3109315	2		130101188	-0.194	0.045	1.76*10-05	-0.038	0.042	0.368	0.015
rs12493332	3		82979462	0.054	0.011	2.74*10-06	-0.01	0.008	0.213	0.005

rs17020227	3		82989090	-0.054	0.011	2.70*10-06	0.009	0.008	0.237	0.006
rs17020233	3		83005269	-0.055	0.011	1.77*10-06	0.01	0.008	0.235	0.006
rs13075335	3		83006051	-0.055	0.011	1.74*10-06	0.009	0.008	0.238	0.007
rs9309915	3		83008414	-0.055	0.011	1.69*10-06	0.009	0.008	0.249	0.007
rs12486708	3		83019307	-0.054	0.011	1.79*10-06	0.008	0.008	0.312	0.011
rs13091263	3		83019739	-0.054	0.011	1.78*10-06	0.008	0.008	0.312	0.011
rs13094197	3		83041466	0.055	0.011	1.45*10-06	-0.009	0.008	0.287	0.009
rs13063170	3		83043249	0.055	0.011	1.43*10-06	-0.008	0.008	0.295	0.010
rs13092936	3		83044768	-0.054	0.012	1.18*10-05	0.016	0.008	0.054	0.0004
rs6790035	3	*M*10COM*	170469774	0.162	0.034	2.32*10-06	-0.007	0.029	0.821	0.064
rs11915511	3	*MDS1*	170472604	-0.145	0.028	3.80*10-07	0.007	0.023	0.752	0.055
rs9681698	3	*M*10COM*	170477620	0.15	0.029	2.70*10-07	-0.004	0.024	0.884	0.073
rs6843345	4	*TMSL3*	91979785	-0.08	0.019	1.87*10-05	0.025	0.016	0.107	0.001
rs3966014	4	*GALNT7*	174294010	-0.032	0.007	1.2*10-05	-0.007	0.005	0.202	0.005
rs2332655	4	*GALNT7*	174329577	-0.029	0.007	1.34*10-05	-0.009	0.005	0.069	0.001
rs4535319	4	*GALNT7*	174363606	-0.03	0.007	8.82*10-06	-0.006	0.005	0.205	0.005
rs10213525	4	*GALNT7*	174366315	0.03	0.007	8.84*10-06	0.006	0.005	0.205	0.005
rs10001613	4	*GALNT7*	174368721	-0.03	0.007	9.69*10-06	-0.006	0.005	0.205	0.005
rs17059221	4	*GALNT7*	174384083	0.03	0.007	1.01*10-05	0.008	0.005	0.086	0.001
rs9683937	4	*GALNT7*	174392229	0.03	0.007	1.02*10-05	0.007	0.005	0.182	0.004

rs9685946	4	*GALNT7*	174392241	0.03	0.007	1.03*10-05	0.007	0.005	0.182	0.004
rs13112928	4	*GALNT7*	174394707	-0.03	0.007	5.41*10-06	-0.009	0.005	0.054	0.004
rs7703767	5	*MYOT*	137251906	0.208	0.044	2.85*10-06	0.016	0.067	0.817	0.064
rs6569770	6		99578606	0.047	0.011	1.18*10-05	-0.002	0.008	0.781	0.059
rs9483374	6		99583032	0.047	0.011	1.08*10-05	-0.002	0.008	0.781	0.059
rs4839737	6		99585025	-0.047	0.011	1.04*10-05	0.002	0.008	0.827	0.065
rs9483378	6		99586662	-0.047	0.011	9.97*10-06	0.001	0.008	0.914	0.078
rs9483379	6		99586811	-0.047	0.011	9.90*10-06	0.001	0.008	0.914	0.078
rs9483380	6		99587013	0.047	0.011	9.81*10-06	-0.001	0.008	0.914	0.078
rs9321324	6		99589604	-0.047	0.011	9.26*10-06	0.001	0.008	0.910	0.077
rs9321325	6		99589749	0.047	0.011	9.19*10-06	0	0.008	0.985	0.088
rs6938048	6		99590131	0.047	0.011	9.03*10-06	-0.001	0.008	0.911	0.077
rs9493177	6		99590311	-0.047	0.011	8.89*10-06	0.001	0.008	0.911	0.077
rs9483382	6		99590420	0.049	0.011	4.28*10-06	-0.001	0.008	0.913	0.077
rs6925042	6		99604669	0.045	0.01	1.36*10-05	0.004	0.008	0.579	0.034
rs9483434	6		99611559	0.045	0.01	1.39*10-05	0.004	0.008	0.604	0.037
rs4727625	7	*ATXN7L1*	105146931	-0.031	0.007	1.71*10-05	-0.004	0.005	0.454	0.022
rs538249	7		105147257	0.032	0.007	4.34*10-06	0	0.005	0.976	0.087
rs3780081	8	*AGPAT5*	6564968	-0.107	0.025	1.89*10-05	-0.002	0.023	0.936	0.081
rs12784903	10	*BUB3*	124946170	-0.04	0.008	7.71*10-07	-0.001	0.006	0.840	0.067

rs11248439	10	*BUB3*	124946696	0.039	0.008	1.06*10-06	0.001	0.006	0.876	0.072
rs11248440	10	*BUB3*	124947144	-0.039	0.008	2.33*10-06	-0.001	0.006	0.907	0.076
rs11248442	10	*BUB3*	124949604	0.039	0.008	4.88*10-07	0.001	0.006	0.904	0.076
rs2421177	10	*BUB3*	124950373	0.039	0.008	5.38*10-07	0.001	0.006	0.845	0.068
rs10902900	10	*BUB3*	124954909	-0.032	0.007	4.36*10-06	0	0.005	0.995	0.089
rs1114742	10	*BUB3*	124957585	0.04	0.008	4.98*10-07	0.002	0.006	0.774	0.058
rs10902901	10	*BUB3*	124957712	-0.031	0.007	5.07*10-06	0.001	0.005	0.901	0.076
rs12763035	10	*BUB3*	124957768	-0.039	0.008	3.87*10-07	-0.001	0.006	0.921	0.079
rs752920	10	*BUB3*	124962025	-0.031	0.007	4.90*10-06	0.001	0.005	0.891	0.074
rs17663304	10	*BUB3*	124963094	-0.03	0.007	1.19*10-05	0.002	0.005	0.647	0.042
rs11248451	10	*BUB3*	124963883	0.04	0.008	1.69*10-07	0.001	0.006	0.899	0.076
rs10902902	10	*BUB3*	124964007	-0.03	0.007	1.17*10-05	0.002	0.005	0.647	0.042
rs10902903	10	*BUB3*	124965929	-0.03	0.007	1.17*10-05	0.002	0.005	0.661	0.044
rs10902904	10	*BUB3*	124966686	-0.03	0.007	1.17*10-05	0.002	0.005	0.667	0.045
rs11248455	10	*BUB3*	124967147	0.039	0.008	2.86*10-07	0	0.006	0.942	0.082
rs11248456	10	*BUB3*	124968369	-0.039	0.008	2.86*10-07	0	0.006	0.934	0.080
rs12356367	10	*BUB3*	124968871	0.03	0.007	1.16*10-05	-0.002	0.005	0.683	0.047
rs7083581	10	*BUB3*	124969919	0.03	0.007	1.11*10-05	-0.002	0.005	0.708	0.050
rs17663410	10	*BUB3*	124970886	0.041	0.008	1.63*10-07	0.001	0.006	0.817	0.064
rs10902906	10	*BUB3*	124971320	0.03	0.007	1.16*10-05	-0.002	0.005	0.766	0.057

rs10902907	10	*BUB3*	124972490	0.03	0.007	9.65*10-06	-0.002	0.005	0.660	0.044
rs6578334	11	*MRGPRG*	3198799	0.054	0.012	1.5*10-05	0.005	0.008	0.560	0.033
rs4756071	11	*LMO2*	33839292	-0.228	0.052	1.46*10-05	-0.015	0.022	0.495	0.026
rs10082957	12		58622643	-0.098	0.021	5.66*10-06	0.005	0.017	0.771	0.058
rs11610152	12		106918128	0.041	0.009	2.51*10-06	-0.002	0.006	0.757	0.056
rs7295909	12		106922115	-0.041	0.009	2.25*10-06	0.002	0.006	0.758	0.056
rs11616130	12	*LOC100129448*	106932209	-0.041	0.009	1.94*10-06	0.002	0.006	0.780	0.059
rs933890	12	*LOC100129448*	106963052	-0.04	0.009	3.07*10-06	0.002	0.006	0.731	0.053
rs17318085	12	*LOC100129448*	106982950	0.039	0.009	6.39*10-06	-0.003	0.006	0.685	0.047
rs11608785	12	*LOC100129448*	106998761	0.038	0.009	1.57*10-05	-0.002	0.006	0.708	0.050
rs11608789	12	*LOC100129448*	106998822	0.038	0.009	1.82*10-05	-0.003	0.006	0.678	0.046
rs3736859	13	*LMO7*	75306250	-0.071	0.017	1.9*10-05	-0.003	0.011	0.796	0.061
rs12891613	14	*KIAA0323*	23973804	-0.051	0.01	6.77*10-07	-0.002	0.008	0.828	0.065
rs6085781	20		6896587	0.03	0.007	1.77*10-05	-0.006	0.005	0.222	0.006

Abbreviations: SE = Standard Error; P= P-value.

[a] +/- 50kb of gene [b]Fishers exact test

Supplementary Table 2. SNPs reaching alpha levels of significance of ($P<1.97*10^{-5}$) in genome-wide association analyses with LDL particle diameters in the GOLDN population (n=817).

