

NAFLD risk alleles in *PNPLA3*, *TM6SF2*, *GCKR*, and *LYPLAL1* show divergent metabolic effects

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Supplement

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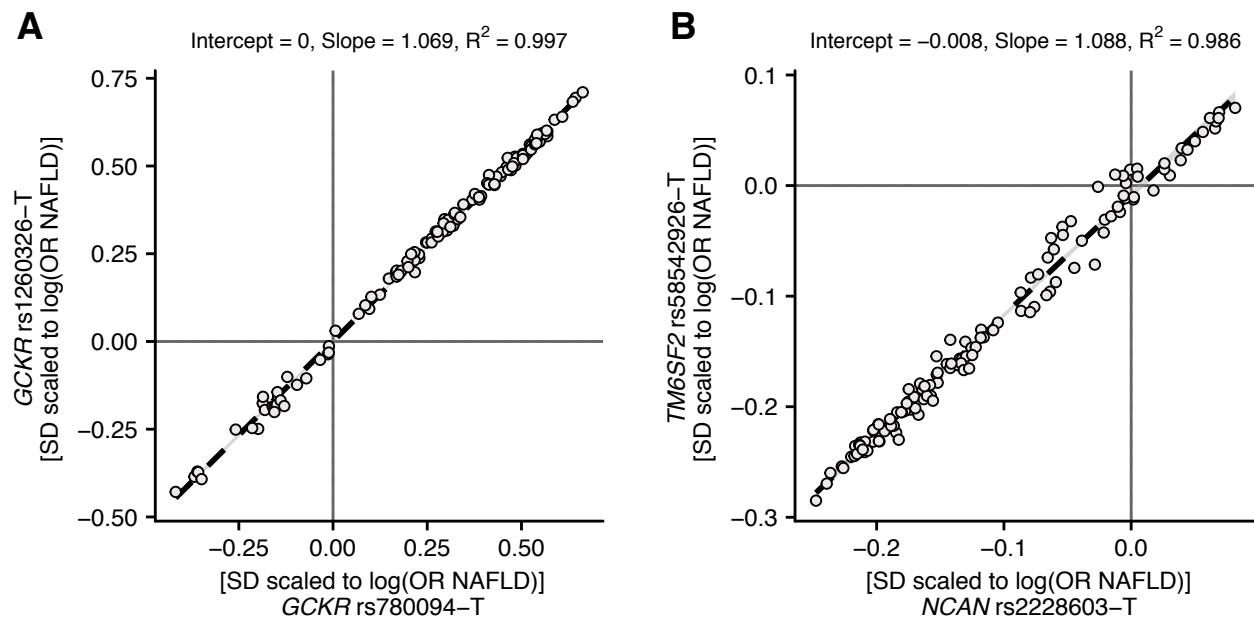


Fig S1. Correspondence of the metabolic effects of *GCKR* rs1260326-T with *GCKR* rs780094-T, and *TM6SF2* rs58542926-T with *NCAN* rs2228603-T. The dashed line shows the highly matching effects between the genotypes at the two loci associated with NAFLD risk.

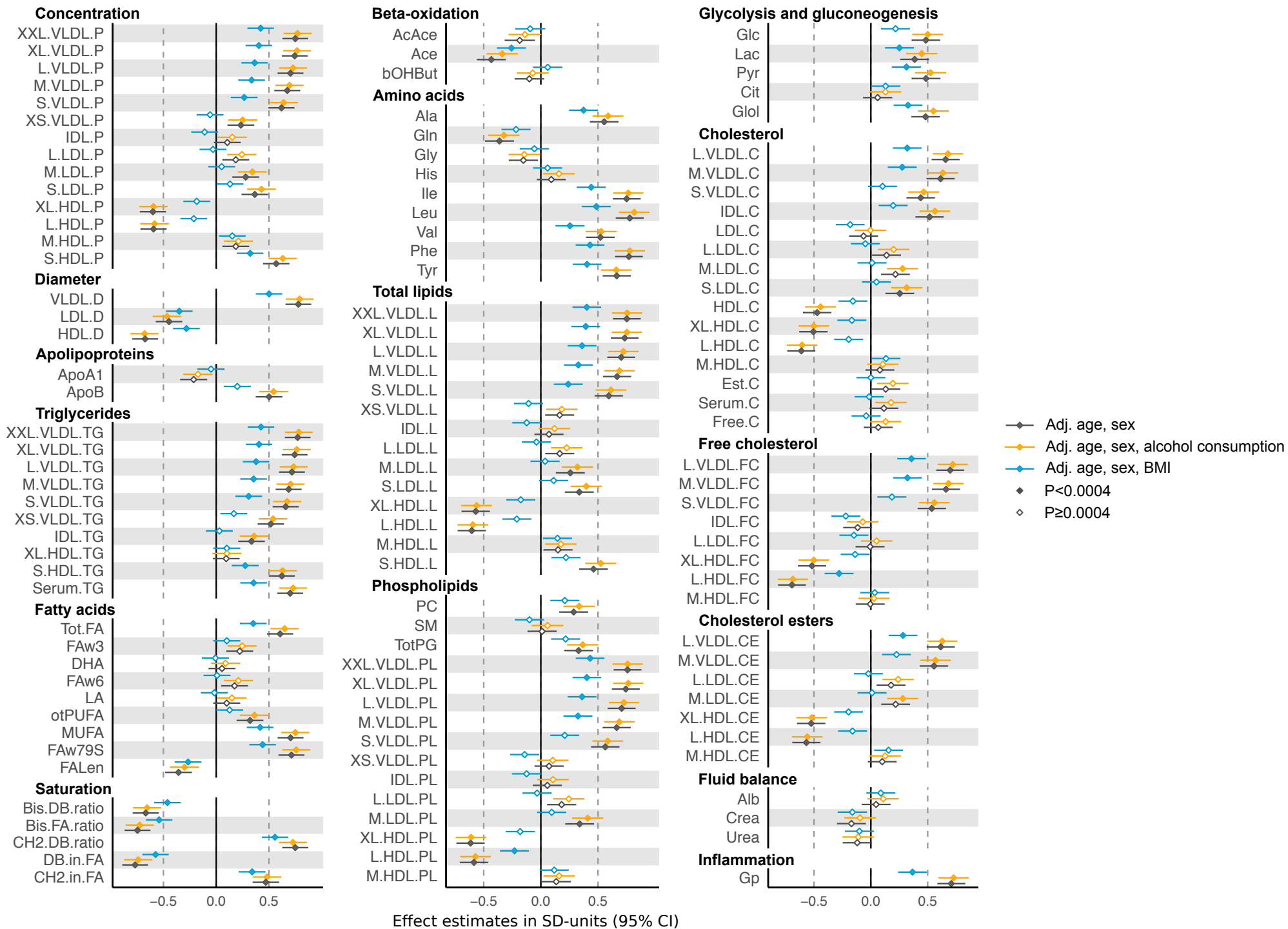


Fig S2. Comparison of cross-sectional associations between fatty liver and 123 metabolic traits adjusted with sex and age, versus additional adjustment for alcohol consumption or BMI.

All metabolic traits were also adjusted for ten first genetic principal components. Biomarker abbreviations as in Table S1.

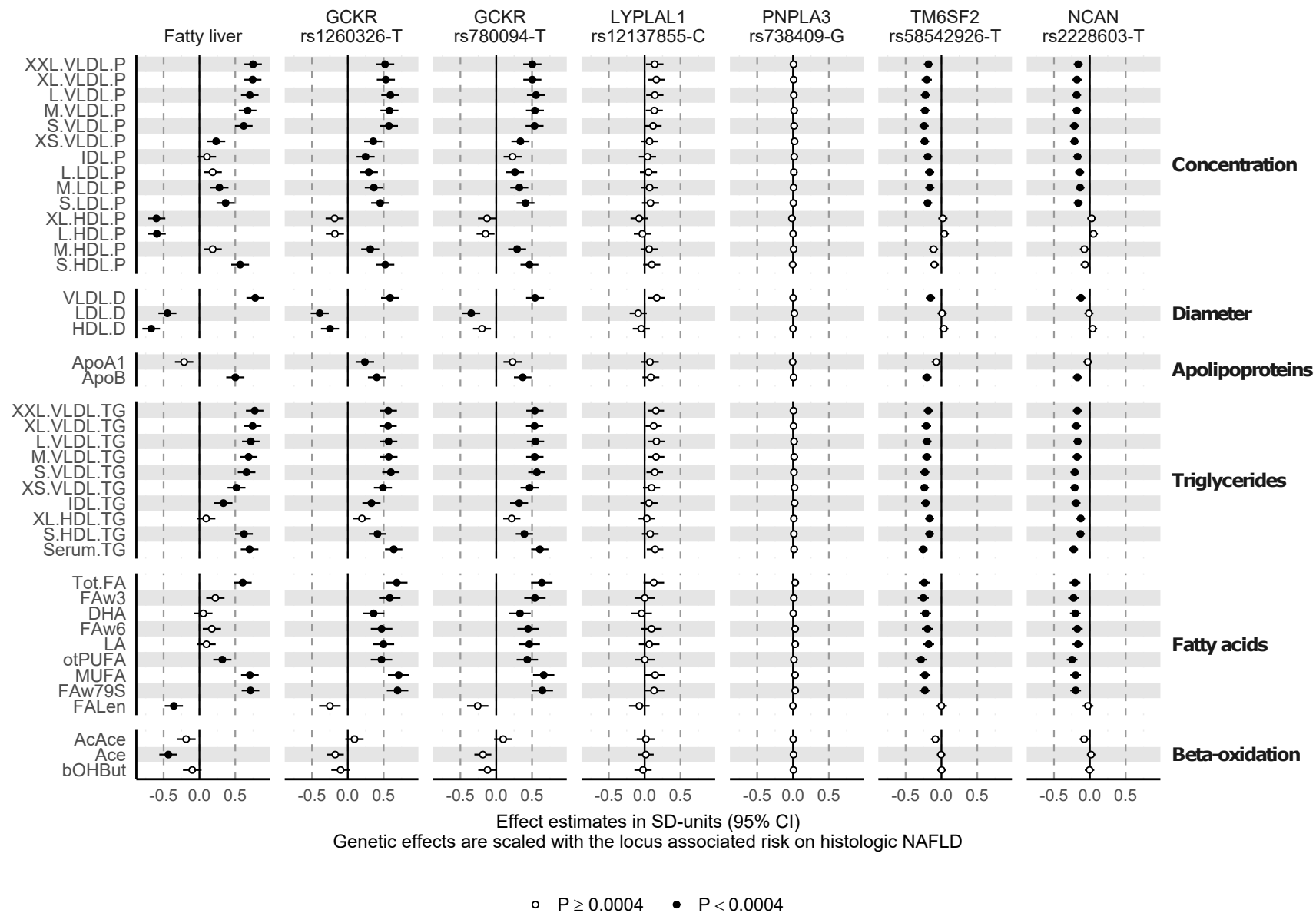


Fig S3 A) Cross-sectional associations of fatty liver with lipoprotein subfraction particle concentrations, lipoprotein particle diameter, apolipoproteins, triglycerides, fatty acids, and beta-oxidation related measures, and the corresponding associations of the studied NAFLD risk alleles.

The metabolic traits were adjusted for age, sex, and ten first genetic principal components prior to analysis. Effect estimates of *GCKR* rs1260326-T, *GCKR* rs780094-T, *LYPLAL1* rs12137855-C, *PNPLA3* rs738409-G, and *NCAN* rs2228603-T on metabolic traits were acquired from a publicly available metabolomics GWAS (19). Biomarker abbreviations as in Table S1.

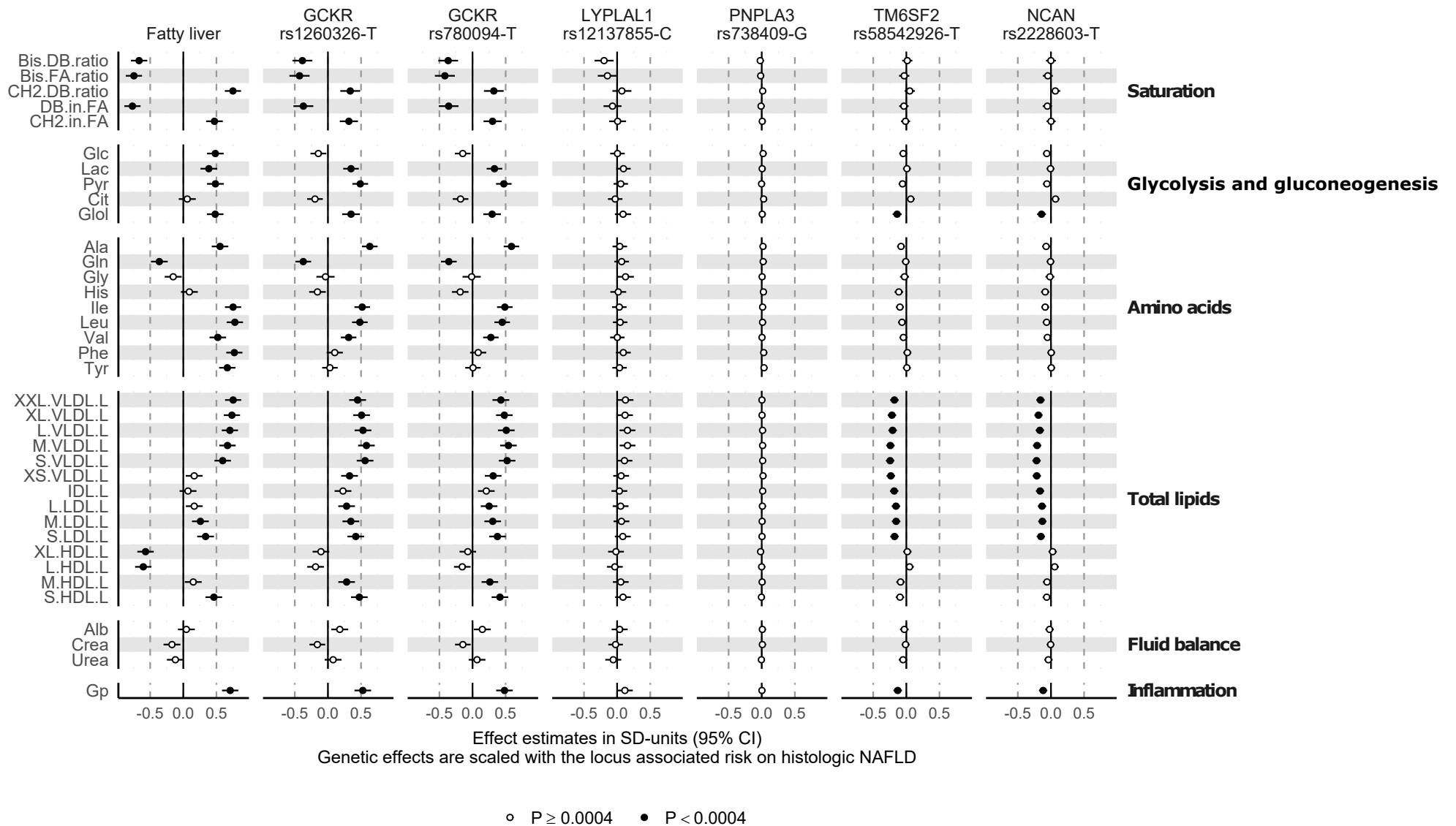


Fig S3 B) Cross-sectional associations of fatty liver with fatty acid saturation, glycolysis and gluconeogenesis related metabolites, amino acids, total lipids in lipoprotein subfractions, fluid balance and inflammation related measures, and the corresponding associations of the studied NAFLD risk alleles.

The metabolic traits were adjusted for age, sex, and ten first genetic principal components prior to analysis. Effect estimates of *GCKR* rs1260326-T, *GCKR* rs780094-T, *LYPLAL1* rs12137855-C, *PNPLA3* rs738409-G, and *NCAN* rs2228603-T on metabolic traits were acquired from a publicly available metabolomics GWAS (19). Biomarker abbreviations as in Table S1.

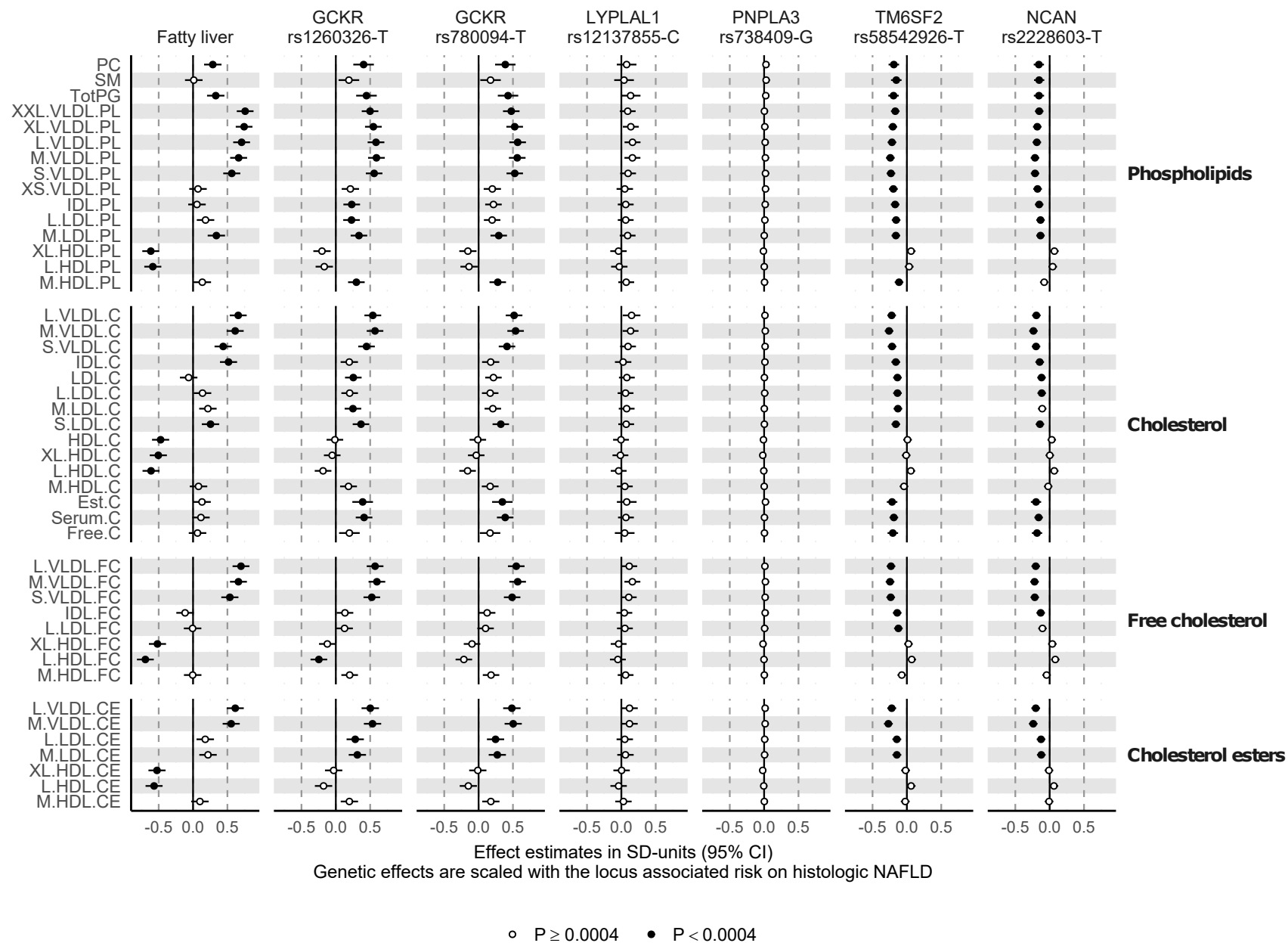


Fig S3 C) Cross-sectional associations of fatty liver with phospholipids, cholesterol, free cholesterol, and cholesterol esters related measures, and the corresponding associations of the studied NAFLD risk alleles.

The metabolic traits were adjusted for age, sex, and ten first genetic principal components prior to analysis. Effect estimates of *GCKR* rs1260326-T, *GCKR* rs780094-T, *LYPLAL1* rs12137855-C, *PNPLA3* rs738409-G, and *NCAN* rs2228603-T on metabolic traits were acquired from a publicly available metabolomics GWAS (19). Biomarker abbreviations as in Table S1.

