

SUPPLEMENTAL MATERIAL

Supplemental Methods

Subjects

Discovery cohort

The University of Pennsylvania (UPenn) HDL Case-Control study (Penn-CC), is composed of subjects with extreme levels of HDL-C selected from the UPenn High HDL Cholesterol Study (HHDL) and the UPenn Catheterization cohort (PennCATH). HHDL is a cross-sectional study of genetic factors contributing to elevated HDL-C levels. Probands with elevated HDL-C (greater than the 90th percentile for age and gender) were identified by physician referrals or through the Hospital of the UPenn clinical laboratory. Relatives of HHDL probands were also invited to participate in the study. Subjects completed a lifestyle questionnaire and provided a blood sample for the measurement of HDL and other lipid-related traits. The UPenn Institutional Review Board (IRB) approved the study protocol. Over 2000 subjects have been enrolled in the HHDL study to date. PennCATH is composed of consecutive subjects undergoing coronary angiography at UPenn Health System hospitals and has been previously described ¹. Analytical measurements were performed on the UPenn samples as previously described ². Plasma HDL-C and triglyceride levels were measured enzymatically on a Cobas Fara II (Roche Diagnostic Systems, Somerville, NJ), using Sigma reagents (Sigma Chemical, St. Louis, MO). In this study, unrelated subjects of European ancestry with HDL > 90th percentile for age and gender were analyzed as cases (n=695) and subjects with HDL < 30th percentile for age and gender were analyzed as controls (n=1038). Subjects with elevated triglycerides (>400 mg/dl), BMI > 40 kg/m², diagnosis of diabetes or fasting glucose > 126 mg/dl were excluded from analysis.

Three Replication Cohorts

The UPenn Replication Cohort (Penn-RC), the MONItoring of trends and determinants in CArdiovascular disease/Cooperative Health Research in the Region of Augsburg (MONICA/KORA) Augsburg study, and the Genetic Regulation of Arterial Pressure of Humans in the Community (GRAPHIC) study were used for replication analysis.

Penn-RC is composed of subjects from the UPenn Diabetes Heart Study (PDHS)³, the Study of Inherited Risk of Coronary Atherosclerosis cohort (SIRCA)⁴, the Philadelphia Area Metabolic Syndrome Network (PAMSyN), and a subset of subjects from PennCATH that is non-overlapping with the Penn-CC, which have previously been described. HDL-C measurements were performed as described above. Genotypes and HDL-C were available on up to 2,752 subjects. The UPenn IRB approved the study protocols and informed consent was obtained from all participants.

The MONICA/KORA Augsburg study consists of a series of independent population-based epidemiological surveys of participants living in the region of Augsburg, Southern Germany initially conducted to estimate the prevalence and distribution of cardiovascular risk factors among individuals aged 25 to 74 years as part of the World Health Organization MONICA project⁵. All survey participants were residents of German nationality identified through the registration office. Participants were examined in 1984/85 (S1), 1989/90 (S2) and 1994/95 (S3). Among a source population of 9,531 participants aged 35 to 74 years and with available blood samples a case-cohort design was performed including a stratified random sample of 2,225 participants⁶. All participants underwent standardized examinations including blood withdrawals for plasma and DNA. Genotypes and HDL-C were available on up to 1,544 MONICA/KORA participants of the random sample. HDL-C was measured by enzymatic methods (CHOD-PAP, Boehringer Mannheim, Germany). HDL-C was precipitated with phosphotungstic acid and magnesium ions.

GRAPHIC contains 2,037 white European subjects in 520 nuclear families from the general population. Families were recruited by writing to women aged 40 to 69 registered with participating family practitioners in Leicestershire, UK, inviting them and their family to take part⁷. Families were included if both parents were aged 40 to 60 years and two offspring > 18 years wished to participate. Study subjects had a detailed history taken and were examined by research nurses following standard operating procedures. Non-fasting blood samples were obtained for laboratory analysis. HDL-C was determined using standard enzymatic assays. Genotypes and HDL-C were available for 2020 GRAPHIC subjects. The study was approved by the Leicestershire Research Ethics Committee, and all subjects provided written informed consent.

Genotyping and Quality Control

Genomic DNA was extracted from leukocytes using the EZ1 DNA Blood kit (Qiagen, Valencia, CA) and the BioRobot EZ1 (Qiagen, Valencia, CA). Whole genomic DNA was checked for quality and quantity by UV spectrophotometry using a Spectramax 190 (Molecular Devices, Sunnyvale, CA).

DNA was diluted to 50 ng/ul and genotyping was performed at the Center for Applied Genomics (Children's Hospital of Pennsylvania) following manufacturer specifications for amplification and hybridization to the IBC array (HumanCVD beadchip, Illumina, CA). Penn-CC was genotyped on version 1 of the array, while the Penn-RC was genotyped on version 2. We also performed quality control measures to exclude unreliable SNPs. For the analysis reported here, we eliminated SNPs with genotype call rate < 95%, with minor allele frequency (MAF) < 1% in Penn-RC controls, or if there was a significant departure from Hardy-Weinberg equilibrium ($P < 1 \times 10^{-6}$ in combined cases and controls). Only the 2,415 SNPs within the

candidate gene loci were analyzed. Genotypes for the MONICA/KORA and GRAPHIC replication studies were also obtained using the HumanCVD beadchip (Illumina, CA).

Statistical analyses

For genotype calling a set of 5051 samples from multiple different studies were used to derive a customized cluster file using BeadStudio to ensure accurate genotype calling. The genotype concordance rate was > 99.99% in 22 duplicate sample pairs in Penn-CC. The overall genotype call rate across all samples was 99.6%. Quality control measures were implemented to exclude unreliable samples. First, samples were excluded if the genotype call rate was < 97.5% or if the sample showed excess or deficient heterozygosity (inbreeding coefficient $|F| > 0.1$). Next, identical by descent estimation was used to assess cryptic relatedness or erroneous duplicates among participants. Multi-dimensional scaling (MDS) analysis was also performed to determine subjects that shared similar genetic ancestry (Supplementary Figure 1) using PLINK software⁸. Analysis was limited to subjects of genetically inferred Caucasian ancestry only. The discovery cohort analysis compared genotype frequencies in cases with elevated HDL-C (>90th percentile for age and gender) with frequencies in controls with decreased HDL-C (<30th percentile for age and gender, excluding subjects with absolute HDL-C values <20 mg/dl due to likely monogenic conditions). This analysis was carried out for each SNP and was adjusted for age and gender, with the model assuming additive inheritance. Associations with HDL-C were analyzed using multiple linear regression of HDL-C after adjustment for age and gender. All analyses were conducted using PLINK software⁸.

All candidate gene SNPs were tested in the replication cohorts. Each study was analyzed separately. Analysis of association in the GRAPHIC cohort was conducted using generalized estimating equations (GEE) with an exchangeable correlation structure to account

for the shared familial background. The analyses were adjusted for gender, age and age2 (to account for the two generation structure of GRAPHIC population). To summarize the data a meta-analysis was implemented using the METAL software⁹. A *P*-value significance threshold of $< 2.07 \times 10^{-5}$ in the meta-analysis was determined based on the conservative Bonferroni correction (0.05/2415 tests) and a *P*-value of < 0.05 was specified as a suggestive association with HDL-C.

When SNPs reported in published GWAS lipid analyses were not directly genotyped on the IBC array, the bioinformatic tool SNAP¹⁰ was used to identify proxy SNPs on the IBC array with $r^2 > 0.8$.

Conditional analyses were performed incorporating allele dosage of the most significantly associated SNP in each associated locus as a covariate to identify any additional independent SNPs associated with HDL-C. The conditional analysis was performed as a step-wise regression incorporating the highest remaining associated SNP in each associated locus as a covariate until there was no longer any evidence of association with HDL. This was performed using a less stringent cut-off based on the Bonferonni correction for the total number of candidate genes tested ($P < 7.6 \times 10^{-4}$, 0.05/66 genes).

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Supplemental Table 1. HDL candidate genes

Locus	Chromosome	IBC Array Priority	Number of SNPs	Evidence
HDL-associated apolipoproteins				
<i>APOA1/APOA4/APOA5/APOC3</i>	11q23-q24	1	62	biology ^{11, 12} , mouse ¹³⁻¹⁶ , human ^{14, 17-20} , GWAS ²¹⁻²⁴
<i>APOA2</i>	1q21-q23	1	18	biology ^{11, 25} , mouse ²⁶⁻²⁸ , human ²⁰
<i>APOD</i>	3q29	1	13	biology ¹¹
<i>APOF</i>	12q13.3	2	10	biology ^{11, 29} , mouse ³⁰
<i>APOE/APOC1/APOC2</i>	19q13.32	1	57	biology ¹¹ , mouse ³¹ , human ^{19, 20} , GWAS ^{23, 24}
HDL-associated enzymes				
<i>CETP</i>	16q13	1	97	biology ^{11, 32} , mouse ³³ , human ^{19, 20} , GWAS ^{9, 21-24, 34-37}
<i>LCAT</i>	16q22.1	1	15	biology ¹¹ , mouse ³⁸⁻⁴¹ , human ^{14, 18-20, 42} , GWAS ^{22, 24, 37}
<i>PAFAH1B1</i>	17p13.3	2	13	biology ¹¹
<i>PAFAH1B2</i>	11q23.3	1	8	biology ¹¹
<i>PAFAH1B3</i>	19q13.2	2	5	biology ¹¹
<i>PLTP</i>	20q13.12	1	31	biology ¹¹ , mouse ⁴³⁻⁴⁵ , GWAS ²²⁻²⁴
<i>PON1/PON2/PON3/PON4</i>	7q21.3	1	165	biology ¹¹ , human ^{19, 20}
Plasma and cell-associated enzymes				
<i>ACSM1</i>	16p12.3	2	13	human ⁴⁶
<i>ACSM2</i>	16p13.11	2	12	human ⁴⁶
<i>DGAT1</i>	8q24.3	1	7	human ^{19, 47}
<i>FURIN</i>	15q26.1	1	13	biology ^{48, 49}
<i>HSP90B1</i>	12q24.2	2	18	biology ⁵⁰
<i>LIPC</i>	15q21.3	1	177	biology ⁵¹ , mouse ^{52, 53} , human ^{19, 20, 54} , GWAS ^{9, 21-24, 34, 36, 37}
<i>LIPE</i>	19q13.2	1	43	biology ⁵⁵ , mouse ⁵⁶
<i>LIPG</i>	18q21.1	1	42	biology ⁵⁷ , mouse ⁵⁸⁻⁶¹ , human ^{19, 20, 62, 63} , GWAS ^{9, 21-24, 34, 35}
<i>LPL</i>	8p21.3	1	75	biology ⁶⁴ , mouse ⁶⁵ , human ^{14, 18-20} , GWAS ^{9, 21-24, 34, 35}

<i>PCSK5</i>	9q21.3	2	178	biology ^{48, 49}
<i>PCSK6</i>	15q26.3	1	224	biology ^{48, 49}
<i>PEMT</i>	17p11.2	2	26	mouse ⁶⁶
<i>SOAT1</i>	1q25.2	1	30	biology
<i>SOAT2</i>	12q13.13	1	24	mouse ⁶⁷

Cell receptors and transporters

<i>ABCA1</i>	9q22-q31	1	141	biology ⁶⁸ , mouse ⁶⁹ , human ^{14, 18-20, 70} , GWAS ^{9, 21-24, 34}
<i>ABCA7</i>	19p13.3	1	12	biology ⁷¹ , mouse ⁷²
<i>ABCB11</i>	2q24	2	53	biology
<i>ABCB4</i>	7q21.1	2	20	biology
<i>ABCD1</i>	14q32.3	2	7	biology
<i>ABCG1</i>	21q22.3	1	69	biology ^{68, 73} , mouse ^{74, 75}
<i>ABCG4</i>	11q23.3	1	12	biology ⁷³
<i>ABCG5</i>	2p21	1	35	mouse ^{76, 77} , human ^{20, 76} , GWAS
<i>ABCG8</i>	2p21	2	22	mouse ^{76, 77} , human ^{20, 76} , GWAS
<i>ATP5B</i>	12q13.13	2	7	biology ⁷⁸
<i>CAV1/CAV2</i>	7q31.1	1	29	biology ⁷⁹ , mouse ⁸⁰
<i>CD36</i>	7q11.2	1	118	biology, human ¹⁹
<i>CUBN</i>	10p12.31	2	150	biology ^{81, 82}
<i>FAS</i>	10q24.1	1	89	mouse ⁸³
<i>GPR109A/GPR109B/GPR81</i>	12q24.31	1	30	biology ⁸⁴
<i>HDLBP</i>	2q37	1	43	biology ^{50, 85}
<i>LRP1</i>	12q13-q14	1	96	biology
<i>LRP2</i>	2q24-q31	2	102	biology ⁸²
<i>P2RY13/PSRY14</i>	3q24	1	11	biology ⁸⁶
<i>PDZK1</i>	1q21	1	9	biology ⁸⁷ , mouse ⁸⁸
<i>PDZK1IP1</i>	1p33	2	12	mouse ⁸⁹
<i>NR5A2</i>	1q32.1	2	65	biology
<i>SCARB1</i>	12q24.31	1	74	biology ⁹⁰ , mouse ^{91, 92} , human ^{19, 20} , GWAS ²⁴