Snp	Chromosome	Position	Gene[a]	GOLDN			MESA			Combined P[b]
				Beta	SE	P	Beta	SE	P	
rs17392930	1	51526492	*HEATR1*	-0.561	0.127	1.04*10-05	<.0001	0.002	0.97318	0.086
rs965399	1	234835027	*ARHGAP25*	-0.405	0.09	7.49*10-06	-0.003	0.001	0.058316	0.0004
rs13032797	2	68854675	*SCN2A*	0.295	0.063	3.91*10-06	-0.002	0.001	0.11472	0.002
rs6718960	2	165803974	*SCN2A*	0.197	0.046	1.96*10-05	0.001	0.001	0.085262	0.001
rs17182784	2	165809213	*NOSTRIN*	0.197	0.046	1.96*10-05	0.001	0.001	0.086066	0.001
rs482435	2	169384291		0.194	0.045	1.73*10-05	<.0001	0.001	0.8423	0.067
rs2542929	2	211419838		0.199	0.046	1.47*10-05	0.001	0.001	0.52118	0.029
rs347965	3	141790619		0.244	0.055	1.17*10-05	0.001	0.001	0.19989	0.005
rs7431736	3	146256132		0.823	0.178	4.52*10-06	0.004	0.003	0.1812	0.004
rs13082097	3	146275218		-0.826	0.179	4.56*10-06	-0.007	0.004	0.10575	0.001
rs12650654	4	110555319		-0.618	0.135	5.50*10-06	-0.001	0.002	0.72056	0.051
rs6820806	4	188962377	*ADCY2*	-0.27	0.062	1.5*10-05	-0.002	0.001	0.15844	0.003
rs1505080	5	7398847	*ADCY2*	-0.18	0.042	1.83*10-05	0.001	0.001	0.15017	0.003
rs1505081	5	7398929	*ADCY2*	-0.18	0.042	1.69*10-05	0.001	0.001	0.14593	0.003
rs3812025	5	7400593	*ADCY2*	-0.18	0.042	1.68*10-05	0.001	0.001	0.14437	0.003
rs1505089	5	7404342		0.191	0.042	7.98*10-06	-0.001	0.001	0.17801	0.004

rs10512892	5	49727032		-0.357	0.079	7.11*10-06	<.0001	0.001	0.76988	0.058
rs708010	6	37071350	*ORC3L*	0.207	0.048	1.63*10-05	<.0001	0.001	0.88342	0.073
rs2307373	6	88423427		-0.204	0.044	4.82*10-06	<.0001	0.001	0.99938	0.090
rs7792941	7	9030820		0.266	0.057	3.11*10-06	<.0001	0.001	0.75368	0.055
rs10952132	7	9033345		-0.285	0.051	2.49*10-08	<.0001	0.001	0.88882	0.074
rs10952133	7	9033517		-0.235	0.044	9.83*10-08	<.0001	0.001	0.92808	0.080
rs12537711	7	9041146		0.275	0.055	7.21*10-07	<.0001	0.001	0.83893	0.067
rs11983119	7	9047577		-0.28	0.058	1.69*10-06	<.0001	0.001	0.77484	0.058
rs6463871	7	9054048	*THSD7A*	0.291	0.059	1.10*10-06	<.0001	0.001	0.69668	0.048
rs7793532	7	11484295		-0.21	0.046	6.68*10-06	-0.001	0.001	0.080691	0.0008
rs706048	7	16738904	*TSPAN13*	-0.183	0.041	1.07*10-05	<.0001	0.001	0.76211	0.057
rs706059	7	16774415	*TSPAN13*	-0.184	0.041	9.63*10-06	0.001	0.001	0.13713	0.002
rs706065	7	16777692	*OSBPL3*	-0.179	0.041	1.21*10-05	0.001	0.001	0.053602	0.0004
rs10238784	7	24857333		-0.307	0.071	1.76*10-05	<.0001	0.001	0.80796	0.063
rs2435272	7	84845002		0.196	0.043	7.25*10-06	0.001	0.001	0.29748	0.010
rs2463468	7	84847285		0.196	0.043	7.34*10-06	0.001	0.001	0.30016	0.010
rs2463475	7	84853936		0.196	0.043	6.99*10-06	0.001	0.001	0.28904	0.010
rs1960550	7	84862579		0.197	0.043	6.45*10-06	0.001	0.001	0.27853	0.009
rs2463478	7	84868528		-0.198	0.043	6.05*10-06	-0.001	0.001	0.29689	0.010
rs1583081	7	84872163		0.2	0.044	5.51*10-06	0.001	0.001	0.34099	0.013

rs2463480	7	84874325		0.2	0.044	5.35*10-06	0.001	0.001	0.3464	0.013
rs2435264	7	84874341		0.2	0.044	5.33*10-06	0.001	0.001	0.34656	0.013
rs7794512	7	84883817	*CUX1*	-0.204	0.045	6.03*10-06	0	0.001	0.65082	0.043
rs11540898	7	101708009		0.671	0.147	5.38*10-06	0.001	0.002	0.66771	0.045
rs496037	8	16679423		0.61	0.133	5.59*10-06	0.001	0.002	0.71382	0.050
rs530909	8	16680945	*COL27A1*	-0.599	0.131	5.42*10-06	-0.001	0.002	0.45528	0.022
rs16927834	9	116088294	*COL27A1*	0.312	0.064	1.11*10-06	0.001	0.001	0.31834	0.011
rs4978577	9	116088430	*COL27A1*	-0.313	0.063	8.98*10-07	-0.001	0.001	0.30696	0.011
rs1687410	9	116090841	*COL27A1*	-0.314	0.064	1.22*10-06	-0.001	0.001	0.31143	0.011
rs10817583	9	116091092	*COL27A1*	0.315	0.064	1.05*10-06	0.001	0.001	0.3203	0.012
rs1249742	9	116091435	*COL27A1*	-0.327	0.064	4.65*10-07	-0.001	0.001	0.34866	0.014
rs1249740	9	116091860	*FAM99A*	0.308	0.065	2.72*10-06	0.001	0.001	0.30379	0.010
rs748541	11	1652592		0.228	0.045	5.51*10-07	-0.001	0.001	0.4334	0.020
rs7103707	11	85571084	*BTG4*	-0.281	0.063	1.08*10-05	-0.002	0.001	0.13506	0.002
rs11213927	11	110868371	*TPTE2*	0.365	0.083	1.37*10-05	<.0001	0.002	0.89117	0.074
rs2880301	13	18998534		0.606	0.057	5.85*10-25	<.0001	0.001	0.68348	0.047
rs8002785	13	33621850		0.203	0.046	9.61*10-06	<.0001	0.001	0.62426	0.040
rs12876644	13	33623977		-0.18	0.041	1.51*10-05	-0.001	0.001	0.13427	0.002
rs4142811	13	33624266		-0.204	0.047	1.37*10-05	<.0001	0.001	0.78602	0.060
rs8181839	13	33626853	*MIR548F5,DCLK1*	-0.203	0.046	1.05*10-05	<.0001	0.001	0.71396	0.050

rs9531159	13	35368336	*TRIM9*	0.329	0.076	1.93*10-05	0.001	0.001	0.45587	0.022
rs4609754	14	50588675	*TRIM9*	0.262	0.06	1.36*10-05	0.002	0.001	0.06344	0.0005
rs12101017	14	50598979	*TRIM9*	0.258	0.06	1.62*10-05	0.002	0.001	0.051871	0.0003
rs4606614	14	50599720	*TRIM9*	-0.258	0.06	1.62*10-05	-0.002	0.001	0.051949	0.0003
rs2999394	14	50629779	*MAPKBP1*	-0.187	0.041	6.14*10-06	-0.002	0.001	0.011154	1.55*10-05
rs11635086	15	39877393		1.096	0.245	8.60*10-06	0.001	0.003	0.80996	0.063
rs903979	15	45375049	*UNC13C*	0.479	0.11	1.4*10-05	-0.001	0.002	0.57171	0.034
rs2725597	15	52075173	*LOC728222*	0.309	0.068	5.59*10-06	0.002	0.001	0.15183	0.003
rs4781878	16	18042947	*LOC728222*	-0.177	0.041	1.91*10-05	<.0001	0.001	0.74744	0.055
rs12598040	16	18044767	*QPRT*	0.177	0.041	1.96*10-05	<.0001	0.001	0.64904	0.043
rs9922666	16	29606126	*QPRT*	-0.233	0.048	1.20*10-06	-0.001	0.001	0.43498	0.020
rs9923341	16	29606211		-0.217	0.047	4.10*10-06	-0.001	0.001	0.44395	0.021
rs16950148	16	77883391		0.481	0.088	6.36*10-08	0.003	0.001	0.021076	5.51*10-05
rs12934695	16	77886109		-0.48	0.091	1.67*10-07	-0.003	0.001	0.024891	7.68*10-05
rs8054083	16	77897298		0.431	0.093	4.00*10-06	0.002	0.001	0.064077	0.0005
rs4888950	16	77904730		-0.404	0.083	1.38*10-06	-0.001	0.001	0.25795	0.008
rs17654551	16	77906341		-0.357	0.079	7.66*10-06	-0.001	0.001	0.32435	0.012
rs7186445	16	77915296		0.36	0.08	8.42*10-06	0.001	0.001	0.28758	0.009
rs2221705	16	77919912	*MC5R/RNMT*	-0.359	0.081	9.21*10-06	-0.001	0.001	0.2671	0.008
rs9949908	18	13790956	*MC5R/RNMT*	0.285	0.066	1.57*10-05	-0.002	0.001	0.060161	0.0004