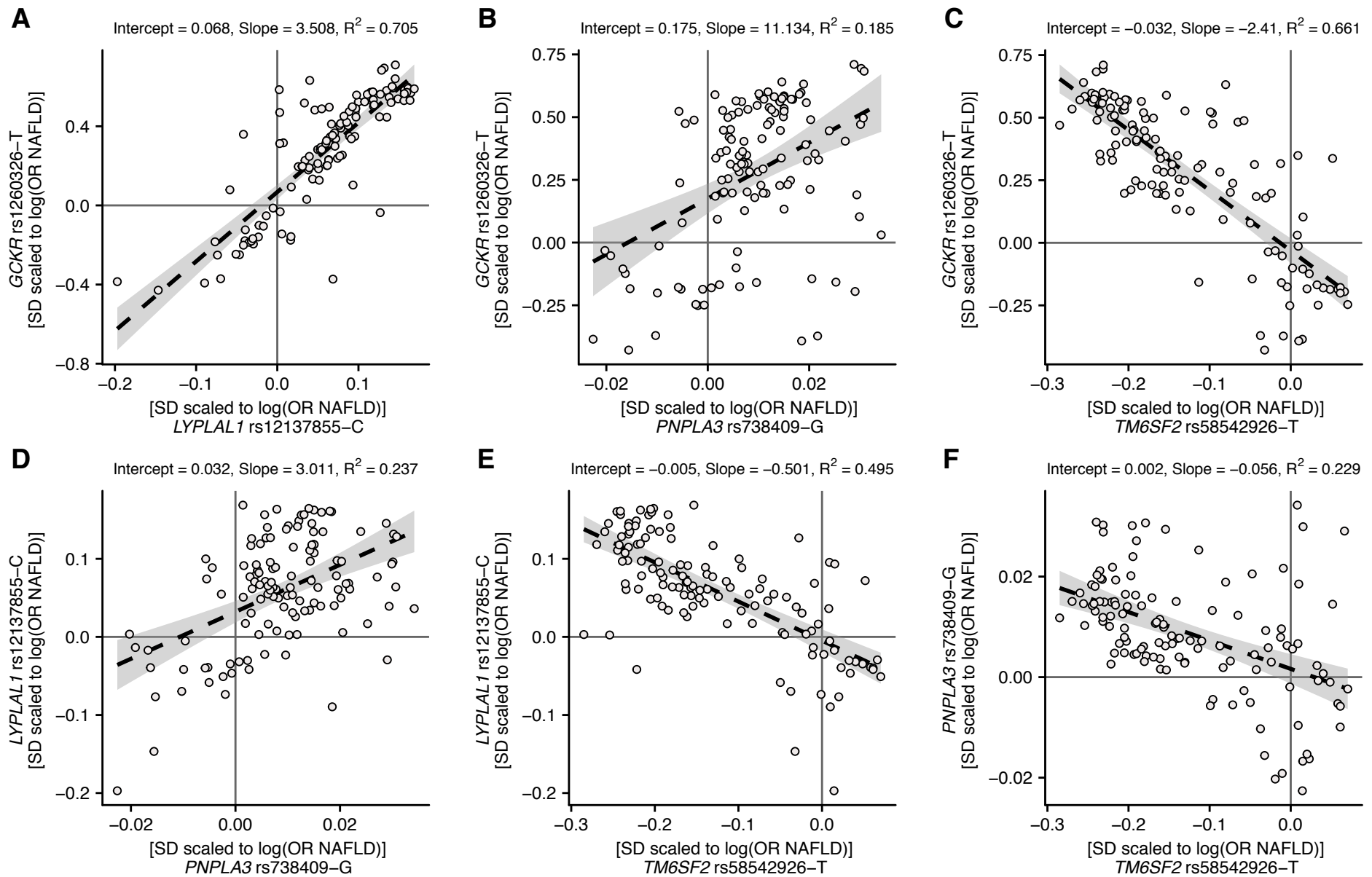


Fig S4. The overall match between the metabolic effects of the NAFLD risk alleles *GCKR* rs1260326-T, *LYPLAL1* rs12137855-C, *PNPLA3* rs738409-G, and *TM6SF2* rs58542926-T.

The dashed line shows the linear fit between the studied risk alleles, and the grey area indicates the 95% confidence interval for the line.

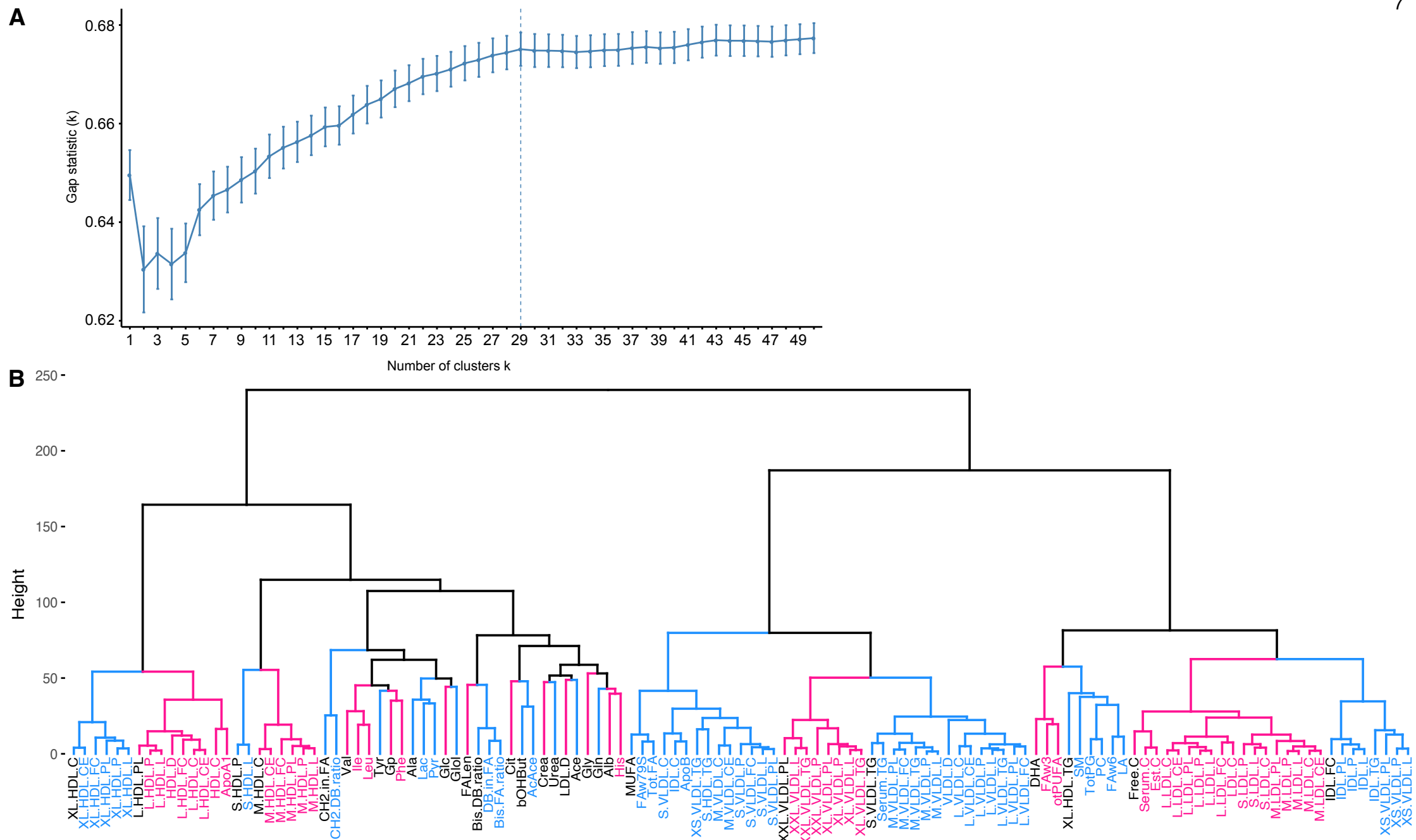


Fig S5. Cluster analysis of the 123 metabolic traits.

A) The YFS metabolomics data was analysed with factextra package in R using hcut (hierarchical clustering) and gap_stat (gap statistics) for partitioning and estimating the optimal number of clusters. B) The cluster dendrogram was illustrated using $k=29$ as number of clusters; one metabolic measure from each cluster was selected for the sensitivity analyses (indicated with black font). Biomarker abbreviations as in Table S1.

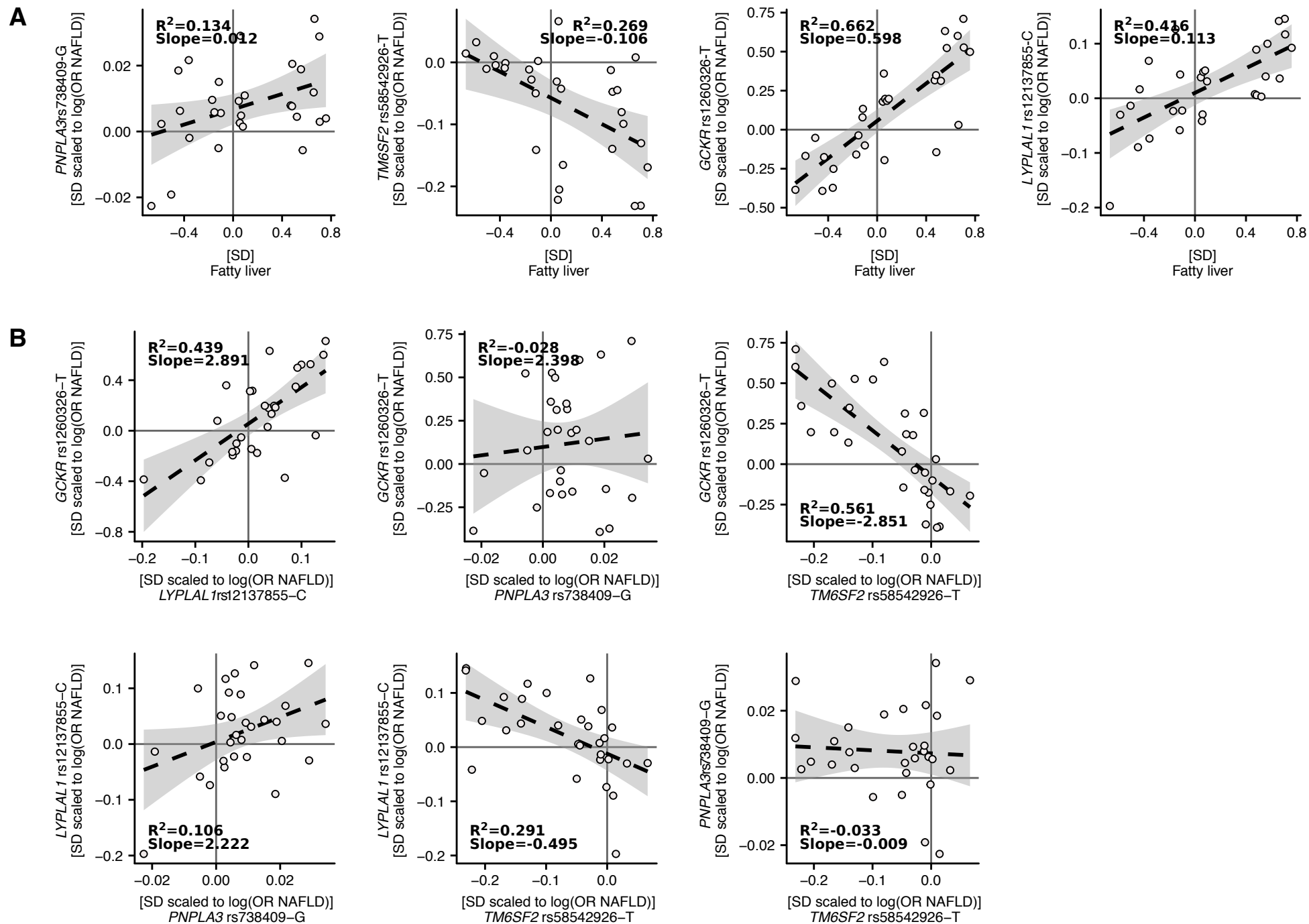


Fig S6. Correlations of the metabolic effects using the 29 metabolic measures obtained in cluster analysis.

A) Fatty liver vs. genetic effects. B) Pairwise comparisons of the genetic effects.

Table S1. NMR based metabolic traits.

Abbreviation	Biomarker
AcAce	Acetoacetate
Ace	Acetate
Ala	Alanine
Alb	Albumin
ApoA1	ApoA1
ApoB	ApoB
Bis.DB.ratio	Ratio of bis-allylic bonds to double bonds in lipids
Bis.FA.ratio	Ratio of bis-allylic bonds to total fatty acids in lipids
bOHBut	3-hydroxybutyrate
CH2.DB.ratio	CH2 groups to double bonds ratio
CH2.in.FA	CH2 groups in fatty acids
Cit	Citrate
Crea	Creatinine
DB.in.FA	Double bonds in fatty acids
DHA	22:6, docosaehaenoic acid (DHA)
Est.C	Esterified cholesterol
FALen	Fatty acid length
FAw3	Omega-3 fatty acids
FAw6	Omega-6 fatty acids
FAw79S	Omega-7 and -9 and saturated fatty acids
Free.C	Free cholesterol
Glc	Glucose
Gln	Glutamine
Glol	Glycerol
Gly	Glycine
Gp	Glycoprotein acetyls, mainly a1-acid glycoprotein
HDL.C	Total cholesterol in HDL
HDL.D	HDL diameter
His	Histidine
IDL.C	Total cholesterol in IDL
IDL.FC	Free cholesterol in IDL

IDL.L	Total lipids in IDL
IDL.P	Concentration of IDL particles
IDL.PL	Phospholipids in IDL
IDL.TG	Triglycerides in IDL
Ile	Isoleucine
L.HDL.C	Total cholesterol in large HDL
L.HDL.CE	Cholesterol esters in large HDL
L.HDL.FC	Free cholesterol in large HDL
L.HDL.L	Total lipids in large HDL
L.HDL.P	Concentration of large HDL particles
L.HDL.PL	Phospholipids in large HDL
L.LDL.C	Total cholesterol in large LDL
L.LDL.CE	Cholesterol esters in large LDL
L.LDL.FC	Free cholesterol in large LDL
L.LDL.L	Total lipids in large LDL
L.LDL.P	Concentration of large LDL particles
L.LDL.PL	Phospholipids in large LDL
L.VLDL.C	Total cholesterol in large VLDL
L.VLDL.CE	Cholesterol esters in large VLDL
L.VLDL.FC	Free cholesterol in large VLDL
L.VLDL.L	Total lipids in large VLDL
L.VLDL.P	Concentration of large VLDL particles
L.VLDL.PL	Phospholipids in large VLDL
L.VLDL.TG	Triglycerides in large VLDL
LA	18:2, linoleic acid (LA)
Lac	Lactate
LDL.C	Total cholesterol in LDL
LDL.D	LDL diameter
Leu	Leucine
M.HDL.C	Total cholesterol in medium HDL
M.HDL.CE	Cholesterol esters in medium HDL
M.HDL.FC	Free cholesterol in medium HDL
M.HDL.L	Total lipids in medium HDL

M.HDL.P	Concentration of medium HDL particles
M.HDL.PL	Phospholipids in medium HDL
M.LDL.C	Total cholesterol in medium LDL
M.LDL.CE	Cholesterol esters in medium LDL
M.LDL.L	Total lipids in medium LDL
M.LDL.P	Concentration of medium LDL particles
M.LDL.PL	Phospholipids in medium LDL
M.VLDL.C	Total cholesterol in medium VLDL
M.VLDL.CE	Cholesterol esters in medium VLDL
M.VLDL.FC	Free cholesterol in medium VLDL
M.VLDL.L	Total lipids in medium VLDL
M.VLDL.P	Concentration of medium VLDL particles
M.VLDL.PL	Phospholipids in medium VLDL
M.VLDL.TG	Triglycerides in medium VLDL
MUFA	Mono-unsaturated fatty acids
otPUFA	Other polyunsaturated fatty acids than 18:2
PC	Phosphatidylcholine and other cholines
Phe	Phenylalanine
Pyr	Pyruvate
S.HDL.L	Total lipids in small HDL
S.HDL.P	Concentration of small HDL particles
S.HDL.TG	Triglycerides in small HDL
S.LDL.C	Total cholesterol in small LDL
S.LDL.L	Total lipids in small LDL
S.LDL.P	Concentration of small LDL particles
S.VLDL.C	Total cholesterol in small VLDL
S.VLDL.FC	Free cholesterol in small VLDL
S.VLDL.L	Total lipids in small VLDL
S.VLDL.P	Concentration of small VLDL particles
S.VLDL.PL	Phospholipids in small VLDL
S.VLDL.TG	Triglycerides in small VLDL
Serum.C	Serum total cholesterol
Serum.TG	Serum total triglycerides

SM	Sphingomyelins
Tot.FA	Total fatty acids
TotPG	Total phosphoglycerides
Tyr	Tyrosine
Urea	Urea
Val	Valine
VLDL.D	VLDL diameter
XL.HDL.C	Total cholesterol in very large HDL
XL.HDL.CE	Cholesterol esters in very large HDL
XL.HDL.FC	Free cholesterol in very large HDL
XL.HDL.L	Total lipids in very large HDL
XL.HDL.P	Concentration of very large HDL particles
XL.HDL.PL	Phospholipids in very large HDL
XL.HDL.TG	Triglycerides in very large HDL
XL.VLDL.L	Total lipids in very large VLDL
XL.VLDL.P	Concentration of very large VLDL particles
XL.VLDL.PL	Phospholipids in very large VLDL
XL.VLDL.TG	Triglycerides in very large VLDL
XS.VLDL.L	Total lipids in very small VLDL
XS.VLDL.P	Concentration of very small VLDL particles
XS.VLDL.PL	Phospholipids in very small VLDL
XS.VLDL.TG	Triglycerides in very small VLDL
XXL.VLDL.L	Total lipids in chylomicrons and extremely large VLDL
XXL.VLDL.P	Concentration of chylomicrons and extremely large VLDL particles
XXL.VLDL.PL	Phospholipids in chylomicrons and extremely large VLDL
XXL.VLDL.TG	Triglycerides in chylomicrons and extremely large VLDL

Table S2. Fatty liver associations with circulating metabolic traits.

Biomarker abbreviations as in Supplementary Table 1.