Transcription Factors

<i>NFKB1</i>	4q24	1	122	mouse ⁹³
<i>NR1H2</i> (LXR β)	19q13.3	1	12	biology, human ¹⁹
<i>NR1H3</i> (LXR α)	11p11.2	1	7	GWAS ³⁷
<i>PPARA</i>	22q12-q13.1; 22q13.31	1	104	mouse ⁹⁴ , human ¹⁹
<i>PPARD</i>	6p21.2-p21.1	1	93	biology
<i>PPARG</i>	3p25	1	101	biology
<i>RXRA</i>	9q34.3	1	133	biology
<i>RXRB</i>	6p21.3	2	5	biology
<i>TCF1</i>	12q24.2	2	13	mouse ⁹⁵ , human ⁹⁶

GWAS validated locus

<i>ANGPTL3</i>	1p31.1-p22.3	1	9	biology ⁴⁹
<i>ANGPTL4</i>	19p13.3	1	7	GWAS ^{22, 24}
<i>APOB</i>	2p24	1	107	GWAS ^{20, 24, 34}
<i>FADS1/FADS2/FADS3</i>	11q12-q13.1	1	30	GWAS ^{22, 24}
<i>GALNT2</i>	1q41-q42	0	2	GWAS ^{9, 21, 22, 24}
<i>HNF4A</i>	20q12-q13.1	1	67	mouse ⁹⁷ , GWAS ^{22, 24}
<i>MMAB/MVK</i>	12q24	2	10	GWAS ^{9, 22, 24}
<i>TRIB1</i>	8q24.13	0	4	GWAS ²⁴

<i>LPL</i>	rs13702	G	A	0.28	4.85	7.37E-07	1599	3.16	1.58E-03	2693	2.26	2.43E-02	1543	3.01	2.62E-03	2020	4.90	9.52E-07	6256
<i>CETP</i>	rs12720889	A	T	0.28	4.68	1.17E-06	1596	-0.12	9.01E-01	2683	2.42	1.58E-02	1486	2.85	4.40E-03	2017	2.73	6.39E-03	6186
<i>CETP</i>	rs289743	G	A	0.28	4.47	2.58E-06	1585	-0.46	6.43E-01	2593	3.12	1.84E-03	1519	3.05	2.33E-03	2016	3.00	2.73E-03	6128
<i>CETP</i>	rs289718	G	A	0.29	4.40	3.25E-06	1598	-0.19	8.50E-01	2689	2.88	4.01E-03	1536	2.93	3.38E-03	2017	2.97	2.98E-03	6242
<i>CETP</i>	rs289719	A	G	0.29	4.38	3.66E-06	1599	-0.26	7.95E-01	2693	2.95	3.22E-03	1539	2.93	3.42E-03	2018	2.95	3.13E-03	6250
<i>CETP</i>	rs289716	T	A	0.29	4.32	5.16E-06	1600	-0.27	7.86E-01	2693	2.67	7.70E-03	1537	2.85	4.40E-03	2020	2.76	5.73E-03	6250
<i>LPL</i>	rs263	A	G	0.17	4.25	7.68E-06	1600	3.15	1.67E-03	2693	2.67	7.62E-03	1541	3.01	2.62E-03	2020	5.10	3.45E-07	6254
<i>CETP</i>	rs6499863	A	G	0.18	-4.37	9.05E-06	1600	-0.81	4.16E-01	2693	-3.00	2.74E-03	1542	-1.55	1.21E-01	2020	-2.90	3.72E-03	6255
<i>LIPG</i>	rs2156552	A	T	0.18	-4.07	1.43E-05	1600	-2.30	2.16E-02	2693	-0.95	3.40E-01	1543	-3.37	7.48E-04	2020	-3.90	9.76E-05	6256
<i>LPL</i>	rs328	G	C	0.08	4.27	1.45E-05	1600	3.20	1.42E-03	2693	2.91	3.62E-03	1544	3.14	1.68E-03	2020	5.32	1.02E-07	6257
<i>LIPG</i>	rs1943981	T	A	0.18	-4.10	1.50E-05	1600	-2.32	2.04E-02	2693	-0.87	3.86E-01	1544	-3.37	7.63E-04	2020	-3.86	1.12E-04	6257
<i>CETP</i>	rs5882	G	A	0.30	4.11	1.59E-05	1600	0.09	9.24E-01	2693	2.94	3.36E-03	1543	3.10	1.95E-03	2019	3.28	1.04E-03	6255
<i>CETP</i>	rs11076174	G	A	0.11	-4.49	1.88E-05	1600	-2.37	1.80E-02	2693	-1.46	1.44E-01	1543	0.35	7.30E-01	2020	-2.08	3.74E-02	6256
<i>LPL</i>	rs301	G	A	0.21	4.27	2.54E-05	1597	3.67	2.43E-04	2693	1.26	2.07E-01	1541	3.06	2.21E-03	2019	4.77	1.81E-06	6253
<i>CETP</i>	rs4784745	G	A	0.35	-3.74	2.68E-05	1600	-0.16	8.76E-01	2693	-2.13	3.36E-02	1544	-5.09	3.53E-07	2019	-4.05	5.11E-05	6256
<i>LPL</i>	rs12679834	G	A	0.08	4.15	2.71E-05	1598	3.12	1.83E-03	2691	3.08	2.10E-03	1538	3.22	1.28E-03	2013	5.40	6.61E-08	6242
<i>CETP</i>	rs6499861	G	C	0.17	-4.11	3.39E-05	1600	-0.58	5.64E-01	2693	-2.81	4.99E-03	1543	-1.73	8.43E-02	2020	-2.75	5.89E-03	6256
<i>LPL</i>	rs268	G	A	0.02	-3.48	4.83E-05	1600	-1.69	9.17E-02	2693	-3.95	8.30E-05	1543	-0.49	6.23E-01	2019	-3.34	8.36E-04	6255
<i>RXRA</i>	rs35738419	A	G	0.02	-3.30	4.88E-05	1573	-0.19	8.52E-01	2564	-0.57	5.69E-01	1499	-19.41	0.00E+00	2020	-0.50	6.21E-01	4063
<i>GPR109A/B/81</i>	rs2256572	A	G	0.45	-4.19	5.44E-05	1597	-0.79	4.31E-01	2690	1.75	7.97E-02	1531	-0.16	8.72E-01	2020	0.26	7.96E-01	6241
<i>CETP</i>	rs5883	A	G	0.05	3.92	6.00E-05	1600	2.49	1.29E-02	2693	-0.70	4.87E-01	1531	1.02	3.07E-01	2019	1.87	6.14E-02	6243

<i>GPR109A/B/81</i>	rs1798192	A	C	0.45	-4.16	6.18E-05	1594	-0.79	4.29E-01	2685	1.83	6.79E-02	1527	-0.20	8.42E-01	2016	0.27	7.86E-01	6228
<i>GPR109A/B/81</i>	rs3858543	A	G	0.39	-4.06	6.97E-05	1594	-0.04	9.71E-01	2687	1.13	2.57E-01	1524	-0.23	8.19E-01	2018	-0.41	6.84E-01	6229
<i>LPL</i>	rs3735964	A	C	0.09	3.97	7.00E-05	1600	2.97	3.02E-03	2693	2.09	3.69E-02	1543	3.34	8.40E-04	2019	4.88	1.06E-06	6255
<i>LPL</i>	rs3779788	A	G	0.13	4.03	7.34E-05	1600	2.78	5.45E-03	2693	2.91	3.65E-03	1543	2.83	4.67E-03	2020	4.88	1.09E-06	6256
<i>CETP</i>	rs289717	A	G	0.35	-3.48	7.40E-05	1600	-0.02	9.88E-01	2693	-1.94	5.21E-02	1537	-4.92	8.69E-07	2020	-3.77	1.63E-04	6250
<i>CETP</i>	rs4784744	A	G	0.35	-3.44	8.48E-05	1600	-0.10	9.20E-01	2693	-2.10	3.60E-02	1544	-5.11	3.25E-07	2020	-4.01	6.08E-05	6257
<i>CETP</i>	rs291044	A	G	0.35	-3.37	1.15E-04	1600	-0.08	9.39E-01	2693	-1.91	5.64E-02	1542	-5.02	5.25E-07	2020	-3.85	1.19E-04	6255
<i>SCARB1</i>	rs10773105	G	A	0.47	3.92	1.24E-04	1599	0.67	5.02E-01	2693	-0.45	6.52E-01	1534	0.93	3.54E-01	2020	0.75	4.56E-01	6247
<i>SCARB1</i>	rs865716	A	T	0.48	3.90	1.59E-04	1600	0.90	3.67E-01	2688	0.79	4.32E-01	1531	0.36	7.20E-01	2020	1.19	2.36E-01	6239
<i>LPL</i>	rs3916027	A	G	0.24	3.79	1.94E-04	1596	3.26	1.13E-03	2692	2.03	4.30E-02	1533	3.32	9.11E-04	2012	5.03	4.99E-07	6237
<i>LPL</i>	rs264	A	G	0.13	3.57	2.28E-04	1599	3.54	4.13E-04	2691	2.73	6.39E-03	1543	3.63	2.87E-04	2019	5.73	9.89E-09	6253
<i>LPL</i>	rs331	A	G	0.24	3.70	2.94E-04	1600	3.28	1.04E-03	2693	2.01	4.48E-02	1539	3.41	6.45E-04	2020	5.09	3.64E-07	6252
<i>LPL</i>	rs256	A	G	0.13	3.49	2.98E-04	1600	3.32	8.98E-04	2693	2.88	3.99E-03	1543	3.63	2.82E-04	2020	5.67	1.41E-08	6256
<i>FADS1/2/3</i>	rs174577	A	C	0.38	-3.61	3.27E-04	1520	-2.36	1.85E-02	2633	-1.05	2.92E-01	1364	-2.76	5.78E-03	2020	-3.66	2.54E-04	6017
<i>CETP</i>	rs9923854	C	A	0.09	3.54	3.49E-04	1600	1.52	1.28E-01	2692	-1.21	2.26E-01	1540	-0.02	9.81E-01	2019	-0.39	7.00E-01	6251
<i>PCSK5</i>	rs7031971	G	A	0.45	-3.50	3.77E-04	1600	-2.21	2.71E-02	2693	0.03	9.76E-01	1544	-0.07	9.47E-01	2019	-1.47	1.41E-01	6256
<i>APOE/C1/C2</i>	rs12721046	A	G	0.16	-3.65	4.78E-04	1597	-3.65	2.63E-04	2676	-1.36	1.75E-01	1522	-1.28	2.00E-01	2019	-3.80	1.48E-04	6217
<i>CETP</i>	rs12708967	G	A	0.21	-3.42	4.86E-04	1600	-2.63	8.60E-03	2687	-4.42	1.07E-05	1544	-5.02	5.19E-07	2019	-6.76	1.35E-11	6250
<i>CETP</i>	rs12597002	A	C	0.31	-2.87	4.94E-04	1600	-1.34	1.80E-01	2693	-1.69	9.18E-02	1544	-3.49	4.80E-04	2020	-3.70	2.15E-04	6257
<i>CUBN</i>	rs17139747	G	A	0.04	-3.33	5.16E-04	1600	0.36	7.20E-01	2693	1.57	1.16E-01	1544	-1.14	2.53E-01	2020	0.37	7.13E-01	6257
<i>LRP2</i>	rs2673162	A	G	0.05	3.14	5.25E-04	1599	-0.57	5.67E-01	2693	-1.53	1.27E-01	1544	1.37	1.72E-01	2020	-0.36	7.22E-01	6257

