An individual participant data meta-analysis on metabolomics profiles for obesity and insulin resistance in European children. Supplementary Info.

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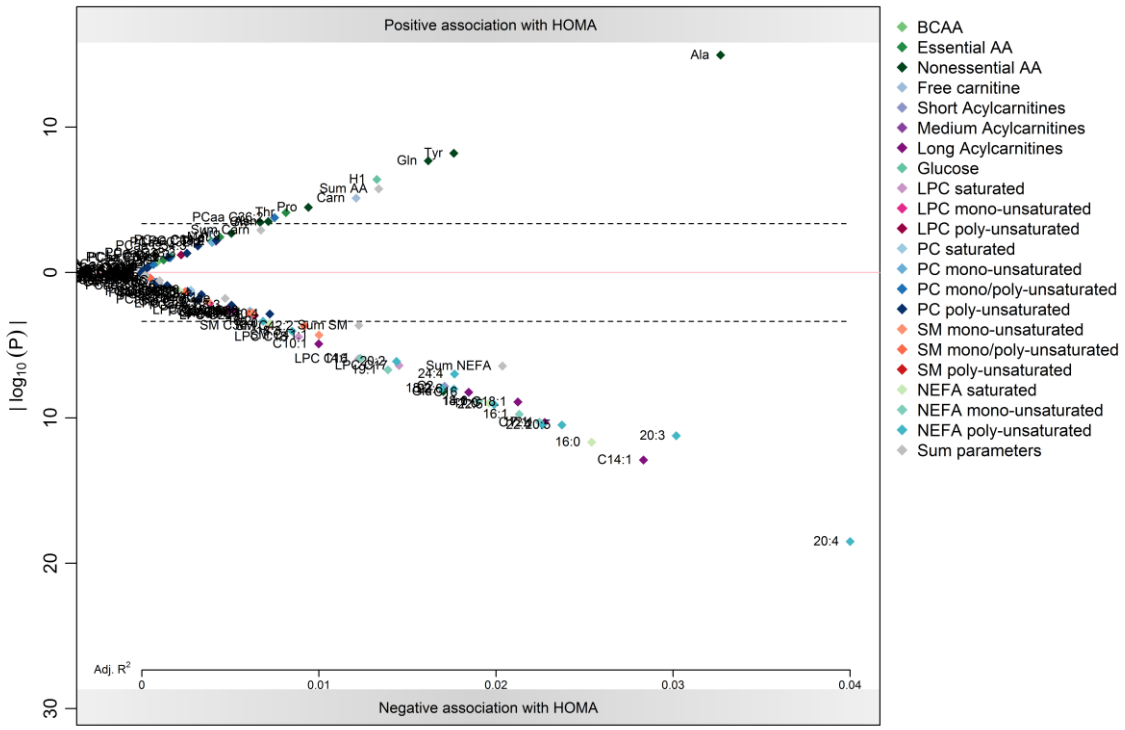
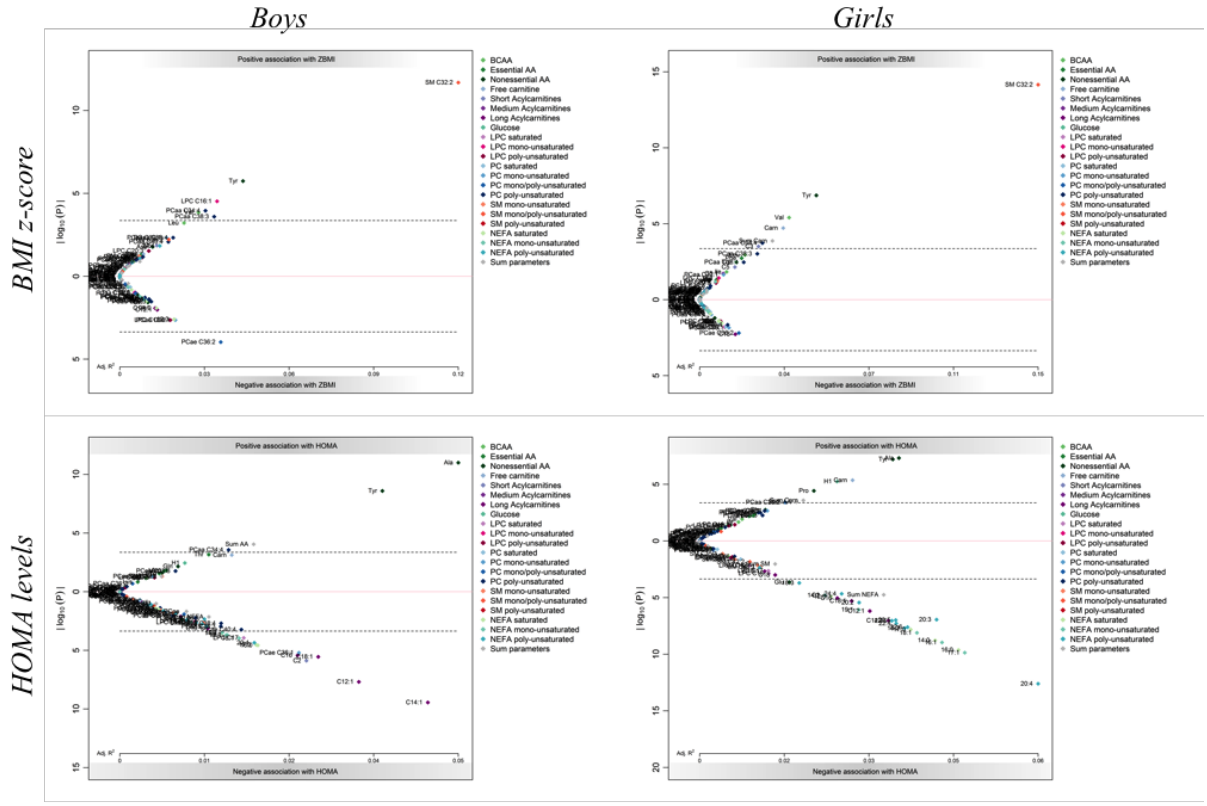
Supplemental Figure 1



Supplemental Figure 1 *Results of the individual participant meta-analysis of the association of metabolites with HOMA levels adjusted for BMI z-score. Log transformed p-values (y-axis) are plotted against adjusted R (x-axis), with positive associations in the upper part of the figure (above 0) and negative associations in the lower part (below 0). The dashed line indicates the Bonferroni-corrected significance level of 0.0004. Abbreviations: AA, amino acids; BCAA, branched-chain amino acids; LPC, lyso-phosphatidylcholine; NEFA, non-esterified fatty acid; PC, phosphatidylcholine; SM, sphingomyelin.*

Supplemental Figure 2



Supplemental Figure 2 Results of the individual participant sex-stratified meta-analyses of metabolites associated with BMI z-score and HOMA-index. Log transformed p-values (y-axis) are plotted against adjusted R (x-axis), with positive associations in the upper part of the figure (above 0) and negative associations in the lower part (below 0). The dashed line indicates the Bonferroni-corrected significance level of 0.0004. Abbreviations: AA, amino acids; BCAA, branched-chain amino acids; LPC, lyso-phosphatidylcholine; NEFA, non-esterified fatty acid; PC, phosphatidylcholine; SM, sphingomyelin

Supplemental Table 1 **Metabolites measured in each study and follow up, and used for meta-analyses**. AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-phosphatidylcholine; SM, sphingomyelin.