	BIOMARKER	Study population means (SD) in absolute concentration units			Fatty liver associations with circulating metabolic traits in SD units			
		MEAN	SD	N	BETA	CI95L	CI95U	P-VALUE
Concentration	XXL.VLDL.P	0.09 (pmol/L)	0.16	1810	0.749011	0.627007	0.871014	5.84E-32
	XL.VLDL.P	0.51 (pmol/L)	0.95	1810	0.743286	0.621407	0.865165	1.41E-31
	L.VLDL.P	4.29 (pmol/L)	5.34	1810	0.703211	0.580620	0.825802	2.93E-28
	M.VLDL.P	16.56 (pmol/L)	13.04	1810	0.672874	0.549803	0.795946	6.60E-26
	S.VLDL.P	29.16 (pmol/L)	13.98	1810	0.618151	0.494420	0.741881	5.14E-22
	XS.VLDL.P	36.97 (pmol/L)	10.74	1810	0.233459	0.106508	0.360410	0.000323
	IDL.P	100.45 (pmol/L)	24.69	1810	0.105137	-0.022281	0.232556	0.106023
	L.LDL.P	171.72 (pmol/L)	42.18	1810	0.185466	0.058379	0.312552	0.004288
	M.LDL.P	140.94 (pmol/L)	36.73	1810	0.279193	0.152542	0.405844	1.65E-05
	S.LDL.P	157.45 (pmol/L)	41.24	1810	0.365433	0.239277	0.491589	1.63E-08
	XL.HDL.P	0.31 (μmol/L)	0.20	1810	-0.599662	-0.723404	-0.475920	7.67E-21
	L.HDL.P	1.07 (μmol/L)	0.49	1810	-0.593656	-0.717442	-0.469871	1.87E-20
	M.HDL.P	1.96 (μmol/L)	0.35	1810	0.185257	0.058422	0.312092	0.004255
S.HDL.P	4.66 (μmol/L)	0.45	1810	0.568431	0.444020	0.692841	9.38E-19	
Diameter	VLDL.D	36.40 (nm)	1.56	1810	0.778261	0.656622	0.899900	1.91E-34
	LDL.D	23.56 (nm)	0.18	1810	-0.446957	-0.572524	-0.321390	4.45E-12
	HDL.D	9.89 (nm)	0.27	1810	-0.673192	-0.796004	-0.550380	4.99E-26
Apolipoproteins	ApoA1	1.69 (g/L)	0.23	1789	-0.213676	-0.341836	-0.085517	0.001107
	ApoB	0.97 (g/L)	0.25	1789	0.500798	0.374528	0.627069	1.38E-14
Triglycerides	XXL.VLDL.TG	0.01 (mmol/L)	0.03	1810	0.771234	0.649573	0.892895	7.14E-34
	XL.VLDL.TG	0.03 (mmol/L)	0.06	1810	0.742703	0.620739	0.864668	1.72E-31
	L.VLDL.TG	0.16 (mmol/L)	0.20	1810	0.717226	0.594807	0.839645	2.31E-29
	M.VLDL.TG	0.31 (mmol/L)	0.26	1810	0.686123	0.563239	0.809008	6.54E-27
	S.VLDL.TG	0.25 (mmol/L)	0.14	1810	0.657862	0.534602	0.781123	8.40E-25
	XS.VLDL.TG	0.12 (mmol/L)	0.04	1810	0.517235	0.392384	0.642087	9.35E-16
	IDL.TG	0.14 (mmol/L)	0.04	1810	0.334305	0.207929	0.460682	2.44E-07
	XL.HDL.TG	0.01 (mmol/L)	0.01	1810	0.094836	-0.032420	0.222092	0.144309

	S.HDL.TG	0.05 (mmol/L)	0.02	1810	0.621684	0.498097	0.745271	2.74E-22
	Serum.TG	1.36 (mmol/L)	0.75	1810	0.700204	0.577507	0.822901	5.37E-28
Fatty acids	Tot.FA	11.18 (mmol/L)	2.76	1802	0.604845	0.480584	0.729105	5.25E-21
	FAw3	0.42 (mmol/L)	0.14	1803	0.222602	0.095214	0.349989	0.000631
	DHA	0.17 (mmol/L)	0.07	1803	0.054659	-0.073182	0.182501	0.402154
	FAw6	3.72 (mmol/L)	0.70	1802	0.173684	0.046311	0.301058	0.007604
	LA	3.13 (mmol/L)	0.60	1802	0.099572	-0.027722	0.226866	0.125442
	otPUFA	2.14 (mmol/L)	0.55	1803	0.320201	0.193357	0.447045	8.32E-07
	MUFA	3.24 (mmol/L)	1.15	1800	0.704287	0.581285	0.827288	3.67E-28
	FAw79S	7.04 (mmol/L)	2.14	1802	0.712518	0.589610	0.835427	8.41E-29
	FALen	18.04 (mmol/L)	0.25	1801	-0.356949	-0.483600	-0.230299	3.88E-08
Saturation	Bis.DB.ratio	0.54	0.03	1801	-0.667642	-0.791163	-0.544122	2.26E-25
	Bis.FA.ratio	0.67	0.08	1801	-0.745475	-0.867996	-0.622954	1.93E-31
	CH2.DB.ratio	7.77	0.69	1802	0.748779	0.626248	0.871309	1.09E-31
	DB.in.FA	1.26	0.09	1802	-0.768138	-0.890383	-0.645894	2.48E-33
	CH2.in.FA	9.69	0.26	1802	0.469914	0.344166	0.595662	3.83E-13
Beta-oxidation	AcAce	0.06 (mmol/L)	0.04	1760	-0.185173	-0.317071	-0.053275	0.006000
	Ace	0.05 (mmol/L)	0.01	1808	-0.433652	-0.559715	-0.307588	2.19E-11
	bOHBut	0.10 (mmol/L)	0.12	1757	-0.100417	-0.229835	0.029001	0.128523
Glycolysis	Glc	4.72 (mmol/L)	0.76	1808	0.483413	0.357966	0.608860	7.20E-14
	Lac	1.45 (mmol/L)	0.38	1806	0.385629	0.259048	0.512210	2.91E-09
	Pyr	0.08 (mmol/L)	0.02	1791	0.484841	0.357564	0.612118	1.37E-13
	Cit	0.10 (mmol/L)	0.02	1796	0.059659	-0.068867	0.188184	0.363076
	Glol	0.10 (mmol/L)	0.04	1807	0.481203	0.355794	0.606612	9.14E-14
Amino acids	Ala	0.40 (mmol/L)	0.06	1808	0.554320	0.429348	0.679292	8.70E-18
	Gln	0.60 (mmol/L)	0.07	1808	-0.362142	-0.488913	-0.235370	2.54E-08
	Gly	0.29 (mmol/L)	0.06	1805	-0.152831	-0.280616	-0.025046	0.019195
	His	0.06 (mmol/L)	0.01	1808	0.091398	-0.035962	0.218758	0.159755
	Ile	0.05 (mmol/L)	0.02	1804	0.751168	0.628736	0.873601	6.39E-32
	Leu	0.08 (mmol/L)	0.02	1801	0.778430	0.655593	0.901268	7.61E-34
	Val	0.21 (mmol/L)	0.04	1808	0.520755	0.395513	0.645997	7.40E-16
	Phe	0.08 (mmol/L)	0.01	1808	0.770320	0.648318	0.892323	1.26E-33
	Tyr	0.05 (mmol/L)	0.01	1808	0.664306	0.540812	0.787801	3.72E-25

Total lipids	XXL.VLDL.L	0.02 (mmol/L)	0.04	1810	0.752161	0.630252	0.874070	3.00E-32
	XL.VLDL.L	0.05 (mmol/L)	0.09	1810	0.733823	0.611801	0.855844	8.71E-31
	L.VLDL.L	0.25 (mmol/L)	0.33	1810	0.703280	0.580682	0.825877	2.92E-28
	M.VLDL.L	0.59 (mmol/L)	0.45	1810	0.667171	0.544024	0.790318	1.75E-25
	S.VLDL.L	0.63 (mmol/L)	0.29	1810	0.594537	0.470548	0.718526	1.89E-20
	XS.VLDL.L	0.52 (mmol/L)	0.15	1810	0.164410	0.037181	0.291639	0.011413
	IDL.L	1.24 (mmol/L)	0.30	1810	0.071160	-0.056298	0.198617	0.274003
	L.LDL.L	1.55 (mmol/L)	0.39	1810	0.165097	0.037966	0.292228	0.011012
	M.LDL.L	0.92 (mmol/L)	0.25	1810	0.258032	0.131310	0.384754	6.88E-05
	S.LDL.L	0.57 (mmol/L)	0.16	1810	0.336374	0.210047	0.462701	2.04E-07
	XL.HDL.L	0.36 (mmol/L)	0.24	1810	-0.569869	-0.693956	-0.445782	6.30E-19
	L.HDL.L	0.81 (mmol/L)	0.40	1810	-0.604677	-0.728329	-0.481025	3.49E-21
	M.HDL.L	1.05 (mmol/L)	0.19	1810	0.150296	0.023359	0.277234	0.020432
	S.HDL.L	1.27 (mmol/L)	0.14	1810	0.461090	0.335528	0.586651	9.47E-13
Phospholipids	PC	2.00 (mmol/L)	0.39	1803	0.287382	0.160523	0.414242	9.62E-06
	SM	0.26 (mmol/L)	0.05	1803	0.010710	-0.117213	0.138634	0.869673
	TotPG	0.85 (mmol/L)	0.19	1803	0.330287	0.203705	0.456870	3.54E-07
	XXL.VLDL.PL	0.002 (mmol/L)	0.004	1810	0.758473	0.636586	0.880360	9.42E-33
	XL.VLDL.PL	0.01 (mmol/L)	0.02	1810	0.743177	0.621291	0.865064	1.45E-31
	L.VLDL.PL	0.05 (mmol/L)	0.06	1810	0.706902	0.584324	0.829479	1.56E-28
	M.VLDL.PL	0.12 (mmol/L)	0.08	1810	0.663591	0.540387	0.786796	3.25E-25
	S.VLDL.PL	0.14 (mmol/L)	0.06	1810	0.563732	0.439391	0.688072	1.70E-18
	XS.VLDL.PL	0.17 (mmol/L)	0.05	1810	0.071896	-0.055553	0.199345	0.269039
	IDL.PL	0.34 (mmol/L)	0.08	1810	0.056877	-0.070614	0.184368	0.382033
	L.LDL.PL	0.38 (mmol/L)	0.08	1810	0.181640	0.054529	0.308751	0.005160
	M.LDL.PL	0.23 (mmol/L)	0.05	1810	0.339378	0.213075	0.465681	1.58E-07
	XL.HDL.PL	0.19 (mmol/L)	0.13	1810	-0.615090	-0.738650	-0.491530	7.12E-22
	L.HDL.PL	0.41 (mmol/L)	0.17	1810	-0.585698	-0.709614	-0.461783	6.28E-20
M.HDL.PL	0.48 (mmol/L)	0.08	1810	0.134743	0.007717	0.261770	0.037774	
Cholesterol	L.VLDL.C	0.05 (mmol/L)	0.07	1810	0.657546	0.534380	0.780711	8.15E-25
	M.VLDL.C	0.16 (mmol/L)	0.11	1810	0.613290	0.489521	0.737059	1.08E-21
	S.VLDL.C	0.24 (mmol/L)	0.09	1810	0.438444	0.313010	0.563878	1.05E-11
	IDL.C	0.24 (mmol/L)	0.11	1810	0.516311	0.391650	0.640971	9.51E-16

	LDL.C	3.09 (mmol/L)	0.72	1810	-0.064136	-0.191474	0.063202	0.323701
	L.LDL.C	1.05 (mmol/L)	0.28	1810	0.137780	0.010606	0.264955	0.033872
	M.LDL.C	0.62 (mmol/L)	0.19	1810	0.216161	0.089289	0.343034	0.000859
	S.LDL.C	0.37 (mmol/L)	0.11	1810	0.254471	0.127732	0.381211	8.67E-05
	HDL.C	1.59 (mmol/L)	0.37	1810	-0.472205	-0.597230	-0.347181	2.17E-13
	XL.HDL.C	0.15 (mmol/L)	0.11	1810	-0.505390	-0.630158	-0.380623	3.85E-15
	L.HDL.C	0.36 (mmol/L)	0.21	1810	-0.611545	-0.735071	-0.488019	1.17E-21
	M.HDL.C	0.52 (mmol/L)	0.11	1810	0.079695	-0.047351	0.206740	0.219072
	Est.C	3.66 (mmol/L)	0.71	1803	0.130657	0.003264	0.258049	0.044580
	Serum.C	5.07 (mmol/L)	0.97	1810	0.114793	-0.012432	0.242018	0.077177
	Free.C	1.41 (mmol/L)	0.28	1803	0.065175	-0.062361	0.192711	0.316680
Free cholesterol	L.VLDL.FC	0.03 (mmol/L)	0.04	1810	0.697583	0.574923	0.820244	8.02E-28
	M.VLDL.FC	0.07 (mmol/L)	0.05	1810	0.660673	0.537449	0.783896	5.23E-25
	S.VLDL.FC	0.09 (mmol/L)	0.04	1810	0.535699	0.411084	0.660314	8.00E-17
	IDL.FC	0.23 (mmol/L)	0.06	1810	-0.116098	-0.243473	0.011277	0.074216
	L.LDL.FC	0.29 (mmol/L)	0.07	1810	-0.006743	-0.134149	0.120662	0.917391
	XL.HDL.FC	0.04 (mmol/L)	0.03	1810	-0.517868	-0.642522	-0.393213	7.81E-16
	L.HDL.FC	0.08 (mmol/L)	0.05	1810	-0.694075	-0.816601	-0.571548	1.27E-27
	M.HDL.FC	0.10 (mmol/L)	0.02	1810	-0.005265	-0.132485	0.121954	0.935355
Cholesterol esters	L.VLDL.CE	0.02 (mmol/L)	0.03	1810	0.614507	0.490828	0.738186	8.47E-22
	M.VLDL.CE	0.09 (mmol/L)	0.05	1810	0.555136	0.430778	0.679494	5.43E-18
	L.LDL.CE	0.76 (mmol/L)	0.22	1810	0.177498	0.050459	0.304536	0.006242
	M.LDL.CE	0.46 (mmol/L)	0.15	1810	0.217818	0.090935	0.344700	0.000785
	XL.HDL.CE	0.11 (mmol/L)	0.08	1810	-0.524584	-0.649178	-0.399989	3.26E-16
	L.HDL.CE	0.28 (mmol/L)	0.16	1810	-0.567315	-0.691328	-0.443302	8.53E-19
	M.HDL.CE	0.42 (mmol/L)	0.09	1810	0.100047	-0.026947	0.227041	0.122765
Fluid balance	Alb	0.11 (mmol/L)	0.01	1810	0.046044	-0.081141	0.173230	0.478078
	Crea	0.06 (mmol/L)	0.01	1804	-0.170610	-0.298141	-0.043079	0.008824
	Urea	0.07 (mmol/L)	0.02	1790	-0.119644	-0.247575	0.008287	0.066988
Inflammation	Gp	1.55 (mmol/L)	0.23	1807	0.707459	0.584489	0.830430	2.08E-28

Table S3. NAFLD risk allele associations with circulating metabolic traits.

Metabolic effect estimates and the corresponding 95% confidence intervals (BETA, CI95L, CI95U) of *PNPLA3* rs738409-G, *GCKR* rs1260326-T, *GCKR* rs780094-T, *TM6SF2* rs58542926-T, *NCAN* rs2228603-T, and *LYPLAL1* rs12137855-C were acquired from a published GWAS (19). The risk allele effects were scaled with respect to the log(odds ratio) on histologic NAFLD associated with the corresponding locus (SCALED BETA, SCALED CI95L, SCALED CI95U) (12). Biomarker abbreviations as in Supplementary Table 1.

	BIOMARKER	GENE	RISK ALLELE	BETA	CI95L	CI95U	SCALED BETA	SCALED CI95L	SCALED CI95U	P-VALUE	N	RISK ALLELE FREQUENCY
Concentration	XXL.VLDL.P	GCKR	rs1260326-T	0.08606	0.06494	0.10718	0.51995	0.39234	0.64756	2.64E-15	18960	0.363
		GCKR	rs780094-T	0.08343	0.06241	0.10444	0.50403	0.37705	0.63101	1.34E-14	18960	0.369
		LYPLAL1	rs12137855-C	0.02672	0.00340	0.05005	0.14019	0.01781	0.26257	0.02613	18440	0.732
		PNPLA3	rs738409-G	0.00717	-0.01715	0.03148	0.00610	-0.01459	0.02678	0.56712	18955	0.231
		TM6SF2	rs58542926-T	-0.11648	-0.15815	-0.07480	-0.18147	-0.24640	-0.11654	5.85E-08	18955	0.063
		NCAN	rs2228603-T	-0.10422	-0.14517	-0.06328	-0.16238	-0.22618	-0.09858	7.84E-07	18960	0.068
	XL.VLDL.P	GCKR	rs1260326-T	0.08788	0.06689	0.10888	0.53096	0.40412	0.65780	4.17E-16	18960	0.363
		GCKR	rs780094-T	0.08340	0.06251	0.10429	0.50388	0.37766	0.63010	8.73E-15	18960	0.369
		LYPLAL1	rs12137855-C	0.03116	0.00826	0.05407	0.16348	0.04333	0.28363	0.00817	18955	0.733
		PNPLA3	rs738409-G	0.00930	-0.01492	0.03352	0.00791	-0.01269	0.02852	0.45519	18955	0.231
		TM6SF2	rs58542926-T	-0.13157	-0.17728	-0.08587	-0.20499	-0.27620	-0.13378	2.23E-08	15294	0.064
		NCAN	rs2228603-T	-0.11567	-0.16070	-0.07064	-0.18021	-0.25037	-0.11006	6.00E-07	15299	0.069
L.VLDL.P	GCKR	rs1260326-T	0.09825	0.07724	0.11927	0.59361	0.46664	0.72058	1.90E-19	18960	0.363	
	GCKR	rs780094-T	0.09187	0.07096	0.11279	0.55508	0.42873	0.68143	2.37E-17	18960	0.369	
	LYPLAL1	rs12137855-C	0.02712	0.00420	0.05005	0.14229	0.02202	0.26256	0.02240	18955	0.733	
	PNPLA3	rs738409-G	0.01187	-0.01238	0.03612	0.01010	-0.01053	0.03072	0.34461	18955	0.231	
	TM6SF2	rs58542926-T	-0.14342	-0.18497	-0.10187	-0.22345	-0.28818	-0.15871	2.78E-11	18955	0.063	
	NCAN	rs2228603-T	-0.11852	-0.15925	-0.07779	-0.18464	-0.24810	-0.12119	1.99E-08	18960	0.068	
M.VLDL.P	GCKR	rs1260326-T	0.09611	0.07529	0.11694	0.58069	0.45485	0.70652	4.67E-19	19273	0.363	
	GCKR	rs780094-T	0.08936	0.06863	0.11008	0.53989	0.41467	0.66510	7.84E-17	19273	0.370	
	LYPLAL1	rs12137855-C	0.02565	0.00290	0.04841	0.13458	0.01521	0.25396	0.02923	19268	0.732	
	PNPLA3	rs738409-G	0.01756	-0.00653	0.04164	0.01493	-0.00555	0.03542	0.15852	19268	0.231	
	TM6SF2	rs58542926-T	-0.14754	-0.18881	-0.10627	-0.22987	-0.29417	-0.16557	4.85E-12	19268	0.063	
	NCAN	rs2228603-T	-0.11721	-0.15759	-0.07683	-0.18261	-0.24552	-0.11970	2.01E-08	19273	0.068	
S.VLDL.P	GCKR	rs1260326-T	0.09499	0.07418	0.11581	0.57393	0.44819	0.69967	1.17E-18	19273	0.363	
	GCKR	rs780094-T	0.08855	0.06784	0.10926	0.53502	0.40990	0.66014	1.46E-16	19273	0.370	
	LYPLAL1	rs12137855-C	0.02246	-0.00028	0.04519	0.11780	-0.00147	0.23708	0.05624	19268	0.732	
	PNPLA3	rs738409-G	0.01717	-0.00689	0.04123	0.01460	-0.00586	0.03507	0.16777	19268	0.231	
	TM6SF2	rs58542926-T	-0.15575	-0.19697	-0.11453	-0.24265	-0.30688	-0.17843	2.92E-13	19268	0.063	
	NCAN	rs2228603-T	-0.13827	-0.17860	-0.09793	-0.21542	-0.27826	-0.15257	3.56E-11	19273	0.068	
XS.VLDL.P	GCKR	rs1260326-T	0.05864	0.03776	0.07953	0.35430	0.22811	0.48049	6.00E-08	19273	0.363	
	GCKR	rs780094-T	0.05591	0.03513	0.07669	0.33778	0.21223	0.46332	2.08E-07	19273	0.370	