<i>CETP</i>	rs1801706	A	G	0.17	3.36	5.80E-04	1600	-0.50	6.20E-01	2693	0.67	5.06E-01	1544	1.32	1.87E-01	2019	0.76	4.50E-01	6256
<i>SCARB1</i>	rs12819677	A	G	0.48	-3.45	5.91E-04	1600	-0.99	3.22E-01	2693	0.93	3.51E-01	1538	-0.85	3.96E-01	2019	-0.67	5.03E-01	6250
<i>LPL</i>	rs271	A	G	0.14	3.28	6.86E-04	1600	2.99	2.83E-03	2693	2.29	2.21E-02	1541	3.36	7.88E-04	2018	5.00	5.63E-07	6252
<i>LPL</i>	rs320	C	A	0.26	3.44	7.94E-04	1596	3.41	6.67E-04	2690	1.63	1.03E-01	1530	3.18	1.49E-03	2019	4.85	1.24E-06	6239
<i>ABCA1</i>	rs10991405	C	G	0.07	3.15	8.04E-04	1600	-1.33	1.84E-01	2693	0.02	9.84E-01	1544	-1.56	1.19E-01	2020	-1.75	8.02E-02	6257
<i>ABCA1</i>	rs12336969	A	C	0.07	3.15	8.04E-04	1600	-1.31	1.91E-01	2693	0.02	9.84E-01	1544	-1.43	1.52E-01	2020	-1.66	9.68E-02	6257
<i>APOB</i>	rs676210	A	G	0.20	3.07	9.21E-04	1600	0.76	4.47E-01	2693	1.73	8.37E-02	1543	0.98	3.26E-01	2020	1.92	5.53E-02	6256
<i>LPL</i>	rs255	G	A	0.14	3.21	9.35E-04	1600	3.42	6.48E-04	2693	2.10	3.57E-02	1542	3.27	1.06E-03	2020	5.14	2.73E-07	6255
<i>ABCA1</i>	rs12341993	A	C	0.14	-3.22	9.49E-04	1600	-0.08	9.37E-01	2693	-0.94	3.48E-01	1543	-1.31	1.91E-01	2020	-1.26	2.07E-01	6256
<i>APOB</i>	rs673548	A	G	0.20	3.04	9.68E-04	1599	0.78	4.35E-01	2693	1.72	8.61E-02	1544	1.00	3.19E-01	2020	1.93	5.34E-02	6257
<i>FADS1/2/3</i>	rs174601	A	G	0.38	-3.35	1.05E-03	1599	-2.12	3.44E-02	2689	-0.80	4.26E-01	1543	-2.68	7.34E-03	2020	-3.31	9.43E-04	6252
<i>NFKB1</i>	rs230510	A	T	0.47	-3.12	1.07E-03	1599	0.01	9.91E-01	2693	-0.15	8.84E-01	1543	-0.51	6.10E-01	2018	-0.35	7.23E-01	6254
<i>ABCA1</i>	rs10991412	A	G	0.06	3.06	1.09E-03	1600	-1.31	1.91E-01	2693	0.19	8.48E-01	1544	-1.31	1.92E-01	2020	-1.51	1.32E-01	6257
<i>NFKB1</i>	rs1585214	A	G	0.47	-3.12	1.16E-03	1600	0.11	9.09E-01	2693	-0.19	8.53E-01	1542	-0.57	5.69E-01	2018	-0.34	7.33E-01	6253
<i>ABCA1</i>	rs4100654	G	A	0.11	-3.04	1.17E-03	1599	-0.93	3.52E-01	2692	-2.04	4.13E-02	1543	-0.83	4.08E-01	2020	-2.10	3.62E-02	6255
<i>LPL</i>	rs327	C	A	0.26	3.24	1.18E-03	1599	3.49	4.94E-04	2681	1.69	9.22E-02	1525	3.25	1.16E-03	2020	4.97	6.70E-07	6226
<i>CETP</i>	rs708273	A	G	0.30	-2.60	1.29E-03	1599	-1.40	1.63E-01	2693	-1.34	1.79E-01	1394	-3.52	4.24E-04	2019	-3.60	3.24E-04	6106
<i>NFKB1</i>	rs1598856	A	G	0.48	-3.05	1.44E-03	1600	0.04	9.65E-01	2693	-0.01	9.94E-01	1544	-0.64	5.21E-01	2020	-0.34	7.34E-01	6257
<i>CETP</i>	rs1800777	A	G	0.04	-2.92	1.50E-03	1599	-3.65	2.68E-04	2692	-4.28	2.00E-05	1541	-2.38	1.74E-02	2020	-5.86	4.62E-09	6253
<i>LPL</i>	rs1534649	A	C	0.38	3.31	1.51E-03	1594	1.33	1.83E-01	2578	1.16	2.48E-01	1532	1.63	1.03E-01	2019	2.38	1.75E-02	6129
<i>PON1/2/3/4</i>	rs17884000	G	A	0.21	-3.30	1.52E-03	1595	-1.03	3.03E-01	2669	1.32	1.89E-01	1505	0.65	5.13E-01	2016	-0.35	7.30E-01	6190

FADS1/2/3	rs1535	G	A	0.35	-3.21	1.57E-03	1600	-2.78	5.41E-03	2693	-0.81	4.18E-01	1537	-2.92	3.49E-03	2020	-3.89	1.01E-04	6250
APOB	rs2678379	A	G	0.20	2.89	1.62E-03	1600	0.70	4.86E-01	2693	1.70	8.99E-02	1544	1.03	3.04E-01	2020	1.88	5.96E-02	6257
SORCS1	rs7897974	A	G	0.47	2.80	1.68E-03	1600	0.79	4.31E-01	2691	1.13	2.60E-01	1542	-0.13	8.93E-01	2020	1.15	2.49E-01	6253
LPL	rs329	G	A	0.03	2.82	1.71E-03	1600	0.01	9.90E-01	2693	0.87	3.83E-01	1544	-0.55	5.80E-01	2019	-0.13	8.99E-01	6256
LPL	rs28445964	G	A	0.02	-2.82	1.78E-03	1600	-1.51	1.32E-01	2693	-1.03	3.04E-01	1543	-2.18	2.94E-02	2020	-2.74	6.22E-03	6256
PON1/2/3/4	rs2299267	G	A	0.19	-3.26	1.91E-03	1600	-2.01	4.46E-02	2693	1.40	1.60E-01	1543	0.21	8.34E-01	2020	-0.50	6.16E-01	6256
LPL	rs343	A	C	0.08	3.18	1.92E-03	1595	2.19	2.90E-02	2683	1.58	1.14E-01	1538	2.54	1.11E-02	2019	3.66	2.52E-04	6240
LPL	rs10104051	A	G	0.37	3.20	2.20E-03	1598	1.44	1.51E-01	2689	1.65	9.91E-02	1540	1.80	7.11E-02	2020	2.79	5.32E-03	6249
LPL	rs7009128	G	A	0.02	-2.73	2.36E-03	1600	-1.83	6.68E-02	2693	-1.01	3.13E-01	1543	-2.24	2.49E-02	2020	-2.98	2.89E-03	6256
LPL	rs28645722	A	G	0.02	-2.73	2.36E-03	1600	-1.45	1.47E-01	2693	-1.28	2.01E-01	1504	-2.24	2.52E-02	2019	-2.86	4.25E-03	6216
LPL	rs1470186	G	A	0.02	-2.73	2.36E-03	1600	-1.65	9.82E-02	2693	-1.01	3.11E-01	1544	-2.18	2.96E-02	2019	-2.82	4.74E-03	6256
LPL	rs6999612	G	A	0.02	-2.74	2.36E-03	1600	-1.40	1.63E-01	2693	-1.32	1.86E-01	1543	-2.18	2.94E-02	2020	-2.81	4.94E-03	6256
LPL	rs17091742	A	G	0.02	-2.73	2.36E-03	1600	-1.60	1.11E-01	2693	-1.03	3.02E-01	1544	-2.17	2.96E-02	2020	-2.80	5.19E-03	6257
LPL	rs28615996	G	A	0.02	-2.73	2.36E-03	1600	-1.53	1.26E-01	2693	-1.03	3.02E-01	1544	-2.18	2.94E-02	2020	-2.76	5.87E-03	6257
LPL	rs7000460	C	A	0.02	-2.73	2.36E-03	1600	-1.45	1.47E-01	2693	-1.01	3.13E-01	1542	-2.18	2.94E-02	2019	-2.69	7.15E-03	6254
LIPC	rs11635491	A	G	0.25	2.72	2.69E-03	1596	1.43	1.53E-01	2688	2.83	4.73E-03	1524	2.22	2.67E-02	2011	3.60	3.23E-04	6223
APOB	rs1042034	G	A	0.20	2.72	2.90E-03	1600	0.74	4.61E-01	2692	1.73	8.43E-02	1542	0.95	3.40E-01	2020	1.88	5.97E-02	6254
LPL	rs28575919	C	G	0.02	-2.67	3.12E-03	1600	-1.59	1.12E-01	2693	-1.17	2.43E-01	1544	-2.18	2.94E-02	2020	-2.86	4.25E-03	6257
LPL	rs7016529	G	A	0.02	-2.67	3.12E-03	1600	-1.59	1.12E-01	2693	-1.01	3.13E-01	1543	-2.18	2.94E-02	2020	-2.78	5.43E-03	6256
PON1/2/3/4	rs10259688	G	A	0.18	-3.16	3.28E-03	1599	-0.86	3.90E-01	2693	1.67	9.55E-02	1544	0.92	3.59E-01	2018	0.79	4.32E-01	6255
APOB	rs1801695	A	G	0.03	2.87	3.39E-03	1600	2.72	6.59E-03	2693	0.50	6.14E-01	1544	1.65	9.80E-02	2020	2.97	2.95E-03	6257

<i>LIPC</i>	rs4774297	C	A	0.44	2.57	3.41E-03	1600	1.47	1.43E-01	2693	0.57	5.66E-01	1539	1.78	7.51E-02	2020	2.26	2.39E-02	6252
<i>FADS1/2/3</i>	rs174576	A	C	0.35	-2.99	3.61E-03	1600	-2.44	1.48E-02	2693	-0.59	5.58E-01	1544	-2.76	5.78E-03	2020	-3.46	5.45E-04	6257
<i>CETP</i>	rs9930761	G	A	0.06	2.85	3.76E-03	1600	1.68	9.34E-02	2693	-0.49	6.25E-01	1539	-0.42	6.77E-01	2018	0.62	5.34E-01	6250
<i>LIPC</i>	rs8035006	A	T	0.31	2.68	3.78E-03	1600	0.03	9.78E-01	2693	2.17	3.02E-02	1544	-1.48	1.39E-01	2019	0.25	8.00E-01	6256
<i>NFKB1</i>	rs17033015	A	C	0.45	-2.78	4.12E-03	1557	-0.65	5.14E-01	2654	-0.52	6.04E-01	1167	-0.23	8.16E-01	2018	-0.81	4.18E-01	5839
<i>LIPC</i>	rs572410	C	G	0.22	2.92	4.14E-03	1600	1.12	2.62E-01	2693	1.43	1.52E-01	1542	1.06	2.88E-01	2020	2.05	4.02E-02	6255
<i>PLTP</i>	rs6073950	T	A	0.34	2.53	4.29E-03	1553	2.06	3.91E-02	2529	-0.60	5.51E-01	1416	0.29	7.68E-01	1995	1.23	2.20E-01	5940
<i>ABCA1</i>	rs3780543	G	A	0.12	2.59	4.55E-03	1600	1.49	1.36E-01	2683	1.32	1.87E-01	1526	0.02	9.84E-01	2019	1.64	1.00E-01	6228
<i>NFKB1</i>	rs3774968	A	G	0.46	-2.72	4.76E-03	1600	-0.09	9.31E-01	2693	-0.23	8.22E-01	1542	-0.69	4.89E-01	2019	-0.56	5.75E-01	6254
<i>FADS1/2/3</i>	rs2072114	G	A	0.14	-2.87	4.89E-03	1600	-1.79	7.36E-02	2693	-1.37	1.70E-01	1537	-2.09	3.67E-02	2020	-3.04	2.35E-03	6250
<i>CETP</i>	rs736274	T	A	0.10	2.65	4.92E-03	1600	0.01	9.94E-01	2691	2.83	4.68E-03	1542	2.88	4.04E-03	2020	3.04	2.34E-03	6253
<i>ABCG8</i>	rs17606027	G	A	0.13	2.67	4.96E-03	1600	0.25	8.03E-01	2693	-0.90	3.70E-01	1542	-0.30	7.60E-01	2020	-0.46	6.49E-01	6255
<i>SCARB1</i>	rs4765180	A	G	0.44	2.53	5.04E-03	1596	1.27	2.05E-01	2691	0.80	4.25E-01	1541	0.26	7.93E-01	2015	1.38	1.69E-01	6247
<i>PCSK5</i>	rs10869668	G	C	0.22	-2.88	5.05E-03	1596	-0.59	5.53E-01	2688	0.17	8.64E-01	1540	0.39	6.96E-01	2016	-0.08	9.35E-01	6244
<i>FADS1/2/3</i>	rs174548	C	G	0.31	-2.91	5.28E-03	1600	-1.86	6.32E-02	2692	0.01	9.92E-01	1542	-2.92	3.50E-03	2019	-2.87	4.07E-03	6253
<i>FADS1/2/3</i>	rs174570	A	G	0.14	-2.95	5.35E-03	1600	-2.92	3.52E-03	2693	-2.65	8.16E-03	1543	-1.41	1.58E-01	2020	-4.03	5.55E-05	6256
<i>LIPC</i>	rs8033940	A	G	0.28	2.51	5.65E-03	1598	1.43	1.53E-01	2690	3.61	3.20E-04	1543	2.16	3.11E-02	2020	3.95	7.80E-05	6253
<i>NFKB1</i>	rs7674640	G	A	0.51	-2.57	5.68E-03	1571	0.71	4.77E-01	2582	-1.05	2.93E-01	1462	-0.36	7.16E-01	2013	-0.26	7.93E-01	6057
<i>CUBN</i>	rs12411446	G	A	0.04	-2.72	5.68E-03	1600	0.04	9.70E-01	2693	0.92	3.57E-01	1543	-1.35	1.77E-01	2018	-0.28	7.76E-01	6254
<i>CETP</i>	rs5880	C	G	0.05	-2.53	5.78E-03	1600	-4.15	3.50E-05	2693	-4.18	3.04E-05	1544	-2.22	2.67E-02	2020	-6.05	1.49E-09	6257
<i>LRP1</i>	rs1799986	A	G	0.14	2.50	5.81E-03	1600	1.85	6.52E-02	2685	-0.81	4.16E-01	1540	-0.63	5.30E-01	2019	0.45	6.54E-01	6244