Metabolite			Inlcuded in meta-analysis							
	CHOP 5.5 years		CHOP 8 years		Ulm 8 years		GINIplus/LISA 10 years		Meta-Analysis	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Ala	391	282 (87.2)	355	286 (68.9)	412	347 (81.5)	250	452 (113)	1408	332 (107)
Arg	389	64 (19.1)	355	70 (15.5)	411	83 (27.9)	250	124 (24.1)	1405	82 (30.6)
Asn	391	34 (11.1)	355	40 (9.45)	374	50 (9.67)	250	61 (13.2)	1370	45 (14.4)
Asp	389	7.8 (3.44)	355	7.9 (3.05)	374	17 (4.98)	249	37 (12.6)	1367	16 (12.6)
Cit	391	28 (8.2)	355	33 (6.75)	413	34 (9.45)	250	44 (10.1)	1409	34 (10.1)
Gln	391	261 (134)	354	497 (151)	412	598 (97.7)	221	592 (139)	1378	475 (192)
Glu	391	154 (87.5)	355	103 (92.8)	413	85 (19.1)	250	129 (61.1)	1409	117 (76.2)
Gly	391	204 (50.8)	355	208 (43)	411	265 (50.7)	250	350 (71.9)	1407	249 (75.7)
His	391	81 (20.5)	355	101 (25.2)	413	112 (20.1)	250	137 (24.5)	1409	105 (29.2)
Hpro					411	24 (10.3)				
Ile	391	59 (17.4)	355	56 (9.88)	372	64 (12.5)	250	79 (16.2)	1368	63 (16.4)
Leu	391	113 (28.2)	355	112 (17.1)	413	131 (22.3)	250	148 (29.8)	1409	124 (28.1)
Lys	391	155 (35.6)	355	74 (15.4)	412	170 (33.4)	250	203 (43.7)	1408	147 (56.2)
Met	391	19 (4.96)	355	23 (4.22)	412	26 (5.44)	250	27 (5.56)	1408	23 (5.83)
Orn	391	58 (20.3)	355	57 (14.5)	412	65 (16.2)	250	111 (32.6)	1408	69 (28.5)
Phe	391	51 (11.7)	354	57 (8.76)	413	63 (11.6)	250	87 (18.8)	1408	62 (17.7)
Pro	391	161 (58)	355	117 (37.8)	409	226 (74.4)	250	200 (71.1)	1405	176 (74.6)
Ser	390	87 (23.5)	354	133 (29)	412	151 (35.5)	250	146 (34.8)	1406	128 (40.4)
Thr	391	102 (31.3)	355	94 (22.5)	413	120 (27.5)	250	145 (34.6)	1409	113 (33.9)
Trp	390	43 (11.8)	355	56 (9.33)	412	69 (13.4)	250	66 (13.9)	1407	58 (16)
Tyr	391	61 (16.8)	354	65 (12.1)	412	75 (15.4)	250	84 (18.4)	1407	70 (17.7)
Val	391	222 (57.4)	355	212 (36.3)	413	250 (45)	250	270 (56.6)	1409	236 (53.5)
H1	390	5571 (1000)	355	5162 (1000)	411	5047 (1000)	252	4894 (1000)	1408	5194 (1000)
Carn C2	396	8.2 (3.68)	355	7.5 (2.52)	412	7 (2.72)	195	5.2 (2.13)	1358	7.2 (3.07)
Carn C3	396	0.34 (0.1)	352	0.61 (0.3)	413	0.39 (0.1)	207	0.28 (0.09)	1368	0.41 (0.2)
Carn C3:1	278	0.021 (0.007)	287	0.036 (0.02)						
Carn C4	396	0.22 (0.1)			413	0.2 (0.09)	163	0.18 (0.09)		
Carn C4:0-OH	278	0.15 (0.1)	238	0.081 (0.09)						
Carn C4:1	354	0.071 (0.03)								
Carn C5	396	0.11 (0.04)	355	0.18 (0.08)	406	0.11 (0.05)	153	0.1 (0.04)	1310	0.13 (0.06)
Carn C5:0-OH	319	0.0014 (0.0005)	355	0.0021 (0.001)						
Carn C6	320	0.066 (0.03)	355	0.1 (0.05)			251	0.11 (0.05)		
Carn C6:1	210	0.011 (0.005)	355	0.027 (0.04)						
Carn C8	328	0.41 (0.2)	355	0.33 (0.2)			252	0.54 (0.3)		
Carn C8:1	396	0.075 (0.06)	355	0.072 (0.07)	408	0.22 (0.2)	251	0.12 (0.07)	1410	0.12 (0.1)
Carn C9	396	0.033 (0.01)	355	0.029 (0.02)			230	0.063 (0.03)		
Carn C10	395	0.43 (0.2)	355	0.55 (0.3)			251	0.7 (0.4)		
Carn C10:1	396	0.44 (0.2)	354	0.36 (0.2)	411	0.29 (0.2)	252	0.59 (0.3)	1413	0.4 (0.2)
Carn C10:2	396	0.059 (0.02)	355	0.044 (0.02)			153	0.15 (0.06)		
Carn C12::DCarn C	265	0.14 (0.09)								
Carn C12	395	0.21 (0.09)	355	0.22 (0.1)			251	0.35 (0.2)		
Carn C12:1	396	0.58 (0.2)	355	0.5 (0.3)	413	0.26 (0.2)	223	0.84 (0.4)	1387	0.51 (0.3)
Carn C14	396	0.074 (0.03)	355	0.062 (0.03)			162	0.069 (0.03)		
Carn C14:1	394	0.26 (0.1)	354	0.31 (0.2)	412	0.3 (0.1)	251	0.23 (0.1)	1411	0.28 (0.1)
Carn C14:2	396	0.051 (0.03)	355	0.063 (0.04)			163	0.093 (0.04)		
Carn C14:2-OH	253	0.025 (0.01)	353	0.018 (0.01)						
Carn C15	396	0.026 (0.01)	355	0.011 (0.005)						
Carn C16	395	0.095 (0.03)	355	0.087 (0.02)	411	0.1 (0.04)	230	0.1 (0.03)	1391	0.096 (0.03)
Carn C16:0-OH	258	0.016 (0.008)	289	0.0055 (0.002)						
Carn C16:1	395	0.065 (0.03)	355	0.056 (0.03)			200	0.051 (0.02)		
Carn C16:2	293	0.016 (0.006)	355	0.019 (0.01)						
Carn C16:2-OH	278	0.025 (0.009)	305	0.012 (0.005)						
Carn C18	396	0.043 (0.01)	355	0.029 (0.01)	408	0.046 (0.02)	189	0.058 (0.03)	1348	0.042 (0.02)
Carn C18:1	396	0.12 (0.05)	355	0.092 (0.03)	413	0.14 (0.05)	252	0.14 (0.05)	1416	0.12 (0.05)
Carn C18:1-OH	327	0.016 (0.008)	355	0.013 (0.007)						
Carn C18:2	396	0.065 (0.03)	353	0.058 (0.02)			178	0.068 (0.02)		