IDL.P	LYPLAL1	rs12137855-C	0.01298	-0.00979	0.03575	0.06809	-0.05137	0.18755	0.27095	19268	0.732
	PNPLA3	rs738409-G	0.02487	0.00077	0.04898	0.02116	0.00065	0.04166	0.04628	19268	0.231
	TM6SF2	rs58542926-T	-0.15104	-0.19236	-0.10973	-0.23532	-0.29968	-0.17096	1.71E-12	19268	0.063
	NCAN	rs2228603-T	-0.13666	-0.17710	-0.09621	-0.21291	-0.27593	-0.14990	7.00E-11	19273	0.068
	GCKR	rs1260326-T	0.04101	0.02013	0.06189	0.24777	0.12163	0.37391	0.00015	19273	0.363
	GCKR	rs780094-T	0.03777	0.01699	0.05854	0.22818	0.10268	0.35368	0.00045	19273	0.370
	LYPLAL1	rs12137855-C	0.00752	-0.01524	0.03028	0.03946	-0.07992	0.15883	0.52323	19268	0.732
	PNPLA3	rs738409-G	0.01917	-0.00492	0.04327	0.01631	-0.00419	0.03680	0.12432	19268	0.231
	TM6SF2	rs58542926-T	-0.12277	-0.16408	-0.08146	-0.19127	-0.25563	-0.12691	9.68E-09	19268	0.063
	NCAN	rs2228603-T	-0.10939	-0.14980	-0.06898	-0.17043	-0.23339	-0.10747	1.74E-07	19273	0.068
L.LDL.P	GCKR	rs1260326-T	0.04860	0.02774	0.06945	0.29362	0.16762	0.41962	7.01E-06	19273	0.363
	GCKR	rs780094-T	0.04341	0.02266	0.06416	0.26226	0.13689	0.38762	5.48E-05	19273	0.370
	LYPLAL1	rs12137855-C	0.01025	-0.01249	0.03299	0.05377	-0.06553	0.17308	0.38448	19268	0.732
	PNPLA3	rs738409-G	0.01281	-0.01127	0.03689	0.01090	-0.00959	0.03138	0.30463	19268	0.231
	TM6SF2	rs58542926-T	-0.10591	-0.14719	-0.06462	-0.16500	-0.22932	-0.10068	7.56E-07	19268	0.063
	NCAN	rs2228603-T	-0.09123	-0.13160	-0.05086	-0.14214	-0.20504	-0.07923	1.32E-05	19273	0.068
	GCKR	rs1260326-T	0.06007	0.03923	0.08091	0.36291	0.23698	0.48884	2.81E-08	19273	0.363
	GCKR	rs780094-T	0.05329	0.03255	0.07402	0.32194	0.19664	0.44723	7.39E-07	19273	0.370
	LYPLAL1	rs12137855-C	0.01331	-0.00941	0.03604	0.06984	-0.04939	0.18907	0.25864	19268	0.732
	PNPLA3	rs738409-G	0.00807	-0.01600	0.03213	0.00686	-0.01361	0.02733	0.51806	19268	0.231
M.LDL.P	TM6SF2	rs58542926-T	-0.10424	-0.14550	-0.06298	-0.16240	-0.22668	-0.09812	1.12E-06	19268	0.063
	NCAN	rs2228603-T	-0.08736	-0.12772	-0.04700	-0.13610	-0.19898	-0.07322	3.03E-05	19273	0.068
	GCKR	rs1260326-T	0.07465	0.05382	0.09548	0.45101	0.32513	0.57689	4.91E-12	19273	0.363
	GCKR	rs780094-T	0.06769	0.04696	0.08842	0.40897	0.28370	0.53423	3.07E-10	19273	0.370
	LYPLAL1	rs12137855-C	0.01565	-0.00708	0.03839	0.08212	-0.03712	0.20136	0.18388	19268	0.732
	PNPLA3	rs738409-G	0.00529	-0.01877	0.02935	0.00450	-0.01597	0.02497	0.67146	19268	0.231
	TM6SF2	rs58542926-T	-0.12401	-0.16526	-0.08276	-0.19321	-0.25747	-0.12894	6.76E-09	19268	0.063
	NCAN	rs2228603-T	-0.10463	-0.14499	-0.06427	-0.16302	-0.22590	-0.10013	5.78E-07	19273	0.068
	GCKR	rs1260326-T	-0.03046	-0.05135	-0.00956	-0.18401	-0.31026	-0.05777	0.00462	19273	0.363
	GCKR	rs780094-T	-0.02140	-0.04219	-0.00060	-0.12926	-0.25488	-0.00365	0.04550	19273	0.370
S.LDL.P	LYPLAL1	rs12137855-C	-0.01462	-0.03741	0.00817	-0.07669	-0.19622	0.04284	0.21231	19268	0.732
	PNPLA3	rs738409-G	-0.01801	-0.04213	0.00611	-0.01532	-0.03583	0.00519	0.14656	19268	0.231
	TM6SF2	rs58542926-T	0.01289	-0.02850	0.05427	0.02007	-0.04440	0.08455	0.54504	19268	0.063
	NCAN	rs2228603-T	0.01680	-0.02367	0.05726	0.02617	-0.03687	0.08920	0.41974	19273	0.068
	GCKR	rs1260326-T	-0.02987	-0.05075	-0.00899	-0.18046	-0.30662	-0.05430	0.00562	19273	0.363
	GCKR	rs780094-T	-0.02472	-0.04550	-0.00394	-0.14935	-0.27487	-0.02382	0.02126	19273	0.370
	LYPLAL1	rs12137855-C	-0.00607	-0.02882	0.01668	-0.03182	-0.15117	0.08752	0.60564	19268	0.732
	PNPLA3	rs738409-G	0.00084	-0.02324	0.02492	0.00071	-0.01977	0.02120	0.94613	19268	0.231
	TM6SF2	rs58542926-T	0.02572	-0.01559	0.06703	0.04007	-0.02428	0.10443	0.22794	19268	0.063
	NCAN	rs2228603-T	0.03216	-0.00825	0.07256	0.05010	-0.01285	0.11305	0.12329	19273	0.068
M.HDL.P	GCKR	rs1260326-T	0.05176	0.03091	0.07261	0.31270	0.18673	0.43868	1.42E-06	19273	0.363

		GCKR	rs780094-T	0.04825	0.02751	0.06900	0.29153	0.16619	0.41688	6.22E-06	19273	0.370
		LYPLAL1	rs12137855-C	0.01208	-0.01064	0.03480	0.06339	-0.05579	0.18257	0.30110	19268	0.732
		PNPLA3	rs738409-G	0.00845	-0.01559	0.03250	0.00719	-0.01327	0.02765	0.49433	19268	0.231
		TM6SF2	rs58542926-T	-0.07043	-0.11169	-0.02917	-0.10973	-0.17402	-0.04545	0.00091	19268	0.063
		NCAN	rs2228603-T	-0.04883	-0.08921	-0.00845	-0.07608	-0.13898	-0.01317	0.01873	19273	0.068
	S.HDL.P	GCKR	rs1260326-T	0.08658	0.06578	0.10738	0.52310	0.39745	0.64874	5.41E-16	19273	0.363
		GCKR	rs780094-T	0.07670	0.05600	0.09740	0.46339	0.33834	0.58844	5.54E-13	19273	0.370
		LYPLAL1	rs12137855-C	0.01904	-0.00369	0.04176	0.09987	-0.01933	0.21907	0.10275	19268	0.732
		PNPLA3	rs738409-G	-0.00668	-0.03072	0.01736	-0.00568	-0.02613	0.01477	0.58832	19268	0.231
		TM6SF2	rs58542926-T	-0.06363	-0.10488	-0.02238	-0.09913	-0.16339	-0.03486	0.00267	19268	0.063
		NCAN	rs2228603-T	-0.04270	-0.08304	-0.00235	-0.06652	-0.12938	-0.00366	0.03932	19273	0.068
Diameter	VLDL.D	GCKR	rs1260326-T	0.09756	0.07679	0.11833	0.58942	0.46394	0.71489	7.90E-20	19273	0.363
		GCKR	rs780094-T	0.08965	0.06899	0.11032	0.54167	0.41680	0.66654	3.88E-17	19273	0.370
		LYPLAL1	rs12137855-C	0.03216	0.00947	0.05486	0.16873	0.04968	0.28779	0.00594	19268	0.732
		PNPLA3	rs738409-G	0.00168	-0.02234	0.02570	0.00143	-0.01901	0.02186	0.89218	19268	0.231
		TM6SF2	rs58542926-T	-0.09839	-0.13958	-0.05721	-0.15330	-0.21746	-0.08913	3.55E-06	19268	0.063
		NCAN	rs2228603-T	-0.08014	-0.12045	-0.03984	-0.12486	-0.18766	-0.06207	0.00011	19273	0.068
	LDL.D	GCKR	rs1260326-T	-0.06494	-0.08579	-0.04409	-0.39236	-0.51834	-0.26637	1.39E-09	19273	0.363
		GCKR	rs780094-T	-0.05773	-0.07848	-0.03698	-0.34876	-0.47413	-0.22339	6.27E-08	19273	0.370
		LYPLAL1	rs12137855-C	-0.01707	-0.03980	0.00567	-0.08953	-0.20881	0.02974	0.14397	19268	0.732
		PNPLA3	rs738409-G	0.02176	-0.00231	0.04584	0.01851	-0.00197	0.03899	0.07849	19268	0.231
		TM6SF2	rs58542926-T	0.00638	-0.03495	0.04770	0.00994	-0.05444	0.07432	0.76386	19268	0.063
		NCAN	rs2228603-T	-0.00810	-0.04852	0.03233	-0.01261	-0.07559	0.05037	0.69669	19273	0.068
	HDL.D	GCKR	rs1260326-T	-0.04124	-0.06212	-0.02037	-0.24918	-0.37532	-0.12304	0.00012	19273	0.363
		GCKR	rs780094-T	-0.03287	-0.05364	-0.01209	-0.19858	-0.32410	-0.07306	0.00211	19273	0.370
		LYPLAL1	rs12137855-C	-0.00887	-0.03162	0.01388	-0.04653	-0.16586	0.07281	0.44851	19268	0.732
		PNPLA3	rs738409-G	-0.00084	-0.02491	0.02324	-0.00071	-0.02119	0.01977	0.94605	19268	0.231
		TM6SF2	rs58542926-T	0.02170	-0.01960	0.06301	0.03381	-0.03054	0.09816	0.30699	19268	0.063
		NCAN	rs2228603-T	0.02547	-0.01497	0.06590	0.03967	-0.02332	0.10266	0.22078	19273	0.068
Apolipoproteins	ApoA1	GCKR	rs1260326-T	0.03938	0.01808	0.06068	0.23790	0.10922	0.36659	0.00033	18404	0.364
		GCKR	rs780094-T	0.03791	0.01672	0.05910	0.22905	0.10102	0.35708	0.00051	18404	0.370
		LYPLAL1	rs12137855-C	0.01414	-0.00920	0.03748	0.07419	-0.04825	0.19664	0.23879	18402	0.734
		PNPLA3	rs738409-G	-0.00648	-0.03109	0.01813	-0.00551	-0.02645	0.01542	0.60864	18402	0.231
		TM6SF2	rs58542926-T	-0.04588	-0.08814	-0.00363	-0.07148	-0.13731	-0.00565	0.03481	18399	0.063
		NCAN	rs2228603-T	-0.01830	-0.05956	0.02295	-0.02851	-0.09279	0.03576	0.38848	18403	0.068
	ApoB	GCKR	rs1260326-T	0.06679	0.04642	0.08716	0.40350	0.28043	0.52657	2.51E-10	20690	0.361
		GCKR	rs780094-T	0.06118	0.04094	0.08142	0.36964	0.24733	0.49194	5.48E-09	20690	0.367
		LYPLAL1	rs12137855-C	0.01665	-0.00583	0.03913	0.08736	-0.03056	0.20529	0.15251	20688	0.744
		PNPLA3	rs738409-G	0.00839	-0.01524	0.03201	0.00713	-0.01296	0.02722	0.49299	20688	0.231
		TM6SF2	rs58542926-T	-0.13005	-0.17121	-0.08889	-0.20262	-0.26675	-0.13848	1.08E-09	20685	0.063
		NCAN	rs2228603-T	-0.11150	-0.15193	-0.07108	-0.17372	-0.23670	-0.11073	1.02E-07	20689	0.067

Triglycerides	XXL.VLDL.TG	GCKR	rs1260326-T	0.09349	0.07349	0.11349	0.56483	0.44399	0.68568	8.01E-20	21540	0.361
		GCKR	rs780094-T	0.08932	0.06944	0.10920	0.53966	0.41956	0.65976	1.94E-18	21540	0.367
		LYPLAL1	rs12137855-C	0.02983	0.00789	0.05177	0.15647	0.04138	0.27156	0.00800	21535	0.742
		PNPLA3	rs738409-G	0.00656	-0.01660	0.02971	0.00558	-0.01412	0.02527	0.58063	21535	0.230
		TM6SF2	rs58542926-T	-0.11818	-0.15846	-0.07789	-0.18412	-0.24688	-0.12135	1.07E-08	21535	0.063
		NCAN	rs2228603-T	-0.11220	-0.15184	-0.07256	-0.17480	-0.23657	-0.11304	3.42E-08	21540	0.067
	XL.VLDL.TG	GCKR	rs1260326-T	0.09300	0.07302	0.11298	0.56189	0.44117	0.68261	1.43E-19	21548	0.361
		GCKR	rs780094-T	0.08864	0.06878	0.10849	0.53554	0.41558	0.65549	3.97E-18	21548	0.367
		LYPLAL1	rs12137855-C	0.02422	0.00230	0.04614	0.12706	0.01207	0.24206	0.03159	21543	0.742
		PNPLA3	rs738409-G	0.00787	-0.01526	0.03100	0.00669	-0.01298	0.02637	0.50812	21543	0.230
		TM6SF2	rs58542926-T	-0.13557	-0.17835	-0.09278	-0.21121	-0.27787	-0.14455	7.28E-10	19153	0.064
		NCAN	rs2228603-T	-0.12161	-0.16389	-0.07933	-0.18947	-0.25533	-0.12360	2.24E-08	19158	0.067
	L.VLDL.TG	GCKR	rs1260326-T	0.09421	0.07406	0.11435	0.56918	0.44747	0.69089	9.83E-20	21239	0.361
		GCKR	rs780094-T	0.09071	0.07069	0.11073	0.54806	0.42710	0.66903	1.28E-18	21239	0.366
		LYPLAL1	rs12137855-C	0.03136	0.00925	0.05348	0.16453	0.04853	0.28054	0.00581	21234	0.742
		PNPLA3	rs738409-G	0.01650	-0.00680	0.03980	0.01404	-0.00578	0.03386	0.16833	21234	0.230
		TM6SF2	rs58542926-T	-0.12928	-0.16981	-0.08875	-0.20141	-0.26456	-0.13826	5.66E-10	21234	0.063
		NCAN	rs2228603-T	-0.10886	-0.14881	-0.06892	-0.16960	-0.23184	-0.10737	1.18E-07	21239	0.067
	M.VLDL.TG	GCKR	rs1260326-T	0.09462	0.07447	0.11477	0.57167	0.44991	0.69342	6.80E-20	21241	0.361
		GCKR	rs780094-T	0.08915	0.06912	0.10918	0.53862	0.41761	0.65964	4.90E-18	21241	0.366
		LYPLAL1	rs12137855-C	0.03041	0.00828	0.05254	0.15953	0.04344	0.27563	0.00751	21236	0.742
		PNPLA3	rs738409-G	0.01936	-0.00396	0.04268	0.01647	-0.00337	0.03630	0.10614	21236	0.230
		TM6SF2	rs58542926-T	-0.13081	-0.17136	-0.09026	-0.20380	-0.26697	-0.14062	3.54E-10	21236	0.063
		NCAN	rs2228603-T	-0.11410	-0.15407	-0.07413	-0.17776	-0.24003	-0.11549	2.84E-08	21241	0.067
	S.VLDL.TG	GCKR	rs1260326-T	0.09945	0.07946	0.11945	0.60088	0.48009	0.72167	6.23E-22	21558	0.361
		GCKR	rs780094-T	0.09378	0.07391	0.11365	0.56658	0.44654	0.68662	6.74E-20	21558	0.367
		LYPLAL1	rs12137855-C	0.02696	0.00500	0.04892	0.14143	0.02621	0.25665	0.01749	21553	0.742
		PNPLA3	rs738409-G	0.01396	-0.00920	0.03712	0.01187	-0.00783	0.03158	0.24325	21553	0.230
		TM6SF2	rs58542926-T	-0.14865	-0.18892	-0.10837	-0.23159	-0.29433	-0.16884	9.26E-13	21553	0.063
		NCAN	rs2228603-T	-0.13430	-0.17392	-0.09468	-0.20923	-0.27096	-0.14750	5.46E-11	21558	0.067
	XS.VLDL.TG	GCKR	rs1260326-T	0.08106	0.06018	0.10193	0.48972	0.36358	0.61586	6.60E-14	19273	0.363
		GCKR	rs780094-T	0.07698	0.05621	0.09776	0.46511	0.33960	0.59063	8.39E-13	19273	0.370
LYPLAL1		rs12137855-C	0.01845	-0.00433	0.04122	0.09676	-0.02271	0.21623	0.11760	19268	0.732	
PNPLA3		rs738409-G	0.02386	-0.00025	0.04797	0.02030	-0.00021	0.04080	0.05583	19268	0.231	
TM6SF2		rs58542926-T	-0.15327	-0.19457	-0.11196	-0.23879	-0.30314	-0.17444	7.85E-13	19268	0.063	
NCAN		rs2228603-T	-0.13539	-0.17584	-0.09495	-0.21094	-0.27396	-0.14793	1.03E-10	19273	0.068	
IDL.TG	GCKR	rs1260326-T	0.05457	0.03368	0.07546	0.32969	0.20346	0.45593	4.57E-07	19273	0.363	
	GCKR	rs780094-T	0.05282	0.03204	0.07361	0.31913	0.19354	0.44471	9.23E-07	19273	0.370	
	LYPLAL1	rs12137855-C	0.01167	-0.01110	0.03443	0.06119	-0.05821	0.18060	0.32199	19268	0.732	
	PNPLA3	rs738409-G	0.02570	0.00161	0.04979	0.02186	0.00137	0.04235	0.03923	19268	0.231	
	TM6SF2	rs58542926-T	-0.14101	-0.18230	-0.09972	-0.21969	-0.28402	-0.15536	4.28E-11	19268	0.063	

		NCAN	rs2228603-T	-0.12376	-0.16422	-0.08330	-0.19281	-0.25585	-0.12978	3.49E-09	19273	0.068
	XL.HDL.TG	GCKR	rs1260326-T	0.03267	0.01264	0.05270	0.19737	0.07637	0.31837	0.00157	21536	0.361
		GCKR	rs780094-T	0.03595	0.01605	0.05585	0.21721	0.09700	0.33743	0.00046	21536	0.367
		LYPLAL1	rs12137855-C	0.00591	-0.01604	0.02785	0.03098	-0.08415	0.14611	0.60187	21531	0.742
		PNPLA3	rs738409-G	0.01285	-0.01030	0.03601	0.01093	-0.00876	0.03063	0.28179	21531	0.230
		TM6SF2	rs58542926-T	-0.10615	-0.14645	-0.06586	-0.16538	-0.22816	-0.10260	3.33E-07	21531	0.063
		NCAN	rs2228603-T	-0.08173	-0.12135	-0.04211	-0.12733	-0.18906	-0.06560	6.42E-05	21536	0.067
	S.HDL.TG	GCKR	rs1260326-T	0.06854	0.04847	0.08860	0.41408	0.29287	0.53529	3.58E-11	21558	0.361
		GCKR	rs780094-T	0.06504	0.04510	0.08498	0.39296	0.27250	0.51341	2.58E-10	21558	0.367
		LYPLAL1	rs12137855-C	0.01487	-0.00714	0.03688	0.07801	-0.03747	0.19349	0.19011	21553	0.742
		PNPLA3	rs738409-G	0.01257	-0.01065	0.03579	0.01069	-0.00906	0.03045	0.29372	21553	0.230
		TM6SF2	rs58542926-T	-0.10709	-0.14748	-0.06670	-0.16685	-0.22978	-0.10392	2.76E-07	21553	0.063
		NCAN	rs2228603-T	-0.08444	-0.12417	-0.04471	-0.13155	-0.19345	-0.06966	3.79E-05	21558	0.067
	Serum.TG	GCKR	rs1260326-T	0.10600	0.08599	0.12600	0.64040	0.51952	0.76129	1.00E-24	21545	0.361
		GCKR	rs780094-T	0.10069	0.08080	0.12057	0.60833	0.48820	0.72847	1.00E-22	21545	0.367
		LYPLAL1	rs12137855-C	0.02769	0.00573	0.04965	0.14526	0.03005	0.26047	0.01452	21540	0.742
		PNPLA3	rs738409-G	0.01718	-0.00599	0.04034	0.01461	-0.00509	0.03432	0.15044	21540	0.230
		TM6SF2	rs58542926-T	-0.16398	-0.20425	-0.12370	-0.25547	-0.31822	-0.19273	3.05E-15	21540	0.063
		NCAN	rs2228603-T	-0.14517	-0.18482	-0.10552	-0.22617	-0.28794	-0.16439	1.30E-12	21545	0.067
Fatty acids	Tot.FA	GCKR	rs1260326-T	0.11308	0.08824	0.13791	0.68318	0.53315	0.83320	6.24E-19	13505	0.363
		GCKR	rs780094-T	0.10527	0.08060	0.12994	0.63604	0.48699	0.78509	8.18E-17	13505	0.370
		LYPLAL1	rs12137855-C	0.02449	-0.00290	0.05188	0.12848	-0.01518	0.27214	0.08069	13504	0.733
		PNPLA3	rs738409-G	0.03625	0.00747	0.06502	0.03083	0.00636	0.05531	0.01390	13499	0.233
		TM6SF2	rs58542926-T	-0.15387	-0.20311	-0.10464	-0.23973	-0.31643	-0.16302	1.06E-09	13501	0.063
		NCAN	rs2228603-T	-0.13302	-0.18104	-0.08500	-0.20724	-0.28206	-0.13242	6.44E-08	13505	0.067
	FAw3	GCKR	rs1260326-T	0.09680	0.07196	0.12165	0.58487	0.43475	0.73499	3.37E-14	13544	0.363
		GCKR	rs780094-T	0.08944	0.06475	0.11412	0.54036	0.39122	0.68949	1.76E-12	13544	0.370
		LYPLAL1	rs12137855-C	0.00046	-0.02687	0.02779	0.00242	-0.14095	0.14578	0.97378	13543	0.733
		PNPLA3	rs738409-G	0.01207	-0.01666	0.04080	0.01027	-0.01417	0.03471	0.41310	13540	0.234
		TM6SF2	rs58542926-T	-0.16305	-0.21224	-0.11385	-0.25402	-0.33067	-0.17738	1.11E-10	13540	0.063
		NCAN	rs2228603-T	-0.14595	-0.19396	-0.09794	-0.22738	-0.30218	-0.15258	3.28E-09	13544	0.067
	DHA	GCKR	rs1260326-T	0.05949	0.03460	0.08438	0.35941	0.20902	0.50980	3.60E-06	13499	0.364
		GCKR	rs780094-T	0.05483	0.03011	0.07955	0.33127	0.18190	0.48064	1.71E-05	13499	0.370
		LYPLAL1	rs12137855-C	-0.00795	-0.03529	0.01939	-0.04170	-0.18510	0.10171	0.57276	13498	0.733
		PNPLA3	rs738409-G	0.00304	-0.02566	0.03175	0.00259	-0.02183	0.02701	0.83697	13494	0.234
		TM6SF2	rs58542926-T	-0.14223	-0.19136	-0.09311	-0.22160	-0.29813	-0.14506	1.99E-08	13495	0.063
		NCAN	rs2228603-T	-0.13012	-0.17818	-0.08207	-0.20273	-0.27761	-0.12785	1.53E-07	13499	0.067
	FAw6	GCKR	rs1260326-T	0.07798	0.05305	0.10292	0.47114	0.32048	0.62179	9.73E-10	13506	0.363
		GCKR	rs780094-T	0.07358	0.04882	0.09835	0.44458	0.29494	0.59421	6.32E-09	13506	0.370
		LYPLAL1	rs12137855-C	0.01829	-0.00913	0.04570	0.09593	-0.04789	0.23976	0.19189	13505	0.733
		PNPLA3	rs738409-G	0.03542	0.00661	0.06423	0.03013	0.00562	0.05464	0.01618	13500	0.233