rs1785081	18	13791209	*MC5R/RNMT*	0.236	0.053	1.15*10-05	-0.001	0.001	0.53159	0.030
rs1284074	18	13791306	*MC5R/RNMT*	-0.236	0.053	1.15*10-05	0.001	0.001	0.53148	0.030
rs948271	18	13793024		-0.286	0.066	1.52*10-05	0.002	0.001	0.060198	0.0004
rs5003334	18	47771188		-0.217	0.049	1.04*10-05	-0.001	0.001	0.32558	0.012
rs8094211	18	47799572	*TCF4*	-0.215	0.05	1.65*10-05	-0.001	0.001	0.3038	0.010
rs17511755	18	51300720	*TCF4*	0.449	0.102	1.32*10-05	0.001	0.002	0.64551	0.042
rs9960767	18	51306000	*TCF4*	-0.414	0.091	5.86*10-06	-0.002	0.002	0.25649	0.008
rs12327270	18	51319071		-0.415	0.091	5.99*10-06	-0.002	0.002	0.21913	0.006
rs11666603	19	12357934		-0.225	0.05	7.81*10-06	<.0001	0.001	0.62742	0.040
rs946371	20	23077794		-0.209	0.048	1.56*10-05	-0.001	0.001	0.30071	0.010
rs56840	20	53480643		-0.266	0.061	1.42*10-05	-0.002	0.001	0.12729	0.002
rs212600	20	53488072		0.259	0.049	1.53*10-07	<.0001	0.001	0.70375	0.049

Abbreviations: SE = Standard Error; P= P-value.

[a] +/- 50kb of gene [b]Fishers exact test

Supplementary Table 3. SNPs reaching alpha levels of significance of ($P<1.97*10^{-5}$) in genome-wide association analyses with HDL particle diameters in the GOLDN population (n=817).

Snp	Chromosome	Gene[a]	Position	GOLDN			MESA			Combined P[b]
				Beta	SE	P	Beta	SE	P	
rs12409803	1	4093286		-0.1	0.021	3.54*10-06	<.0001	0.001	0.89924	0.075
rs6663939	1	4097116		0.099	0.021	3.87*10-06	<.0001	0.001	0.92975	0.080
rs10915445	1	4097502		-0.099	0.021	3.89*10-06	<.0001	0.001	0.93024	0.080
rs12143662	1	4102853	*C1orf130*	0.098	0.021	3.95*10-06	<.0001	0.001	0.9578	0.084
rs2809963	1	24762037		0.11	0.025	1.37*10-05	<.0001	0.002	0.84429	0.069
rs427614	1	25274024		0.125	0.021	3.25*10-09	<.0001	0.001	0.99734	0.090
rs380337	1	25274437	*KCNQ4*	-0.125	0.021	3.08*10-09	<.0001	0.001	0.9988	0.090
rs11806175	1	41065556	*KCNQ4*	-0.217	0.048	7.00*10-06	0.007	0.003	0.053408	0.0004
rs11801911	1	41066444	*VAV3-AS1*	0.217	0.048	7.00*10-06	-0.007	0.003	0.053408	0.0004
rs1571965	1	108321052	*ACTN2*	-0.27	0.061	1*10-05	-0.004	0.004	0.28873	0.009
rs10925170	1	234842272		-0.179	0.039	4.02*10-06	-0.002	0.002	0.36224	0.015
rs11896089	2	16088590		0.097	0.021	4.72*10-06	-0.001	0.001	0.52317	0.029
rs4233975	2	61752645	*PDE1A*	0.143	0.033	1.91*10-05	-0.001	0.002	0.53853	0.030
rs1430148	2	182980944	*PDE1A*	-0.115	0.027	1.67*10-05	<.0001	0.002	0.97114	0.086
rs1430147	2	182981190	*PDE1A*	-0.115	0.027	1.67*10-05	<.0001	0.002	0.97226	0.086
rs10497600	2	182988539	*PDE1A*	0.12	0.027	9.53*10-06	<.0001	0.002	0.84156	0.067

rs17356152	2	183000937	*PDE1A*	-0.109	0.024	8.70*10-06	<.0001	0.002	0.90694	0.076
rs17265027	2	183001658	*PDE1A*	0.122	0.026	2.69*10-06	-0.001	0.002	0.74042	0.054
rs11686025	2	183002216	*PDE1A*	0.11	0.024	7.32*10-06	<.0001	0.002	0.76191	0.057
rs1946815	2	183006405	*PDE1A*	-0.116	0.024	2.09*10-06	<.0001	0.001	0.91841	0.078
rs1583114	2	183007454	*PDE1A*	0.123	0.026	2.28*10-06	-0.001	0.002	0.6901	0.047
rs10207132	2	183008891	*PDE1A*	-0.122	0.026	2.99*10-06	0.001	0.002	0.62301	0.040
rs17356166	2	183009004	*PDE1A*	0.122	0.027	6.33*10-06	<.0001	0.002	0.91872	0.078
rs13407156	2	183010436	*PDE1A*	0.122	0.026	2.73*10-06	-0.001	0.002	0.64377	0.042
rs17356207	2	183016072	*PDE1A*	-0.125	0.026	1.58*10-06	0.001	0.002	0.56072	0.033
rs16823254	2	183017527	*PDE1A*	0.123	0.027	5.50*10-06	<.0001	0.002	0.96721	0.085
rs16823257	2	183019625	*PDE1A*	-0.123	0.026	2.31*10-06	0.001	0.002	0.58793	0.036
rs1367203	2	183019768	*PDE1A*	-0.125	0.026	1.58*10-06	0.001	0.002	0.56072	0.033
rs1125184	2	183029091		0.114	0.025	5.63*10-06	-0.001	0.002	0.69234	0.048
rs17044542	3	6316499	*SH3BP5*	0.243	0.056	1.81*10-05	-0.004	0.003	0.18358	0.004
rs3773474	3	15274032	*SH3BP5*	0.334	0.073	4.76*10-06	-0.001	0.005	0.83775	0.067
rs6771876	3	15274231	*SH3BP5*	0.332	0.072	5.46*10-06	-0.001	0.005	0.83782	0.0667
rs9813606	3	15275659	*SH3BP5*	-0.322	0.072	8.59*10-06	0.001	0.005	0.84132	0.067
rs9817868	3	15276056	*SH3BP5*	-0.322	0.072	8.59*10-06	0.001	0.005	0.84511	0.068
rs6442508	3	15279745	*SH3BP5*	-0.322	0.072	8.40*10-06	<.0001	0.005	0.96523	0.085
rs9310472	3	15281603	*SH3BP5*	-0.323	0.071	5.96*10-06	<.0001	0.005	0.9638	0.085

rs6788936	3	15284929	*SH3BP5*	-0.323	0.072	8.89*10-06	-0.003	0.005	0.62174	0.039
rs6808313	3	15289028	*ROBO2*	-0.327	0.073	8.28*10-06	-0.003	0.005	0.51865	0.028
rs17015072	3	77326908	*RNF13*	0.225	0.049	4.21*10-06	-0.002	0.004	0.57338	0.034
rs3911489	3	151154829	*SORCS2*	0.173	0.038	7.84*10-06	-0.001	0.002	0.80264	0.062
rs2359630	4	7755695	*SORCS2*	-0.103	0.024	1.56*10-05	-0.002	0.001	0.23519	0.006
rs2253959	4	7755718		-0.103	0.023	1.03*10-05	-0.001	0.001	0.3794	0.016
rs13127852	4	166043348		-0.112	0.026	1.9*10-05	-0.001	0.002	0.52732	0.029
rs4429695	4	166055510	*ADAMTS16*	0.114	0.024	2.26*10-06	<.0001	0.001	0.77624	0.058
rs2913645	5	5304790	*ADAMTS16*	0.219	0.05	1.27*10-05	0.001	0.003	0.82299	0.065
rs10044817	5	5326945		-0.198	0.045	1.13*10-05	<.0001	0.003	0.96194	0.084
rs1505089	5	7404342		0.093	0.022	1.92*10-05	-0.001	0.001	0.6507	0.043
rs10941111	5	19229209		0.117	0.026	8.35*10-06	0.002	0.002	0.17447	0.004
rs6452462	5	81845214		-0.103	0.023	8.84*10-06	0.001	0.002	0.42501	0.020
rs9293305	5	81885502	*EDIL3*	0.107	0.023	4.65*10-06	-0.001	0.002	0.45457	0.022
rs1159734	5	83565119		-0.144	0.033	1.03*10-05	0.001	0.002	0.70436	0.049
rs10075540	5	121149963		-0.34	0.069	9.87*10-07	<.0001	0.018	0.98609	0.089
rs17148434	5	121154291		-0.338	0.068	9.63*10-07	-0.001	0.007	0.87899	0.072
rs13436296	5	121158963		0.332	0.067	9.18*10-07	0.005	0.007	0.41354	0.019
rs13436690	5	121160978	*FTMT*	-0.332	0.067	9.24*10-07	-0.003	0.019	0.87638	0.072
rs10055277	5	121165582	*FTMT*	-0.332	0.067	9.24*10-07	-0.004	0.019	0.82882	0.065