Carn C18:2-OH	252	0.0077 (0.003)	233	0.0057 (0.003)						
Carn C20	394	0.015 (0.005)	349	0.0085 (0.005)						
Carn C20:1	318	0.00045 (1.9e-04)	354	0.00033 (7.1e-05)						
Carn C20:3	396	0.015 (0.007)	355	0.0064 (0.002)						
Carn C20:4	396	0.00098 (0.0006)	305	0.00042 (1.5e-04)						
Carn C22	294	0.00094 (4.9e-04)	222	0.00044 (2.0e-04)						
Carn C22:5	279	0.0076 (0.003)	254	0.0024 (0.001)						
Carn C22:6	257	0.0022 (0.0009)	184	0.0031 (0.002)						
Carn	396	40 (9.46)	355	66 (20.2)	412	33 (6.87)	191	28 (6.48)	1354	43 (18.9)
LPC C14	247	1.7 (0.8)			413	1.2 (0.5)	252	2.2 (1.01)		
LPC C15	249	0.79 (0.4)			413	0.7 (0.2)	234	1.1 (0.4)		
LPC C16	395	77 (29)	355	82 (44.6)	413	57 (12.3)	252	81 (27.4)	1415	73 (32.1)
LPC C16:1	396	2.3 (1.04)	355	2.6 (1.22)	412	1.9 (0.5)	252	2.7 (0.9)	1415	2.3 (1)
LPC C17	394	1.4 (0.7)	289	1.7 (0.9)	413	1 (0.3)	252	1.6 (0.6)	1348	1.4 (0.7)
LPC C18	396	27 (11.7)	355	29 (16.2)	413	20 (4.68)	252	27 (9.49)	1416	25 (11.8)
LPC C18:1	396	18 (5.35)	355	20 (6.9)	413	15 (3.57)	252	17 (4.88)	1416	17 (5.58)
LPC C18:2	396	29 (10.2)	355	36 (12.5)	413	25 (7.63)	252	29 (9.21)	1416	30 (10.9)
LPC C18:3	355	0.54 (0.3)	221	0.56 (0.3)	412	0.51 (0.2)	234	0.6 (0.3)	1222	0.54 (0.3)
LPC C20:1	203	0.41 (0.3)			413	0.27 (0.08)				
LPC C20:3	394	2.4 (1)	288	2.8 (0.9)	411	1.8 (0.4)	252	2.2 (0.7)	1345	2.3 (0.9)
LPC C20:4	396	6.8 (2.24)	355	7.9 (2.43)	411	4.4 (1.06)	252	6.4 (2.01)	1414	6.3 (2.38)
LPC C20:5	324	0.43 (0.2)	170	0.71 (0.3)	411	0.41 (0.2)	249	0.42 (0.2)	1154	0.46 (0.2)
LPC C22:6	320	1.8 (0.8)	253	1.9 (0.7)	412	1.3 (0.4)	234	1.6 (0.6)	1219	1.6 (0.7)
LPC C18:6			181	0.39 (0.2)	413	0.23 (0.07)	152	0.35 (0.1)		
LPC C22:5			154	0.82 (0.3)	413	0.83 (0.2)	187	0.56 (0.2)		
LPC C15:1					413	0.058 (0.02)				
LPC C17:1					413	0.26 (0.07)	234	0.35 (0.1)		
LPC C20					413	0.2 (0.07)				
LPC C20:2					413	0.26 (0.08)	135	0.32 (0.2)		
LPC C22:4					413	0.36 (0.1)				
PCaa C18					413	0.15 (0.04)				
PCaa C18:1					413	0.1 (0.04)				
PCaa C20:4	216	0.12 (0.06)								
PCaa C28:2	324	0.1 (0.05)								
PCaa C30	396	3.4 (1.62)			413	3.7 (1.57)	252	3.9 (1.39)		
PCaa C30:2	395	0.82 (0.2)			413	1.4 (0.5)	178	0.82 (0.3)		
PCaa C30:3	395	0.22 (0.08)					173	0.26 (0.09)		
PCaa C30:4	168	0.092 (0.03)					126	0.1 (0.06)		
PCaa C30:5			180	0.0043 (0.003)						
PCaa C32	396	13 (3.9)	355	14 (3.59)	413	19 (7.1)	252	14 (3.11)	1416	15 (5.55)
PCaa C32:1	396	12 (5.42)	289	13 (6.33)	413	18 (6.51)	252	16 (5.91)	1350	15 (6.47)
PCaa C32:2	396	2.9 (1.07)			413	3.9 (1.64)	252	3.6 (1.3)		
PCaa C32:3					413	0.51 (0.2)	197	0.78 (0.2)		
PCaa C34					411	5.3 (2.45)				
PCaa C34:1	396	191 (53.3)	355	206 (55.5)	412	224 (49.6)	252	197 (47)	1415	206 (53.2)
PCaa C34:2	396	308 (78)	289	339 (88)	412	404 (91.7)	252	337 (81.1)	1349	350 (93.2)
PCaa C34:3	394	13 (4.79)	355	15 (5.23)	413	14 (4.38)	252	17 (4.93)	1414	14 (4.96)
PCaa C34:4	396	1.5 (0.6)	305	1.7 (0.7)	413	1.8 (0.8)	252	1.9 (0.7)	1366	1.7 (0.7)
PCaa C34:5					413	0.22 (0.1)	167	0.21 (0.1)		
PCaa C34:6					398	0.11 (0.05)				
PCaa C36	277	3.3 (2.61)			412	3.1 (1)	192	3.9 (2.17)		
PCaa C36:1	396	43 (15.1)			413	58 (17.8)	252	46 (12.7)		
PCaa C36:2	396	234 (58.4)	355	252 (80)	412	237 (44.7)	252	239 (59.1)	1415	240 (61.6)
PCaa C36:3	396	116 (29.9)	355	115 (27.2)	413	117 (21.8)	252	119 (30.1)	1416	117 (27.1)
PCaa C36:4	396	127 (39.5)	289	136 (38)	413	164 (33.5)	252	147 (38.4)	1350	144 (40)
PCaa C36:5	394	9.4 (3.72)	286	11 (5.85)	413	13 (5.78)	251	13 (5.53)	1344	12 (5.48)
PCaa C36:6	325	1 (0.7)			413	0.65 (0.3)	231	1.1 (0.5)		
PCaa C38	318	3.2 (1.29)	166	3.7 (1.71)	413	2.4 (0.7)	252	3.2 (1.2)	1149	3 (1.25)
PCaa C38:1					409	1.8 (0.8)				
PCaa C38:2					413	5.7 (1.72)	117	6.9 (2)		
PCaa C38:3	396	37 (11.3)	167	37 (10.5)	412	36 (8.81)	252	44 (13.6)	1227	38 (11.3)
PCaa C38:4	396	93 (29.2)	184	100 (31.2)	413	113 (27.3)	252	102 (29.3)	1245	103 (30)
PCaa C38:5	396	37 (10.6)	239	34 (10.3)	413	48 (13)	252	45 (13.5)	1300	41 (13.2)
PCaa C38:6	396	52 (17.6)	355	54 (22)	413	56 (16.1)	252	60 (20.8)	1416	55 (19.2)

Supplemental Table 2 Associations of metabolites with BMI z-score in all studies and follow-ups, and in the meta-analysis. Associations between BMI z-score and metabolites for each study follow-up visit were calculated using linear regression without further covariate adjustment and individual participant meta-analysis. Statistical significance was evaluated using Bonferroni corrected p-values (p.adjust) < 0.05 (with dark grey background). AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-phosphatidylcholine; SM, sphingomyelin

CHOP 5.5 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	386	0.000	0.001	5.29E-01	1.00E+00	0.001
Arg	384	0.001	0.003	7.79E-01	1.00E+00	0.000
Asn	386	-0.008	0.005	6.88E-02	1.00E+00	0.009
Asp	384	0.026	0.015	8.15E-02	1.00E+00	0.008
Cit	386	-0.006	0.006	3.14E-01	1.00E+00	0.003
Gln	386	-0.001	0.000	1.49E-02	1.00E+00	0.015
Glu	386	0.000	0.001	9.03E-01	1.00E+00	0.000
Gly	386	-0.002	0.001	1.06E-01	1.00E+00	0.007
His	386	-0.001	0.002	6.43E-01	1.00E+00	0.001
Ile	386	0.004	0.003	1.35E-01	1.00E+00	0.006
Leu	386	0.002	0.002	4.08E-01	1.00E+00	0.002
Lys	386	0.000	0.001	9.02E-01	1.00E+00	0.000
Met	386	0.013	0.010	2.21E-01	1.00E+00	0.004
Orn	386	0.000	0.003	8.89E-01	1.00E+00	0.000
Phe	386	0.002	0.004	6.71E-01	1.00E+00	0.000
Pro	386	-0.001	0.001	3.43E-01	1.00E+00	0.002
Ser	385	-0.001	0.002	7.59E-01	1.00E+00	0.000
Thr	386	0.004	0.002	2.96E-02	1.00E+00	0.012
Trp	385	0.004	0.004	3.22E-01	1.00E+00	0.003
Tyr	386	0.008	0.003	7.34E-03	1.00E+00	0.019
Val	386	0.001	0.001	2.27E-01	1.00E+00	0.004
H1	385	0.000	0.000	7.00E-02	1.00E+00	0.009
Carn	391	0.022	0.005	2.53E-05	5.90E-03	0.045
Carn C2	391	-0.017	0.014	2.14E-01	1.00E+00	0.004
Carn C3	391	1.519	0.506	2.87E-03	6.69E-01	0.023
Carn C3:1	274	13.944	8.695	1.10E-01	1.00E+00	0.009
Carn C4	391	0.292	0.466	5.31E-01	1.00E+00	0.001
Carn C4:0:OH	274	-1.316	0.623	3.55E-02	1.00E+00	0.016
Carn C4:1	349	-0.517	1.549	7.38E-01	1.00E+00	0.000
Carn C5	391	3.789	1.336	4.80E-03	1.00E+00	0.020
Carn C5:0:OH	315	203.492	106.725	5.75E-02	1.00E+00	0.011
Carn C6	316	-1.257	1.699	4.60E-01	1.00E+00	0.002
Carn C6:1	206	-4.627	15.613	7.67E-01	1.00E+00	0.000
Carn C8	323	-0.423	0.338	2.13E-01	1.00E+00	0.005