		TM6SF2	rs58542926-T	-0.12541	-0.17473	-0.07609	-0.19538	-0.27222	-0.11854	6.66E-07	13502	0.063
		NCAN	rs2228603-T	-0.11232	-0.16048	-0.06417	-0.17499	-0.25002	-0.09997	5.11E-06	13506	0.067
	LA	GCKR	rs1260326-T	0.08218	0.05731	0.10705	0.49650	0.34623	0.64677	1.28E-10	13527	0.363
		GCKR	rs780094-T	0.07620	0.05149	0.10091	0.46040	0.31112	0.60968	1.95E-09	13527	0.370
		LYPLAL1	rs12137855-C	0.01220	-0.01515	0.03955	0.06399	-0.07950	0.20748	0.38511	13526	0.733
		PNPLA3	rs738409-G	0.03605	0.00730	0.06480	0.03067	0.00621	0.05512	0.01463	13523	0.234
		TM6SF2	rs58542926-T	-0.11494	-0.16418	-0.06570	-0.17908	-0.25579	-0.10236	5.54E-06	13523	0.063
		NCAN	rs2228603-T	-0.10650	-0.15455	-0.05845	-0.16592	-0.24078	-0.09106	1.61E-05	13527	0.067
	otPUFA	GCKR	rs1260326-T	0.07775	0.05292	0.10258	0.46974	0.31972	0.61977	1.13E-09	13549	0.363
		GCKR	rs780094-T	0.07181	0.04714	0.09648	0.43385	0.28482	0.58288	1.49E-08	13549	0.370
		LYPLAL1	rs12137855-C	0.00058	-0.02673	0.02788	0.00302	-0.14021	0.14625	0.96730	13548	0.733
		PNPLA3	rs738409-G	0.01385	-0.01482	0.04252	0.01178	-0.01261	0.03617	0.34699	13545	0.234
		TM6SF2	rs58542926-T	-0.18289	-0.23197	-0.13381	-0.28494	-0.36140	-0.20848	4.22E-13	13545	0.063
		NCAN	rs2228603-T	-0.15896	-0.20690	-0.11103	-0.24766	-0.32235	-0.17298	1.12E-10	13549	0.067
	MUFA	GCKR	rs1260326-T	0.11754	0.09274	0.14234	0.71014	0.56032	0.85997	3.53E-20	13535	0.363
		GCKR	rs780094-T	0.10966	0.08502	0.13430	0.66252	0.51364	0.81139	5.68E-18	13535	0.370
		LYPLAL1	rs12137855-C	0.02773	0.00042	0.05503	0.14546	0.00221	0.28871	0.04856	13534	0.733
		PNPLA3	rs738409-G	0.03391	0.00522	0.06260	0.02885	0.00444	0.05325	0.02169	13532	0.234
		TM6SF2	rs58542926-T	-0.14832	-0.19745	-0.09919	-0.23109	-0.30763	-0.15454	4.62E-09	13531	0.063
		NCAN	rs2228603-T	-0.12725	-0.17522	-0.07928	-0.19826	-0.27299	-0.12352	2.61E-07	13535	0.067
	FAw79S	GCKR	rs1260326-T	0.11490	0.09008	0.13972	0.69422	0.54426	0.84417	1.95E-19	13506	0.363
		GCKR	rs780094-T	0.10653	0.08187	0.13119	0.64363	0.49465	0.79261	3.98E-17	13506	0.370
		LYPLAL1	rs12137855-C	0.02509	-0.00228	0.05247	0.13163	-0.01197	0.27523	0.07403	13505	0.733
		PNPLA3	rs738409-G	0.03557	0.00681	0.06434	0.03026	0.00579	0.05473	0.01597	13500	0.233
		TM6SF2	rs58542926-T	-0.14849	-0.19772	-0.09926	-0.23135	-0.30805	-0.15465	4.26E-09	13502	0.063
		NCAN	rs2228603-T	-0.12696	-0.17496	-0.07895	-0.19779	-0.27259	-0.12300	2.60E-07	13506	0.067
	FALen	GCKR	rs1260326-T	-0.04157	-0.06639	-0.01674	-0.25114	-0.40115	-0.10114	0.00111	13476	0.363
		GCKR	rs780094-T	-0.04275	-0.06741	-0.01809	-0.25829	-0.40726	-0.10931	0.00074	13476	0.370
		LYPLAL1	rs12137855-C	-0.01404	-0.04137	0.01328	-0.07366	-0.21700	0.06968	0.31678	13475	0.733
		PNPLA3	rs738409-G	-0.00229	-0.03102	0.02645	-0.00194	-0.02639	0.02250	0.87680	13470	0.233
		TM6SF2	rs58542926-T	-0.00073	-0.04995	0.04850	-0.00113	-0.07782	0.07556	0.97703	13472	0.063
		NCAN	rs2228603-T	-0.01673	-0.06470	0.03123	-0.02607	-0.10080	0.04866	0.49674	13476	0.067
Saturation	Bis.DB.ratio	GCKR	rs1260326-T	-0.06379	-0.08861	-0.03897	-0.38539	-0.53534	-0.23543	5.89E-07	13524	0.363
		GCKR	rs780094-T	-0.06085	-0.08551	-0.03620	-0.36765	-0.51660	-0.21871	1.61E-06	13524	0.370
		LYPLAL1	rs12137855-C	-0.03757	-0.06488	-0.01025	-0.19708	-0.34037	-0.05378	0.00749	13523	0.733
		PNPLA3	rs738409-G	-0.02658	-0.05529	0.00214	-0.02261	-0.04703	0.00182	0.07185	13520	0.234
		TM6SF2	rs58542926-T	0.00922	-0.04002	0.05845	0.01436	-0.06235	0.09107	0.71581	13520	0.063
		NCAN	rs2228603-T	-0.00050	-0.04849	0.04748	-0.00078	-0.07554	0.07397	0.98372	13524	0.067
	Bis.FA.ratio	GCKR	rs1260326-T	-0.07096	-0.09611	-0.04580	-0.42870	-0.58067	-0.27673	4.04E-08	13171	0.363
		GCKR	rs780094-T	-0.06912	-0.09411	-0.04413	-0.41759	-0.56856	-0.26663	7.34E-08	13171	0.370
		LYPLAL1	rs12137855-C	-0.02795	-0.05564	-0.00027	-0.14665	-0.29186	-0.00143	0.04925	13170	0.733

		PNPLA3	rs738409-G	-0.01832	-0.04738	0.01074	-0.01559	-0.04031	0.00913	0.21948	13166	0.233
		TM6SF2	rs58542926-T	-0.02069	-0.07048	0.02911	-0.03223	-0.10980	0.04535	0.41852	13167	0.063
		NCAN	rs2228603-T	-0.03041	-0.07905	0.01823	-0.04738	-0.12315	0.02840	0.22339	13171	0.067
	CH2.DB.ratio	GCKR	rs1260326-T	0.05580	0.03096	0.08063	0.33710	0.18706	0.48714	1.15E-05	13532	0.363
		GCKR	rs780094-T	0.05317	0.02851	0.07784	0.32126	0.17223	0.47029	2.57E-05	13532	0.370
		LYPLAL1	rs12137855-C	0.01373	-0.01355	0.04101	0.07202	-0.07110	0.21514	0.32552	13531	0.733
		PNPLA3	rs738409-G	0.01705	-0.01164	0.04574	0.01450	-0.00991	0.03891	0.24574	13527	0.234
		TM6SF2	rs58542926-T	0.03314	-0.01604	0.08232	0.05163	-0.02498	0.12825	0.18796	13528	0.063
		NCAN	rs2228603-T	0.04231	-0.00567	0.09029	0.06592	-0.00884	0.14067	0.08494	13532	0.067
	DB.in.FA	GCKR	rs1260326-T	-0.06135	-0.08619	-0.03651	-0.37067	-0.52074	-0.22060	1.31E-06	13501	0.363
		GCKR	rs780094-T	-0.05957	-0.08424	-0.03490	-0.35990	-0.50895	-0.21084	2.26E-06	13501	0.370
		LYPLAL1	rs12137855-C	-0.01330	-0.03914	0.01254	-0.06977	-0.20531	0.06577	0.31299	15727	0.743
		PNPLA3	rs738409-G	-0.01208	-0.04080	0.01664	-0.01028	-0.03471	0.01415	0.40953	13495	0.233
		TM6SF2	rs58542926-T	-0.02395	-0.06944	0.02154	-0.03732	-0.10818	0.03355	0.30203	15724	0.065
		NCAN	rs2228603-T	-0.03468	-0.07967	0.01030	-0.05404	-0.12412	0.01605	0.13074	15728	0.068
	CH2.in.FA	GCKR	rs1260326-T	0.05236	0.02967	0.07506	0.31637	0.17922	0.45351	6.23E-06	16794	0.360
		GCKR	rs780094-T	0.05006	0.02749	0.07263	0.30244	0.16607	0.43882	1.40E-05	16794	0.365
		LYPLAL1	rs12137855-C	0.00144	-0.02279	0.02567	0.00755	-0.11956	0.13466	0.90730	19020	0.757
		PNPLA3	rs738409-G	0.00931	-0.01727	0.03588	0.00792	-0.01469	0.03052	0.49261	16788	0.228
		TM6SF2	rs58542926-T	-0.00801	-0.05260	0.03658	-0.01248	-0.08195	0.05699	0.72480	17825	0.065
		NCAN	rs2228603-T	0.00112	-0.04320	0.04543	0.00174	-0.06730	0.07078	0.96063	17829	0.067
Beta-oxidation	AcAce	GCKR	rs1260326-T	0.01539	-0.00557	0.03634	0.09295	-0.03366	0.21957	0.15228	19262	0.363
		GCKR	rs780094-T	0.01593	-0.00492	0.03677	0.09622	-0.02973	0.22217	0.13633	19262	0.369
		LYPLAL1	rs12137855-C	0.00329	-0.02104	0.02761	0.01724	-0.11035	0.14484	0.79217	16867	0.733
		PNPLA3	rs738409-G	0.00223	-0.02192	0.02639	0.00190	-0.01865	0.02245	0.85687	19257	0.231
		TM6SF2	rs58542926-T	-0.05347	-0.09490	-0.01203	-0.08330	-0.14785	-0.01875	0.01188	19257	0.063
		NCAN	rs2228603-T	-0.05056	-0.09111	-0.01001	-0.07877	-0.14195	-0.01560	0.01507	19262	0.068
	Ace	GCKR	rs1260326-T	-0.02911	-0.04880	-0.00942	-0.17586	-0.29481	-0.05691	0.00377	22521	0.361
		GCKR	rs780094-T	-0.03089	-0.05048	-0.01130	-0.18661	-0.30495	-0.06826	0.00201	22521	0.366
		LYPLAL1	rs12137855-C	0.00313	-0.01784	0.02410	0.01641	-0.09360	0.12643	0.76996	24744	0.750
		PNPLA3	rs738409-G	0.00737	-0.01554	0.03028	0.00627	-0.01322	0.02576	0.52817	22517	0.227
		TM6SF2	rs58542926-T	-0.00287	-0.04142	0.03568	-0.00447	-0.06453	0.05559	0.88405	23552	0.064
		NCAN	rs2228603-T	0.01127	-0.02696	0.04949	0.01755	-0.04200	0.07711	0.56349	23554	0.067
	bOHBut	GCKR	rs1260326-T	-0.01671	-0.03820	0.00479	-0.10093	-0.23079	0.02893	0.12766	18712	0.363
		GCKR	rs780094-T	-0.02009	-0.04151	0.00133	-0.12138	-0.25079	0.00803	0.06601	18712	0.367
		LYPLAL1	rs12137855-C	-0.00428	-0.02717	0.01861	-0.02244	-0.14252	0.09763	0.71417	20935	0.755
		PNPLA3	rs738409-G	0.00658	-0.01651	0.02967	0.00559	-0.01405	0.02524	0.57665	21923	0.227
		TM6SF2	rs58542926-T	0.00143	-0.03764	0.04050	0.00223	-0.05864	0.06310	0.94270	22958	0.064
		NCAN	rs2228603-T	-0.00264	-0.04501	0.03973	-0.00411	-0.07012	0.06190	0.90288	19746	0.067
Glycolysis	Glc	GCKR	rs1260326-T	-0.02390	-0.04363	-0.00416	-0.14437	-0.26359	-0.02516	0.01776	22452	0.361
		GCKR	rs780094-T	-0.02442	-0.04406	-0.00478	-0.14755	-0.26621	-0.02890	0.01493	22452	0.366

		LYPLAL1	rs12137855-C	0.00107	-0.01983	0.02196	0.00561	-0.10401	0.11523	0.92019	24674	0.750
		PNPLA3	rs738409-G	0.02413	0.00117	0.04709	0.02053	0.00099	0.04006	0.03966	22446	0.227
		TM6SF2	rs58542926-T	-0.03045	-0.06897	0.00807	-0.04744	-0.10745	0.01257	0.12166	23483	0.064
		NCAN	rs2228603-T	-0.04034	-0.07857	-0.00211	-0.06285	-0.12242	-0.00328	0.03888	23487	0.067
	Lac	GCKR	rs1260326-T	0.05771	0.03818	0.07725	0.34869	0.23065	0.46673	7.23E-09	22644	0.361
		GCKR	rs780094-T	0.05483	0.03538	0.07428	0.33125	0.21373	0.44877	3.37E-08	22644	0.365
		LYPLAL1	rs12137855-C	0.01820	-0.00263	0.03902	0.09545	-0.01382	0.20472	0.08687	24866	0.751
		PNPLA3	rs738409-G	0.00783	-0.01489	0.03054	0.00666	-0.01266	0.02598	0.49933	22638	0.227
		TM6SF2	rs58542926-T	0.00569	-0.03265	0.04403	0.00887	-0.05086	0.06860	0.77099	23675	0.064
		NCAN	rs2228603-T	-0.00397	-0.04200	0.03406	-0.00618	-0.06543	0.05307	0.83795	23677	0.067
	Pyr	GCKR	rs1260326-T	0.08080	0.06127	0.10034	0.48818	0.37015	0.60621	5.47E-16	22529	0.361
		GCKR	rs780094-T	0.07820	0.05875	0.09764	0.47244	0.35495	0.58992	3.38E-15	22529	0.366
		LYPLAL1	rs12137855-C	0.01043	-0.01036	0.03123	0.05473	-0.05436	0.16381	0.32543	24751	0.751
		PNPLA3	rs738409-G	-0.00317	-0.02590	0.01955	-0.00270	-0.02203	0.01663	0.78444	22525	0.227
		TM6SF2	rs58542926-T	-0.03700	-0.07535	0.00135	-0.05765	-0.11739	0.00210	0.05860	23559	0.064
		NCAN	rs2228603-T	-0.03900	-0.07706	-0.00095	-0.06077	-0.12006	-0.00148	0.04458	23563	0.067
	Cit	GCKR	rs1260326-T	-0.03230	-0.05192	-0.01269	-0.19517	-0.31370	-0.07665	0.00126	22543	0.361
		GCKR	rs780094-T	-0.02994	-0.04946	-0.01042	-0.18088	-0.29882	-0.06293	0.00266	22543	0.366
		LYPLAL1	rs12137855-C	-0.00561	-0.02650	0.01528	-0.02942	-0.13903	0.08018	0.59878	24766	0.751
		PNPLA3	rs738409-G	0.03416	0.01131	0.05700	0.02905	0.00962	0.04849	0.00340	22539	0.227
		TM6SF2	rs58542926-T	0.04256	0.00413	0.08099	0.06630	0.00643	0.12617	0.03000	23573	0.064
		NCAN	rs2228603-T	0.04436	0.00623	0.08248	0.06910	0.00970	0.12851	0.02262	23577	0.067
	Glol	GCKR	rs1260326-T	0.05772	0.03564	0.07980	0.34872	0.21530	0.48215	3.07E-07	18008	0.359
		GCKR	rs780094-T	0.04896	0.02698	0.07094	0.29581	0.16303	0.42859	1.28E-05	18008	0.363
		LYPLAL1	rs12137855-C	0.01697	-0.00639	0.04034	0.08904	-0.03353	0.21162	0.15447	20233	0.755
		PNPLA3	rs738409-G	0.00901	-0.01664	0.03466	0.00767	-0.01415	0.02948	0.49105	18007	0.229
		TM6SF2	rs58542926-T	-0.08953	-0.13306	-0.04600	-0.13948	-0.20730	-0.07166	5.61E-05	19042	0.063
		NCAN	rs2228603-T	-0.09122	-0.13428	-0.04816	-0.14212	-0.20921	-0.07503	3.34E-05	19043	0.065
Amino acids	Ala	GCKR	rs1260326-T	0.10458	0.08510	0.12406	0.63186	0.51415	0.74957	7.40E-26	22569	0.361
		GCKR	rs780094-T	0.09731	0.07791	0.11671	0.58791	0.47069	0.70514	8.95E-23	22569	0.366
		LYPLAL1	rs12137855-C	0.00762	-0.01327	0.02850	0.03997	-0.06960	0.14954	0.47462	24791	0.750
		PNPLA3	rs738409-G	0.02221	-0.00057	0.04499	0.01889	-0.00048	0.03827	0.05599	22564	0.227
		TM6SF2	rs58542926-T	-0.05151	-0.08986	-0.01315	-0.08025	-0.14001	-0.02049	0.00850	23599	0.064
		NCAN	rs2228603-T	-0.04692	-0.08501	-0.00883	-0.07310	-0.13244	-0.01376	0.01578	23604	0.067
	Gln	GCKR	rs1260326-T	-0.06167	-0.08143	-0.04191	-0.37257	-0.49196	-0.25318	9.87E-10	22235	0.361
		GCKR	rs780094-T	-0.05922	-0.07889	-0.03954	-0.35776	-0.47663	-0.23889	3.75E-09	22235	0.365
		LYPLAL1	rs12137855-C	0.01308	-0.00803	0.03418	0.06860	-0.04211	0.17931	0.22453	24457	0.751
		PNPLA3	rs738409-G	0.02546	0.00240	0.04852	0.02166	0.00204	0.04128	0.03051	22231	0.227
		TM6SF2	rs58542926-T	-0.00584	-0.04463	0.03294	-0.00910	-0.06953	0.05132	0.76783	23264	0.064
		NCAN	rs2228603-T	-0.00381	-0.04233	0.03472	-0.00593	-0.06594	0.05409	0.84648	23269	0.067
	Gly	GCKR	rs1260326-T	-0.00603	-0.02876	0.01670	-0.03644	-0.17377	0.10089	0.60307	16507	0.365