rs7702652	5	121166687	*FTMT*	-0.332	0.067	9.24*10-07	-0.005	0.019	0.80559	0.062
rs6863862	5	121182873	*FTMT*	0.335	0.068	8.89*10-07	0.005	0.007	0.46868	0.024
rs7736854	5	121183420	*FTMT*	-0.337	0.068	8.66*10-07	-0.01	0.019	0.60489	0.038
rs1431941	5	121184304	*SNCAIP*	-0.338	0.068	8.64*10-07	-0.013	0.019	0.49734	0.026
rs2737089	5	121811695	*B3GAT2*	0.101	0.021	2.35*10-06	-0.001	0.001	0.48436	0.025
rs1111994	6	71733654	*B3GAT2*	-0.135	0.03	1.02*10-05	0.004	0.002	0.034894	0.0002
rs10455718	6	71737765	*B3GAT2*	-0.135	0.03	1.01*10-05	0.004	0.002	0.034254	0.0001
rs10455231	6	71740199		-0.135	0.03	1*10-05	0.004	0.002	0.034007	0.0001
rs7741861	6	75510983		-0.376	0.083	7.34*10-06	-0.004	0.005	0.41123	0.019
rs10943727	6	81361963		0.1	0.022	6.62*10-06	-0.002	0.001	0.17645	0.004
rs1840334	6	81363214		0.1	0.022	6.41*10-06	-0.002	0.001	0.15535	0.003
rs6926124	6	81366399		0.1	0.022	6.23*10-06	-0.002	0.001	0.15374	0.003
rs13207647	6	81370887		-0.095	0.022	1.5*10-05	0.002	0.001	0.15816	0.003
rs2061040	6	81375074	*NKAIN2*	-0.097	0.022	1.37*10-05	0.002	0.001	0.15807	0.003
rs2326102	6	125173739		-0.372	0.083	8.80*10-06	0.003	0.006	0.58486	0.034
rs1413600	6	125315827	*RNF217*	0.105	0.022	2.10*10-06	0.001	0.001	0.66429	0.044
rs9388398	6	125374510	*RNF217*	-0.109	0.022	1.02*10-06	-0.001	0.001	0.24969	0.007
rs1413598	6	125378498	*REPS1*	0.107	0.022	1.53*10-06	0.001	0.001	0.29011	0.010
rs17068040	6	139269499	*REPS1*	0.43	0.076	1.95*10-08	<.0001	0.005	0.91462	0.078
rs4895549	6	139302986		0.446	0.079	2.25*10-08	-0.001	0.005	0.84654	0.068

rs2609299	6	168551609		-0.135	0.031	1.63*10-05	-0.001	0.002	0.6266	0.034
rs7792941	7	9030820		0.144	0.029	5.79*10-07	-0.002	0.002	0.16344	0.003
rs10952132	7	9033345		-0.143	0.026	3.95*10-08	<.0001	0.002	0.86805	0.071
rs12537711	7	9041146		0.148	0.028	1.54*10-07	-0.001	0.002	0.76632	0.057
rs245661	7	9045314		0.122	0.028	1.35*10-05	-0.001	0.002	0.42625	0.020
rs11983119	7	9047577		-0.153	0.029	2.30*10-07	0.001	0.002	0.73794	0.053
rs6463871	7	9054048	*SCIN*	0.158	0.03	1.67*10-07	-0.001	0.002	0.647	0.042
rs2529784	7	12633733	*SCIN*	0.109	0.025	1.55*10-05	-0.001	0.001	0.73094	0.053
rs2529786	7	12638127	*SCIN*	-0.112	0.024	5.40*10-06	0.001	0.001	0.52003	0.028
rs740415	7	12639395	*SCIN*	-0.11	0.024	7.72*10-06	0.001	0.001	0.54077	0.031
rs2691816	7	12642712	*SCIN*	-0.11	0.024	7.97*10-06	0.001	0.001	0.55066	0.032
rs2529780	7	12643453	*SCIN*	0.11	0.024	8.06*10-06	-0.001	0.001	0.55308	0.031868719
rs2529781	7	12644370	*SCIN*	0.11	0.024	8.24*10-06	-0.001	0.001	0.55643	0.032
rs2074866	7	12646979	*TSPAN13*	-0.112	0.025	8.39*10-06	0.001	0.001	0.59252	0.036
rs1168056	7	16765791	*TSPAN13*	0.09	0.021	1.53*10-05	-0.001	0.001	0.60526	0.038
rs1168055	7	16766986	*CREB5*	-0.091	0.021	1.3*10-05	0.001	0.001	0.67167	0.045
rs41298	7	28635305	*CRHR2*	-0.112	0.024	5.11*10-06	<.0001	0.001	0.94871	0.084
rs12701020	7	30661486	*CUX1*	-0.183	0.043	1.87*10-05	0.001	0.003	0.67234	0.046
rs11540898	7	101708009		0.355	0.074	2.01*10-06	<.0001	0.004	0.91036	0.077
rs6467756	7	137624169		-0.169	0.039	1.27*10-05	0.001	0.002	0.61325	0.038

rs12551119	9	75921222	*COL27A1*	-0.143	0.033	1.48*10-05	-0.001	0.002	0.33915	0.013
rs16927834	9	116088294	*COL27A1*	0.145	0.032	7.56*10-06	0.001	0.002	0.66335	0.044
rs4978577	9	116088430	*COL27A1*	-0.145	0.032	6.71*10-06	-0.001	0.002	0.65664	0.043
rs1687410	9	116090841	*COL27A1*	-0.146	0.033	7.98*10-06	-0.001	0.002	0.65629	0.043
rs10817583	9	116091092	*COL27A1*	0.146	0.032	7.33*10-06	0.001	0.002	0.67473	0.046
rs1249742	9	116091435	*COL27A1*	-0.143	0.033	1.43*10-05	-0.001	0.002	0.76812	0.057
rs1249740	9	116091860		0.149	0.033	8.25*10-06	0.001	0.002	0.51139	0.028
rs827267	10	72399314	*CBARA1*	-0.27	0.06	7.46*10-06	-0.001	0.003	0.80776	0.063
rs7893285	10	73800394	*ARHGAP19*	-0.329	0.073	7.64*10-06	0.003	0.003	0.31904	0.011
rs17412719	10	99024825	*ARHGAP19*	0.099	0.023	1.89*10-05	0.002	0.001	0.29588	0.010
rs701821	10	99028552	*ARHGAP19*	0.099	0.023	1.89*10-05	0.002	0.001	0.29401	0.010
rs1253401	10	99040260	*TLX1*	0.1	0.023	1.67*10-05	0.002	0.001	0.29436	0.010
rs2859746	10	102886021		-0.568	0.12	2.49*10-06	0.024	0.015	0.11478	0.002
rs748541	11	1652592	*LMO1*	0.104	0.023	6.52*10-06	-0.002	0.001	0.1001	0.001
rs11041826	11	8227978	*LMO1*	0.136	0.031	1.26*10-05	-0.001	0.002	0.76683	0.057
rs4606466	11	8270731	*LMO1*	-0.106	0.024	1.06*10-05	-0.002	0.001	0.15686	0.003
rs11041862	11	8284642	*LMO1*	0.101	0.022	3.38*10-06	0.002	0.001	0.10578	0.001
rs10840015	11	8284673	*LMO1*	0.104	0.022	2.38*10-06	0.002	0.001	0.11185	0.002
rs7947764	11	8285210	*LMO1*	-0.096	0.022	1.5*10-05	-0.001	0.001	0.32837	0.012
rs7936966	11	8285230	*LMO1*	0.096	0.022	1.5*10-05	0.002	0.001	0.26222	0.008

rs4758330	11	8285769	*LMO1*	-0.096	0.022	1.5*10-05	-0.001	0.001	0.3115	0.011
rs4363584	11	8286194	*LMO1*	0.096	0.022	1.62*10-05	0.001	0.001	0.34372	0.013
rs4758332	11	8286416	*KIRREL3*	0.096	0.022	1.21*10-05	0.001	0.001	0.34349	0.013
rs7131312	11	126116758	*KIRREL3*	0.12	0.025	2.26*10-06	0.001	0.002	0.63771	0.041
rs13377256	11	126123588	*KIRREL3*	0.115	0.025	6.14*10-06	<.0001	0.002	0.79648	0.061
rs7350493	11	126124881	*KIRREL3*	-0.115	0.025	6.00*10-06	<.0001	0.002	0.79828	0.061
rs12361044	11	126126745	*KIRREL3*	0.116	0.025	5.94*10-06	<.0001	0.002	0.8036	0.062
rs11220599	11	126128143	*KIRREL3*	-0.11	0.025	1.34*10-05	<.0001	0.002	0.98941	0.089
rs10893564	11	126131899	*VDR*	-0.115	0.026	1.16*10-05	<.0001	0.002	0.95546	0.084
rs886441	12	46549231	*SLC16A7*	-0.14	0.028	8.63*10-07	<.0001	0.002	0.82738	0.065
rs11173119	12	58392780		-0.441	0.096	4.58*10-06	0.002	0.005	0.65991	0.044
rs12297974	12	58580484		-0.367	0.079	4.10*10-06	-0.003	0.005	0.56173	0.033
rs11173245	12	58607750		0.366	0.079	4.14*10-06	0.003	0.005	0.55628	0.032
rs11173246	12	58610763		-0.366	0.079	4.14*10-06	-0.003	0.005	0.55551	0.032
rs12313195	12	58611194		0.366	0.079	4.14*10-06	0.003	0.005	0.55523	0.032
rs2068673	12	58619670		-0.337	0.077	1.25*10-05	-0.002	0.004	0.62245	0.040
rs12321932	12	58620991		-0.366	0.079	4.13*10-06	-0.002	0.005	0.59624	0.034
rs7135268	12	58643605		0.368	0.079	3.90*10-06	<.0001	0.005	0.94026	0.081
rs1995516	12	59006001		0.338	0.077	1.26*10-05	0.008	0.004	0.079457	0.001
rs2731461	12	59074329		0.381	0.085	8.71*10-06	0.006	0.005	0.19056	0.004