Carn C8:1	391	0.025	0.910	9.78E-01	1.00E+00	0.000
Carn C9	391	-0.626	3.458	8.57E-01	1.00E+00	0.000
Carn C10	390	-0.302	0.215	1.62E-01	1.00E+00	0.005
Carn C10:1	391	0.440	0.288	1.28E-01	1.00E+00	0.006
Carn C10:2	391	1.154	2.589	6.56E-01	1.00E+00	0.001
Carn C12::DC	260	-0.371	0.684	5.88E-01	1.00E+00	0.001
Carn C12	390	-0.554	0.586	3.45E-01	1.00E+00	0.002
Carn C12:1	391	-0.024	0.215	9.10E-01	1.00E+00	0.000
Carn C14	391	-2.002	1.653	2.26E-01	1.00E+00	0.004
Carn C14:1	389	-0.374	0.419	3.73E-01	1.00E+00	0.002
Carn C14:2	391	0.324	1.911	8.66E-01	1.00E+00	0.000
Carn C14:2:OH	249	6.356	5.678	2.64E-01	1.00E+00	0.005
Carn C15	391	0.825	4.643	8.59E-01	1.00E+00	0.000
Carn C16	390	0.952	1.783	5.94E-01	1.00E+00	0.001
Carn C16:OH	254	-2.662	7.920	7.37E-01	1.00E+00	0.000
Carn C16:1	390	-0.840	1.932	6.64E-01	1.00E+00	0.000
Carn C16:2	288	8.499	10.397	4.14E-01	1.00E+00	0.002
Carn C16:2:OH	274	10.836	6.467	9.50E-02	1.00E+00	0.010
Carn C18	391	-4.053	3.472	2.44E-01	1.00E+00	0.003
Carn C18:1	391	0.528	1.121	6.38E-01	1.00E+00	0.001
Carn C18:1:OH	322	-2.686	7.337	7.15E-01	1.00E+00	0.000
Carn C18:2	391	3.106	1.562	4.75E-02	1.00E+00	0.010
Carn C18:2:OH	248	20.565	21.647	3.43E-01	1.00E+00	0.004
Carn C20	389	2.501	11.174	8.23E-01	1.00E+00	0.000
Carn C20:1	314	219.757	290.383	4.50E-01	1.00E+00	0.002
Carn C20:3	391	12.720	7.330	8.35E-02	1.00E+00	0.008
Carn C20:4	391	90.283	83.205	2.79E-01	1.00E+00	0.003
Carn C22	289	-17.306	119.032	8.85E-01	1.00E+00	0.000
Carn C22:5	275	17.568	17.326	3.11E-01	1.00E+00	0.004
Carn C22:6	253	73.036	68.969	2.91E-01	1.00E+00	0.004
LPC C14	245	0.055	0.080	4.93E-01	1.00E+00	0.002
LPC C15	246	-0.407	0.168	1.61E-02	1.00E+00	0.024
LPC C16	390	0.000	0.002	9.65E-01	1.00E+00	0.000
LPC C16:1	391	0.002	0.049	9.64E-01	1.00E+00	0.000
LPC C17	389	-0.102	0.073	1.64E-01	1.00E+00	0.005
LPC C18	391	0.001	0.004	8.23E-01	1.00E+00	0.000
LPC C18:1	391	-0.010	0.010	2.91E-01	1.00E+00	0.003
LPC C18:2	391	0.000	0.005	9.44E-01	1.00E+00	0.000
LPC C18:3	350	-0.137	0.163	3.99E-01	1.00E+00	0.002
LPC C20:1	202	-0.729	0.269	7.20E-03	1.00E+00	0.036
LPC C20:3	389	0.050	0.051	3.27E-01	1.00E+00	0.002
LPC C20:4	391	0.012	0.023	6.05E-01	1.00E+00	0.001
LPC C20:5	320	0.018	0.242	9.41E-01	1.00E+00	0.000

LPC C22:6	316	-0.082	0.074	2.69E-01	1.00E+00	0.004
PCaa C20:4	212	0.966	1.152	4.03E-01	1.00E+00	0.003
PCaa C28:2	320	2.872	1.128	1.13E-02	1.00E+00	0.020
PCaa C30	391	0.055	0.031	7.77E-02	1.00E+00	0.008
PCaa C30:2	390	0.405	0.210	5.49E-02	1.00E+00	0.009
PCaa C30:3	390	2.070	0.666	2.02E-03	4.70E-01	0.024
PCaa C30:4	168	5.701	2.247	1.21E-02	1.00E+00	0.037
PCaa C32	391	0.035	0.013	7.46E-03	1.00E+00	0.018
PCaa C32:1	391	0.030	0.009	1.23E-03	2.86E-01	0.027
PCaa C32:2	391	0.142	0.047	2.64E-03	6.14E-01	0.023
PCaa C34:1	391	0.001	0.001	1.66E-01	1.00E+00	0.005
PCaa C34:2	391	0.001	0.001	8.24E-02	1.00E+00	0.008
PCaa C34:3	389	0.025	0.011	1.83E-02	1.00E+00	0.014
PCaa C34:4	391	0.243	0.083	3.75E-03	8.74E-01	0.021
PCaa C36	273	0.069	0.023	2.79E-03	6.51E-01	0.033
PCaa C36:1	391	0.006	0.003	6.16E-02	1.00E+00	0.009
PCaa C36:2	391	0.001	0.001	1.74E-01	1.00E+00	0.005
PCaa C36:3	391	0.003	0.002	1.29E-01	1.00E+00	0.006
PCaa C36:4	391	0.002	0.001	1.30E-01	1.00E+00	0.006
PCaa C36:5	389	0.019	0.014	1.75E-01	1.00E+00	0.005
PCaa C36:6	321	0.042	0.075	5.80E-01	1.00E+00	0.001
PCaa C38	314	0.094	0.043	2.98E-02	1.00E+00	0.015
PCaa C38:3	391	0.011	0.004	1.61E-02	1.00E+00	0.015
PCaa C38:4	391	0.004	0.002	2.17E-02	1.00E+00	0.013
PCaa C38:5	391	0.000	0.005	9.36E-01	1.00E+00	0.000
PCaa C38:6	391	-0.002	0.003	4.83E-01	1.00E+00	0.001
PCaa C40	280	0.143	0.088	1.06E-01	1.00E+00	0.009

PCaa C40:4	390	0.097	0.040	1.53E-02	1.00E+00	0.015
PCaa C40:5	391	0.023	0.014	1.20E-01	1.00E+00	0.006
PCaa C40:6	391	-0.001	0.007	9.24E-01	1.00E+00	0.000
PCaa C42	245	0.213	0.157	1.76E-01	1.00E+00	0.008
PCaa C42:1	209	0.628	0.326	5.53E-02	1.00E+00	0.018
PCaa C42:6	202	0.206	0.202	3.10E-01	1.00E+00	0.005
PCaa C43:6	249	0.072	0.116	5.37E-01	1.00E+00	0.002
PCaa C44:12	391	0.127	0.085	1.35E-01	1.00E+00	0.006
PCae C30:2	280	0.317	0.486	5.15E-01	1.00E+00	0.002
PCae C32	391	0.131	0.062	3.45E-02	1.00E+00	0.011
PCae C32:1	391	0.109	0.050	3.10E-02	1.00E+00	0.012
PCae C32:2	206	0.383	0.190	4.53E-02	1.00E+00	0.020
PCae C34	391	0.040	0.085	6.39E-01	1.00E+00	0.001
PCae C34:1	391	0.031	0.018	8.34E-02	1.00E+00	0.008
PCae C34:2	391	0.026	0.016	1.01E-01	1.00E+00	0.007
PCae C34:3	391	0.044	0.018	1.64E-02	1.00E+00	0.015
PCae C34:4	246	1.122	0.462	1.58E-02	1.00E+00	0.024
PCae C36	253	0.061	0.100	5.41E-01	1.00E+00	0.001
PCae C36:1	390	0.013	0.008	1.19E-01	1.00E+00	0.006
PCae C36:2	390	0.008	0.010	4.31E-01	1.00E+00	0.002
PCae C36:3	391	0.040	0.018	3.07E-02	1.00E+00	0.012
PCae C36:4	390	0.014	0.009	1.32E-01	1.00E+00	0.006
PCae C36:5	391	0.019	0.012	1.10E-01	1.00E+00	0.007
PCae C36:6	178	-0.075	0.179	6.75E-01	1.00E+00	0.001
PCae C38	315	0.046	0.037	2.21E-01	1.00E+00	0.005
PCae C38:2	312	0.026	0.012	3.52E-02	1.00E+00	0.014
PCae C38:3	389	0.030	0.012	9.55E-03	1.00E+00	0.017
PCae C38:4	391	0.008	0.012	5.11E-01	1.00E+00	0.001
PCae C38:5	391	0.013	0.010	1.74E-01	1.00E+00	0.005

PCae C38:6	391	0.038	0.021	6.95E-02	1.00E+00	0.008
PCae C40	391	0.008	0.017	6.46E-01	1.00E+00	0.001
PCae C40:1	237	0.189	0.064	3.33E-03	7.76E-01	0.036
PCae C40:3	320	0.030	0.016	6.27E-02	1.00E+00	0.011
PCae C40:4	351	0.075	0.026	3.94E-03	9.17E-01	0.024
PCae C40:5	391	0.027	0.028	3.29E-01	1.00E+00	0.002
PCae C40:6	391	-0.014	0.036	6.90E-01	1.00E+00	0.000
PCae C42:2	323	0.165	0.091	7.27E-02	1.00E+00	0.010
PCae C42:3	280	0.037	0.076	6.28E-01	1.00E+00	0.001
PCae C42:4	198	0.411	0.157	9.44E-03	1.00E+00	0.034
PCae C42:5	316	0.052	0.059	3.79E-01	1.00E+00	0.002
PCae C42:6	390	0.091	0.095	3.39E-01	1.00E+00	0.002
SM C21:2	351	1.084	2.117	6.09E-01	1.00E+00	0.001
SM C32:1	391	0.068	0.021	1.17E-03	2.73E-01	0.027
SM C32:2	351	1.825	0.263	2.06E-11	4.80E-09	0.121
SM C33:1	391	0.045	0.037	2.30E-01	1.00E+00	0.004
SM C33:3	185	-0.427	0.915	6.41E-01	1.00E+00	0.001
SM C34:1	390	0.004	0.002	1.00E-01	1.00E+00	0.007
SM C34:2	390	0.075	0.015	6.77E-07	1.58E-04	0.062
SM C34:4	215	-0.900	3.296	7.85E-01	1.00E+00	0.000
SM C35:1	390	0.118	0.062	5.79E-02	1.00E+00	0.009
SM C35:2	203	-0.348	0.501	4.88E-01	1.00E+00	0.002
SM C36:1	389	0.023	0.011	2.76E-02	1.00E+00	0.012
SM C36:2	390	0.081	0.019	3.52E-05	8.21E-03	0.043
SM C36:3	185	0.678	0.211	1.55E-03	3.62E-01	0.053
SM C37:1	203	0.074	0.059	2.13E-01	1.00E+00	0.008
SM C37:3	212	0.007	0.395	9.87E-01	1.00E+00	0.000
SM C38:2	391	0.029	0.013	2.44E-02	1.00E+00	0.013
SM C39:1	316	0.078	0.032	1.57E-02	1.00E+00	0.018
SM C40:2	243	0.011	0.008	1.85E-01	1.00E+00	0.007
SM C40:4	313	0.160	0.086	6.42E-02	1.00E+00	0.011