PON1/2/3/4	rs17884563	T	A	0.11	-3.10	5.81E-03	1600	-0.89	3.73E-01	2670	-0.30	7.66E-01	1544	1.12	2.61E-01	2020	0.09	9.27E-01	6234
ABCA1	rs12235875	G	A	0.05	2.48	5.86E-03	1600	0.56	5.72E-01	2682	0.90	3.67E-01	1537	1.40	1.61E-01	2019	1.62	1.06E-01	6238
RXRA	rs35123561	A	G	0.08	-2.69	5.86E-03	1600	-0.25	8.01E-01	2693	0.02	9.86E-01	1544	0.67	5.03E-01	2020	0.23	8.22E-01	6257
LIPC	rs8034802	A	T	0.27	2.51	5.94E-03	1599	1.20	2.30E-01	2692	3.33	8.78E-04	1541	2.31	2.07E-02	2017	3.75	1.74E-04	6250
LPL	rs1800590	C	A	0.03	-2.44	5.97E-03	1600	-0.83	4.04E-01	2692	-1.31	1.92E-01	1544	-2.25	2.47E-02	2019	-2.47	1.34E-02	6255
LPL	rs1031045	A	G	0.03	-2.44	5.97E-03	1600	-0.59	5.56E-01	2693	-1.25	2.11E-01	1544	-2.18	2.94E-02	2020	-2.25	2.48E-02	6257
LIPG	rs12966382	A	G	0.14	2.59	6.04E-03	1600	0.11	9.09E-01	2693	0.06	9.49E-01	1542	2.41	1.59E-02	2018	1.48	1.40E-01	6253
CETP	rs12720918	G	A	0.30	-2.64	6.13E-03	1599	-3.56	3.74E-04	2693	-3.77	1.69E-04	1543	-4.68	2.86E-06	2020	-6.86	6.81E-12	6256
APOA1/A4/A5/C3	rs12285095	C	A	0.08	-2.85	7.15E-03	1600	-2.04	4.14E-02	2693	-1.42	1.56E-01	1544	-1.61	1.08E-01	2020	-2.96	3.10E-03	6257
PLTP	rs6065904	A	G	0.22	-2.33	7.21E-03	1599	-0.29	7.72E-01	2693	0.14	8.90E-01	1542	-1.88	5.97E-02	2020	-1.19	2.33E-01	6255
FADS1/2/3	rs2524299	T	A	0.13	-2.74	7.34E-03	1598	-1.29	1.98E-01	2691	-1.40	1.61E-01	1542	-2.03	4.24E-02	2019	-2.69	7.07E-03	6252
FADS1/2/3	rs174535	G	A	0.35	-2.76	7.38E-03	1598	-2.33	2.01E-02	2693	-0.92	3.56E-01	1542	-3.00	2.73E-03	2020	-3.69	2.28E-04	6255
SOAT1	rs2255375	G	A	0.16	2.88	7.39E-03	1600	1.25	2.12E-01	2693	0.16	8.74E-01	1543	-0.76	4.46E-01	2020	0.47	6.42E-01	6256
NFKB1	rs230528	C	A	0.36	2.57	7.70E-03	1573	1.38	1.66E-01	2664	0.26	7.94E-01	1417	1.91	5.62E-02	2018	2.14	3.25E-02	6099
CETP	rs289742	C	G	0.11	2.48	7.77E-03	1600	0.13	9.01E-01	2692	3.44	5.93E-04	1543	2.74	6.05E-03	2020	3.35	8.15E-04	6255
APOA1/A4/A5/C3	rs12287066	A	C	0.08	-2.81	8.34E-03	1600	-2.05	4.03E-02	2691	-1.61	1.07E-01	1540	-1.65	9.89E-02	2019	-3.08	2.04E-03	6250
CUBN	rs12416115	G	A	0.04	-2.59	8.45E-03	1600	0.26	7.95E-01	2693	0.92	3.57E-01	1543	-1.44	1.49E-01	2018	-0.19	8.49E-01	6254
ABCA1	rs1883025	A	G	0.29	-2.45	8.51E-03	1599	-1.37	1.71E-01	2693	-0.85	3.94E-01	1544	-2.62	8.86E-03	2020	-2.81	4.98E-03	6257
LIPC	rs4775065	A	G	0.23	2.36	8.55E-03	1600	-0.39	7.00E-01	2692	-1.03	3.04E-01	1543	1.57	1.17E-01	2019	0.13	8.99E-01	6254
PLTP	rs4810479	G	A	0.26	-2.14	8.64E-03	1599	-0.16	8.73E-01	2693	0.47	6.39E-01	1543	-2.48	1.33E-02	2018	-1.28	2.01E-01	6254
SCARB1	rs4379922	G	A	0.34	2.41	8.96E-03	1600	1.62	1.06E-01	2693	1.20	2.31E-01	1543	0.31	7.54E-01	2019	1.83	6.66E-02	6255

<i>PDZK1IP1</i>	rs12760654	A	G	0.22	-2.47	9.23E-03	1600	-0.57	5.70E-01	2693	0.35	7.27E-01	1539	-0.25	7.99E-01	2019	-0.34	7.31E-01	6251
<i>CETP</i>	rs12447924	G	A	0.24	-2.13	9.24E-03	1597	-2.25	2.48E-02	2684	-0.72	4.69E-01	1538	-2.78	5.39E-03	2020	-3.42	6.39E-04	6242
<i>PON1/2/3/4</i>	rs17880030	A	G	0.20	-2.67	9.27E-03	1599	-0.42	6.73E-01	2689	1.29	1.99E-01	1542	0.89	3.74E-01	2020	0.87	3.87E-01	6251
<i>NFKB1</i>	rs3774964	G	A	0.33	2.62	9.38E-03	1600	2.03	4.30E-02	2693	-0.06	9.55E-01	1539	2.05	4.00E-02	2020	2.47	1.36E-02	6252
<i>LIPC</i>	rs1869144	G	A	0.37	2.34	9.48E-03	1600	-0.08	9.33E-01	2693	-0.54	5.91E-01	1541	0.29	7.71E-01	2019	-0.16	8.76E-01	6253
<i>GPR109A/B/81</i>	rs3922628	T	A	0.20	2.61	9.59E-03	1597	1.13	2.58E-01	2684	0.56	5.73E-01	1434	3.12	1.81E-03	2017	2.81	4.95E-03	6135
<i>LIPC</i>	rs2070895	A	G	0.20	2.60	9.84E-03	1600	1.56	1.18E-01	2693	3.48	5.16E-04	1541	2.43	1.50E-02	2020	4.13	3.59E-05	6254
<i>LPL</i>	rs1121923	A	G	0.04	2.26	1.01E-02	1600	-0.12	9.02E-01	2691	0.13	8.97E-01	1544	-1.16	2.47E-01	2019	-0.67	5.01E-01	6254
<i>PON1/2/3/4</i>	rs17881071	A	G	0.20	-2.63	1.02E-02	1600	-0.54	5.89E-01	2691	1.47	1.43E-01	1541	1.06	2.89E-01	2020	0.98	3.30E-01	6252
<i>LIPC</i>	rs261332	A	G	0.18	2.61	1.02E-02	1600	1.33	1.82E-01	2692	3.54	4.16E-04	1544	2.47	1.34E-02	2019	4.03	5.50E-05	6255
<i>LPL</i>	rs285	A	G	0.43	2.45	1.03E-02	1600	1.52	1.29E-01	2692	1.84	6.67E-02	1542	1.11	2.69E-01	2020	2.53	1.13E-02	6254
<i>PAFAH1B2</i>	rs4938349	G	A	0.23	2.69	1.06E-02	1599	2.11	3.47E-02	2693	-0.68	4.98E-01	1539	-0.19	8.51E-01	2020	0.94	3.46E-01	6252
<i>LIPC</i>	rs4775067	A	C	0.23	2.28	1.09E-02	1595	-0.25	8.01E-01	2623	-1.00	3.16E-01	1537	1.50	1.32E-01	2016	0.20	8.45E-01	6176
<i>PON1/2/3/4</i>	rs854568	G	A	0.22	2.97	1.09E-02	1600	1.09	2.74E-01	2693	0.33	7.44E-01	1543	0.74	4.58E-01	2020	1.30	1.93E-01	6256
<i>HDLBP</i>	rs2305071	C	G	0.12	-2.41	1.10E-02	1600	1.18	2.37E-01	2693	0.15	8.77E-01	1536	0.89	3.72E-01	2020	1.36	1.74E-01	6249
<i>PON1/2/3/4</i>	rs13228784	G	A	0.23	2.59	1.11E-02	1600	0.67	5.06E-01	2693	0.70	4.84E-01	1543	2.48	1.30E-02	2020	2.20	2.81E-02	6256
<i>PON1/2/3/4</i>	rs740264	C	A	0.23	2.59	1.11E-02	1600	0.60	5.48E-01	2693	0.77	4.42E-01	1543	2.45	1.42E-02	2019	2.17	3.01E-02	6255
<i>PAFAH1B2</i>	rs10790175	A	G	0.23	2.69	1.12E-02	1600	2.26	2.38E-02	2693	-0.75	4.51E-01	1540	-0.23	8.19E-01	2020	0.98	3.28E-01	6253
<i>LIPC</i>	rs1800588	A	G	0.19	2.54	1.15E-02	1600	1.33	1.85E-01	2692	3.46	5.64E-04	1541	2.62	8.70E-03	2019	4.07	4.65E-05	6252
<i>PON1/2/3/4</i>	rs2272365	C	A	0.16	-2.67	1.15E-02	1600	0.23	8.16E-01	2692	0.23	8.21E-01	1542	0.11	9.13E-01	2020	0.33	7.44E-01	6254
<i>LPL</i>	rs3289	G	A	0.03	-2.30	1.16E-02	1600	-2.23	2.58E-02	2692	-1.51	1.32E-01	1542	-1.08	2.81E-01	2020	-2.83	4.73E-03	6254

PCSK5	rs1339248	G	A	0.13	2.48	1.19E-02	1600	0.54	5.88E-01	2689	1.43	1.53E-01	1544	-1.55	1.21E-01	2020	0.19	8.53E-01	6253
ABCA1	rs4149313	G	A	0.13	2.26	1.19E-02	1600	1.56	1.20E-01	2693	1.42	1.56E-01	1543	-0.01	9.88E-01	2020	1.72	8.61E-02	6256
RXRA	rs1805348	A	G	0.01	2.35	1.19E-02	1600	-0.15	8.84E-01	2693	-1.10	2.70E-01	1542	-1.17	2.41E-01	2020	-1.31	1.90E-01	6255
GPR109A/B/81	rs7972971	C	A	0.37	2.52	1.20E-02	1589	-0.72	4.74E-01	2681	-2.13	3.30E-02	1537	-1.87	6.09E-02	2016	-2.59	9.49E-03	6234
CETP	rs12447839	G	A	0.24	-2.05	1.21E-02	1585	-2.18	2.97E-02	2587	-0.62	5.34E-01	1540	-2.75	5.93E-03	2016	-3.30	9.71E-04	6143
PPARA	rs9626737	G	A	0.03	-2.53	1.21E-02	1600	0.63	5.29E-01	2693	1.18	2.38E-01	1537	0.46	6.49E-01	2020	1.26	2.09E-01	6250
LCAT	rs17240399	A	G	0.01	-2.23	1.23E-02	1576	-0.28	7.82E-01	2470	-0.89	3.74E-01	1431	-0.10	9.22E-01	2014	-0.67	5.01E-01	5915
PLTP	rs11569668	A	G	0.03	-2.34	1.26E-02	1599	0.49	6.24E-01	2684	-0.86	3.91E-01	1510	0.54	5.88E-01	2018	0.21	8.35E-01	6212
NFKB1	rs1598857	A	G	0.35	2.37	1.33E-02	1599	1.08	2.80E-01	2686	-0.28	7.83E-01	1538	1.96	4.94E-02	2018	1.69	9.12E-02	6242
CETP	rs289715	A	T	0.11	2.27	1.35E-02	1600	0.03	9.77E-01	2693	2.65	8.07E-03	1543	2.63	8.61E-03	2020	2.83	4.69E-03	6256
PCSK5	rs17668141	A	G	0.38	-2.58	1.36E-02	1600	-2.39	1.70E-02	2692	-1.56	1.18E-01	1544	1.41	1.59E-01	2019	-1.54	1.23E-01	6255
CUBN	rs2271469	A	C	0.53	-2.43	1.39E-02	1600	1.57	1.17E-01	2693	-0.36	7.17E-01	1544	1.84	6.58E-02	2020	0.20	8.43E-01	6257
APOA1/A4/A5/C3	rs689243	G	C	0.35	2.51	1.39E-02	1600	2.25	2.43E-02	2693	0.03	9.79E-01	1541	-0.42	6.78E-01	2020	1.26	2.10E-01	6254
CETP	rs4783962	A	G	0.24	-2.00	1.39E-02	1600	-2.18	2.96E-02	2693	-0.66	5.09E-01	1540	-2.61	9.14E-03	2019	-3.24	1.21E-03	6252
PPARG	rs1152001	G	A	0.20	2.36	1.41E-02	1599	-0.71	4.77E-01	2692	-0.38	7.04E-01	1541	-2.84	4.52E-03	2020	-2.27	2.33E-02	6253
PPARD	rs1053049	G	A	0.25	2.47	1.44E-02	1600	2.05	4.05E-02	2691	0.09	9.29E-01	1536	0.46	6.44E-01	2020	1.65	9.85E-02	6247
LIPC	rs4775070	A	G	0.03	2.47	1.44E-02	1600	1.59	1.13E-01	2693	0.45	6.52E-01	1544	1.75	8.04E-02	2020	2.26	2.40E-02	6257
LPL	rs258	G	C	0.41	2.43	1.49E-02	1600	1.34	1.81E-01	2693	1.95	5.16E-02	1540	1.25	2.11E-01	2018	2.56	1.06E-02	6251
SOAT1	rs4421551	C	A	0.13	2.55	1.52E-02	1600	2.12	3.40E-02	2690	0.90	3.68E-01	1530	0.06	9.56E-01	2020	1.87	6.16E-02	6240
PCSK5	rs4552981	A	T	0.46	2.55	1.53E-02	1600	1.33	1.82E-01	2693	0.56	5.74E-01	1544	-0.27	7.84E-01	2019	1.00	3.18E-01	6256
ABCG1	rs4148139	A	G	0.19	2.46	1.53E-02	1600	2.84	4.57E-03	2693	0.95	3.41E-01	1543	1.46	1.44E-01	2020	3.16	1.56E-03	6256