rs2655872	12	59074831		-0.382	0.085	8.51*10-06	-0.006	0.005	0.19064	0.004
rs2731462	12	59074852		-0.383	0.085	8.32*10-06	-0.006	0.005	0.19064	0.004264685
rs2731464	12	59075263		0.384	0.085	8.19*10-06	0.006	0.005	0.19072	0.004
rs1504445	12	59075405		-0.384	0.086	8.07*10-06	-0.006	0.005	0.19072	0.004
rs1504447	12	59075721		-0.386	0.086	7.85*10-06	-0.006	0.005	0.19072	0.004
rs2047909	12	59075853		0.386	0.086	7.74*10-06	0.006	0.005	0.19073	0.004
rs2655874	12	59075975		-0.391	0.086	6.95*10-06	-0.006	0.005	0.19073	0.004
rs2047910	12	59076152		0.392	0.087	6.75*10-06	0.006	0.005	0.19078	0.004
rs1504448	12	59076292		-0.393	0.087	6.56*10-06	-0.006	0.005	0.19081	0.004
rs1472738	12	59076482		0.396	0.087	6.12*10-06	0.006	0.005	0.19081	0.004
rs2731466	12	59077481		-0.41	0.089	4.53*10-06	-0.006	0.005	0.19085	0.004
rs2655876	12	59077492		0.411	0.089	4.34*10-06	0.006	0.005	0.19085	0.004
rs1394325	12	59077654		0.416	0.09	3.89*10-06	0.006	0.005	0.1908	0.004
rs2047911	12	59077994		0.417	0.09	3.82*10-06	0.006	0.005	0.19084	0.004
rs2655877	12	59078883		-0.419	0.09	3.71*10-06	-0.006	0.005	0.19092	0.004
rs1983091	12	59080022	*KCNMB4*	-0.419	0.09	3.66*10-06	-0.006	0.005	0.19094	0.004
rs11178236	12	69108465		0.129	0.03	1.7*10-05	0.001	0.002	0.67652	0.046
rs635461	12	69118847		0.129	0.03	1.54*10-05	0.001	0.002	0.70991	0.050
rs412528	12	69120135		-0.132	0.028	2.87*10-06	-0.001	0.002	0.54693	0.031
rs381485	12	69120265		-0.132	0.028	2.87*10-06	-0.001	0.002	0.52686	0.030

rs402325	12	69120298	*PTPRB*	0.133	0.028	2.79*10-06	0.001	0.002	0.52443	0.029
rs2717426	12	69273739		0.106	0.023	4.19*10-06	-0.001	0.001	0.62253	0.039
rs2886365	12	72680307		0.163	0.034	1.70*10-06	0.001	0.002	0.69944	0.049
rs10744860	12	114597821	*TPTE2*	0.096	0.021	7.05*10-06	-0.001	0.001	0.64302	0.042
rs2880301	13	18998534	*USP12*	0.362	0.029	1.51*10-32	-0.001	0.002	0.71464	0.050
rs9512492	13	26488400	*USP12*	0.097	0.021	2.64*10-06	0.001	0.001	0.49404	0.026
rs4769538	13	26505377		-0.092	0.021	9.87*10-06	-0.002	0.001	0.20523	0.005
rs4885165	13	73775656		0.155	0.035	1.12*10-05	-0.001	0.002	0.59322	0.036
rs9593010	13	74100696		-0.104	0.023	5.39*10-06	-0.001	0.001	0.65683	0.043
rs4885212	13	74101477		-0.106	0.022	2.41*10-06	-0.001	0.001	0.58083	0.035
rs1359689	13	74102084	*RNASE4*	0.106	0.022	2.35*10-06	0.001	0.001	0.57163	0.034
rs17211656	14	20236989		0.151	0.035	1.56*10-05	<.0001	0.002	0.90245	0.076
rs1431057	14	33642426		-0.094	0.022	1.51*10-05	0.002	0.001	0.1232	0.002
rs1431056	14	33644234		-0.095	0.021	8.07*10-06	0.002	0.001	0.058315	0.0004
rs11848011	14	33644728		0.096	0.021	6.48*10-06	-0.003	0.001	0.054105	0.0004
rs2027338	14	33656414		0.102	0.023	1.12*10-05	-0.003	0.001	0.048826	0.0003
rs11157257	14	41500469		0.108	0.025	1.36*10-05	-0.001	0.001	0.58901	0.0362
rs12589908	14	41509762		0.108	0.025	1.38*10-05	-0.001	0.001	0.5993	0.0369
rs10136607	14	58316619	*RTN1*	0.113	0.026	1.83*10-05	-0.001	0.002	0.68596	0.047
rs11848964	14	59163968	*LIPC*	0.091	0.021	1.32*10-05	<.0001	0.001	0.91854	0.078

rs261338	15	56522297	*LIPC*	0.129	0.03	1.71*10-05	-0.007	0.002	9.26E-05	1.51*10-09
rs473224	15	56524633	*LIPC*	-0.134	0.031	1.22*10-05	0.007	0.002	9.67E-05	1.48*10-09
rs488490	15	56524953	*LOC728800*	-0.134	0.031	1.26*10-05	0.007	0.002	0.000106	1.75*10-09
rs8031676	15	94711444	*A2BP1*	0.093	0.021	1.5*10-05	-0.002	0.001	0.065477	0.001
rs17440477	16	6452734	*RBFOX1*	0.104	0.024	1.71*10-05	-0.002	0.001	0.096243	0.001
rs1024697	16	6454040	*CNGB1*	0.108	0.024	9.16*10-06	-0.002	0.001	0.1223	0.002
rs193612	16	56448107	*CNGB1*	0.169	0.035	1.17*10-06	-0.001	0.002	0.67999	0.046
rs247067	16	56452563	*CNGB1*	0.169	0.035	1.20*10-06	-0.002	0.002	0.47852	0.024
rs247068	16	56455127	*ZZEF1*	-0.165	0.035	2.63*10-06	0.001	0.002	0.59346	0.036
rs366589	16	56462677	*ZZEF1*	0.158	0.032	1.50*10-06	-0.003	0.002	0.18485	0.004
rs7215084	17	3826897	*ZZEF1*	0.093	0.02	5.98*10-06	-0.001	0.001	0.44293	0.021
rs9891113	17	3827879	*ZZEF1*	-0.093	0.02	6.23*10-06	0.001	0.001	0.45547	0.022
rs8082036	17	3829362	*MAPT*	-0.093	0.02	6.36*10-06	0.001	0.001	0.43232	0.020
rs11079727	17	41332609	*SDC4*	-0.122	0.027	9.80*10-06	0.002	0.002	0.2474	0.007
rs4599	20	43387821		0.114	0.026	1.42*10-05	<.0001	0.002	0.8459	0.068
rs212600	20	53488072		0.117	0.025	2.87*10-06	0.001	0.001	0.4449	0.021
rs2827800	21	23337012	*DSCAM*	-0.168	0.039	1.64*10-05	0.003	0.003	0.24491	0.007
rs455772	21	40884005		0.151	0.034	1.14*10-05	0.002	0.002	0.39302	0.017

Abbreviations: SE = Standard Error; P= P-value.

[a] +/- 50kb of gene [b]Fishers exact test

Supplementary Table 4. Power to reject the null hypothesis, at an alpha level of .05, that SNPs influencing particle diameters in Caucasians also influence particle diameters in non-Caucasian populations, reported for the non-Caucasian populations of MESA.

Marker		MESA					
	Effect size in Caucasians (β)[a]	African Americans (N=1564)		Hispanics (N=1422)		Chinese (N=758)	
		MAF	Power	MAF	Power	MAF	Power
VLDL diameter							
rs10184054	0.02	0.15	.71	0.26	.84	0.28	.59
rs6544366	-0.04	0.15	.99	0.26	.99	0.27	.99
rs6728178	0.04	0.20	.99	0.26	.99	0.28	.99
rs7557067	-0.04	0.15	.99	0.26	.99	0.29	.99
HDL diameter							
rs261338	-0.01	0.22	.99	0.14	.96	0.05	.40
rs473224	0.01	0.13	.96	0.10	.90	0.03	.27
rs488490	0.01	0.13	.96	0.10	.90	0.03	.27

[a]From mixed linear models with log transformed particle diameter as the outcome and marker as the predictor, adjusted for age, sex and study center as fixed effects

Supplementary Table 5 SNP proxy search for SNPs in LD r2>.8 with SNPs replicating across both GOLDN and MESA Caucasian populations

SNP	Proxy	Distance	R^2
rs10184054	rs6544366	148	<.999
rs10184054	rs4564803	1633	<.999
rs10184054	rs6754295	2314	<.999
rs10184054	rs7557067	4343	<.999
rs10184054	rs11902417	4977	<.999
rs10184054	rs6728178	9940	<.999
rs10184054	rs4665710	17166	0.904
rs10184054	rs1042034	21412	0.904
rs10184054	rs2678379	22691	0.904
rs10184054	rs676210	27655	0.904
rs10184054	rs673548	33675	0.904
rs6544366	rs10184054	148	<.999
rs6544366	rs4564803	1485	<.999
rs6544366	rs6754295	2166	<.999
rs6544366	rs7557067	4195	<.999
rs6544366	rs11902417	5125	<.999
rs6544366	rs6728178	10088	<.999
rs6544366	rs4665710	17018	0.904