SM C40:5	351	0.017	0.157	9.16E-01	1.00E+00	0.000
SM C41:1	390	0.025	0.011	3.16E-02	1.00E+00	0.012
SM C41:2	390	0.039	0.017	1.78E-02	1.00E+00	0.014
SM C42:1	391	0.019	0.008	1.53E-02	1.00E+00	0.015
SM C42:2	390	0.010	0.005	2.25E-02	1.00E+00	0.013
SM C42:3	321	0.013	0.009	1.66E-01	1.00E+00	0.006
SM C42:6	391	0.016	0.056	7.73E-01	1.00E+00	0.000
SM C43	176	-0.700	0.316	2.80E-02	1.00E+00	0.027
SM C43:1	205	0.310	0.117	8.54E-03	1.00E+00	0.034
SM C43:2	320	0.047	0.065	4.70E-01	1.00E+00	0.002
SM C44:6	238	0.086	0.152	5.73E-01	1.00E+00	0.001
SM C47:6	323	11.810	9.305	2.05E-01	1.00E+00	0.005
NEFA 12:0	178	-0.004	0.019	8.39E-01	1.00E+00	0.000
NEFA 14:0	321	-0.017	0.006	5.31E-03	1.00E+00	0.024
NEFA 14:1	388	0.004	0.010	6.45E-01	1.00E+00	0.001
NEFA 15:0	178	-0.183	0.075	1.58E-02	1.00E+00	0.033
NEFA 16:0	245	-0.002	0.001	2.23E-02	1.00E+00	0.021
NEFA 16:1	388	-0.006	0.003	4.17E-02	1.00E+00	0.011
NEFA 16:2	310	0.017	0.103	8.68E-01	1.00E+00	0.000
NEFA 17:0	168	0.014	0.032	6.71E-01	1.00E+00	0.001
NEFA 17:1	388	-0.012	0.025	6.28E-01	1.00E+00	0.001
NEFA 17:2	168	-1.210	1.198	3.14E-01	1.00E+00	0.006
NEFA 18:1	388	-0.001	0.000	4.98E-03	1.00E+00	0.020
NEFA 18:2	388	-0.002	0.001	8.73E-02	1.00E+00	0.008
NEFA 18:3	388	-0.046	0.015	1.92E-03	4.48E-01	0.025
NEFA 18:4	168	-1.982	0.627	1.86E-03	4.35E-01	0.057
NEFA 19:1	308	-0.224	0.135	9.82E-02	1.00E+00	0.009
NEFA 20:1	388	-0.090	0.031	4.20E-03	9.78E-01	0.021
NEFA 20:2	388	0.001	0.017	9.42E-01	1.00E+00	0.000
NEFA 20:3	388	0.028	0.034	4.07E-01	1.00E+00	0.002
NEFA 20:4	387	-0.014	0.011	2.05E-01	1.00E+00	0.004
NEFA 20:5	307	-0.068	0.068	3.20E-01	1.00E+00	0.003

NEFA 22:3	235	-1.175	2.008	5.59E-01	1.00E+00	0.001
NEFA 22:4	388	-0.190	0.145	1.91E-01	1.00E+00	0.004
NEFA 22:5	385	-0.118	0.074	1.12E-01	1.00E+00	0.007
NEFA 22:6	388	-0.005	0.030	8.62E-01	1.00E+00	0.000
NEFA 24:0	168	-0.446	0.515	3.87E-01	1.00E+00	0.005
NEFA 24:1	388	-0.195	0.205	3.42E-01	1.00E+00	0.002
NEFA 24:2	168	8.304	4.056	4.22E-02	1.00E+00	0.025
NEFA 24:3	242	2.050	2.946	4.87E-01	1.00E+00	0.002
NEFA 24:4	388	0.595	2.557	8.16E-01	1.00E+00	0.000
NEFA 24:6	167	-14.705	7.739	5.92E-02	1.00E+00	0.021
NEFA 26:0	335	0.711	0.309	2.21E-02	1.00E+00	0.016
NEFA 26:1	313	0.636	0.341	6.32E-02	1.00E+00	0.011
NEFA 26:2	388	0.899	0.424	3.46E-02	1.00E+00	0.012
NEFA 26:3	309	2.714	1.496	7.06E-02	1.00E+00	0.011
NEFA 26:4	388	1.362	5.483	8.04E-01	1.00E+00	0.000
Pyruvate	383	0.000	0.000	5.02E-01	1.00E+00	0.001
Lactic_acid	388	0.000	0.000	7.36E-01	1.00E+00	0.000
Fumarate	381	-0.245	0.172	1.56E-01	1.00E+00	0.005
3-Methyl-2-oxobutanoate	383	0.000	0.004	9.42E-01	1.00E+00	0.000
Succininate	386	0.003	0.015	8.52E-01	1.00E+00	0.000
Methylmalonate	388	0.932	0.712	1.91E-01	1.00E+00	0.004
Taurine	386	0.001	0.001	4.76E-01	1.00E+00	0.001
3-Methyl-2-oxovalerate	387	-0.002	0.004	6.81E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	382	0.001	0.002	6.97E-01	1.00E+00	0.000
Malate	384	0.000	0.029	9.92E-01	1.00E+00	0.000
Alpha-ketoglutarate	377	-0.002	0.009	8.00E-01	1.00E+00	0.000
Alpha-aminoadipate	386	-0.012	0.313	9.69E-01	1.00E+00	0.000
Isocitrate	388	-0.004	0.009	6.48E-01	1.00E+00	0.001
Citrate	388	0.000	0.001	5.52E-01	1.00E+00	0.001
Beta-hydroxybutyrate	150	-0.002	0.002	3.50E-01	1.00E+00	0.006
Sum AA	383	0.000	0.000	8.02E-01	1.00E+00	0.000
Sum Carn	388	0.017	0.005	5.63E-04	1.31E-01	0.030
Sum LPC	206	-0.005	0.001	1.41E-03	3.27E-01	0.049
Sum PCaa	311	0.000	0.000	1.02E-01	1.00E+00	0.009
Sum PCae	274	0.004	0.002	8.66E-03	1.00E+00	0.025
Sum SM	349	0.006	0.002	2.53E-03	5.89E-01	0.026
Sum NEFA	99	-0.001	0.000	2.17E-02	1.00E+00	0.053

CHOP 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	354	0.001	0.001	1.17E-01	1.00E+00	0.007
Arg	354	-0.005	0.004	1.44E-01	1.00E+00	0.006
Asn	354	-0.011	0.006	5.92E-02	1.00E+00	0.010
Asp	354	0.018	0.019	3.30E-01	1.00E+00	0.003
Cit	354	-0.022	0.008	8.16E-03	1.00E+00	0.020
Gln	353	-0.001	0.000	2.78E-03	5.28E-01	0.025
Glu	354	0.001	0.001	2.64E-01	1.00E+00	0.004
Gly	354	-0.004	0.001	1.06E-03	2.01E-01	0.030
His	354	0.000	0.002	9.13E-01	1.00E+00	0.000
Ile	354	0.013	0.006	2.45E-02	1.00E+00	0.014
Leu	354	0.009	0.003	4.62E-03	8.77E-01	0.023
Lys	354	0.001	0.004	6.90E-01	1.00E+00	0.000
Met	354	0.008	0.014	5.66E-01	1.00E+00	0.001
Orn	354	0.004	0.004	3.20E-01	1.00E+00	0.003
Phe	353	0.013	0.006	4.90E-02	1.00E+00	0.011
Pro	354	0.001	0.002	5.34E-01	1.00E+00	0.001
Ser	353	-0.003	0.002	8.71E-02	1.00E+00	0.008
Thr	354	0.002	0.003	4.53E-01	1.00E+00	0.002
Trp	354	0.015	0.006	1.25E-02	1.00E+00	0.018
Tyr	353	0.027	0.005	4.16E-09	7.90E-07	0.094
Val	354	0.006	0.002	1.83E-04	3.47E-02	0.039
H1	354	0.000	0.000	6.10E-01	1.00E+00	0.001
Carn	354	0.007	0.003	8.78E-03	1.00E+00	0.019
Carn C2	354	-0.029	0.023	2.04E-01	1.00E+00	0.005
Carn C3	351	0.435	0.186	2.01E-02	1.00E+00	0.015
Carn C3:1	286	2.428	2.803	3.87E-01	1.00E+00	0.003
Carn C4:0:OH	237	-1.533	0.761	4.50E-02	1.00E+00	0.017
Carn C5	354	2.141	0.753	4.72E-03	8.97E-01	0.000
Carn C5:0:OH	354	7.843	42.020	8.52E-01	1.00E+00	0.022
Carn C6	354	-0.100	1.215	9.34E-01	1.00E+00	0.000
Carn C6:1	354	-1.112	1.569	4.79E-01	1.00E+00	0.001
Carn C8	354	-0.716	0.344	3.82E-02	1.00E+00	0.012