<i>LPL</i>	rs253	A	G	0.41	2.45	1.57E-02	1600	1.58	1.15E-01	2692	1.42	1.56E-01	1537	1.08	2.78E-01	2020	2.36	1.85E-02	6249
<i>NFKB1</i>	rs1599961	A	G	0.36	2.32	1.59E-02	1600	1.03	3.01E-01	2693	-0.29	7.72E-01	1539	1.97	4.88E-02	2020	1.65	9.81E-02	6252
<i>CUBN</i>	rs7893634	A	G	0.39	-2.41	1.59E-02	1600	0.94	3.47E-01	2693	-1.81	7.03E-02	1542	0.46	6.44E-01	2019	-0.02	9.85E-01	6254
<i>PCSK5</i>	rs2789608	G	C	0.38	2.45	1.61E-02	1599	2.63	8.58E-03	2693	0.93	3.54E-01	1543	-1.36	1.73E-01	2020	1.41	1.58E-01	6256
<i>CETP</i>	rs4587963	A	T	0.23	-1.95	1.67E-02	1597	-2.28	2.29E-02	2686	-0.33	7.40E-01	1533	-2.80	5.16E-03	2019	-3.25	1.16E-03	6238
<i>LIPC</i>	rs1869145	G	A	0.22	2.13	1.71E-02	1600	-0.75	4.52E-01	2690	-0.92	3.58E-01	1538	1.53	1.25E-01	2019	-0.08	9.38E-01	6247
<i>NFKB1</i>	rs3774933	G	A	0.36	2.28	1.72E-02	1600	1.02	3.06E-01	2692	-0.21	8.32E-01	1540	2.02	4.29E-02	2019	1.72	8.60E-02	6251
<i>LRP1</i>	rs7398375	G	C	0.28	-2.23	1.74E-02	1600	1.10	2.72E-01	2693	0.61	5.44E-01	1541	0.74	4.58E-01	2020	1.44	1.49E-01	6254
<i>ABCA1</i>	rs2472507	C	A	0.22	2.23	1.76E-02	1600	1.57	1.16E-01	2693	0.71	4.77E-01	1544	1.38	1.69E-01	2020	2.17	3.02E-02	6257
<i>NFKB1</i>	rs4648004	G	A	0.36	-2.25	1.79E-02	1599	0.46	6.42E-01	2693	0.59	5.55E-01	1542	-1.65	9.98E-02	2020	-0.34	7.36E-01	6255
<i>TCF1</i>	rs2464196	A	G	0.32	2.62	1.80E-02	1600	1.42	1.55E-01	2693	-0.37	7.08E-01	1532	-0.05	9.61E-01	2020	0.72	4.72E-01	6245
<i>PCSK5</i>	rs1856508	A	C	0.08	2.29	1.80E-02	1598	1.01	3.12E-01	2690	1.33	1.83E-01	1537	0.40	6.86E-01	2020	1.55	1.20E-01	6247
<i>FADS1/2/3</i>	rs102275	G	A	0.35	-2.44	1.81E-02	1600	-2.19	2.88E-02	2693	-0.75	4.54E-01	1541	-2.91	3.64E-03	2020	-3.46	5.42E-04	6254
<i>ABCG4</i>	rs626776	G	C	0.35	-2.03	1.81E-02	1600	-0.07	9.46E-01	2693	1.57	1.16E-01	1543	2.59	9.48E-03	2020	2.21	2.71E-02	6256
<i>RXRA</i>	rs35180144	C	A	0.09	-2.11	1.82E-02	1598	-1.42	1.57E-01	2693	-0.31	7.60E-01	1544	0.10	9.24E-01	2019	-1.03	3.04E-01	6256
<i>GPR109A/B/81</i>	rs4759383	G	A	0.45	-2.64	1.82E-02	1600	0.99	3.23E-01	2693	1.57	1.16E-01	1544	0.68	4.94E-01	2020	1.82	6.90E-02	6257
<i>CUBN</i>	rs1687714	A	C	0.35	2.22	1.83E-02	1600	-1.80	7.27E-02	2693	0.73	4.68E-01	1544	0.69	4.91E-01	2020	-0.43	6.70E-01	6257
<i>LIPC</i>	rs12900448	A	G	0.22	2.09	1.84E-02	1600	-0.57	5.70E-01	2693	-0.84	4.00E-01	1543	1.56	1.19E-01	2020	-0.10	9.24E-01	6256
<i>LIPC</i>	rs12898984	A	G	0.22	2.08	1.84E-02	1600	-0.59	5.56E-01	2693	-0.88	3.81E-01	1544	1.56	1.19E-01	2020	-0.06	9.49E-01	6257
<i>PPARD</i>	rs2076167	G	A	0.24	2.38	1.89E-02	1600	2.08	3.78E-02	2693	0.15	8.82E-01	1543	0.39	7.00E-01	2020	1.66	9.77E-02	6256
<i>SCARB1</i>	rs4765623	A	G	0.34	2.11	1.90E-02	1600	0.88	3.81E-01	2692	0.86	3.90E-01	1544	-0.63	5.27E-01	2020	0.64	5.21E-01	6256

<i>CUBN</i>	rs1707289	C	A	0.35	2.19	1.92E-02	1597	-1.86	6.36E-02	2689	0.73	4.64E-01	1537	0.65	5.14E-01	2020	-0.48	6.30E-01	6246
<i>LRP1</i>	rs715948	A	G	0.32	-2.32	1.99E-02	1600	1.00	3.17E-01	2693	1.54	1.23E-01	1544	2.02	4.32E-02	2020	2.57	1.01E-02	6257
<i>FAS</i>	rs1291206	A	G	0.21	2.22	2.00E-02	1597	0.48	6.31E-01	2690	0.40	6.92E-01	1518	-1.51	1.30E-01	2020	-0.35	7.27E-01	6228
<i>ABCA1</i>	rs2275545	G	A	0.16	-2.27	2.11E-02	1600	-0.26	7.95E-01	2693	-1.75	7.97E-02	1542	-1.90	5.74E-02	2020	-2.12	3.40E-02	6255
<i>LIPC</i>	rs588136	G	A	0.19	2.36	2.11E-02	1585	2.10	3.63E-02	2670	3.38	7.58E-04	1531	2.19	2.89E-02	2020	4.29	1.81E-05	6221
<i>PPARD</i>	rs2267667	G	C	0.25	2.35	2.11E-02	1600	1.80	7.14E-02	2693	0.73	4.68E-01	1544	0.43	6.68E-01	2020	1.79	7.40E-02	6257
<i>LIPC</i>	rs12909642	A	C	0.14	-2.19	2.13E-02	1600	0.47	6.36E-01	2693	-1.21	2.25E-01	1543	0.37	7.12E-01	2018	-0.08	9.35E-01	6254
<i>NFKB1</i>	rs4648011	C	A	0.36	2.22	2.15E-02	1600	0.93	3.52E-01	2693	-0.03	9.73E-01	1538	2.15	3.19E-02	2018	1.81	6.98E-02	6249
<i>PLTP</i>	rs378114	A	G	0.26	1.91	2.17E-02	1598	1.17	2.43E-01	2693	0.65	5.18E-01	1543	1.97	4.83E-02	2020	2.21	2.72E-02	6256
<i>PON1/2/3/4</i>	rs11768074	A	G	0.14	2.36	2.19E-02	1600	-0.39	6.96E-01	2693	0.35	7.23E-01	1543	1.20	2.29E-01	2020	0.60	5.46E-01	6256
<i>LPL</i>	rs10099160	C	A	0.22	-2.50	2.22E-02	1600	-1.12	2.65E-01	2693	-0.30	7.67E-01	1542	-1.75	7.93E-02	2020	-1.88	6.06E-02	6255
<i>ABCG1</i>	rs914189	C	G	0.19	2.34	2.23E-02	1600	2.78	5.50E-03	2693	1.20	2.29E-01	1544	1.51	1.32E-01	2020	3.27	1.06E-03	6257
<i>PPARG</i>	rs2067819	A	G	0.20	2.23	2.25E-02	1599	0.19	8.50E-01	2692	-0.51	6.11E-01	1542	-0.88	3.76E-01	2017	-0.63	5.28E-01	6251
<i>APOE/C1/C2</i>	rs1064725	C	A	0.04	2.09	2.25E-02	1600	-0.34	7.33E-01	2691	0.03	9.72E-01	1542	-1.23	2.20E-01	2020	-0.90	3.66E-01	6253
<i>LIPC</i>	rs4774301	A	G	0.23	2.04	2.27E-02	1600	-0.87	3.85E-01	2693	-0.74	4.59E-01	1543	1.65	9.92E-02	2020	0.00	9.99E-01	6256
<i>ABCA1</i>	rs3780542	A	G	0.07	2.16	2.28E-02	1600	0.32	7.47E-01	2693	1.03	3.05E-01	1536	1.32	1.88E-01	2018	1.47	1.42E-01	6247
<i>CUBN</i>	rs1707277	A	G	0.35	2.13	2.31E-02	1600	-1.78	7.53E-02	2692	0.74	4.57E-01	1544	0.67	5.06E-01	2020	-0.42	6.76E-01	6256
<i>LPL</i>	rs3200218	G	A	0.22	-2.49	2.31E-02	1600	-1.20	2.32E-01	2693	-0.26	7.98E-01	1540	-1.68	9.25E-02	2020	-1.87	6.18E-02	6253
<i>ABCA1</i>	rs2275544	G	A	0.15	-2.26	2.32E-02	1599	-0.49	6.26E-01	2693	-1.81	7.02E-02	1542	-1.76	7.87E-02	2019	-2.22	2.65E-02	6254
<i>LIPC</i>	rs17301781	A	G	0.14	-2.14	2.38E-02	1600	0.23	8.17E-01	2693	-1.26	2.09E-01	1544	0.33	7.40E-01	2020	-0.29	7.76E-01	6257
<i>HNF4A</i>	rs11574736	G	C	0.16	2.56	2.44E-02	1600	1.26	2.07E-01	2693	-0.76	4.50E-01	1540	-2.49	1.28E-02	2019	-0.96	3.37E-01	6252