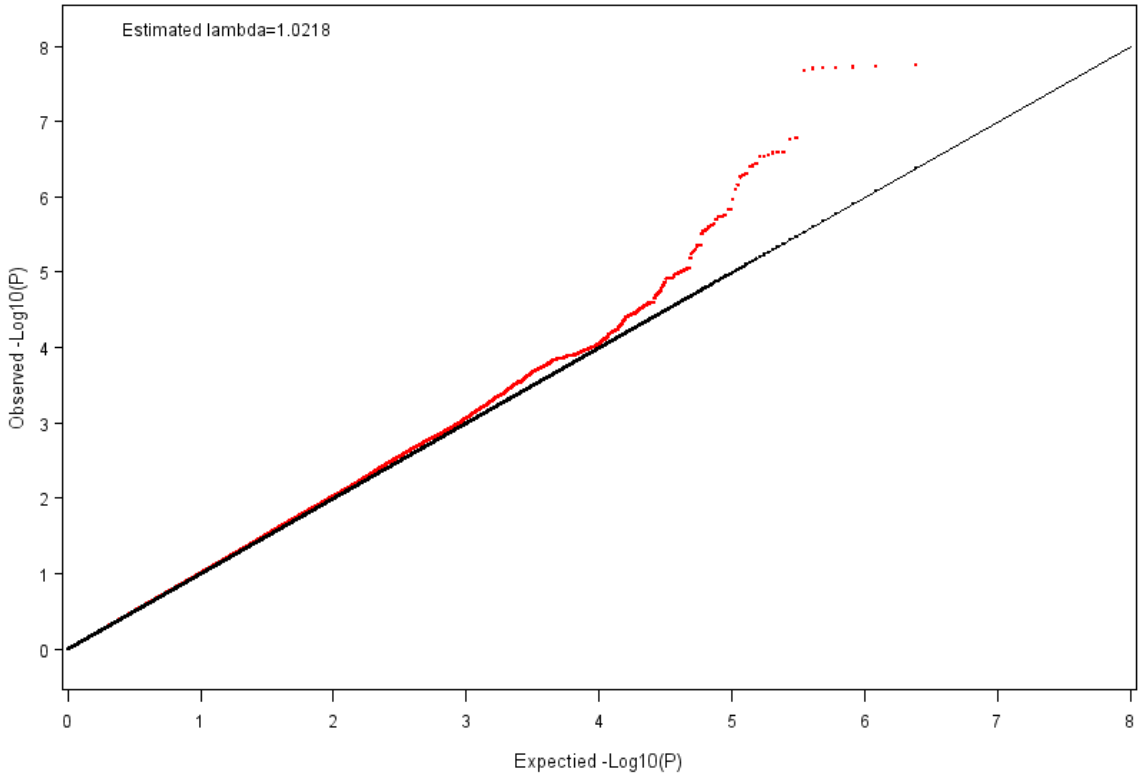
rs6544366	rs1042034	21264	0.904
rs6544366	rs2678379	22543	0.904
rs6544366	rs676210	27507	0.904
rs6544366	rs673548	33527	0.904
rs6728178	rs11902417	4963	<.999
rs6728178	rs10184054	9940	<.999
rs6728178	rs6544366	10088	<.999
rs6728178	rs4564803	11573	<.999
rs6728178	rs6754295	12254	<.999
rs6728178	rs7557067	14283	<.999
rs6728178	rs4665710	27106	0.904
rs6728178	rs1042034	31352	0.904
rs6728178	rs2678379	32631	0.904
rs6728178	rs676210	37595	0.904
rs6728178	rs673548	43615	0.904
rs7557067	rs6754295	2029	<.999
rs7557067	rs4564803	2710	<.999
rs7557067	rs6544366	4195	<.999
rs7557067	rs10184054	4343	<.999
rs7557067	rs11902417	9320	<.999

rs7557067	rs6728178	14283	<.999
rs7557067	rs4665710	12823	0.904
rs7557067	rs1042034	17069	0.904
rs7557067	rs2678379	18348	0.904
rs7557067	rs676210	23312	0.904
rs7557067	rs673548	29332	0.904
rs261338	rs473224	2336	0.943
rs261338	rs488490	2656	0.943
rs261338	rs573922	5089	0.891
rs473224	rs488490	320	<.999
rs473224	rs573922	2753	0.945
rs473224	rs261338	2336	0.943
rs473224	rs485671	3793	0.836
rs488490	rs473224	320	<.999
rs488490	rs573922	2433	0.945
rs488490	rs261338	2656	0.943
rs488490	rs485671	3473	0.836

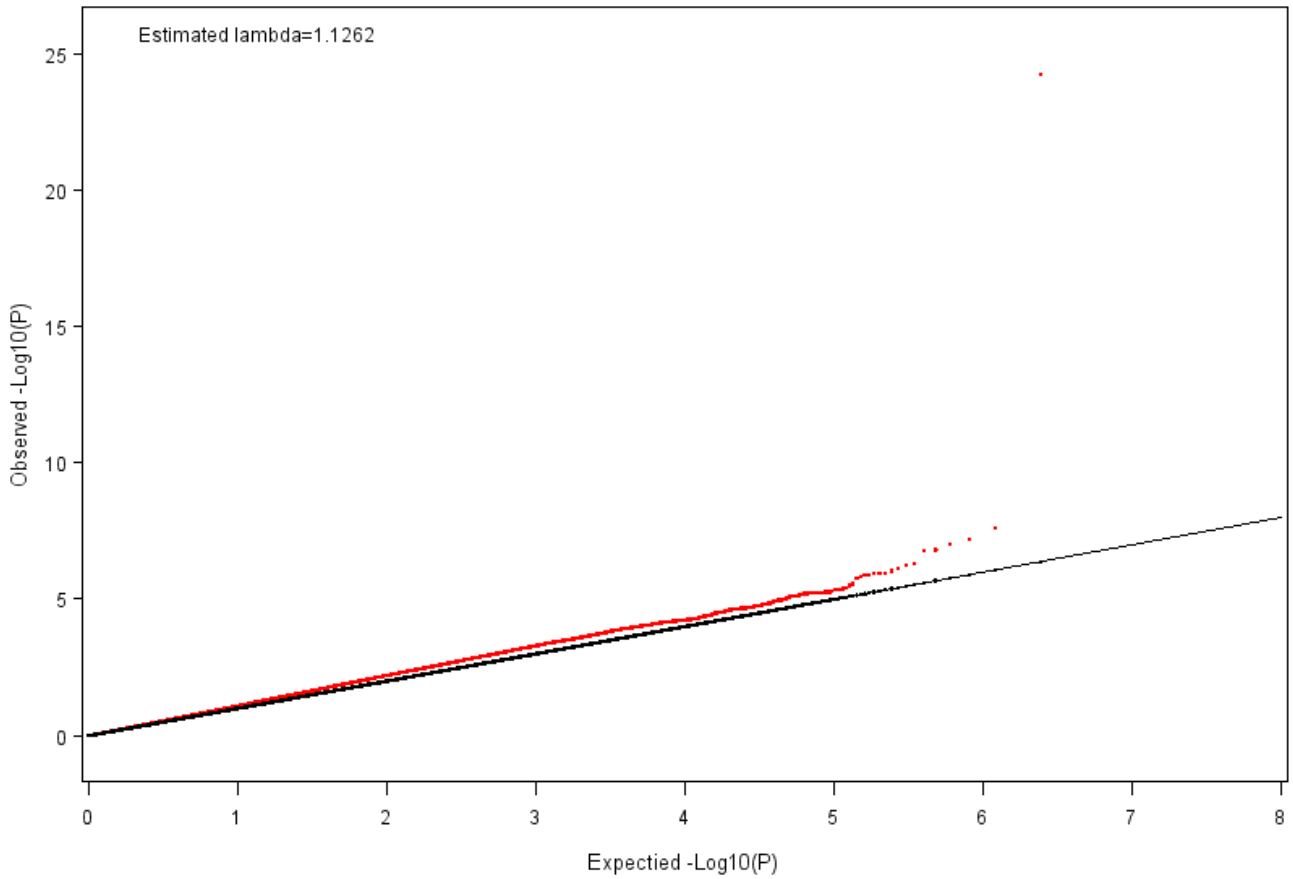
Supplementary Figure 1 Q-Q plots, and genomic control parameters lambda, for VLDL (panel A), LDL (panel B) and HDL diameters (panel C) an initial genome-wide association analysis with VLDL, LDL and HDL diameters in the GOLDN population (n=817).

Note: Black points represent observed values, red points represent expected values for the null hypothesis.