Carn C8:1	354	0.073	0.833	9.30E-01	1.00E+00	0.000
Carn C9	354	-1.354	3.258	6.78E-01	1.00E+00	0.000
Carn C10	354	-0.550	0.202	6.83E-03	1.00E+00	0.021
Carn C10:1	353	0.284	0.337	3.99E-01	1.00E+00	0.002
Carn C10:2	354	-0.123	2.379	9.59E-01	1.00E+00	0.000
Carn C12	354	-0.933	0.516	7.15E-02	1.00E+00	0.009
Carn C12:1	354	-0.271	0.216	2.12E-01	1.00E+00	0.004
Carn C14	354	-1.535	2.187	4.83E-01	1.00E+00	0.001
Carn C14:1	353	-0.342	0.353	3.34E-01	1.00E+00	0.003
Carn C14:2	354	0.511	1.645	7.56E-01	1.00E+00	0.000
Carn C14:2:OH	352	0.807	5.164	8.76E-01	1.00E+00	0.000
Carn C15	354	-3.169	11.919	7.90E-01	1.00E+00	0.000
Carn C16	354	-1.570	2.671	5.57E-01	1.00E+00	0.001
Carn C16:0:OH	288	15.689	31.513	6.19E-01	1.00E+00	0.001
Carn C16:1	354	-2.983	2.291	1.94E-01	1.00E+00	0.005
Carn C16:2	354	-3.366	5.940	5.71E-01	1.00E+00	0.001
Carn C16:2:OH	304	2.239	12.062	8.53E-01	1.00E+00	0.000
Carn C18	354	-13.733	5.873	1.99E-02	1.00E+00	0.015
Carn C18:1	354	-2.416	1.735	1.65E-01	1.00E+00	0.005
Carn C18:1:OH	354	-15.211	7.964	5.70E-02	1.00E+00	0.010
Carn C18:2	352	2.686	2.878	3.51E-01	1.00E+00	0.002
Carn C18:2:OH	233	11.409	21.417	5.95E-01	1.00E+00	0.001
Carn C20	348	-44.661	11.154	7.62E-05	1.45E-02	0.044
Carn C20:1	353	393.839	814.564	6.29E-01	1.00E+00	0.001
Carn C20:3	354	61.928	30.974	4.63E-02	1.00E+00	0.011
Carn C20:4	304	602.091	412.904	1.46E-01	1.00E+00	0.007
Carn C22	221	-631.698	358.995	7.99E-02	1.00E+00	0.014
Carn C22:5	253	187.401	59.271	1.76E-03	3.35E-01	0.038
Carn C22:6	183	33.562	43.016	4.36E-01	1.00E+00	0.003
LPC C16	354	0.000	0.001	8.81E-01	1.00E+00	0.000
LPC C16:1	354	0.071	0.047	1.31E-01	1.00E+00	0.006
LPC C17	288	0.050	0.070	4.77E-01	1.00E+00	0.002
LPC C18	354	0.000	0.004	9.97E-01	1.00E+00	0.000
LPC C18:1	354	-0.023	0.008	5.11E-03	9.71E-01	0.022
LPC C18:2	354	-0.009	0.005	4.42E-02	1.00E+00	0.011
LPC C18:3	221	-0.156	0.249	5.31E-01	1.00E+00	0.002
LPC C18:6	180	-0.023	0.376	9.52E-01	1.00E+00	0.000
LPC C20:3	287	0.064	0.068	3.51E-01	1.00E+00	0.003
LPC C20:4	354	0.003	0.024	8.95E-01	1.00E+00	0.000
LPC C20:5	170	0.115	0.268	6.67E-01	1.00E+00	0.001

LPC C22:5	154	-0.042	0.310	8.94E-01	1.00E+00	0.000
LPC C22:6	252	-0.154	0.100	1.22E-01	1.00E+00	0.010
PCaa C30:5	179	53.182	26.617	4.72E-02	1.00E+00	0.022
PCaa C32	354	-0.040	0.016	1.13E-02	1.00E+00	0.018
PCaa C32:1	288	0.010	0.010	3.09E-01	1.00E+00	0.004
PCaa C34:1	354	-0.004	0.001	5.02E-04	9.54E-02	0.034
PCaa C34:2	289	-0.002	0.001	1.88E-02	1.00E+00	0.019
PCaa C34:3	354	-0.011	0.011	3.12E-01	1.00E+00	0.003
PCaa C34:4	304	0.263	0.089	3.27E-03	6.21E-01	0.028
PCaa C36:2	354	-0.001	0.001	4.16E-01	1.00E+00	0.002
PCaa C36:3	354	-0.003	0.002	1.19E-01	1.00E+00	0.007
PCaa C36:4	289	-0.003	0.002	1.32E-01	1.00E+00	0.008
PCaa C36:5	285	-0.007	0.011	4.92E-01	1.00E+00	0.002
PCaa C38	165	-0.018	0.047	7.10E-01	1.00E+00	0.001
PCaa C38:3	167	0.007	0.008	4.01E-01	1.00E+00	0.004
PCaa C38:4	183	0.006	0.003	2.50E-02	1.00E+00	0.027
PCaa C38:5	238	-0.007	0.007	2.86E-01	1.00E+00	0.005
PCaa C38:6	354	-0.006	0.003	1.41E-02	1.00E+00	0.017

PCaa C40:4	156	0.089	0.070	2.07E-01	1.00E+00	0.010
PCaa C40:5	171	-0.008	0.025	7.54E-01	1.00E+00	0.001
PCaa C40:6	353	-0.003	0.007	6.71E-01	1.00E+00	0.001
PCaa C44:12	173	-0.845	0.257	1.20E-03	2.27E-01	0.060
PCae C34:1	354	-0.041	0.018	2.46E-02	1.00E+00	0.014
PCae C34:2	287	-0.017	0.015	2.36E-01	1.00E+00	0.005
PCae C34:3	354	-0.034	0.016	3.69E-02	1.00E+00	0.012
PCae C36:1	239	-0.037	0.011	1.29E-03	2.46E-01	0.043
PCae C36:2	155	-0.077	0.020	1.69E-04	3.21E-02	0.089
PCae C36:3	354	-0.020	0.018	2.59E-01	1.00E+00	0.004
PCae C36:4	287	-0.001	0.009	9.07E-01	1.00E+00	0.000
PCae C36:5	354	-0.007	0.014	6.02E-01	1.00E+00	0.001
PCae C38	182	-0.096	0.068	1.59E-01	1.00E+00	0.011
PCae C38:3	182	-0.031	0.015	3.52E-02	1.00E+00	0.024
PCae C38:4	173	-0.054	0.025	3.07E-02	1.00E+00	0.027
PCae C38:5	288	-0.012	0.010	2.37E-01	1.00E+00	0.005

PCae C38:6	238	0.003	0.027	8.98E-01	1.00E+00	0.000
PCae C40	165	-0.034	0.026	1.94E-01	1.00E+00	0.010
PCae C40:4	171	-0.089	0.049	7.02E-02	1.00E+00	0.019
PCae C40:6	171	-0.069	0.058	2.34E-01	1.00E+00	0.008
SM C21:2	181	-4.484	1.323	8.61E-04	1.64E-01	0.060
SM C31:1	181	1.632	0.898	7.08E-02	1.00E+00	0.018
SM C32:1	354	0.028	0.025	2.63E-01	1.00E+00	0.004
SM C32:2	171	1.173	0.275	3.27E-05	6.22E-03	0.097
SM C33:1	354	-0.031	0.035	3.82E-01	1.00E+00	0.002
SM C34:1	354	-0.006	0.002	8.37E-03	1.00E+00	0.020
SM C34:2	354	0.046	0.016	4.04E-03	7.67E-01	0.023
SM C35:1	304	-0.038	0.068	5.71E-01	1.00E+00	0.001
SM C36:1	354	0.010	0.009	2.88E-01	1.00E+00	0.003
SM C36:2	221	0.062	0.027	2.12E-02	1.00E+00	0.024
SM C36:3	287	0.356	0.189	6.03E-02	1.00E+00	0.012