His	GCKR	rs780094-T	-0.00221	-0.02487	0.02045	-0.01335	-0.15023	0.12353	0.84840	16507	0.371
	LYPLAL1	rs12137855-C	0.02417	0.00011	0.04822	0.12677	0.00059	0.25295	0.04894	18732	0.749
	PNPLA3	rs738409-G	0.00687	-0.01934	0.03309	0.00585	-0.01645	0.02814	0.60741	16504	0.228
	TM6SF2	rs58542926-T	-0.01780	-0.06171	0.02611	-0.02773	-0.09614	0.04068	0.42694	17539	0.064
	NCAN	rs2228603-T	-0.01008	-0.05334	0.03318	-0.01570	-0.08311	0.05170	0.64794	17542	0.068
	GCKR	rs1260326-T	-0.02611	-0.04695	-0.00526	-0.15773	-0.28368	-0.03178	0.01467	19244	0.363
	GCKR	rs780094-T	-0.03076	-0.05149	-0.01002	-0.18582	-0.31112	-0.06052	0.00386	19244	0.369
	LYPLAL1	rs12137855-C	0.00322	-0.01953	0.02596	0.01688	-0.10243	0.13618	0.78280	19240	0.732
	PNPLA3	rs738409-G	0.02971	0.00565	0.05378	0.02528	0.00481	0.04574	0.01611	19239	0.231
	TM6SF2	rs58542926-T	-0.07277	-0.11406	-0.03147	-0.11337	-0.17771	-0.04902	0.00060	19239	0.063
Ile	NCAN	rs2228603-T	-0.05552	-0.09590	-0.01514	-0.08650	-0.14941	-0.02359	0.00738	19244	0.068
	GCKR	rs1260326-T	0.08568	0.06621	0.10515	0.51765	0.40001	0.63528	9.75E-18	22549	0.361
	GCKR	rs780094-T	0.08071	0.06132	0.10010	0.48763	0.37046	0.60481	5.00E-16	22549	0.366
	LYPLAL1	rs12137855-C	0.00636	-0.01447	0.02720	0.03338	-0.07593	0.14269	0.55140	24771	0.750
	PNPLA3	rs738409-G	0.01558	-0.00714	0.03829	0.01325	-0.00608	0.03258	0.18108	22545	0.227
	TM6SF2	rs58542926-T	-0.06207	-0.10035	-0.02379	-0.09670	-0.15634	-0.03706	0.00157	23579	0.064
	NCAN	rs2228603-T	-0.05574	-0.09380	-0.01768	-0.08684	-0.14614	-0.02754	0.00430	23584	0.067
	GCKR	rs1260326-T	0.07981	0.06033	0.09928	0.48218	0.36451	0.59985	1.07E-15	22500	0.361
	GCKR	rs780094-T	0.07411	0.05470	0.09352	0.44777	0.33050	0.56504	7.90E-14	22501	0.365
	LYPLAL1	rs12137855-C	0.00881	-0.01207	0.02970	0.04623	-0.06333	0.15580	0.40862	24724	0.751
Leu	PNPLA3	rs738409-G	0.01445	-0.00826	0.03717	0.01230	-0.00703	0.03162	0.21262	22497	0.227
	TM6SF2	rs58542926-T	-0.04177	-0.08015	-0.00338	-0.06507	-0.12487	-0.00527	0.03311	23531	0.064
	NCAN	rs2228603-T	-0.04208	-0.08014	-0.00401	-0.06555	-0.12486	-0.00625	0.03041	23535	0.067
	GCKR	rs1260326-T	0.05174	0.03237	0.07112	0.31262	0.19557	0.42966	1.68E-07	22673	0.361
	GCKR	rs780094-T	0.04584	0.02653	0.06515	0.27693	0.16026	0.39360	3.33E-06	22673	0.365
	LYPLAL1	rs12137855-C	0.00058	-0.02019	0.02134	0.00303	-0.10590	0.11196	0.95655	24895	0.751
	PNPLA3	rs738409-G	0.00526	-0.01735	0.02787	0.00448	-0.01476	0.02371	0.64830	22669	0.227
	TM6SF2	rs58542926-T	-0.02868	-0.06694	0.00958	-0.04468	-0.10429	0.01492	0.14175	23703	0.064
	NCAN	rs2228603-T	-0.03445	-0.07238	0.00347	-0.05368	-0.11277	0.00541	0.07500	23707	0.067
	GCKR	rs1260326-T	0.01705	-0.00323	0.03733	0.10302	-0.01952	0.22556	0.10028	20436	0.363
Phe	GCKR	rs780094-T	0.01415	-0.00607	0.03437	0.08550	-0.03667	0.20768	0.17120	20436	0.368
	LYPLAL1	rs12137855-C	0.01779	-0.00370	0.03928	0.09332	-0.01942	0.20607	0.10561	22658	0.744
	PNPLA3	rs738409-G	0.03516	0.01159	0.05873	0.02991	0.00986	0.04996	0.00356	20432	0.227
	TM6SF2	rs58542926-T	0.00979	-0.02933	0.04892	0.01525	-0.04570	0.07621	0.62466	21466	0.064
	NCAN	rs2228603-T	0.00301	-0.03564	0.04165	0.00469	-0.05552	0.06489	0.87902	21470	0.068
	GCKR	rs1260326-T	0.00505	-0.01435	0.02446	0.03052	-0.08671	0.14776	0.60985	22698	0.361
	GCKR	rs780094-T	0.00112	-0.01819	0.02043	0.00677	-0.10988	0.12341	0.90946	22698	0.366
	LYPLAL1	rs12137855-C	0.00691	-0.01389	0.02771	0.03624	-0.07288	0.14537	0.51508	24921	0.751
	PNPLA3	rs738409-G	0.04021	0.01761	0.06281	0.03420	0.01498	0.05343	0.00049	22693	0.227
	TM6SF2	rs58542926-T	0.00520	-0.03310	0.04350	0.00810	-0.05157	0.06778	0.79019	23728	0.064
Tyr	NCAN	rs2228603-T	0.00329	-0.03468	0.04126	0.00513	-0.05403	0.06429	0.86509	23732	0.067

Total lipids	XXL.VLDL.L	GCKR	rs1260326-T	0.07414	0.05311	0.09517	0.44794	0.32087	0.57502	6.52E-12	18960	0.363
		GCKR	rs780094-T	0.07087	0.04994	0.09180	0.42819	0.30174	0.55464	4.17E-11	18960	0.369
		LYPLAL1	rs12137855-C	0.02401	0.00107	0.04695	0.12594	0.00560	0.24628	0.04131	18955	0.733
		PNPLA3	rs738409-G	0.00363	-0.02063	0.02790	0.00309	-0.01755	0.02373	0.77045	18955	0.231
		TM6SF2	rs58542926-T	-0.11581	-0.15740	-0.07422	-0.18043	-0.24523	-0.11564	5.78E-08	18955	0.063
		NCAN	rs2228603-T	-0.10146	-0.14223	-0.06069	-0.15807	-0.22159	-0.09455	1.24E-06	18960	0.068
	XL.VLDL.L	GCKR	rs1260326-T	0.08411	0.06330	0.10493	0.50820	0.38242	0.63397	4.43E-15	19273	0.363
		GCKR	rs780094-T	0.07948	0.05877	0.10020	0.48022	0.35507	0.60536	9.51E-14	19273	0.370
		LYPLAL1	rs12137855-C	0.02274	0.00003	0.04545	0.11930	0.00018	0.23842	0.05177	19268	0.732
		PNPLA3	rs738409-G	0.00561	-0.01843	0.02965	0.00477	-0.01568	0.02522	0.65026	19268	0.231
		TM6SF2	rs58542926-T	-0.13949	-0.18069	-0.09829	-0.21733	-0.28151	-0.15314	5.00E-11	19268	0.063
		NCAN	rs2228603-T	-0.12107	-0.16141	-0.08073	-0.18862	-0.25147	-0.12578	5.72E-09	19273	0.068
	L.VLDL.L	GCKR	rs1260326-T	0.08769	0.06670	0.10867	0.52978	0.40299	0.65658	4.90E-16	18960	0.363
		GCKR	rs780094-T	0.08435	0.06346	0.10523	0.50961	0.38344	0.63579	4.40E-15	18960	0.369
		LYPLAL1	rs12137855-C	0.02975	0.00685	0.05266	0.15609	0.03594	0.27624	0.01160	18955	0.733
		PNPLA3	rs738409-G	0.01480	-0.00941	0.03901	0.01259	-0.00800	0.03318	0.23484	18955	0.231
		TM6SF2	rs58542926-T	-0.13302	-0.17450	-0.09153	-0.20724	-0.27186	-0.14261	4.77E-10	18955	0.063
		NCAN	rs2228603-T	-0.10725	-0.14793	-0.06657	-0.16710	-0.23048	-0.10372	3.07E-07	18960	0.068
	M.VLDL.L	GCKR	rs1260326-T	0.09624	0.07544	0.11704	0.58145	0.45581	0.70710	2.98E-19	19273	0.363
		GCKR	rs780094-T	0.08977	0.06907	0.11046	0.54235	0.41733	0.66738	4.21E-17	19273	0.370
		LYPLAL1	rs12137855-C	0.02985	0.00712	0.05258	0.15659	0.03733	0.27585	0.01090	19268	0.732
		PNPLA3	rs738409-G	0.01542	-0.00864	0.03947	0.01311	-0.00735	0.03358	0.21388	19268	0.231
		TM6SF2	rs58542926-T	-0.15472	-0.19593	-0.11351	-0.24105	-0.30525	-0.17685	3.43E-13	19268	0.063
		NCAN	rs2228603-T	-0.13438	-0.17470	-0.09407	-0.20937	-0.27218	-0.14655	1.05E-10	19273	0.068
S.VLDL.L	GCKR	rs1260326-T	0.09289	0.07208	0.11369	0.56119	0.43546	0.68691	6.64E-18	19273	0.363	
	GCKR	rs780094-T	0.08643	0.06572	0.10714	0.52217	0.39706	0.64728	7.58E-16	19273	0.370	
	LYPLAL1	rs12137855-C	0.02114	-0.00160	0.04387	0.11089	-0.00838	0.23015	0.07235	19268	0.732	
	PNPLA3	rs738409-G	0.01672	-0.00734	0.04079	0.01423	-0.00624	0.03470	0.17917	19268	0.231	
	TM6SF2	rs58542926-T	-0.15699	-0.19821	-0.11576	-0.24458	-0.30881	-0.18035	1.92E-13	19268	0.063	
	NCAN	rs2228603-T	-0.13955	-0.17988	-0.09922	-0.21742	-0.28025	-0.15459	2.35E-11	19273	0.068	
XS.VLDL.L	GCKR	rs1260326-T	0.05404	0.03314	0.07495	0.32652	0.20024	0.45280	5.91E-07	19273	0.363	
	GCKR	rs780094-T	0.05157	0.03077	0.07236	0.31156	0.18591	0.43720	1.67E-06	19273	0.370	
	LYPLAL1	rs12137855-C	0.01156	-0.01121	0.03434	0.06067	-0.05882	0.18015	0.32643	19268	0.732	
	PNPLA3	rs738409-G	0.02309	-0.00102	0.04720	0.01964	-0.00087	0.04015	0.06415	19268	0.231	
	TM6SF2	rs58542926-T	-0.15043	-0.19175	-0.10911	-0.23436	-0.29874	-0.16999	2.04E-12	19268	0.063	
	NCAN	rs2228603-T	-0.13722	-0.17768	-0.09676	-0.21379	-0.27683	-0.15075	5.73E-11	19273	0.068	
IDL.L	GCKR	rs1260326-T	0.03764	0.01676	0.05853	0.22742	0.10125	0.35360	0.00050	19273	0.363	
	GCKR	rs780094-T	0.03439	0.01362	0.05517	0.20779	0.08227	0.33332	0.00139	19273	0.370	
	LYPLAL1	rs12137855-C	0.00651	-0.01625	0.02928	0.03417	-0.08525	0.15359	0.58033	19268	0.732	
	PNPLA3	rs738409-G	0.01669	-0.00741	0.04079	0.01420	-0.00630	0.03470	0.18077	19268	0.231	
	TM6SF2	rs58542926-T	-0.11800	-0.15931	-0.07669	-0.18385	-0.24821	-0.11949	3.49E-08	19268	0.063	

L.LDL.L	NCAN	rs2228603-T	-0.10555	-0.14597	-0.06514	-0.16445	-0.22742	-0.10149	4.60E-07	19273	0.068
	GCKR	rs1260326-T	0.04667	0.02581	0.06753	0.28198	0.15595	0.40800	1.61E-05	19273	0.363
	GCKR	rs780094-T	0.04142	0.02067	0.06217	0.25026	0.12487	0.37564	0.00012	19273	0.370
	LYPLAL1	rs12137855-C	0.01006	-0.01268	0.03280	0.05280	-0.06650	0.17209	0.39332	19268	0.732
	PNPLA3	rs738409-G	0.01166	-0.01242	0.03573	0.00991	-0.01057	0.03040	0.35049	19268	0.231
	TM6SF2	rs58542926-T	-0.10050	-0.14179	-0.05922	-0.15658	-0.22090	-0.09226	2.70E-06	19268	0.063
M.LDL.L	NCAN	rs2228603-T	-0.08645	-0.12683	-0.04607	-0.13469	-0.19760	-0.07178	3.67E-05	19273	0.068
	GCKR	rs1260326-T	0.05731	0.03646	0.07815	0.34623	0.22029	0.47217	1.18E-07	19273	0.363
	GCKR	rs780094-T	0.05045	0.02971	0.07119	0.30479	0.17948	0.43010	2.79E-06	19273	0.370
	LYPLAL1	rs12137855-C	0.01244	-0.01029	0.03517	0.06526	-0.05398	0.18449	0.29135	19268	0.732
	PNPLA3	rs738409-G	0.00731	-0.01676	0.03137	0.00622	-0.01425	0.02669	0.55826	19268	0.231
	TM6SF2	rs58542926-T	-0.09919	-0.14045	-0.05793	-0.15454	-0.21882	-0.09025	3.63E-06	19268	0.063
S.LDL.L	NCAN	rs2228603-T	-0.08327	-0.12363	-0.04290	-0.12973	-0.19261	-0.06684	7.05E-05	19273	0.068
	GCKR	rs1260326-T	0.06956	0.04874	0.09039	0.42029	0.29446	0.54612	1.21E-10	19273	0.363
	GCKR	rs780094-T	0.06227	0.04154	0.08299	0.37621	0.25100	0.50143	6.98E-09	19273	0.370
	LYPLAL1	rs12137855-C	0.01628	-0.00644	0.03900	0.08542	-0.03377	0.20460	0.16680	19268	0.732
	PNPLA3	rs738409-G	0.00497	-0.01909	0.02902	0.00423	-0.01624	0.02469	0.69042	19268	0.231
	TM6SF2	rs58542926-T	-0.11441	-0.15565	-0.07318	-0.17826	-0.24250	-0.11401	8.88E-08	19268	0.063
XL.HDL.L	NCAN	rs2228603-T	-0.09760	-0.13794	-0.05725	-0.15205	-0.21491	-0.08920	3.11E-06	19273	0.068
	GCKR	rs1260326-T	-0.01738	-0.03823	0.00346	-0.10503	-0.23094	0.02088	0.10340	19273	0.363
	GCKR	rs780094-T	-0.01173	-0.03246	0.00901	-0.07084	-0.19611	0.05444	0.26955	19273	0.370
	LYPLAL1	rs12137855-C	-0.00326	-0.02601	0.01949	-0.01711	-0.13644	0.10223	0.77959	19268	0.732
	PNPLA3	rs738409-G	-0.01967	-0.04373	0.00440	-0.01673	-0.03720	0.00374	0.11054	19268	0.231
	TM6SF2	rs58542926-T	0.00950	-0.03179	0.05079	0.01480	-0.04953	0.07913	0.65335	19268	0.063
L.HDL.L	NCAN	rs2228603-T	0.01669	-0.02368	0.05707	0.02601	-0.03689	0.08891	0.41945	19273	0.068
	GCKR	rs1260326-T	-0.03082	-0.05171	-0.00994	-0.18623	-0.31239	-0.06007	0.00426	19273	0.363
	GCKR	rs780094-T	-0.02558	-0.04636	-0.00480	-0.15456	-0.28010	-0.02902	0.01711	19273	0.370
	LYPLAL1	rs12137855-C	-0.00660	-0.02935	0.01616	-0.03460	-0.15397	0.08478	0.57458	19268	0.732
	PNPLA3	rs738409-G	-0.00118	-0.02526	0.02291	-0.00100	-0.02148	0.01948	0.92463	19268	0.231
	TM6SF2	rs58542926-T	0.03114	-0.01017	0.07245	0.04852	-0.01584	0.11288	0.14424	19268	0.063
M.HDL.L	NCAN	rs2228603-T	0.03616	-0.00426	0.07657	0.05633	-0.00663	0.11929	0.08310	19273	0.068
	GCKR	rs1260326-T	0.04672	0.02588	0.06756	0.28226	0.15633	0.40819	1.34E-05	19273	0.363
	GCKR	rs780094-T	0.04330	0.02256	0.06404	0.26160	0.13631	0.38688	5.00E-05	19273	0.370
	LYPLAL1	rs12137855-C	0.01046	-0.01226	0.03317	0.05485	-0.06429	0.17399	0.37090	19268	0.732
	PNPLA3	rs738409-G	0.00729	-0.01676	0.03133	0.00620	-0.01425	0.02665	0.55590	19268	0.231
	TM6SF2	rs58542926-T	-0.05605	-0.09730	-0.01479	-0.08732	-0.15160	-0.02305	0.00830	19268	0.063
S.HDL.L	NCAN	rs2228603-T	-0.03798	-0.07835	0.00238	-0.05918	-0.12206	0.00371	0.06742	19273	0.068
	GCKR	rs1260326-T	0.07852	0.05773	0.09931	0.47439	0.34876	0.60002	1.91E-13	19273	0.363
	GCKR	rs780094-T	0.06849	0.04779	0.08918	0.41379	0.28876	0.53882	1.15E-10	19273	0.370
	LYPLAL1	rs12137855-C	0.01689	-0.00583	0.03962	0.08863	-0.03057	0.20782	0.14722	19268	0.732
	PNPLA3	rs738409-G	-0.00522	-0.02926	0.01883	-0.00444	-0.02489	0.01602	0.67248	19268	0.231

		TM6SF2	rs58542926-T	-0.06161	-0.10287	-0.02035	-0.09598	-0.16026	-0.03171	0.00362	19268	0.063	
		NCAN	rs2228603-T	-0.04092	-0.08124	-0.00060	-0.06376	-0.12657	-0.00094	0.04791	19273	0.068	
Phospholipids	PC	GCKR	rs1260326-T	0.06691	0.04213	0.09170	0.40427	0.25453	0.55401	1.49E-07	13542	0.364	
		GCKR	rs780094-T	0.06435	0.03973	0.08897	0.38879	0.24005	0.53752	3.64E-07	13542	0.371	
		LYPLAL1	rs12137855-C	0.01460	-0.01266	0.04187	0.07661	-0.06641	0.21962	0.29685	13539	0.735	
		PNPLA3	rs738409-G	0.03188	0.00324	0.06053	0.02712	0.00275	0.05149	0.03022	13538	0.232	
		TM6SF2	rs58542926-T	-0.12209	-0.17116	-0.07301	-0.19021	-0.26667	-0.11375	1.29E-06	13538	0.063	
		NCAN	rs2228603-T	-0.10101	-0.14887	-0.05315	-0.15737	-0.23194	-0.08280	4.00E-05	13542	0.068	
		SM	GCKR	rs1260326-T	0.03150	0.00665	0.05634	0.19029	0.04020	0.34039	0.01329	13476	0.364
			GCKR	rs780094-T	0.02878	0.00410	0.05346	0.17388	0.02479	0.32297	0.02275	13476	0.370
			LYPLAL1	rs12137855-C	0.00748	-0.01984	0.03479	0.03922	-0.10406	0.18251	0.59288	13475	0.733
			PNPLA3	rs738409-G	0.03456	0.00584	0.06327	0.02940	0.00497	0.05382	0.01876	13470	0.233
			TM6SF2	rs58542926-T	-0.09909	-0.14827	-0.04991	-0.15438	-0.23100	-0.07775	8.38E-05	13472	0.063
			NCAN	rs2228603-T	-0.09821	-0.14616	-0.05025	-0.15300	-0.22772	-0.07829	6.40E-05	13476	0.067
		TotPG	GCKR	rs1260326-T	0.07379	0.04900	0.09859	0.44583	0.29602	0.59564	6.83E-09	13519	0.363
			GCKR	rs780094-T	0.07093	0.04630	0.09556	0.42852	0.27972	0.57733	2.05E-08	13519	0.370
			LYPLAL1	rs12137855-C	0.02572	-0.00157	0.05301	0.13493	-0.00825	0.27811	0.06631	13518	0.734
			PNPLA3	rs738409-G	0.02818	-0.00049	0.05684	0.02397	-0.00042	0.04835	0.05545	13517	0.234
			TM6SF2	rs58542926-T	-0.12487	-0.17398	-0.07577	-0.19455	-0.27106	-0.11804	7.35E-07	13515	0.063
			NCAN	rs2228603-T	-0.09998	-0.14785	-0.05210	-0.15576	-0.23035	-0.08118	4.76E-05	13519	0.068
		XXL.VLDL.PL	GCKR	rs1260326-T	0.08249	0.06244	0.10254	0.49839	0.37727	0.61950	1.09E-15	21542	0.361
			GCKR	rs780094-T	0.07875	0.05882	0.09867	0.47576	0.35539	0.59613	1.36E-14	21542	0.367
			LYPLAL1	rs12137855-C	0.01762	-0.00437	0.03960	0.09241	-0.02291	0.20774	0.11821	21537	0.742
			PNPLA3	rs738409-G	0.00468	-0.01852	0.02788	0.00398	-0.01575	0.02372	0.69401	21537	0.230
			TM6SF2	rs58542926-T	-0.10864	-0.14901	-0.06827	-0.16926	-0.23215	-0.10637	1.58E-07	21537	0.063
			NCAN	rs2228603-T	-0.09762	-0.13736	-0.05788	-0.15208	-0.21400	-0.09017	1.70E-06	21542	0.067
		XL.VLDL.PL	GCKR	rs1260326-T	0.09048	0.07032	0.11063	0.54663	0.42488	0.66838	2.86E-18	21237	0.361
			GCKR	rs780094-T	0.08696	0.06693	0.10699	0.52539	0.40439	0.64639	3.46E-17	21237	0.366
			LYPLAL1	rs12137855-C	0.02628	0.00417	0.04839	0.13788	0.02188	0.25387	0.02095	21232	0.742
			PNPLA3	rs738409-G	0.01144	-0.01187	0.03476	0.00973	-0.01010	0.02957	0.34031	21232	0.230
			TM6SF2	rs58542926-T	-0.13157	-0.17213	-0.09101	-0.20498	-0.26817	-0.14179	3.03E-10	21232	0.063
			NCAN	rs2228603-T	-0.11597	-0.15591	-0.07604	-0.18069	-0.24291	-0.11846	1.73E-08	21237	0.067
	L.VLDL.PL	GCKR	rs1260326-T	0.09682	0.07667	0.11696	0.58493	0.46323	0.70663	9.13E-21	21239	0.361	
		GCKR	rs780094-T	0.09412	0.07410	0.11414	0.56865	0.44770	0.68960	6.15E-20	21239	0.366	
		LYPLAL1	rs12137855-C	0.03096	0.00884	0.05308	0.16242	0.04637	0.27846	0.00648	21234	0.742	
		PNPLA3	rs738409-G	0.01767	-0.00564	0.04097	0.01503	-0.00480	0.03485	0.14022	21234	0.230	
		TM6SF2	rs58542926-T	-0.13940	-0.17993	-0.09887	-0.21718	-0.28033	-0.15404	2.27E-11	21234	0.063	
		NCAN	rs2228603-T	-0.11974	-0.15968	-0.07980	-0.18655	-0.24877	-0.12433	5.56E-09	21239	0.067	
	M.VLDL.PL	GCKR	rs1260326-T	0.09786	0.07770	0.11802	0.59125	0.46945	0.71304	4.48E-21	21240	0.361	
		GCKR	rs780094-T	0.09311	0.07307	0.11314	0.56254	0.44149	0.68358	1.92E-19	21240	0.366	
		LYPLAL1	rs12137855-C	0.03070	0.00856	0.05285	0.16107	0.04489	0.27726	0.00712	21235	0.742	