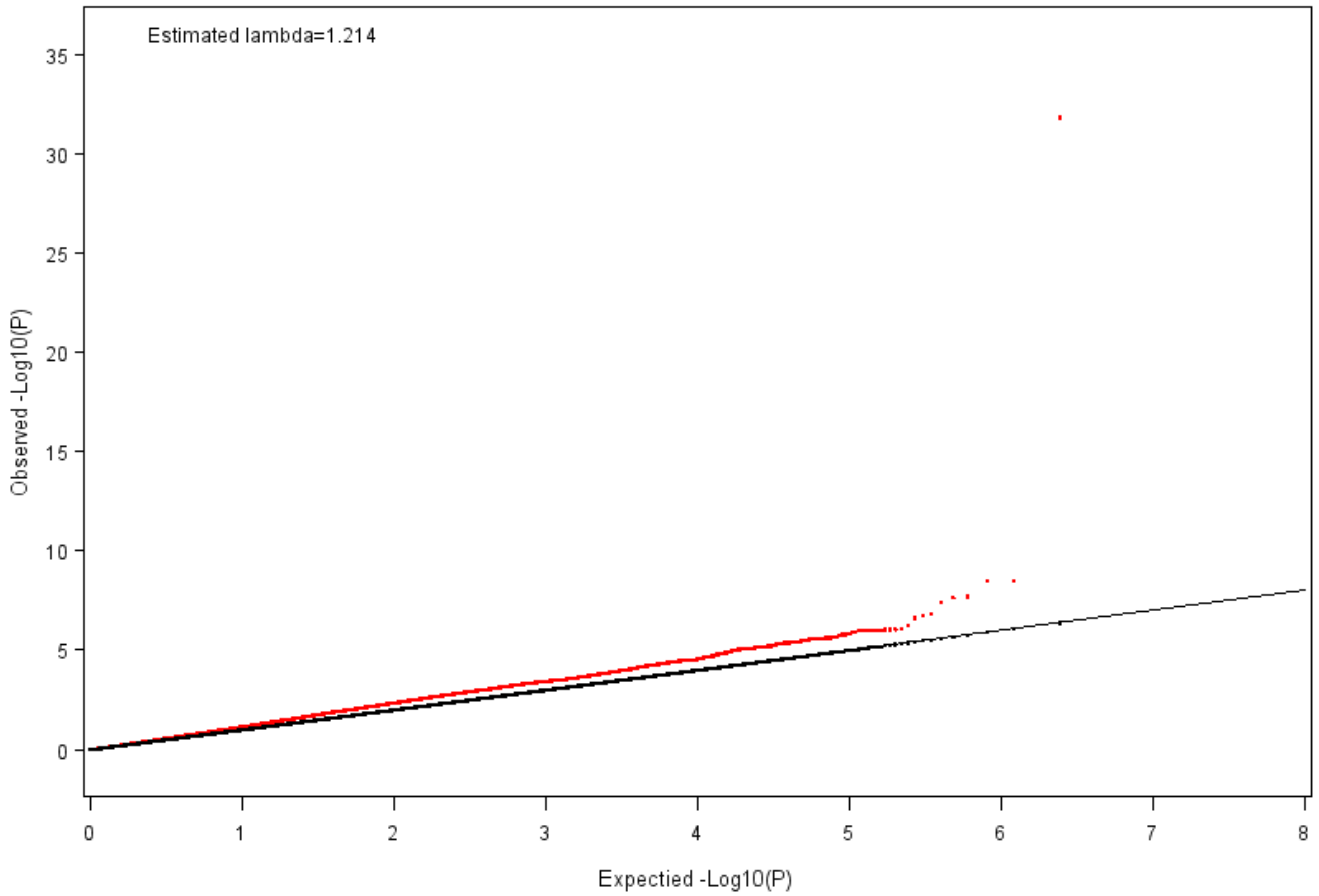
Panel A VLDL diameter



Panel B LDL diameter


Estimated lambda=1.1262
Observed -Log10(P)
Expectied -Log10(P)
0
5
10
15
20
25
0
1
2
3
4
5
6
7
8

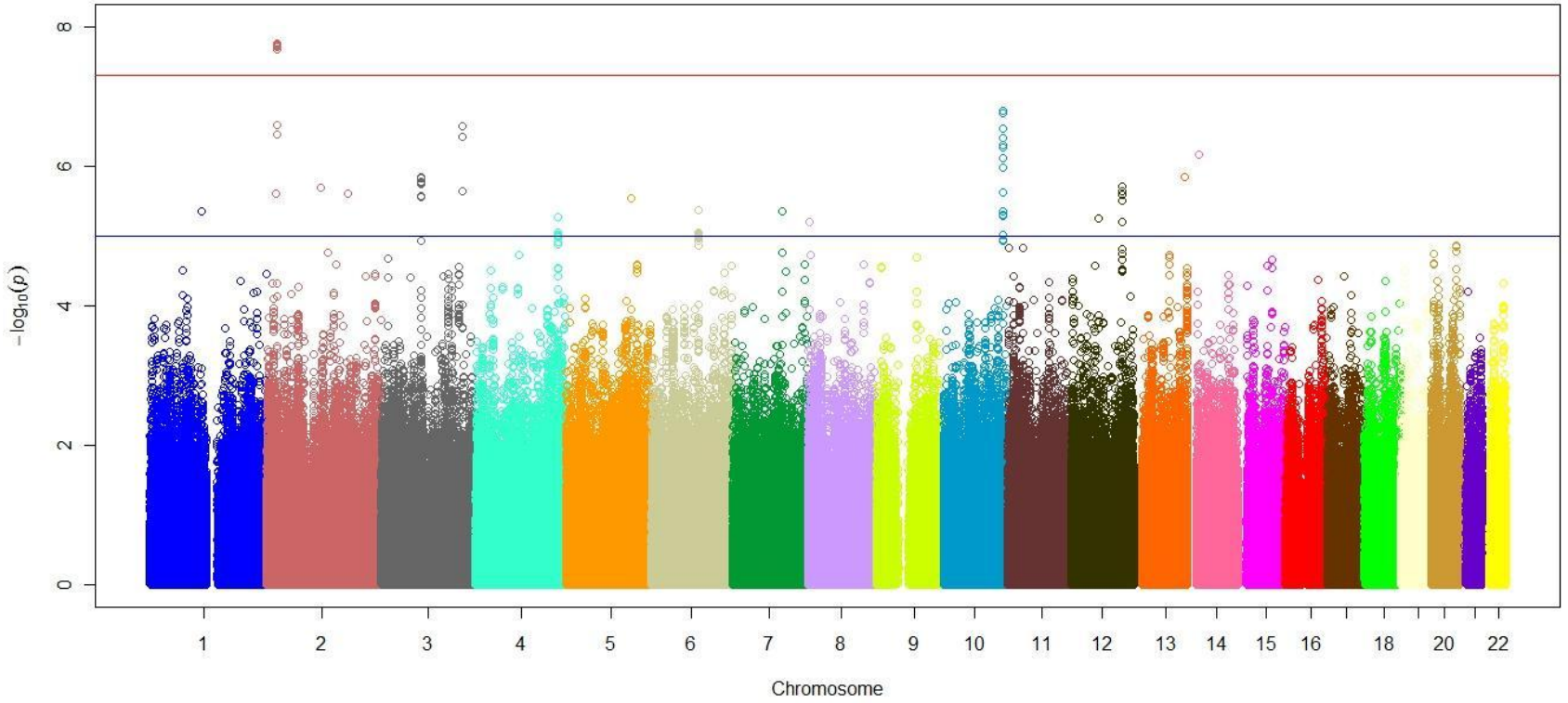
Panel C HDL diameter



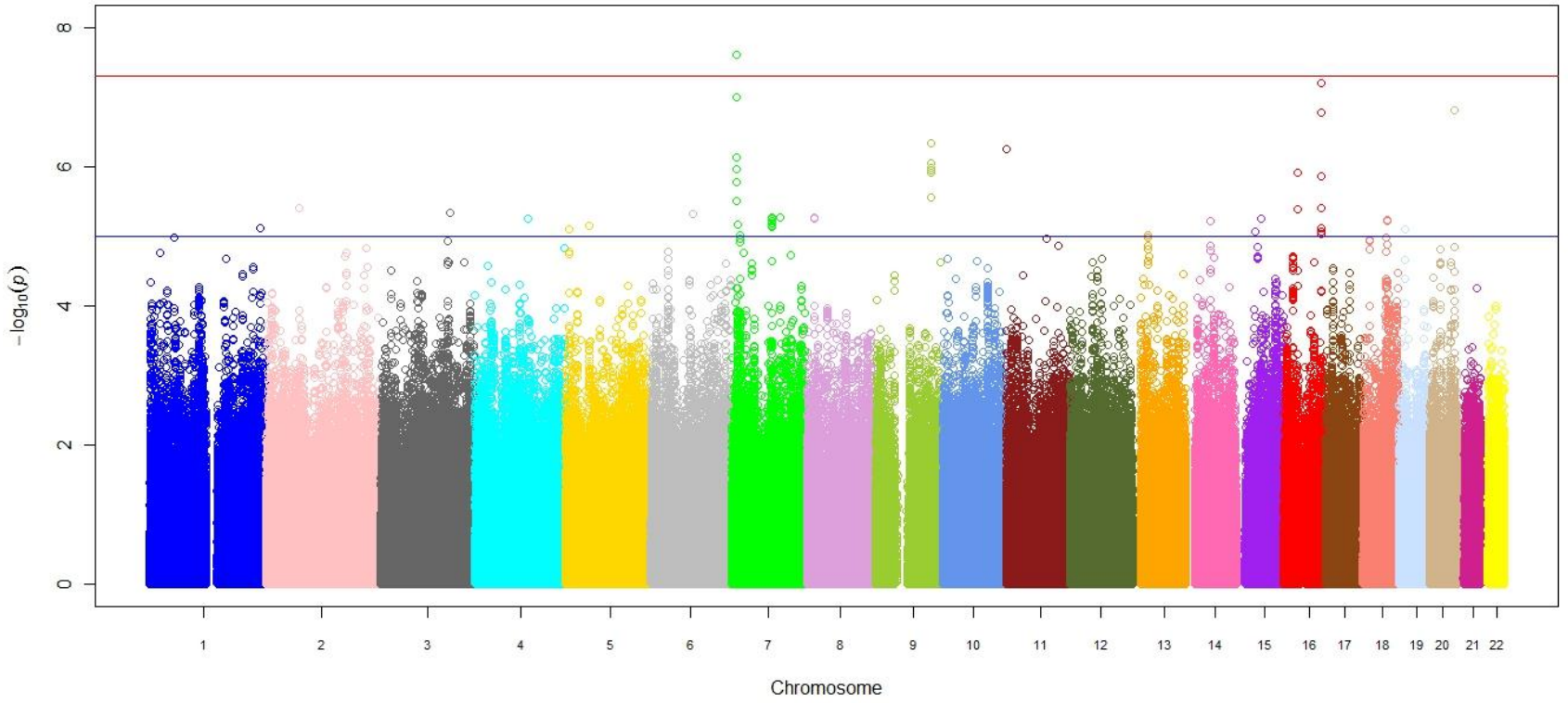
Supplementary Figure 2 Manhattan plots for VLDL (panel A), LDL (panel B) and HDL diameters (panel C).