SM C41:1	238	-0.016	0.019	3.93E-01	1.00E+00	0.003
SM C41:2	237	-0.002	0.025	9.33E-01	1.00E+00	0.000
SM C42:1	188	-0.005	0.013	6.86E-01	1.00E+00	0.001
SM C42:2	173	0.001	0.007	8.83E-01	1.00E+00	0.000
NEFA 10:0	338	0.014	0.022	5.37E-01	1.00E+00	0.001
NEFA 11:0	265	-0.492	0.679	4.69E-01	1.00E+00	0.002
NEFA 12:0	337	-0.083	0.031	7.75E-03	1.00E+00	0.021
NEFA 12:1	220	-0.413	0.764	5.89E-01	1.00E+00	0.001
NEFA 14:0	338	-0.014	0.007	3.56E-02	1.00E+00	0.013
NEFA 14:1	337	-0.031	0.037	3.96E-01	1.00E+00	0.002
NEFA 15:0	338	-0.067	0.032	3.75E-02	1.00E+00	0.013
NEFA 15:1	215	-0.819	0.516	1.14E-01	1.00E+00	0.012
NEFA 16:0	338	-0.001	0.001	2.14E-01	1.00E+00	0.005
NEFA 16:1	338	-0.006	0.004	1.19E-01	1.00E+00	0.007
NEFA 16:2	338	0.201	0.261	4.43E-01	1.00E+00	0.002
NEFA 17:0	338	-0.076	0.032	1.76E-02	1.00E+00	0.017
NEFA 17:1	338	-0.083	0.054	1.25E-01	1.00E+00	0.007
NEFA 18:0	283	-0.006	0.002	3.06E-03	5.82E-01	0.031
NEFA 18:1	338	-0.001	0.001	8.66E-02	1.00E+00	0.009
NEFA 18:2	336	-0.001	0.002	6.68E-01	1.00E+00	0.001
NEFA 18:3	338	-0.021	0.009	1.67E-02	1.00E+00	0.017
NEFA 18:4	336	-0.914	0.583	1.18E-01	1.00E+00	0.007
NEFA 19:0	283	-1.317	0.353	2.28E-04	4.33E-02	0.047
NEFA 19:1	338	-0.247	0.112	2.74E-02	1.00E+00	0.014
NEFA 20:0	338	-0.661	0.153	2.09E-05	3.97E-03	0.053
NEFA 20:1	338	-0.118	0.038	1.95E-03	3.70E-01	0.028
NEFA 20:2	337	-0.023	0.066	7.27E-01	1.00E+00	0.000
NEFA 20:3	338	0.028	0.039	4.76E-01	1.00E+00	0.002
NEFA 20:4	338	0.009	0.010	3.72E-01	1.00E+00	0.002
NEFA 20:5	336	-0.047	0.105	6.54E-01	1.00E+00	0.001
NEFA 22:0	287	-0.355	0.574	5.36E-01	1.00E+00	0.001
NEFA 22:1	337	-1.647	0.473	5.62E-04	1.07E-01	0.035

NEFA 22:2	283	-3.271	2.275	1.52E-01	1.00E+00	0.007
NEFA 22:3	232	-0.761	2.055	7.12E-01	1.00E+00	0.001
NEFA 22:4	337	0.077	0.134	5.64E-01	1.00E+00	0.001
NEFA 22:5	338	-0.094	0.070	1.80E-01	1.00E+00	0.005
NEFA 22:6	338	-0.034	0.032	2.78E-01	1.00E+00	0.004
NEFA 24:0	338	-1.333	0.543	1.46E-02	1.00E+00	0.018
NEFA 24:1	338	-1.207	0.452	7.96E-03	1.00E+00	0.021
NEFA 24:3	150	-16.555	13.926	2.36E-01	1.00E+00	0.009
NEFA 24:4	220	7.336	3.165	2.14E-02	1.00E+00	0.024
NEFA 24:5	166	-5.104	2.903	8.06E-02	1.00E+00	0.019
NEFA 24:6	221	-0.879	1.980	6.57E-01	1.00E+00	0.001
NEFA 26:0	287	-3.657	3.589	3.09E-01	1.00E+00	0.004
NEFA 26:1	338	0.452	0.824	5.84E-01	1.00E+00	0.001
NEFA 26:2	288	0.979	1.121	3.84E-01	1.00E+00	0.003
NEFA 26:3	337	1.209	1.870	5.18E-01	1.00E+00	0.001
NEFA 26:4	167	-35.885	10.383	6.97E-04	1.32E-01	0.068
NEFA 26:5	181	-9.922	10.596	3.50E-01	1.00E+00	0.005
Pyruvate	226	0.002	0.001	4.18E-02	1.00E+00	0.018
Lactate	346	0.000	0.000	3.95E-01	1.00E+00	0.002
Succininate	348	0.003	0.013	7.86E-01	1.00E+00	0.000
Taurine	297	0.005	0.002	2.30E-02	1.00E+00	0.017
3-Methyl-2-oxovalerate	348	0.002	0.012	8.68E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	348	0.001	0.007	8.36E-01	1.00E+00	0.000
Malate	346	-0.007	0.015	6.28E-01	1.00E+00	0.001
Alpha-ketoglutarate	348	0.012	0.009	1.93E-01	1.00E+00	0.005
Alpha-aminoadipate	161	0.117	0.201	5.62E-01	1.00E+00	0.002
Isocitrate	297	0.007	0.012	5.41E-01	1.00E+00	0.001
Citrate	296	-0.009	0.002	1.49E-05	2.83E-03	0.062
Alpha-ketobutyrate	334	0.001	0.003	6.43E-01	1.00E+00	0.001
Acetoacetate	246	0.000	0.001	6.55E-01	1.00E+00	0.001
Sum AA	351	0.000	0.000	8.53E-01	1.00E+00	0.000
Sum Carn	350	0.006	0.003	3.28E-02	1.00E+00	0.013
Sum LPC	53	-0.001	0.001	3.01E-01	1.00E+00	0.021
Sum PCaa	50	-0.001	0.001	2.27E-01	1.00E+00	0.030
Sum PCae	51	-0.004	0.005	3.92E-01	1.00E+00	0.015
Sum SM	54	-0.005	0.005	3.28E-01	1.00E+00	0.018
Sum NEFA	215	0.000	0.000	8.63E-01	1.00E+00	0.000

UBCS 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	401	0.002	0.001	9.93E-04	2.02E-01	0.027
Arg	400	-0.001	0.002	5.51E-01	1.00E+00	0.001
Asn	363	0.002	0.005	7.12E-01	1.00E+00	0.000
Asp	364	0.023	0.010	2.37E-02	1.00E+00	0.014
Cit	402	-0.011	0.005	3.46E-02	1.00E+00	0.011
Gln	401	0.000	0.000	3.09E-01	1.00E+00	0.003
Glu	402	0.007	0.003	5.36E-03	1.00E+00	0.019
Gly	400	-0.001	0.001	3.59E-01	1.00E+00	0.002
His	402	0.006	0.002	9.08E-03	1.00E+00	0.017
Ile	361	0.009	0.004	3.26E-02	1.00E+00	0.013
Leu	402	0.007	0.002	1.47E-03	2.98E-01	0.025
Lys	401	0.003	0.001	4.54E-02	1.00E+00	0.010
Met	402	0.010	0.009	2.42E-01	1.00E+00	0.003
Orn	401	0.000	0.003	9.82E-01	1.00E+00	0.000
Phe	402	0.009	0.004	3.22E-02	1.00E+00	0.011
Pro	398	0.002	0.001	1.75E-02	1.00E+00	0.014
Ser	401	-0.001	0.001	3.34E-01	1.00E+00	0.002
Thr	402	0.003	0.002	6.39E-02	1.00E+00	0.009
Trp	401	0.010	0.004	4.31E-03	8.74E-01	0.020
Tyr	401	0.015	0.003	2.33E-06	4.73E-04	0.054
Val	402	0.004	0.001	1.44E-04	2.92E-02	0.036
Hpro	400	0.003	0.005	4.85E-01	1.00E+00	0.001
H1	400	0.000	0.000	2.55E-02	1.00E+00	0.012
Carn	401	0.029	0.007	2.50E-05	5.07E-03	0.044
Carn C2	401	-0.032	0.018	6.97E-02	1.00E+00	0.008
Carn C3	402	0.976	0.328	3.07E-03	6.24E-01	0.022
Carn C4	402	0.578	0.558	3.01E-01	1.00E+00	0.003
Carn C5	395	1.692	0.897	6.01E-02	1.00E+00	0.009