	PNPLA3	rs738409-G	0.02122	-0.00212	0.04456	0.01805	-0.00180	0.03790	0.07744	21235	0.230
	TM6SF2	rs58542926-T	-0.15482	-0.19538	-0.11425	-0.24120	-0.30441	-0.17800	1.31E-13	21235	0.063
	NCAN	rs2228603-T	-0.13719	-0.17714	-0.09723	-0.21373	-0.27599	-0.15148	2.70E-11	21240	0.067
S.VLDL.PL	GCKR	rs1260326-T	0.09232	0.07234	0.11231	0.55779	0.43704	0.67854	3.94E-19	21551	0.361
	GCKR	rs780094-T	0.08714	0.06727	0.10700	0.52646	0.40645	0.64646	2.09E-17	21551	0.367
	LYPLAL1	rs12137855-C	0.01863	-0.00333	0.04058	0.09771	-0.01748	0.21290	0.10047	21546	0.742
	PNPLA3	rs738409-G	0.02285	-0.00031	0.04602	0.01944	-0.00027	0.03915	0.05611	21546	0.230
	TM6SF2	rs58542926-T	-0.14915	-0.18944	-0.10887	-0.23238	-0.29514	-0.16962	7.82E-13	21546	0.063
	NCAN	rs2228603-T	-0.13654	-0.17614	-0.09693	-0.21272	-0.27443	-0.15102	2.55E-11	21551	0.067
XS.VLDL.PL	GCKR	rs1260326-T	0.03507	0.01416	0.05598	0.21187	0.08553	0.33821	0.00119	19273	0.363
	GCKR	rs780094-T	0.03310	0.01230	0.05391	0.20000	0.07430	0.32570	0.00210	19273	0.370
	LYPLAL1	rs12137855-C	0.00950	-0.01328	0.03228	0.04984	-0.06965	0.16933	0.41983	19268	0.732
	PNPLA3	rs738409-G	0.02371	-0.00040	0.04782	0.02017	-0.00034	0.04068	0.05718	19268	0.231
	TM6SF2	rs58542926-T	-0.12645	-0.16778	-0.08513	-0.19701	-0.26140	-0.13262	3.36E-09	19268	0.063
	NCAN	rs2228603-T	-0.11319	-0.15366	-0.07272	-0.17635	-0.23939	-0.11330	6.45E-08	19273	0.068
IDL.PL	GCKR	rs1260326-T	0.03830	0.01825	0.05835	0.23141	0.11028	0.35254	0.00022	21559	0.361
	GCKR	rs780094-T	0.03584	0.01591	0.05576	0.21651	0.09615	0.33687	0.00050	21559	0.367
	LYPLAL1	rs12137855-C	0.01206	-0.00991	0.03403	0.06328	-0.05198	0.17853	0.28779	21554	0.742
	PNPLA3	rs738409-G	0.01855	-0.00464	0.04174	0.01578	-0.00395	0.03550	0.12147	21554	0.230
	TM6SF2	rs58542926-T	-0.10980	-0.15014	-0.06945	-0.17106	-0.23392	-0.10820	1.40E-07	21554	0.063
	NCAN	rs2228603-T	-0.09804	-0.13773	-0.05836	-0.15275	-0.21457	-0.09092	1.75E-06	21559	0.067
L.LDL.PL	GCKR	rs1260326-T	0.03781	0.01779	0.05783	0.22844	0.10749	0.34939	0.00026	21550	0.361
	GCKR	rs780094-T	0.03267	0.01277	0.05256	0.19737	0.07718	0.31757	0.00150	21550	0.367
	LYPLAL1	rs12137855-C	0.01205	-0.00991	0.03400	0.06319	-0.05196	0.17834	0.28858	21545	0.742
	PNPLA3	rs738409-G	0.01233	-0.01084	0.03549	0.01049	-0.00922	0.03019	0.30339	21545	0.230
	TM6SF2	rs58542926-T	-0.10079	-0.14112	-0.06047	-0.15703	-0.21986	-0.09421	1.36E-06	21545	0.063
	NCAN	rs2228603-T	-0.08535	-0.12501	-0.04569	-0.13297	-0.19476	-0.07118	3.20E-05	21550	0.067
M.LDL.PL	GCKR	rs1260326-T	0.05571	0.03572	0.07570	0.33660	0.21582	0.45737	7.78E-08	21558	0.361
	GCKR	rs780094-T	0.04854	0.02868	0.06841	0.29329	0.17326	0.41331	2.47E-06	21558	0.367
	LYPLAL1	rs12137855-C	0.01740	-0.00453	0.03933	0.09126	-0.02378	0.20630	0.12593	21553	0.742
	PNPLA3	rs738409-G	0.00188	-0.02126	0.02501	0.00159	-0.01809	0.02128	0.87572	21553	0.230
	TM6SF2	rs58542926-T	-0.10310	-0.14338	-0.06281	-0.16062	-0.22338	-0.09786	8.07E-07	21553	0.063
	NCAN	rs2228603-T	-0.08579	-0.12543	-0.04615	-0.13365	-0.19541	-0.07190	3.01E-05	21558	0.067
XL.HDL.PL	GCKR	rs1260326-T	-0.03328	-0.05416	-0.01241	-0.20108	-0.32720	-0.07497	0.00192	19273	0.363
	GCKR	rs780094-T	-0.02575	-0.04652	-0.00498	-0.15559	-0.28108	-0.03010	0.01583	19273	0.370
	LYPLAL1	rs12137855-C	-0.00795	-0.03071	0.01482	-0.04168	-0.16111	0.07774	0.49691	19268	0.732
	PNPLA3	rs738409-G	-0.01167	-0.03575	0.01242	-0.00992	-0.03041	0.01056	0.34573	19268	0.231
	TM6SF2	rs58542926-T	0.03918	-0.00213	0.08050	0.06105	-0.00332	0.12541	0.06491	19268	0.063
	NCAN	rs2228603-T	0.04410	0.00367	0.08452	0.06870	0.00572	0.13169	0.03377	19273	0.068
L.HDL.PL	GCKR	rs1260326-T	-0.02781	-0.04869	-0.00694	-0.16803	-0.29414	-0.04191	0.00998	19273	0.363
	GCKR	rs780094-T	-0.02304	-0.04381	-0.00227	-0.13919	-0.26468	-0.01370	0.03192	19273	0.370

		LYPLAL1	rs12137855-C	-0.00575	-0.02849	0.01698	-0.03018	-0.14944	0.08908	0.62452	19268	0.732
		PNPLA3	rs738409-G	0.00271	-0.02136	0.02678	0.00231	-0.01817	0.02278	0.82749	19268	0.231
		TM6SF2	rs58542926-T	0.02084	-0.02045	0.06212	0.03246	-0.03186	0.09679	0.32895	19268	0.063
		NCAN	rs2228603-T	0.02841	-0.01198	0.06880	0.04427	-0.01866	0.10720	0.17357	19273	0.068
	M.HDL.PL	GCKR	rs1260326-T	0.04953	0.02951	0.06954	0.29924	0.17831	0.42017	1.55E-06	21558	0.361
		GCKR	rs780094-T	0.04617	0.02628	0.06607	0.27897	0.15879	0.39916	6.54E-06	21558	0.367
		LYPLAL1	rs12137855-C	0.01354	-0.00840	0.03548	0.07103	-0.04405	0.18611	0.23029	21553	0.742
		PNPLA3	rs738409-G	0.00670	-0.01645	0.02984	0.00570	-0.01399	0.02539	0.57391	21553	0.230
		TM6SF2	rs58542926-T	-0.07347	-0.11377	-0.03318	-0.11447	-0.17725	-0.05169	0.00040	21553	0.063
		NCAN	rs2228603-T	-0.05098	-0.09061	-0.01135	-0.07942	-0.14116	-0.01768	0.01245	21558	0.067
Cholesterol	L.VLDL.C	GCKR	rs1260326-T	0.08912	0.06896	0.10929	0.53846	0.41664	0.66028	8.49E-18	21235	0.361
		GCKR	rs780094-T	0.08552	0.06548	0.10556	0.51670	0.39564	0.63776	1.07E-16	21235	0.366
		LYPLAL1	rs12137855-C	0.02834	0.00385	0.05282	0.14866	0.02022	0.27709	0.02437	17570	0.745
		PNPLA3	rs738409-G	0.01425	-0.00906	0.03757	0.01212	-0.00771	0.03195	0.23429	21230	0.230
		TM6SF2	rs58542926-T	-0.14257	-0.18312	-0.10203	-0.22213	-0.28529	-0.15896	8.15E-12	21230	0.063
		NCAN	rs2228603-T	-0.12439	-0.16435	-0.08443	-0.19380	-0.25605	-0.13154	1.44E-09	21235	0.067
	M.VLDL.C	GCKR	rs1260326-T	0.09445	0.07445	0.11445	0.57063	0.44981	0.69146	5.02E-20	21551	0.361
		GCKR	rs780094-T	0.08919	0.06932	0.10907	0.53887	0.41878	0.65895	3.13E-18	21551	0.367
		LYPLAL1	rs12137855-C	0.02567	0.00370	0.04764	0.13467	0.01943	0.24991	0.02329	21546	0.742
		PNPLA3	rs738409-G	0.01967	-0.00350	0.04285	0.01673	-0.00298	0.03645	0.09931	21546	0.230
		TM6SF2	rs58542926-T	-0.16681	-0.20708	-0.12653	-0.25988	-0.32263	-0.19713	9.32E-16	21546	0.063
		NCAN	rs2228603-T	-0.15170	-0.19131	-0.11210	-0.23635	-0.29806	-0.17465	1.07E-13	21551	0.067
	S.VLDL.C	GCKR	rs1260326-T	0.07396	0.05398	0.09394	0.44683	0.32611	0.56754	7.58E-13	21557	0.361
		GCKR	rs780094-T	0.06843	0.04857	0.08829	0.41344	0.29347	0.53341	2.49E-11	21557	0.367
		LYPLAL1	rs12137855-C	0.01849	-0.00347	0.04044	0.09698	-0.01821	0.21217	0.10273	21552	0.742
		PNPLA3	rs738409-G	0.01683	-0.00634	0.04000	0.01432	-0.00539	0.03403	0.15912	21552	0.230
		TM6SF2	rs58542926-T	-0.13869	-0.17899	-0.09839	-0.21608	-0.27886	-0.15330	2.64E-11	21552	0.063
		NCAN	rs2228603-T	-0.12729	-0.16688	-0.08770	-0.19832	-0.26000	-0.13664	4.75E-10	21557	0.067
	IDL.C	GCKR	rs1260326-T	0.03248	0.01160	0.05336	0.19622	0.07006	0.32238	0.00266	19273	0.363
		GCKR	rs780094-T	0.02917	0.00839	0.04994	0.17621	0.05068	0.30173	0.00669	19273	0.370
		LYPLAL1	rs12137855-C	0.00493	-0.01783	0.02768	0.02584	-0.09353	0.14522	0.67574	19268	0.732
		PNPLA3	rs738409-G	0.01350	-0.01058	0.03759	0.01149	-0.00900	0.03198	0.27859	19268	0.231
		TM6SF2	rs58542926-T	-0.10363	-0.14493	-0.06233	-0.16145	-0.22580	-0.09711	1.26E-06	19268	0.063
		NCAN	rs2228603-T	-0.09302	-0.13343	-0.05261	-0.14492	-0.20788	-0.08196	8.79E-06	19273	0.068
	LDL.C	GCKR	rs1260326-T	0.04214	0.02217	0.06212	0.25461	0.13392	0.37530	4.76E-05	21559	0.361
		GCKR	rs780094-T	0.03580	0.01595	0.05565	0.21628	0.09634	0.33621	0.00051	21559	0.367
		LYPLAL1	rs12137855-C	0.01526	-0.00665	0.03718	0.08008	-0.03488	0.19503	0.17902	21554	0.742
		PNPLA3	rs738409-G	0.00470	-0.01842	0.02782	0.00400	-0.01567	0.02367	0.69490	21554	0.230
		TM6SF2	rs58542926-T	-0.08833	-0.12859	-0.04807	-0.13761	-0.20033	-0.07489	2.34E-05	21554	0.063
		NCAN	rs2228603-T	-0.07590	-0.11549	-0.03631	-0.11825	-0.17994	-0.05657	0.00022	21559	0.067
	L.LDL.C	GCKR	rs1260326-T	0.03341	0.01340	0.05341	0.20183	0.08098	0.32267	0.00126	21552	0.361

	GCKR	rs780094-T	0.02797	0.00810	0.04785	0.16901	0.04894	0.28909	0.00657	21552	0.367
	LYPLAL1	rs12137855-C	0.01163	-0.01031	0.03356	0.06100	-0.05407	0.17606	0.30586	21547	0.742
	PNPLA3	rs738409-G	0.00913	-0.01402	0.03228	0.00777	-0.01192	0.02746	0.44605	21547	0.230
	TM6SF2	rs58542926-T	-0.08807	-0.12836	-0.04777	-0.13721	-0.19999	-0.07443	2.45E-05	21547	0.063
	NCAN	rs2228603-T	-0.07437	-0.11399	-0.03475	-0.11586	-0.17759	-0.05414	0.00029	21552	0.067
M.LDL.C	GCKR	rs1260326-T	0.04123	0.02125	0.06122	0.24913	0.12840	0.36985	6.92E-05	21559	0.361
	GCKR	rs780094-T	0.03433	0.01448	0.05419	0.20743	0.08746	0.32740	0.00086	21559	0.367
	LYPLAL1	rs12137855-C	0.01469	-0.00723	0.03661	0.07707	-0.03793	0.19207	0.19598	21554	0.742
	PNPLA3	rs738409-G	0.00325	-0.01988	0.02639	0.00277	-0.01691	0.02244	0.78616	21554	0.230
	TM6SF2	rs58542926-T	-0.08395	-0.12423	-0.04368	-0.13080	-0.19355	-0.06805	5.84E-05	21554	0.063
	NCAN	rs2228603-T	-0.06960	-0.10920	-0.03000	-0.10844	-0.17013	-0.04674	0.00070	21559	0.067
S.LDL.C	GCKR	rs1260326-T	0.06066	0.04069	0.08063	0.36651	0.24585	0.48716	4.29E-09	21556	0.361
	GCKR	rs780094-T	0.05349	0.03364	0.07333	0.32316	0.20326	0.44306	1.88E-07	21556	0.367
	LYPLAL1	rs12137855-C	0.01345	-0.00846	0.03536	0.07054	-0.04440	0.18549	0.23505	21551	0.742
	PNPLA3	rs738409-G	0.00432	-0.01880	0.02744	0.00367	-0.01600	0.02334	0.71799	21551	0.230
	TM6SF2	rs58542926-T	-0.10334	-0.14361	-0.06308	-0.16101	-0.22373	-0.09828	6.96E-07	21551	0.063
	NCAN	rs2228603-T	-0.09070	-0.13029	-0.05111	-0.14131	-0.20299	-0.07963	9.42E-06	21556	0.067
HDL.C	GCKR	rs1260326-T	-0.00225	-0.02229	0.01778	-0.01361	-0.13464	0.10743	0.82712	21555	0.361
	GCKR	rs780094-T	-0.00182	-0.02173	0.01809	-0.01099	-0.13127	0.10929	0.85910	21555	0.367
	LYPLAL1	rs12137855-C	-0.00099	-0.02294	0.02097	-0.00517	-0.12036	0.11002	0.93047	21550	0.742
	PNPLA3	rs738409-G	-0.01129	-0.03446	0.01188	-0.00960	-0.02931	0.01010	0.34390	21550	0.230
	TM6SF2	rs58542926-T	0.00593	-0.03440	0.04625	0.00923	-0.05360	0.07206	0.77537	21550	0.063
	NCAN	rs2228603-T	0.01951	-0.02012	0.05914	0.03039	-0.03135	0.09213	0.33904	21555	0.067
XL.HDL.C	GCKR	rs1260326-T	-0.00869	-0.02871	0.01132	-0.05252	-0.17343	0.06838	0.39526	21540	0.361
	GCKR	rs780094-T	-0.00566	-0.02555	0.01422	-0.03422	-0.15437	0.08593	0.57728	21540	0.367
	LYPLAL1	rs12137855-C	-0.00259	-0.02455	0.01938	-0.01357	-0.12879	0.10166	0.81778	21535	0.742
	PNPLA3	rs738409-G	-0.02251	-0.04567	0.00065	-0.01915	-0.03885	0.00055	0.05718	21535	0.230
	TM6SF2	rs58542926-T	-0.00672	-0.04706	0.03361	-0.01047	-0.07331	0.05237	0.74432	21535	0.063
	NCAN	rs2228603-T	0.00136	-0.03827	0.04100	0.00213	-0.05962	0.06387	0.94630	21540	0.067
L.HDL.C	GCKR	rs1260326-T	-0.03075	-0.05079	-0.01071	-0.18575	-0.30684	-0.06467	0.00291	21558	0.361
	GCKR	rs780094-T	-0.02650	-0.04641	-0.00658	-0.16008	-0.28041	-0.03976	0.00983	21558	0.367
	LYPLAL1	rs12137855-C	-0.00745	-0.02943	0.01453	-0.03908	-0.15438	0.07623	0.51066	21553	0.742
	PNPLA3	rs738409-G	-0.00619	-0.02937	0.01699	-0.00527	-0.02498	0.01445	0.60409	21553	0.230
	TM6SF2	rs58542926-T	0.03726	-0.00309	0.07760	0.05805	-0.00481	0.12091	0.07307	21553	0.063
	NCAN	rs2228603-T	0.04286	0.00318	0.08254	0.06678	0.00496	0.12860	0.03603	21558	0.067
M.HDL.C	GCKR	rs1260326-T	0.03059	0.01029	0.05088	0.18481	0.06219	0.30742	0.00343	21557	0.351
	GCKR	rs780094-T	0.02792	0.00775	0.04808	0.16867	0.04684	0.29050	0.00718	20984	0.366
	LYPLAL1	rs12137855-C	0.00970	-0.01223	0.03162	0.05086	-0.06418	0.16590	0.39050	21553	0.742
	PNPLA3	rs738409-G	0.00175	-0.02139	0.02488	0.00149	-0.01819	0.02117	0.88339	21553	0.230
	TM6SF2	rs58542926-T	-0.02726	-0.06755	0.01303	-0.04247	-0.10524	0.02030	0.18885	21553	0.063
	NCAN	rs2228603-T	-0.01384	-0.05345	0.02577	-0.02156	-0.08328	0.04015	0.49739	21558	0.067