ABCB4	rs8187799	G	A	0.09	-2.11	2.45E-02	1600	-0.45	6.51E-01	2693	-0.88	3.78E-01	1544	-0.53	5.99E-01	2020	-1.03	3.01E-01	6257
PON1/2/3/4	rs705382	C	G	0.35	2.45	2.50E-02	1599	-0.84	4.01E-01	2693	1.44	1.51E-01	1544	0.93	3.52E-01	2020	0.69	4.89E-01	6257
CUBN	rs4525114	G	A	0.05	1.91	2.53E-02	1599	-0.62	5.35E-01	2692	-0.53	5.95E-01	1543	-0.88	3.80E-01	2018	-1.17	2.42E-01	6253
PCSK6	rs7179905	T	A	0.18	2.40	2.55E-02	1503	0.01	9.93E-01	2624	-0.44	6.57E-01	1496	NA	NA	0	-0.26	7.95E-01	4120
LIPC	rs8028759	G	A	0.32	2.02	2.56E-02	1600	-0.06	9.54E-01	2693	1.80	7.17E-02	1543	1.00	3.16E-01	2020	1.43	1.54E-01	6256
SORCS1	rs17121941	G	A	0.09	2.32	2.61E-02	1600	-0.51	6.12E-01	2687	2.05	4.03E-02	1544	0.53	5.93E-01	2020	0.99	3.22E-01	6251
SOAT1	rs3753525	A	C	0.27	2.43	2.61E-02	1600	1.72	8.54E-02	2693	0.13	8.98E-01	1541	-0.47	6.41E-01	2020	0.93	3.54E-01	6254
ABCA1	rs3847300	A	G	0.14	-2.11	2.62E-02	1505	-0.95	3.41E-01	2632	-2.45	1.46E-02	1495	-1.66	9.75E-02	2018	-2.78	5.47E-03	6145
CUBN	rs1707278	C	G	0.35	2.08	2.67E-02	1600	-1.91	5.58E-02	2692	0.79	4.31E-01	1542	0.70	4.85E-01	2020	-0.47	6.41E-01	6254
SORCS1	rs12243117	A	G	0.01	2.03	2.67E-02	1600	0.75	4.53E-01	2693	-1.13	2.58E-01	1544	-0.15	8.80E-01	2020	-0.16	8.76E-01	6257
PCSK5	rs3814115	G	A	0.35	-2.24	2.70E-02	1600	-2.05	4.04E-02	2687	0.73	4.69E-01	1544	0.96	3.35E-01	2020	-0.44	6.63E-01	6251
APOE/C1/C2	rs2075650	G	A	0.15	-2.34	2.74E-02	1600	-4.15	3.46E-05	2693	-2.31	2.12E-02	1544	-1.36	1.73E-01	2020	-4.64	3.55E-06	6257
HDLBP	rs2305076	A	G	0.10	-2.09	2.74E-02	1600	0.68	4.98E-01	2693	1.32	1.88E-01	1544	0.75	4.51E-01	2020	1.53	1.27E-01	6257
PON1/2/3/4	rs11764079	A	G	0.24	2.23	2.75E-02	1600	0.60	5.46E-01	2693	1.27	2.03E-01	1538	2.33	2.00E-02	2019	2.35	1.88E-02	6250
PON1/2/3/4	rs13226149	A	G	0.24	2.22	2.75E-02	1600	0.41	6.78E-01	2693	1.26	2.08E-01	1538	2.20	2.76E-02	2020	2.15	3.16E-02	6251
CUBN	rs10904839	G	A	0.22	-2.21	2.77E-02	1600	0.77	4.40E-01	2693	-1.32	1.88E-01	1544	0.90	3.66E-01	2020	-0.37	7.15E-01	6257
PCSK5	rs1023181	G	A	0.29	2.24	2.79E-02	1600	0.15	8.83E-01	2693	0.51	6.12E-01	1541	1.81	6.97E-02	2020	1.38	1.68E-01	6254
SCARB1	rs10744182	G	A	0.41	-2.15	2.82E-02	1545	0.36	7.17E-01	2604	0.32	7.48E-01	1351	0.93	3.51E-01	2001	0.93	3.50E-01	5956
PDZK1IP1	rs11211477	A	G	0.28	-1.91	2.84E-02	1600	0.75	4.53E-01	2693	1.42	1.56E-01	1543	-0.24	8.09E-01	2020	1.06	2.89E-01	6256
SCARB1	rs1070544	C	A	0.03	2.03	2.84E-02	1600	0.54	5.92E-01	2693	1.08	2.79E-01	1543	-0.41	6.78E-01	2019	0.65	5.14E-01	6255
NFKB1	rs230541	G	A	0.37	2.17	2.84E-02	1600	1.52	1.29E-01	2693	-0.01	9.91E-01	1541	1.96	4.98E-02	2019	2.11	3.52E-02	6253

ABCA1	rs3858076	C	A	0.16	-2.18	2.90E-02	1599	-0.47	6.42E-01	2692	-1.81	7.01E-02	1541	-1.88	5.96E-02	2020	-2.28	2.29E-02	6253
FAS	rs9658771	A	G	0.02	2.09	2.98E-02	1600	-0.63	5.30E-01	2693	-0.21	8.36E-01	1543	1.91	5.60E-02	2020	0.57	5.68E-01	6256
LIPC	rs12914552	G	C	0.18	-2.00	3.00E-02	1600	0.11	9.16E-01	2693	-1.42	1.57E-01	1542	0.28	7.79E-01	2020	-0.48	6.35E-01	6255
LIPC	rs9652472	G	A	0.05	2.30	3.02E-02	1599	1.19	2.36E-01	2683	-0.73	4.64E-01	1542	0.66	5.10E-01	2020	0.79	4.31E-01	6245
PPARA	rs4253650	A	G	0.04	-2.17	3.03E-02	1599	1.21	2.27E-01	2690	-0.68	4.99E-01	1544	-0.05	9.60E-01	2019	0.43	6.69E-01	6253
ABCA1	rs1800977	A	G	0.36	2.24	3.05E-02	1600	2.27	2.34E-02	2693	0.72	4.74E-01	1543	0.64	5.24E-01	2020	2.21	2.74E-02	6256
NFKB1	rs1287	A	G	0.37	2.13	3.17E-02	1600	1.47	1.41E-01	2692	-0.02	9.83E-01	1536	2.01	4.48E-02	2019	2.10	3.59E-02	6247
PPARD	rs9658105	A	G	0.04	-2.14	3.20E-02	1600	-0.38	7.07E-01	2693	-1.85	6.46E-02	1542	0.17	8.61E-01	2020	-1.07	2.87E-01	6255
LIPG	rs4245232	A	C	0.19	-2.07	3.22E-02	1585	-0.36	7.16E-01	2684	NA	NA	0	-0.11	9.12E-01	2020	-0.35	7.28E-01	4704
ABCA1	rs2065412	G	A	0.41	-2.00	3.24E-02	1600	-0.78	4.35E-01	2693	-0.79	4.27E-01	1543	-1.03	3.03E-01	2020	-1.49	1.36E-01	6256
RXRA	rs7853153	A	G	0.03	2.19	3.26E-02	1600	2.07	3.89E-02	2691	-0.24	8.11E-01	1541	-0.19	8.49E-01	2020	1.13	2.59E-01	6252
LIPC	rs8039477	G	A	0.12	2.02	3.29E-02	1597	1.00	3.17E-01	2692	0.89	3.75E-01	1534	-0.71	4.77E-01	2020	0.69	4.89E-01	6246
SCARB1	rs12229555	G	A	0.21	2.06	3.32E-02	1599	0.52	6.04E-01	2693	-0.14	8.87E-01	1542	-0.69	4.91E-01	2019	-0.12	9.03E-01	6254
PPARD	rs9658083	G	C	0.08	1.84	3.36E-02	1600	0.07	9.44E-01	2689	0.12	9.01E-01	1544	-0.48	6.28E-01	2019	-0.17	8.67E-01	6252
ABCA1	rs13284054	G	A	0.14	-2.04	3.52E-02	1579	-1.44	1.52E-01	2661	-2.39	1.70E-02	1537	-1.53	1.27E-01	2017	-3.00	2.74E-03	6215
NFKB1	rs1598861	C	A	0.43	-1.89	3.52E-02	1555	0.28	7.78E-01	2097	0.47	6.39E-01	1493	-1.87	6.20E-02	1967	-0.69	4.88E-01	5557
FAS	rs6010621	A	C	0.20	1.95	3.52E-02	1599	-0.15	8.81E-01	2693	0.02	9.81E-01	1541	-0.57	5.71E-01	2020	-0.41	6.83E-01	6254
PPARD	rs7751726	A	G	0.04	1.93	3.55E-02	1600	1.51	1.32E-01	2693	0.69	4.92E-01	1544	-0.75	4.55E-01	2017	0.91	3.64E-01	6254
SORCS1	rs822090	A	G	0.04	-1.96	3.55E-02	1600	-0.29	7.74E-01	2687	1.89	5.95E-02	1544	-1.16	2.47E-01	2019	-0.09	9.29E-01	6250
PPARA	rs4253760	C	A	0.19	-2.00	3.57E-02	1591	1.51	1.30E-01	2682	1.38	1.69E-01	1526	0.43	6.64E-01	2019	1.92	5.47E-02	6227
FAS	rs6010620	A	G	0.21	1.94	3.58E-02	1600	-0.15	8.81E-01	2693	0.02	9.81E-01	1541	-0.57	5.71E-01	2020	-0.41	6.83E-01	6254

<i>NFKB1</i>	rs12509403	A	G	0.30	2.11	3.58E-02	1600	1.42	1.55E-01	2693	0.22	8.23E-01	1542	1.87	6.11E-02	2019	2.11	3.50E-02	6254
<i>HDLBP</i>	rs2305075	G	A	0.10	-1.97	3.62E-02	1600	0.71	4.79E-01	2693	1.17	2.41E-01	1544	0.76	4.48E-01	2020	1.48	1.39E-01	6257
<i>APOA1/A4/A5/C3</i>	rs12286037	A	G	0.08	-2.33	3.64E-02	1600	-2.08	3.75E-02	2693	-1.36	1.74E-01	1543	-1.19	2.36E-01	2018	-2.71	6.65E-03	6254
<i>CUBN</i>	rs11254312	A	C	0.43	2.03	3.66E-02	1600	-1.38	1.69E-01	2693	1.59	1.12E-01	1523	-0.24	8.07E-01	2013	-0.26	7.96E-01	6229
<i>NFKB1</i>	rs4648058	C	G	0.29	2.10	3.70E-02	1600	1.49	1.36E-01	2690	0.30	7.61E-01	1543	1.90	5.76E-02	2020	2.21	2.72E-02	6253
<i>ABCA1</i>	rs2575876	A	G	0.28	-1.93	3.76E-02	1600	-1.44	1.50E-01	2693	-0.77	4.41E-01	1542	-2.06	3.95E-02	2020	-2.50	1.25E-02	6255
<i>NR5A2</i>	rs2248673	G	A	0.09	1.80	3.79E-02	1600	0.43	6.65E-01	2688	0.39	7.00E-01	1543	-0.38	7.03E-01	2019	0.26	7.96E-01	6250
<i>PPARD</i>	rs9470001	G	C	0.08	1.80	3.84E-02	1600	0.05	9.63E-01	2693	0.12	9.01E-01	1544	-0.48	6.29E-01	2020	0.18	8.56E-01	6257
<i>ALCAM</i>	rs1017913	C	A	0.38	-2.08	3.84E-02	1584	-1.03	3.04E-01	2657	1.49	1.37E-01	1542	-0.48	6.30E-01	2016	-0.21	8.37E-01	6215
<i>FAS</i>	rs2297438	G	A	0.21	1.91	3.85E-02	1599	-0.15	8.81E-01	2693	0.17	8.67E-01	1541	-0.57	5.71E-01	2020	-0.34	7.36E-01	6254
<i>NFKB1</i>	rs4648133	G	A	0.29	2.01	3.87E-02	1600	0.97	3.31E-01	2693	0.00	9.99E-01	1544	1.73	8.33E-02	2020	1.62	1.05E-01	6257
<i>SCARB1</i>	rs745529	A	C	0.30	2.32	3.90E-02	1600	0.66	5.09E-01	2693	0.25	7.99E-01	1541	0.49	6.25E-01	2020	0.84	4.02E-01	6254
<i>FAS</i>	rs2236507	G	C	0.20	1.95	3.96E-02	1599	-0.34	7.35E-01	2693	0.02	9.87E-01	1540	-0.72	4.69E-01	2020	-0.63	5.32E-01	6253
<i>ABCG8</i>	rs11124950	A	G	0.07	1.65	4.07E-02	1600	1.29	1.96E-01	2693	-1.35	1.78E-01	1544	-0.97	3.33E-01	2020	-0.37	7.10E-01	6257
<i>CAV1/2</i>	rs3807992	A	G	0.23	1.99	4.07E-02	1600	0.48	6.30E-01	2692	-0.84	4.02E-01	1541	-1.46	1.44E-01	2020	-0.93	3.53E-01	6253
<i>CAV1/2</i>	rs7804372	A	T	0.23	2.00	4.07E-02	1600	0.51	6.07E-01	2692	-0.72	4.74E-01	1542	-1.46	1.44E-01	2020	-0.85	3.97E-01	6254
<i>NFKB1</i>	rs747559	G	A	0.36	1.96	4.07E-02	1600	1.19	2.36E-01	2693	-0.30	7.64E-01	1539	1.95	5.08E-02	2019	1.74	8.19E-02	6251
<i>SCARB1</i>	rs838878	A	G	0.30	1.82	4.11E-02	1600	1.70	8.85E-02	2693	1.94	5.23E-02	1543	1.59	1.12E-01	2020	2.99	2.83E-03	6256
<i>PPARD</i>	rs6457816	G	A	0.09	1.80	4.11E-02	1600	0.10	9.19E-01	2693	0.42	6.76E-01	1544	-0.66	5.07E-01	2020	-0.10	9.18E-01	6257
<i>LIPC</i>	rs12898801	A	G	0.38	1.76	4.13E-02	1600	-0.39	6.99E-01	2693	-0.86	3.91E-01	1538	0.54	5.88E-01	2019	-0.37	7.10E-01	6250
<i>NFKB1</i>	rs3817685	C	G	0.29	2.05	4.13E-02	1600	1.53	1.26E-01	2693	0.26	7.96E-01	1541	1.79	7.29E-02	2019	2.15	3.15E-02	6253