Note: For ease of interpretation, rs2880301 has been removed from panels B and C an initial genome-wide association analysis with VLDL, LDL and HDL diameters in the GOLDN population (n=817).

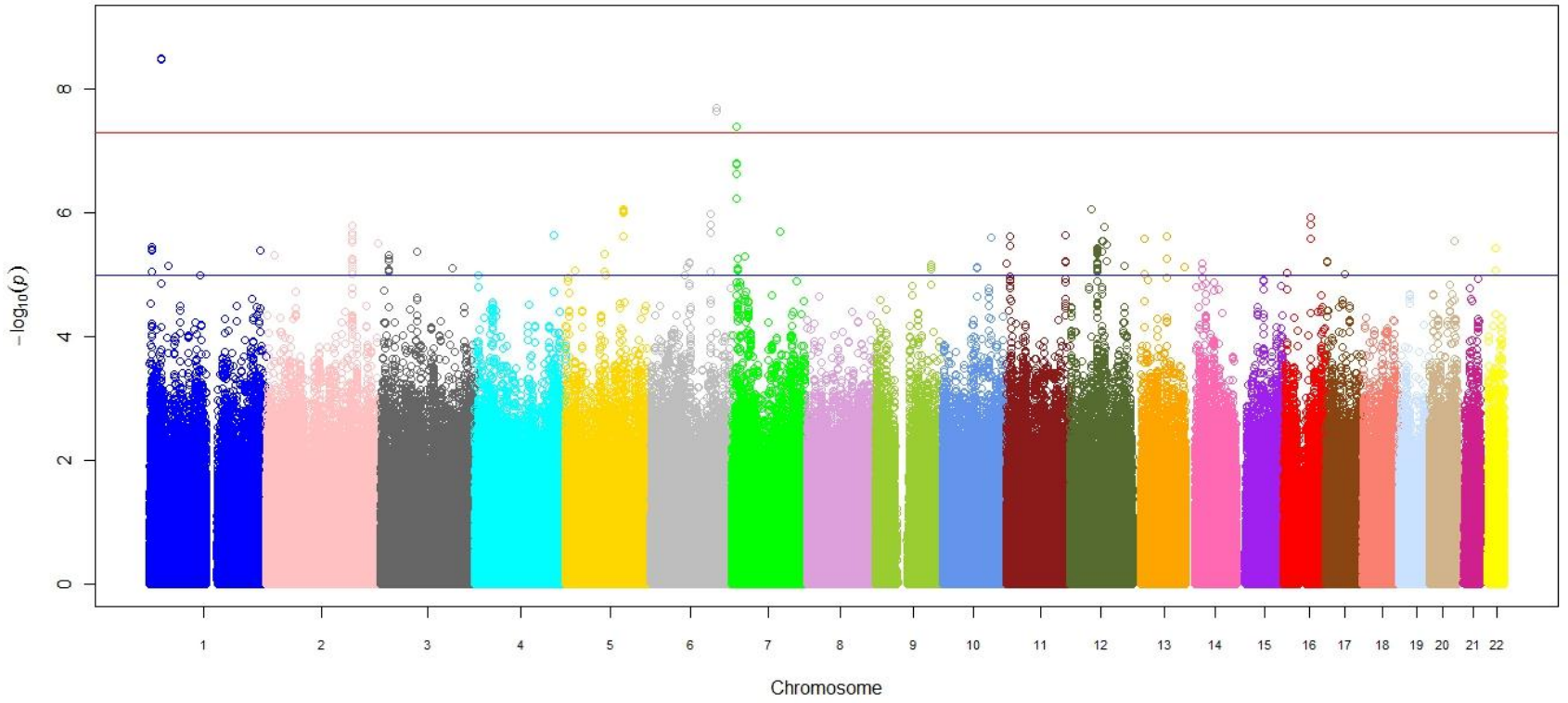
Panel A VLDL diameter



Panel B LDL diameter

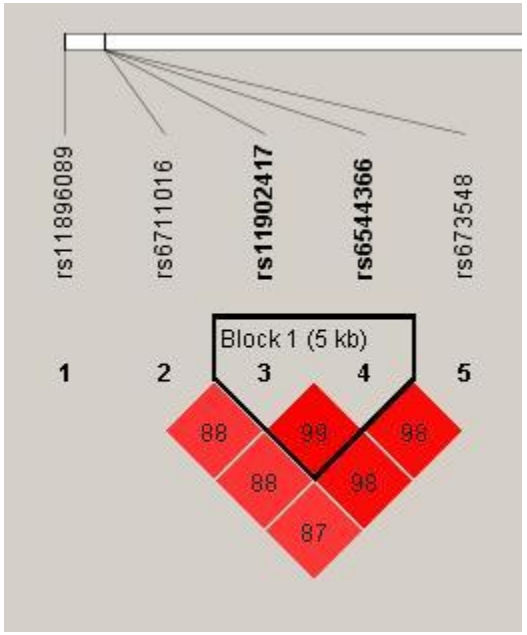


Panel C HDL diameter

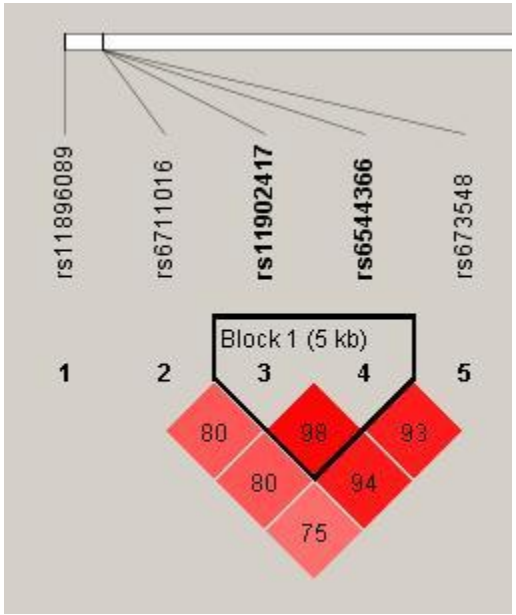

−log10(p)
0
2
4
6
8
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
Chromosome

Supplementary Figure 3 Linkage disequilibrium plots for genotyped SNPs the *APOB* gene, for Caucasian (panel A), Hispanic (panel B), African-American (panel C) and Chinese (panel D) populations of MESA.

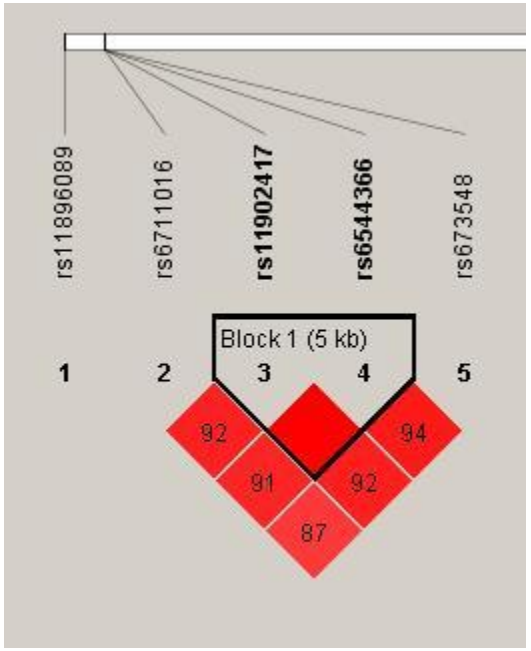
Panel A



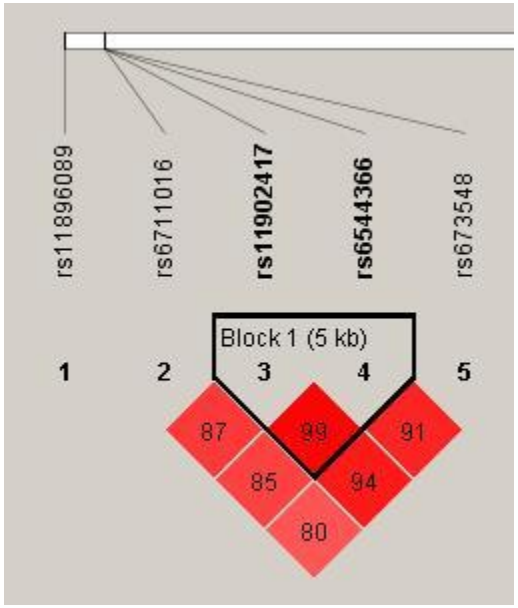
Panel B


rs11896089
rs6711016
rs11902417
rs6544366
rs673548
Block 1 (5 kb)
1
2
3
4
5
80
98
93
80
94
75

Panel C


rs11896089
rs6711016
rs11902417
rs6544366
rs673548
Block 1 (5 kb)
1
2
3
4
5
92
94
91
92
87

Panel D



Created using Haploview software (34).