	Est.C	GCKR	rs1260326-T	0.06465	0.03979	0.08952	0.39061	0.24039	0.54082	4.40E-07	13497	0.363	
		GCKR	rs780094-T	0.05724	0.03254	0.08195	0.34585	0.19661	0.49509	6.75E-06	13497	0.370	
		LYPLAL1	rs12137855-C	0.01492	-0.01243	0.04226	0.07824	-0.06520	0.22169	0.28903	13496	0.733	
		PNPLA3	rs738409-G	0.02270	-0.00606	0.05145	0.01931	-0.00515	0.04377	0.12493	13493	0.233	
		TM6SF2	rs58542926-T	-0.13851	-0.18775	-0.08927	-0.21580	-0.29251	-0.13908	4.66E-08	13493	0.063	
	Serum.C	NCAN	rs2228603-T	-0.12749	-0.17547	-0.07950	-0.19862	-0.27338	-0.12386	2.46E-07	13497	0.067	
		GCKR	rs1260326-T	0.06805	0.04801	0.08808	0.41112	0.29006	0.53218	4.44E-11	21491	0.361	
		GCKR	rs780094-T	0.06406	0.04415	0.08397	0.38704	0.26674	0.50734	4.34E-10	21491	0.367	
		LYPLAL1	rs12137855-C	0.01272	-0.00925	0.03469	0.06673	-0.04852	0.18199	0.26093	21486	0.742	
		PNPLA3	rs738409-G	0.00547	-0.01772	0.02866	0.00466	-0.01507	0.02438	0.64679	21486	0.230	
		TM6SF2	rs58542926-T	-0.12206	-0.16240	-0.08173	-0.19017	-0.25301	-0.12733	4.33E-09	21486	0.063	
		NCAN	rs2228603-T	-0.10300	-0.14265	-0.06335	-0.16047	-0.22224	-0.09869	4.66E-07	21491	0.067	
		Free.C	GCKR	rs1260326-T	0.03268	0.00785	0.05752	0.19746	0.04743	0.34750	0.01046	13497	0.363
			GCKR	rs780094-T	0.02764	0.00297	0.05231	0.16701	0.01797	0.31605	0.02924	13497	0.370
			LYPLAL1	rs12137855-C	0.00922	-0.01806	0.03650	0.04836	-0.09475	0.19147	0.51085	13496	0.733
PNPLA3	rs738409-G		0.00568	-0.02302	0.03437	0.00483	-0.01958	0.02924	0.70021	13493	0.233		
TM6SF2	rs58542926-T		-0.13164	-0.18078	-0.08250	-0.20509	-0.28166	-0.12853	1.90E-07	13493	0.063		
	NCAN	rs2228603-T	-0.11805	-0.16595	-0.07014	-0.18391	-0.25855	-0.10928	1.65E-06	13497	0.067		
Free cholesterol	L.VLDL.FC	GCKR	rs1260326-T	0.09459	0.07445	0.11473	0.57150	0.44982	0.69319	7.17E-20	21238	0.361	
		GCKR	rs780094-T	0.09074	0.07072	0.11076	0.54822	0.42728	0.66916	1.28E-18	21238	0.366	
		LYPLAL1	rs12137855-C	0.02190	-0.00021	0.04400	0.11486	-0.00112	0.23085	0.05418	21233	0.742	
		PNPLA3	rs738409-G	0.01302	-0.01029	0.03633	0.01108	-0.00875	0.03090	0.27737	21233	0.230	
		TM6SF2	rs58542926-T	-0.14866	-0.18919	-0.10813	-0.23160	-0.29475	-0.16846	1.03E-12	21233	0.063	
		NCAN	rs2228603-T	-0.13013	-0.17006	-0.09021	-0.20274	-0.26495	-0.14054	2.41E-10	21238	0.067	
	M.VLDL.FC	GCKR	rs1260326-T	0.09897	0.07884	0.11910	0.59795	0.47633	0.71956	1.38E-21	21240	0.361	
		GCKR	rs780094-T	0.09414	0.07414	0.11415	0.56878	0.44791	0.68965	6.64E-20	21240	0.366	
		LYPLAL1	rs12137855-C	0.03058	0.00847	0.05269	0.16041	0.04441	0.27642	0.00725	21235	0.742	
		PNPLA3	rs738409-G	0.02161	-0.00170	0.04492	0.01838	-0.00144	0.03821	0.07176	21235	0.230	
		TM6SF2	rs58542926-T	-0.15745	-0.19797	-0.11692	-0.24530	-0.30844	-0.18216	4.70E-14	21235	0.063	
		NCAN	rs2228603-T	-0.14119	-0.18110	-0.10128	-0.21997	-0.28215	-0.15779	6.62E-12	21240	0.067	
	S.VLDL.FC	GCKR	rs1260326-T	0.08667	0.06670	0.10664	0.52365	0.40299	0.64430	4.51E-17	21559	0.361	
		GCKR	rs780094-T	0.08080	0.06095	0.10065	0.48817	0.36826	0.60809	3.32E-15	21559	0.367	
		LYPLAL1	rs12137855-C	0.02052	-0.00142	0.04246	0.10765	-0.00745	0.22275	0.07009	21554	0.742	
		PNPLA3	rs738409-G	0.01769	-0.00546	0.04084	0.01505	-0.00464	0.03474	0.13882	21554	0.230	
		TM6SF2	rs58542926-T	-0.15118	-0.19144	-0.11092	-0.23553	-0.29826	-0.17281	3.69E-13	21554	0.063	
		NCAN	rs2228603-T	-0.13923	-0.17881	-0.09964	-0.21691	-0.27858	-0.15524	1.00E-11	21559	0.067	
	IDL.FC	GCKR	rs1260326-T	0.02207	0.00203	0.04210	0.13332	0.01227	0.25437	0.03303	21559	0.361	
		GCKR	rs780094-T	0.02060	0.00069	0.04051	0.12445	0.00418	0.24473	0.04519	21559	0.367	
		LYPLAL1	rs12137855-C	0.00830	-0.01367	0.03027	0.04354	-0.07170	0.15877	0.46450	21554	0.742	
		PNPLA3	rs738409-G	0.01769	-0.00550	0.04087	0.01504	-0.00468	0.03476	0.13970	21554	0.230	
		TM6SF2	rs58542926-T	-0.09063	-0.13098	-0.05029	-0.14121	-0.20406	-0.07835	1.38E-05	21554	0.063	

		NCAN	rs2228603-T	-0.08363	-0.12329	-0.04397	-0.13030	-0.19209	-0.06851	4.50E-05	21559	0.067
	L.LDL.FC	GCKR	rs1260326-T	0.02107	0.00105	0.04108	0.12727	0.00635	0.24819	0.04202	21555	0.361
		GCKR	rs780094-T	0.01683	-0.00306	0.03672	0.10169	-0.01846	0.22184	0.10202	21555	0.367
		LYPLAL1	rs12137855-C	0.00985	-0.01209	0.03179	0.05168	-0.06342	0.16678	0.38563	21550	0.742
		PNPLA3	rs738409-G	0.00853	-0.01463	0.03168	0.00725	-0.01244	0.02695	0.47687	21550	0.230
		TM6SF2	rs58542926-T	-0.07956	-0.11987	-0.03924	-0.12395	-0.18675	-0.06114	0.00014	21550	0.063
		NCAN	rs2228603-T	-0.06723	-0.10686	-0.02759	-0.10474	-0.16649	-0.04298	0.00106	21555	0.067
	XL.HDL.FC	GCKR	rs1260326-T	-0.02046	-0.04048	-0.00043	-0.12359	-0.24459	-0.00259	0.04562	21542	0.361
		GCKR	rs780094-T	-0.01582	-0.03572	0.00408	-0.09559	-0.21582	0.02464	0.11971	21542	0.367
		LYPLAL1	rs12137855-C	-0.00751	-0.02949	0.01448	-0.03938	-0.15471	0.07594	0.50396	21537	0.742
		PNPLA3	rs738409-G	-0.01911	-0.04230	0.00407	-0.01626	-0.03598	0.00346	0.10666	21537	0.230
		TM6SF2	rs58542926-T	0.01468	-0.02569	0.05504	0.02287	-0.04002	0.08576	0.47667	21537	0.063
		NCAN	rs2228603-T	0.02499	-0.01467	0.06466	0.03893	-0.02286	0.10073	0.21753	21542	0.067
	L.HDL.FC	GCKR	rs1260326-T	-0.04084	-0.06086	-0.02081	-0.24673	-0.36773	-0.12573	7.60E-05	21559	0.361
		GCKR	rs780094-T	-0.03551	-0.05541	-0.01561	-0.21454	-0.33478	-0.09429	0.00054	21559	0.367
		LYPLAL1	rs12137855-C	-0.00970	-0.03166	0.01227	-0.05086	-0.16610	0.06438	0.39148	21554	0.742
		PNPLA3	rs738409-G	-0.00278	-0.02594	0.02039	-0.00236	-0.02207	0.01734	0.81603	21554	0.230
		TM6SF2	rs58542926-T	0.04512	0.00481	0.08543	0.07029	0.00749	0.13310	0.02980	21554	0.063
		NCAN	rs2228603-T	0.05246	0.01281	0.09211	0.08173	0.01995	0.14351	0.01023	21559	0.067
	M.HDL.FC	GCKR	rs1260326-T	0.03335	0.01334	0.05337	0.20152	0.08059	0.32245	0.00121	21559	0.361
		GCKR	rs780094-T	0.02999	0.01010	0.04988	0.18117	0.06100	0.30134	0.00340	21559	0.367
		LYPLAL1	rs12137855-C	0.01176	-0.01016	0.03369	0.06170	-0.05331	0.17672	0.29707	21554	0.742
		PNPLA3	rs738409-G	0.00377	-0.01937	0.02690	0.00320	-0.01648	0.02288	0.75177	21554	0.230
		TM6SF2	rs58542926-T	-0.04778	-0.08806	-0.00749	-0.07443	-0.13720	-0.01166	0.02120	21554	0.063
		NCAN	rs2228603-T	-0.02867	-0.06828	0.01094	-0.04467	-0.10637	0.01704	0.15946	21559	0.067
Cholesterol esters	L.VLDL.CE	GCKR	rs1260326-T	0.08299	0.06197	0.10400	0.50138	0.37441	0.62835	2.08E-14	18960	0.363
		GCKR	rs780094-T	0.08013	0.05922	0.10104	0.48414	0.35779	0.61049	1.18E-13	18960	0.369
		LYPLAL1	rs12137855-C	0.02259	-0.00032	0.04550	0.11853	-0.00166	0.23872	0.05601	18955	0.733
		PNPLA3	rs738409-G	0.01753	-0.00669	0.04176	0.01492	-0.00569	0.03552	0.16069	18955	0.231
		TM6SF2	rs58542926-T	-0.14183	-0.18333	-0.10032	-0.22096	-0.28563	-0.15630	3.69E-11	18955	0.063
		NCAN	rs2228603-T	-0.12998	-0.17069	-0.08926	-0.20250	-0.26593	-0.13907	6.35E-10	18960	0.068
	M.VLDL.CE	GCKR	rs1260326-T	0.08846	0.06764	0.10928	0.53444	0.40865	0.66022	2.16E-16	19273	0.363
		GCKR	rs780094-T	0.08337	0.06266	0.10409	0.50373	0.37856	0.62889	7.30E-15	19273	0.370
		LYPLAL1	rs12137855-C	0.02254	-0.00020	0.04529	0.11827	-0.00106	0.23759	0.05522	19268	0.732
		PNPLA3	rs738409-G	0.01770	-0.00638	0.04178	0.01505	-0.00543	0.03554	0.15510	19268	0.231
		TM6SF2	rs58542926-T	-0.17301	-0.21425	-0.13177	-0.26954	-0.33379	-0.20529	5.10E-16	19268	0.063
		NCAN	rs2228603-T	-0.15354	-0.19387	-0.11320	-0.23921	-0.30205	-0.17637	1.87E-13	19273	0.068
	L.LDL.CE	GCKR	rs1260326-T	0.04675	0.02590	0.06760	0.28242	0.15645	0.40840	1.55E-05	19273	0.363
		GCKR	rs780094-T	0.04085	0.02011	0.06160	0.24682	0.12149	0.37216	0.00015	19273	0.370
		LYPLAL1	rs12137855-C	0.00948	-0.01326	0.03221	0.04971	-0.06955	0.16897	0.42146	19268	0.732
		PNPLA3	rs738409-G	0.00967	-0.01440	0.03374	0.00823	-0.01225	0.02870	0.43832	19268	0.231

		TM6SF2	rs58542926-T	-0.09421	-0.13548	-0.05294	-0.14677	-0.21107	-0.08248	1.08E-05	19268	0.063
		NCAN	rs2228603-T	-0.08057	-0.12093	-0.04020	-0.12552	-0.18841	-0.06263	0.00012	19273	0.068
	M.LDL.CE	GCKR	rs1260326-T	0.05189	0.03105	0.07273	0.31351	0.18758	0.43943	1.60E-06	19273	0.363
		GCKR	rs780094-T	0.04511	0.02437	0.06585	0.27255	0.14725	0.39785	2.76E-05	19273	0.370
		LYPLAL1	rs12137855-C	0.01139	-0.01135	0.03412	0.05974	-0.05952	0.17899	0.33401	19268	0.732
		PNPLA3	rs738409-G	0.00781	-0.01626	0.03189	0.00665	-0.01383	0.02712	0.53140	19268	0.231
		TM6SF2	rs58542926-T	-0.09374	-0.13502	-0.05247	-0.14605	-0.21035	-0.08174	1.20E-05	19268	0.063
		NCAN	rs2228603-T	-0.07840	-0.11876	-0.03805	-0.12215	-0.18502	-0.05927	0.00018	19273	0.068
	XL.HDL.CE	GCKR	rs1260326-T	-0.00525	-0.02611	0.01561	-0.03171	-0.15776	0.09433	0.62279	19273	0.363
		GCKR	rs780094-T	-0.00188	-0.02264	0.01888	-0.01136	-0.13677	0.11404	0.85937	19273	0.370
		LYPLAL1	rs12137855-C	0.00067	-0.02208	0.02343	0.00353	-0.11586	0.12292	0.95386	19268	0.732
		PNPLA3	rs738409-G	-0.02384	-0.04792	0.00024	-0.02028	-0.04076	0.00021	0.05297	19268	0.231
		TM6SF2	rs58542926-T	-0.01226	-0.05358	0.02906	-0.01910	-0.08348	0.04528	0.56188	19268	0.063
		NCAN	rs2228603-T	-0.00674	-0.04714	0.03367	-0.01050	-0.07344	0.05245	0.74442	19273	0.068
	L.HDL.CE	GCKR	rs1260326-T	-0.02956	-0.05046	-0.00866	-0.17859	-0.30484	-0.05235	0.00615	19273	0.363
		GCKR	rs780094-T	-0.02467	-0.04546	-0.00388	-0.14903	-0.27464	-0.02341	0.02155	19273	0.370
		LYPLAL1	rs12137855-C	-0.00760	-0.03037	0.01517	-0.03987	-0.15934	0.07960	0.51792	19268	0.732
		PNPLA3	rs738409-G	-0.00681	-0.03091	0.01728	-0.00579	-0.02629	0.01470	0.58392	19268	0.231
		TM6SF2	rs58542926-T	0.03923	-0.00210	0.08056	0.06112	-0.00327	0.12552	0.06593	19268	0.063
		NCAN	rs2228603-T	0.03973	-0.00072	0.08018	0.06190	-0.00113	0.12492	0.05709	19273	0.068
	M.HDL.CE	GCKR	rs1260326-T	0.03270	0.01186	0.05355	0.19758	0.07166	0.32351	0.00232	19273	0.363
		GCKR	rs780094-T	0.02955	0.00881	0.05028	0.17850	0.05321	0.30380	0.00568	19273	0.370
		LYPLAL1	rs12137855-C	0.00580	-0.01691	0.02851	0.03045	-0.08868	0.14958	0.61973	19268	0.732
		PNPLA3	rs738409-G	0.00352	-0.02052	0.02756	0.00299	-0.01745	0.02344	0.77611	19268	0.231
		TM6SF2	rs58542926-T	-0.01536	-0.05660	0.02589	-0.02393	-0.08819	0.04033	0.46963	19268	0.063
		NCAN	rs2228603-T	-0.00564	-0.04599	0.03472	-0.00878	-0.07166	0.05409	0.78618	19273	0.068
Fluid balance	Alb	GCKR	rs1260326-T	0.02966	0.00853	0.05079	0.17921	0.05154	0.30688	0.00652	18960	0.363
		GCKR	rs780094-T	0.02451	0.00348	0.04553	0.14807	0.02103	0.27511	0.02387	18960	0.369
		LYPLAL1	rs12137855-C	0.00730	-0.01572	0.03032	0.03830	-0.08246	0.15907	0.53868	18955	0.733
		PNPLA3	rs738409-G	0.01089	-0.01347	0.03525	0.00926	-0.01146	0.02998	0.38621	18955	0.231
		TM6SF2	rs58542926-T	-0.01979	-0.06160	0.02202	-0.03084	-0.09598	0.03430	0.35874	18955	0.063
		NCAN	rs2228603-T	-0.01331	-0.05422	0.02761	-0.02073	-0.08448	0.04301	0.52842	18960	0.068
	Crea	GCKR	rs1260326-T	-0.02640	-0.04603	-0.00677	-0.15949	-0.27808	-0.04091	0.00851	22583	0.361
		GCKR	rs780094-T	-0.02413	-0.04366	-0.00461	-0.14581	-0.26379	-0.02783	0.01561	22583	0.366
		LYPLAL1	rs12137855-C	-0.00443	-0.02531	0.01644	-0.02326	-0.13275	0.08622	0.67759	24805	0.751
		PNPLA3	rs738409-G	0.01129	-0.01146	0.03404	0.00960	-0.00975	0.02895	0.33154	22578	0.227
		TM6SF2	rs58542926-T	-0.00736	-0.04573	0.03102	-0.01146	-0.07124	0.04832	0.70760	23613	0.064
		NCAN	rs2228603-T	-0.00288	-0.04094	0.03519	-0.00448	-0.06378	0.05483	0.88249	23618	0.067
	Urea	GCKR	rs1260326-T	0.01305	-0.00803	0.03412	0.07881	-0.04854	0.20617	0.22512	18813	0.363
		GCKR	rs780094-T	0.01131	-0.00966	0.03227	0.06830	-0.05833	0.19494	0.29046	18814	0.370
		LYPLAL1	rs12137855-C	-0.01113	-0.03412	0.01186	-0.05839	-0.17901	0.06223	0.34266	18810	0.732

		PNPLA3	rs738409-G	-0.00594	-0.03025	0.01838	-0.00505	-0.02573	0.01563	0.63216	18811	0.231
		TM6SF2	rs58542926-T	-0.03201	-0.07381	0.00978	-0.04988	-0.11499	0.01524	0.13324	18809	0.063
		NCAN	rs2228603-T	-0.02487	-0.06566	0.01592	-0.03874	-0.10229	0.02481	0.23209	18813	0.068
Inflammation	Gp	GCKR	rs1260326-T	0.08716	0.06635	0.10798	0.52662	0.40088	0.65237	5.24E-16	19270	0.363
		GCKR	rs780094-T	0.07988	0.05917	0.10059	0.48263	0.35750	0.60776	8.32E-14	19270	0.369
		LYPLAL1	rs12137855-C	0.02229	-0.00043	0.04501	0.11695	-0.00224	0.23614	0.05739	19265	0.732
		PNPLA3	rs738409-G	0.00347	-0.02058	0.02752	0.00295	-0.01751	0.02341	0.78006	19265	0.231
		TM6SF2	rs58542926-T	-0.08366	-0.12492	-0.04240	-0.13034	-0.19462	-0.06606	8.67E-05	19265	0.063
		NCAN	rs2228603-T	-0.07566	-0.11604	-0.03529	-0.11788	-0.18078	-0.05497	0.00029	19270	0.068