<i>PPARG</i>	rs2881654	A	G	0.11	1.86	4.21E-02	1565	1.17	2.44E-01	2484	-0.29	7.70E-01	1444	-1.35	1.76E-01	2012	-0.18	8.58E-01	5940
<i>PON1/2/3/4</i>	rs2299264	A	G	0.22	2.08	4.27E-02	1593	0.64	5.20E-01	2688	1.84	6.65E-02	1362	2.27	2.34E-02	2019	2.61	9.19E-03	6069
<i>GPR109A/B/81</i>	rs4759361	T	A	0.17	2.13	4.27E-02	1600	1.87	6.16E-02	2691	0.16	8.72E-01	1542	2.38	1.72E-02	2019	2.66	7.80E-03	6252
<i>ABCA1</i>	rs13290420	G	A	0.13	-1.97	4.27E-02	1600	-0.81	4.17E-01	2693	-2.62	8.88E-03	1544	-1.64	1.02E-01	2020	-2.76	5.74E-03	6257
<i>PCSK5</i>	rs2275406	A	G	0.12	-1.82	4.27E-02	1596	-1.84	6.63E-02	2693	-0.07	9.41E-01	1537	-0.38	7.03E-01	2020	-1.46	1.45E-01	6250
<i>SORCS1</i>	rs11193220	G	A	0.02	-2.02	4.27E-02	1600	-1.23	2.20E-01	2693	1.52	1.28E-01	1544	-1.53	1.26E-01	2020	-0.92	3.59E-01	6257
<i>PCSK5</i>	rs17719860	A	G	0.10	2.09	4.30E-02	1600	-0.22	8.29E-01	2693	0.84	4.01E-01	1544	0.17	8.66E-01	2019	0.37	7.10E-01	6256
<i>NFKB1</i>	rs980455	G	A	0.36	1.93	4.34E-02	1600	1.25	2.13E-01	2693	-0.33	7.41E-01	1538	1.91	5.62E-02	2019	1.74	8.21E-02	6250
<i>ABCA1</i>	rs4149297	G	A	0.11	-1.92	4.42E-02	1600	-0.65	5.17E-01	2693	-1.00	3.20E-01	1543	0.77	4.39E-01	2020	-0.48	6.32E-01	6256
<i>GPR109A/B/81</i>	rs579935	A	C	0.17	2.14	4.45E-02	1579	1.81	6.98E-02	2640	0.12	9.08E-01	1474	2.36	1.82E-02	1998	2.60	9.38E-03	6112
<i>ABCG1</i>	rs221948	A	G	0.10	-1.69	4.47E-02	1600	0.42	6.77E-01	2693	-0.35	7.27E-01	1544	-1.15	2.49E-01	2020	-0.56	5.79E-01	6257
<i>PPARD</i>	rs6906237	A	C	0.08	1.75	4.49E-02	1600	0.35	7.24E-01	2693	0.14	8.87E-01	1544	-0.45	6.56E-01	2020	0.05	9.61E-01	6257
<i>PPARA</i>	rs8138102	G	A	0.24	-2.05	4.49E-02	1599	1.42	1.57E-01	2692	1.87	6.21E-02	1544	-0.31	7.53E-01	2020	1.68	9.36E-02	6256
<i>LIPC</i>	rs12592017	G	A	0.24	1.85	4.49E-02	1600	-0.82	4.11E-01	2692	-0.84	4.01E-01	1543	1.16	2.48E-01	2020	0.30	7.64E-01	6255
<i>PPARA</i>	rs4253778	C	G	0.19	-1.91	4.51E-02	1600	1.64	1.02E-01	2693	1.24	2.15E-01	1544	0.39	6.95E-01	2019	1.91	5.60E-02	6256
<i>PCSK5</i>	rs10781328	A	G	0.12	-1.82	4.53E-02	1597	-2.02	4.34E-02	2687	0.29	7.71E-01	1532	-0.67	5.01E-01	2018	-1.56	1.18E-01	6237
<i>ABCB11</i>	rs2216504	A	G	0.04	2.04	4.67E-02	1600	0.55	5.82E-01	2693	0.07	9.44E-01	1544	0.91	3.61E-01	2020	0.92	3.60E-01	6257
<i>NFKB1</i>	rs4648051	G	A	0.28	1.95	4.71E-02	1599	1.09	2.78E-01	2690	0.03	9.73E-01	1539	1.98	4.75E-02	2018	1.86	6.35E-02	6247
<i>CETP</i>	rs1800776	A	C	0.08	-1.63	4.72E-02	1600	0.29	7.70E-01	2693	-2.10	3.57E-02	1544	-1.79	7.37E-02	2020	-1.87	6.18E-02	6257
<i>ABCA1</i>	rs3890182	A	G	0.13	-1.94	4.72E-02	1600	-0.89	3.75E-01	2692	-2.51	1.21E-02	1543	-1.72	8.56E-02	2020	-2.80	5.04E-03	6255
<i>SCARB1</i>	rs10846745	G	C	0.43	-1.90	4.73E-02	1600	0.76	4.45E-01	2693	1.37	1.70E-01	1541	-0.65	5.16E-01	2020	0.81	4.16E-01	6254

PON1/2/3/4	rs2158806	C	A	0.22	2.04	4.75E-02	1599	0.68	4.97E-01	2691	2.17	3.04E-02	1544	2.21	2.68E-02	2020	2.78	5.44E-03	6255
CETP	rs158480	G	A	0.12	1.74	4.75E-02	1505	-0.07	9.43E-01	2204	2.06	3.92E-02	1388	2.70	6.84E-03	1997	2.60	9.34E-03	5589
PON1/2/3/4	rs854565	A	G	0.28	1.98	4.78E-02	1600	0.00	9.98E-01	2693	0.75	4.52E-01	1543	0.76	4.50E-01	2019	0.80	4.23E-01	6255
CD36	rs3212013	A	G	0.04	-1.99	4.80E-02	1593	-0.49	6.24E-01	2666	-0.52	6.00E-01	1542	0.05	9.61E-01	2020	-0.55	5.80E-01	6228
PON1/2/3/4	rs7493	G	C	0.22	2.03	4.87E-02	1600	0.66	5.10E-01	2693	2.36	1.86E-02	1543	2.20	2.81E-02	2019	2.85	4.39E-03	6255
PON1/2/3/4	rs12026	C	G	0.22	2.03	4.87E-02	1600	0.71	4.81E-01	2692	2.24	2.52E-02	1542	2.21	2.68E-02	2020	2.83	4.62E-03	6254
ABCG5	rs1864814	A	G	0.04	1.98	4.89E-02	1600	1.44	1.51E-01	2693	1.62	1.05E-01	1544	-0.42	6.71E-01	2020	1.51	1.32E-01	6257
LIPC	rs261342	G	C	0.20	1.99	4.89E-02	1594	2.18	2.94E-02	2689	3.55	3.96E-04	1538	2.26	2.37E-02	2020	4.47	7.70E-06	6247
PON1/2/3/4	rs3757707	A	G	0.26	2.16	4.90E-02	1600	0.67	5.05E-01	2693	1.26	2.09E-01	1543	1.37	1.71E-01	2019	1.84	6.59E-02	6255
PPARA	rs11703495	A	T	0.12	-2.14	4.91E-02	1600	-0.79	4.30E-01	2693	0.31	7.55E-01	1544	-0.44	6.60E-01	2020	-0.61	5.40E-01	6257
APOA1/A4/A5/C3	rs619054	A	G	0.23	1.94	4.94E-02	1586	2.06	3.94E-02	2676	-0.13	8.96E-01	1523	0.60	5.51E-01	2018	1.63	1.04E-01	6217
PCSK5	rs6560494	C	G	0.38	1.68	4.96E-02	1600	1.38	1.69E-01	2691	-1.46	1.45E-01	1540	1.61	1.08E-01	2018	1.09	2.74E-01	6249

A, allele; MAF, Minor allele frequency from Penn-CC; T, T-statistic; P, P-value; Z, Z-statistic; N, Sample size

Supplemental Table 3. Meta-Analysis SNPs with Suggestive Evidence of Association

Penn-CC																			
Locus	SNP	A1	A2	MAF	T	P	N	T	P	N	T	P	N	Z	P	N	Z	P	N
<i>CETP</i>	rs17231506	A	G	0.30	7.57	3.82E-14	1600	6.25	4.68E-10	2691	6.84	1.12E-11	1536	7.83	5.00E-15	2020	14.04	8.85E-45	7847
<i>CETP</i>	rs3764261	A	C	0.32	7.47	7.82E-14	1600	6.15	8.94E-10	2693	6.93	6.36E-12	1542	7.83	4.77E-15	2019	13.98	2.15E-44	7854
<i>CETP</i>	rs1800775	A	C	0.50	7.70	1.40E-14	1600	5.63	2.04E-08	2693	5.82	7.14E-09	1536	6.57	4.95E-11	2020	12.66	1.06E-36	7849
<i>CETP</i>	rs1532624	A	C	0.41	7.35	2.03E-13	1600	4.13	3.68E-05	2693	6.17	8.81E-10	1543	7.01	2.43E-12	2020	12.00	3.50E-33	7856
<i>CETP</i>	rs1532625	A	G	0.41	7.36	1.89E-13	1549	4.14	3.65E-05	2605	5.90	4.38E-09	1506	7.14	9.45E-13	2017	11.97	5.24E-33	7677
<i>CETP</i>	rs711752	A	G	0.41	7.75	9.33E-15	1600	4.23	2.44E-05	2693	5.84	6.25E-09	1539	6.69	2.30E-11	2019	11.93	8.02E-33	7851
<i>CETP</i>	rs708272	A	G	0.41	7.75	9.33E-15	1600	4.23	2.44E-05	2693	5.84	6.28E-09	1540	6.67	2.52E-11	2020	11.93	8.73E-33	7853
<i>CETP</i>	rs1864163	A	G	0.25	-7.68	1.66E-14	1598	-4.68	3.05E-06	2692	-6.37	2.48E-10	1541	-5.68	1.32E-08	2020	-11.88	1.47E-32	7851
<i>CETP</i>	rs12720922	A	G	0.19	-7.52	5.63E-14	1600	-5.76	9.57E-09	2693	-5.36	9.56E-08	1540	-5.25	1.50E-07	2019	-11.78	4.98E-32	7852
<i>CETP</i>	rs7499892	A	G	0.19	-7.77	8.01E-15	1600	-5.73	1.10E-08	2693	-5.21	2.18E-07	1542	-5.17	2.36E-07	2018	-11.77	5.63E-32	7853
<i>CETP</i>	rs11508026	A	G	0.40	7.46	8.65E-14	1600	4.07	4.93E-05	2690	5.76	1.00E-08	1534	6.61	3.80E-11	2020	11.64	2.72E-31	7844
<i>CETP</i>	rs11076175	G	A	0.18	-7.81	5.55E-15	1597	-5.62	2.10E-08	2692	-5.05	5.07E-07	1538	-5.06	4.26E-07	2018	-11.60	4.26E-31	7845
<i>CETP</i>	rs7203984	C	A	0.22	-7.52	5.41E-14	1600	-5.48	4.74E-08	2693	-4.90	1.08E-06	1539	-4.73	2.25E-06	2019	-11.15	7.05E-29	7851
<i>CETP</i>	rs9939224	A	C	0.21	-7.40	1.37E-13	1600	-5.66	1.65E-08	2693	-4.94	8.66E-07	1541	-3.97	7.27E-05	2020	-10.84	2.31E-27	7854
<i>CETP</i>	rs11076176	C	A	0.19	-6.33	2.41E-10	1599	-4.68	2.98E-06	2692	-4.74	2.34E-06	1537	-5.08	3.79E-07	2019	-10.26	1.05E-24	7847
<i>CETP</i>	rs289714	G	A	0.21	-6.28	3.30E-10	1600	-4.71	2.57E-06	2693	-4.12	3.92E-05	1540	-4.72	2.35E-06	2019	-9.81	1.07E-22	7852
<i>CETP</i>	rs12708967	G	A	0.19	-3.42	6.38E-04	1600	-2.63	8.60E-03	2687	-4.42	1.07E-05	1544	-5.02	5.19E-07	2019	-7.58	3.54E-14	7850
<i>CETP</i>	rs12720918	G	A	0.28	-2.64	8.21E-03	1599	-3.56	3.74E-04	2693	-3.77	1.69E-04	1543	-4.68	2.86E-06	2020	-7.32	2.55E-13	7855
<i>CETP</i>	rs4783961	A	G	0.50	4.52	6.26E-06	1600	3.76	1.72E-04	2691	2.78	5.44E-03	1537	3.43	6.03E-04	2020	7.21	5.59E-13	7848
<i>LPL</i>	rs264	A	G	0.15	3.57	3.60E-04	1599	3.54	4.13E-04	2691	2.73	6.39E-03	1543	3.63	2.87E-04	2019	6.73	1.75E-11	7852
<i>LPL</i>	rs12679834	G	A	0.10	4.15	3.32E-05	1598	3.12	1.83E-03	2691	3.08	2.10E-03	1538	3.22	1.28E-03	2013	6.69	2.18E-11	7840
<i>LPL</i>	rs328	G	C	0.10	4.27	1.99E-05	1600	3.20	1.42E-03	2693	2.91	3.62E-03	1544	3.14	1.68E-03	2020	6.68	2.45E-11	7857

APOA1/A4/A5/C3	rs2075290	G	A	0.08	0.24	8.09E-01	1600	-1.11	2.66E-01	2693	-1.39	1.66E-01	1544	-1.60	1.09E-01	2019	-1.97	4.91E-02	7856
A, allele; MAF, Minor allele frequency from Penn-RC; T, T-statistic; P, P-value; Z, Z-statistic; N, Sample size																			

Supplemental Table 4. Nonsynonymous SNPs associated with HDL-C

Locus	SNP	A1	A2	MAF	Z	P	N	AA Change
<i>LPL</i>	rs328	G	C	0.10	-6.68	2.45E-11	7857	S474X
<i>CETP</i>	rs1800777	A	G	0.03	-6.55	5.84E-11	7852	R468Q
<i>CETP</i>	rs5880	C	G	0.04	-6.54	6.24E-11	7857	A390P
<i>CETP</i>	rs5882	G	A	0.34	-4.78	1.76E-06	7855	V422I
<i>LPL</i>	rs268	G	A	0.01	4.55	5.38E-06	7855	N318S
<i>LIPG</i>	rs77960347	G	A	0.01	-4.22	2.48E-05	7857	N396S
<i>APOA1/A4/A5/C3</i>	rs12287066	A	C	0.08	-4.02	5.87E-05	7850	APOA5 I44M
<i>APOB</i>	rs1801695	A	G	0.03	3.95	7.80E-05	7857	A4481T
<i>PON1/2/3/4</i>	rs7493	G	C	0.24	-3.46	5.42E-04	7855	PON2 S311C
<i>PON1/2/3/4</i>	rs12026	C	G	0.24	3.45	5.72E-04	7854	PON2 A148G
<i>APOB</i>	rs1801699	G	A	0.02	3.12	1.80E-03	7853	N1914S
<i>APOE/C1/C2</i>	rs5167	C	A	0.37	-3.10	1.94E-03	7855	APOC4 L96R
<i>APOB</i>	rs676210	A	G	0.21	3.09	1.97E-03	7856	P2739R
<i>PON1/2/3/4</i>	rs13226149	A	G	0.27	2.92	3.50E-03	7851	PON3 F21L
<i>APOB</i>	rs1042034	G	A	0.21	-2.91	3.65E-03	7854	S4338N
<i>LRP2</i>	rs34291900	A	G	0.03	-2.75	5.95E-03	7857	G669D
<i>ABCA1</i>	rs2230808	A	G	0.30	-2.69	7.17E-03	7856	K1587R
<i>ABCA1</i>	rs4149313	G	A	0.17	-2.55	1.07E-02	7856	I883M

APOA1/A4/A5/C3	rs675	T	A	0.19	-2.26	2.36E-02	7854	APOA4 T367S
A, allele; MAF, Minor allele frequency from Penn-RC; T, T-statistic; P, P-value; Z, Z-statistic; N, Sample size								

Supplemental Table 5. Replication of Prior Confirmed Loci

Gene	SNP	Proxy	R^2	Penn-CC		Penn-RC		MONICA/KORA		GRAPHIC		Meta-analysis			Reference
				P	N	P	N	P	N	P	N	P	N	D	
ABCA1	rs1883025			1.41E-02	1599	1.71E-01	2693	3.94E-01	1544	8.86E-03	2020	3.02E-04	7856	-	22, 24
ABCA1	rs3905000	rs3890182	1	5.27E-02	1600	3.75E-01	2692	1.21E-02	1543	8.56E-02	2020	7.33E-04	7855	-	34
ABCA1	rs3890182			5.27E-02	1600	3.75E-01	2692	1.21E-02	1543	8.56E-02	2020	7.33E-04	7855	-	21
ABCA1	rs4149268	rs4149269	1	1.01E-01	1600	1.72E-01	2662	7.09E-01	1544	1.56E-01	2020	1.54E-02	7826	+	9
ABCA1	rs11789603			8.60E-01	1600	6.48E-01	2693	2.29E-02	1544	3.47E-01	2020	6.69E-02	7857	+	24
ABCA1	rs2515614	rs2472509	1	9.60E-01	1600	1.79E-01	2693	3.72E-01	1539	9.82E-01	2020	2.51E-01	7852	+-	23
ANGPTL4	rs7255436	rs2278236	1	2.42E-01	1600	4.54E-01	2693	1.38E-01	1544	9.93E-01	2020	1.05E-01	7857	+	24
ANGPTL4	rs2967605	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22
APOA1-C3-A4-A5	rs618923	rs619054	0.955	5.27E-02	1586	3.94E-02	2676	8.96E-01	1523	5.51E-01	2018	2.01E-02	7803	+	23
APOA1-C3-A4-A5	rs12225230			1.54E-01	1599	1.69E-01	2692	5.41E-01	1544	8.06E-01	2020	1.11E-01	7855	+	24
APOA1-C3-A4-A5	rs964184	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22, 24
APOA1-C3-A4-A5	rs28927680	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
APOB	rs1042034			6.56E-03	1600	4.61E-01	2692	8.43E-02	1542	3.40E-01	2020	3.65E-03	7854	-	24
APOB	rs6754295	rs1042034	0.857	6.56E-03	1600	4.61E-01	2692	8.43E-02	1542	3.40E-01	2020	3.65E-03	7854	-	34
APOE-C1-C2	rs5167			2.45E-01	1600	7.34E-01	2692	3.30E-03	1543	NA	NA	1.94E-03	7855	-	24
APOE-C1-C2	rs769449	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23
APOE-C1-C2	rs4420638	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24
CETP	rs3764261			7.82E-14	1600	8.94E-10	2693	6.36E-12	1542	4.77E-15	2019	2.15E-44	7854	+	9, 24, 36, 37
CETP	rs173539	rs3764261	1	7.82E-14	1600	8.94E-10	2693	6.36E-12	1542	4.77E-15	2019	2.15E-44	7854	+	22
CETP	rs1800775			1.40E-14	1600	2.04E-08	2693	7.14E-09	1536	4.95E-11	2020	1.06E-36	7849	+	21, 24
CETP	rs1532624			2.03E-13	1600	3.68E-05	2693	8.81E-10	1543	2.43E-12	2020	3.50E-33	7856	+	34
CETP	rs1864163			1.66E-14	1598	3.05E-06	2692	2.48E-10	1541	1.32E-08	2020	1.47E-32	7851	-	9

<i>CETP</i>	rs9939224	rs7499892	1	8.01E-15	1600	1.10E-08	2693	2.18E-07	1542	2.36E-07	2018	5.62E-32	7853	-	24
<i>CETP</i>	rs9989419			NA	NA	4.45E-02	2070	NA	NA	NA	NA	4.45E-02	2070	-	9, 35
<i>CETP</i>	rs12596776	rs13306677	1	4.02E-01	1600	4.22E-01	2669	7.87E-01	1542	4.41E-01	2020	1.74E-01	7831	+	9
<i>CETP</i>	rs1566439	NA		NA	NA	NA	9								
<i>CTCF-PRMT8</i>	rs2271293	rs2292318	0.915	9.96E-01	1600	2.24E-01	2693	1.33E-02	1509	1.76E-02	2020	2.62E-03	7822	+	34
<i>FADS1-2-3</i>	rs174547	rs1535	1	1.34E-03	1600	5.41E-03	2693	4.18E-01	1537	3.49E-03	2020	8.78E-07	7850	+	22
<i>FADS1-2-3</i>	rs174601			8.12E-04	1599	3.44E-02	2689	4.26E-01	1543	7.34E-03	2020	8.11E-06	7851	-	24
<i>GALNT2</i>	rs2144300			3.90E-02	1600	2.02E-02	2692	6.64E-01	1542	2.37E-01	2020	2.05E-03	7854	+	9
<i>GALNT2</i>	rs4846914			3.90E-02	1600	2.23E-02	2691	7.19E-01	1541	2.35E-01	2019	2.44E-03	7851	+	21, 22, 24
<i>GRIN3A</i>	rs1323432			NA	NA	7.52E-01	2067	NA	NA	NA	NA	7.52E-01	2067	+	9
<i>HNF4A</i>	rs1800961			8.40E-02	1600	8.12E-01	2693	5.46E-01	1544	6.56E-02	2020	1.13E-01	7857	-	22, 24
<i>KLHL8</i>	rs442177	rs3775214	0.964	9.97E-01	1600	4.56E-01	2693	6.31E-01	1543	NA	NA	7.97E-01	5836	-/+	24
<i>LCAT</i>	rs2271293	rs2292318	0.915	9.96E-01	1600	2.24E-01	2693	1.33E-02	1509	1.76E-02	2020	2.62E-03	7822	+	22
<i>LCAT</i>	rs16942887	rs2292318	0.915	9.96E-01	1600	2.24E-01	2693	1.33E-02	1509	1.76E-02	2020	2.62E-03	7822	+	24
<i>LCAT</i>	rs255052			8.85E-01	1599	2.41E-01	2692	6.42E-02	1538	7.57E-03	2019	3.44E-03	7848	+	9
<i>LCAT</i>	rs255049	NA		NA	NA	NA	37								
<i>LILRA3</i>	rs386000	rs103294	0.832	6.41E-02	1600	3.89E-02	2693	2.89E-01	1544	NA	NA	3.54E-03	5837	+	24
<i>LIPC</i>	rs2070895			9.35E-03	1600	1.18E-01	2693	5.16E-04	1541	1.50E-02	2020	1.17E-06	7854	+	24
<i>LIPC</i>	rs1800588			1.11E-02	1600	1.85E-01	2692	5.64E-04	1541	8.70E-03	2019	1.75E-06	7852	+	21, 23
<i>LIPC</i>	rs261332			9.11E-03	1600	1.82E-01	2692	4.16E-04	1544	1.34E-02	2019	1.79E-06	7855	+	9
<i>LIPC</i>	rs4775041			NA	NA	3.18E-02	2071	NA	NA	NA	NA	3.18E-02	2071	-	9
<i>LIPC</i>	rs10468017	rs4775041	0.84	NA	NA	3.18E-02	2071	NA	NA	NA	NA	3.18E-02	2071	-	22
<i>LIPC</i>	rs1532085	NA		NA	NA	NA	24, 34, 36, 37								
<i>LIPG</i>	rs2156552			4.80E-05	1600	2.16E-02	2693	3.40E-01	1543	7.48E-04	2020	1.09E-07	7856	-	9, 21
<i>LIPG</i>	rs4939883	rs2156552	0.948	4.80E-05	1600	2.16E-02	2693	3.40E-01	1543	7.48E-04	2020	1.09E-07	7856	-	34
<i>LIPG</i>	rs7241918	rs2156552	0.948	4.80E-05	1600	2.16E-02	2693	3.40E-01	1543	7.48E-04	2020	1.09E-07	7856	-	24

ZNF644	rs4765127	NA		NA	24											
ABCA8	rs4148008	NA		NA	24											
AMPD3	rs2923084	NA		NA	24											
ARL15	rs6450176	NA		NA	24											
C6orf106	rs2814944	NA		NA	24											
CITED2	rs605066	NA		NA	24											
CMIP	rs2925979	NA		NA	24											
COBL1/GRB14	rs12328675	NA		NA	24											
COBL1/GRB14	rs10490694	NA		NA	23											
EVI5	rs531514	NA		NA	24											
IRS1	rs2972146	NA		NA	24											
KLF14	rs4731702	NA		NA	24											
LACTB	rs2652834	NA		NA	24											
LOC55908	rs737337	NA		NA	24											
LRP1	rs3741414	NA		NA	24											
MADD-FOLH1	rs7395662	NA		NA	34											
MC4R	rs12967135	NA		NA	24											
PABPC4	rs4660293	NA		NA	24											
PDE3A	rs7134375	NA		NA	24											
PPP1R3B	rs9987289	NA		NA	24											
SBNO1	rs4759375	NA		NA	24											
SLC39A8	rs13107325	NA		NA	24											
TRPS1	rs2293889	NA		NA	24											
TTC39B	rs471364	NA		NA	22											
TTC39B	rs643531	NA		NA	24											
UBASH3B	rs7115089	NA		NA	24											
UBE2L3	rs181362	NA		NA	24											

ZNF648	rs1689800	NA		NA	24									
R^2 , correlation coefficient; P, P-value; N, Sample size; D, Direction of effect														

Supplemental Figure Legends

Supplemental Figure 1. Inference of genetic race using multi-dimensional scaling approach. Analysis is conducted on 5051 samples genotyped using the IBC array.

Supplemental Figure 1.