Carn C8:1	397	0.743	0.311	1.74E-02	1.00E+00	0.014
Carn C10:1	400	-0.225	0.312	4.71E-01	1.00E+00	0.001
Carn C12:1	402	-0.604	0.302	4.61E-02	1.00E+00	0.010
Carn C14:1	401	-0.697	0.428	1.04E-01	1.00E+00	0.007
Carn C16	400	-2.446	1.105	2.75E-02	1.00E+00	0.012
Carn C18	398	-7.479	2.326	1.41E-03	2.86E-01	0.025
Carn C18:1	402	-1.802	0.919	5.06E-02	1.00E+00	0.010
LPC C14	402	0.508	0.098	3.22E-07	6.54E-05	0.063
LPC C15	402	0.376	0.235	1.11E-01	1.00E+00	0.006
LPC C15:1	402	5.381	1.965	6.46E-03	1.00E+00	0.018
LPC C16	402	0.006	0.004	9.53E-02	1.00E+00	0.007
LPC C16:1	401	0.391	0.092	2.73E-05	5.54E-03	0.043
LPC C17	402	-0.228	0.180	2.05E-01	1.00E+00	0.004
LPC C17:1	402	0.618	0.637	3.32E-01	1.00E+00	0.002
LPC C18	402	0.015	0.010	1.30E-01	1.00E+00	0.006
LPC C18:1	402	-0.002	0.013	8.82E-01	1.00E+00	0.000
LPC C18:2	402	0.002	0.006	7.40E-01	1.00E+00	0.000
LPC C18:3	401	0.626	0.249	1.23E-02	1.00E+00	0.016
LPC C18:6	402	1.065	0.667	1.11E-01	1.00E+00	0.006
LPC C20	402	-0.765	0.678	2.60E-01	1.00E+00	0.003
LPC C20:1	402	-0.343	0.598	5.66E-01	1.00E+00	0.001
LPC C20:2	402	0.118	0.562	8.33E-01	1.00E+00	0.000
LPC C20:3	400	0.228	0.106	3.25E-02	1.00E+00	0.011
LPC C20:4	400	0.075	0.045	9.65E-02	1.00E+00	0.007
LPC C20:5	400	0.738	0.302	1.50E-02	1.00E+00	0.015

LPC C22:4	402	0.207	0.397	6.01E-01	1.00E+00	0.001
LPC C22:5	402	-0.007	0.214	9.75E-01	1.00E+00	0.000
LPC C22:6	401	-0.108	0.130	4.07E-01	1.00E+00	0.002
PCaa C18	402	-0.796	1.070	4.57E-01	1.00E+00	0.001
PCaa C18:1	402	-2.765	1.272	3.03E-02	1.00E+00	0.012
PCaa C30	402	0.046	0.030	1.29E-01	1.00E+00	0.006
PCaa C30:2	402	0.032	0.103	7.58E-01	1.00E+00	0.000
PCaa C32	402	-0.008	0.007	2.36E-01	1.00E+00	0.004
PCaa C32:1	402	0.017	0.007	2.42E-02	1.00E+00	0.013
PCaa C32:2	402	0.088	0.029	2.46E-03	4.99E-01	0.023
PCaa C32:3	402	0.584	0.276	3.49E-02	1.00E+00	0.011
PCaa C34	400	-0.008	0.020	6.89E-01	1.00E+00	0.000
PCaa C34:1	401	0.000	0.001	8.75E-01	1.00E+00	0.000
PCaa C34:2	401	0.000	0.001	6.73E-01	1.00E+00	0.000
PCaa C34:3	402	0.030	0.011	5.47E-03	1.00E+00	0.019
PCaa C34:4	402	0.262	0.061	2.24E-05	4.54E-03	0.044
PCaa C34:5	402	1.176	0.472	1.31E-02	1.00E+00	0.015
PCaa C34:6	388	-0.257	1.027	8.03E-01	1.00E+00	0.000
PCaa C36	401	-0.004	0.049	9.33E-01	1.00E+00	0.000
PCaa C36:1	402	0.000	0.003	8.83E-01	1.00E+00	0.000
PCaa C36:2	401	0.002	0.001	1.13E-01	1.00E+00	0.006
PCaa C36:3	402	0.005	0.002	3.47E-02	1.00E+00	0.011
PCaa C36:4	402	0.003	0.001	3.32E-02	1.00E+00	0.011
PCaa C36:5	402	0.020	0.008	1.68E-02	1.00E+00	0.014
PCaa C36:6	402	0.622	0.186	9.32E-04	1.89E-01	0.027
PCaa C38	402	0.017	0.070	8.10E-01	1.00E+00	0.000
PCaa C38:1	398	0.030	0.064	6.38E-01	1.00E+00	0.001
PCaa C38:2	402	0.026	0.028	3.48E-01	1.00E+00	0.002
PCaa C38:3	401	0.021	0.005	1.33E-04	2.71E-02	0.036
PCaa C38:4	402	0.004	0.002	1.65E-02	1.00E+00	0.014
PCaa C38:5	402	0.004	0.004	2.61E-01	1.00E+00	0.003
PCaa C38:6	402	-0.001	0.003	8.39E-01	1.00E+00	0.000
PCaa C40	401	-0.183	0.341	5.92E-01	1.00E+00	0.001

PCaa C40:1	395	-0.088	0.645	8.91E-01	1.00E+00	0.000
PCaa C40:2	398	0.644	0.571	2.60E-01	1.00E+00	0.003
PCaa C40:3	394	-0.302	0.336	3.70E-01	1.00E+00	0.002
PCaa C40:4	402	0.073	0.037	4.97E-02	1.00E+00	0.010
PCaa C40:5	401	0.031	0.017	6.36E-02	1.00E+00	0.009
PCaa C40:6	402	0.021	0.009	2.42E-02	1.00E+00	0.013
PCaa C42	402	-0.221	0.303	4.65E-01	1.00E+00	0.001
PCaa C42:1	400	-0.267	0.612	6.63E-01	1.00E+00	0.000
PCaa C42:2	396	0.050	1.002	9.60E-01	1.00E+00	0.000
PCaa C42:4	400	0.178	0.681	7.94E-01	1.00E+00	0.000
PCaa C42:5	399	0.142	0.420	7.36E-01	1.00E+00	0.000
PCaa C42:6	402	0.402	0.356	2.60E-01	1.00E+00	0.003
PCaa C43:6	402	-0.027	0.138	8.47E-01	1.00E+00	0.000
PCae C30	402	-0.093	0.313	7.65E-01	1.00E+00	0.000
PCae C32	399	-0.063	0.050	2.05E-01	1.00E+00	0.004
PCae C32:1	402	-0.036	0.066	5.87E-01	1.00E+00	0.001
PCae C32:2	402	0.030	0.363	9.34E-01	1.00E+00	0.000
PCae C34	400	-0.004	0.067	9.54E-01	1.00E+00	0.000
PCae C34:1	402	-0.033	0.020	1.09E-01	1.00E+00	0.006
PCae C34:2	402	0.008	0.015	6.00E-01	1.00E+00	0.001
PCae C34:3	402	0.017	0.017	3.24E-01	1.00E+00	0.002
PCae C34:4	402	0.930	0.463	4.51E-02	1.00E+00	0.010
PCae C36	401	-0.037	0.166	8.22E-01	1.00E+00	0.000
PCae C36:1	402	-0.069	0.037	6.27E-02	1.00E+00	0.009
PCae C36:2	402	-0.036	0.018	4.86E-02	1.00E+00	0.010
PCae C36:3	402	0.025	0.026	3.41E-01	1.00E+00	0.002
PCae C36:4	401	0.021	0.010	3.14E-02	1.00E+00	0.012
PCae C36:5	402	0.028	0.014	5.07E-02	1.00E+00	0.010
PCae C36:6	397	0.465	0.208	2.61E-02	1.00E+00	0.012
PCae C38	401	0.080	0.092	3.87E-01	1.00E+00	0.002
PCae C38:2	401	-0.056	0.083	4.98E-01	1.00E+00	0.001
PCae C38:3	402	-0.034	0.046	4.65E-01	1.00E+00	0.001
PCae C38:4	400	-0.006	0.012	6.32E-01	1.00E+00	0.001
PCae C38:5	401	0.005	0.009	5.60E-01	1.00E+00	0.001

PCae C38:6	402	0.023	0.020	2.45E-01	1.00E+00	0.003
PCae C40	402	-0.017	0.037	6.45E-01	1.00E+00	0.001
PCae C40:1	397	0.039	0.085	6.41E-01	1.00E+00	0.001
PCae C40:2	402	-0.064	0.229	7.80E-01	1.00E+00	0.000
PCae C40:3	401	-0.207	0.229	3.67E-01	1.00E+00	0.002
PCae C40:4	402	-0.089	0.074	2.26E-01	1.00E+00	0.004
PCae C40:5	402	-0.093	0.055	9.01E-02	1.00E+00	0.007
PCae C40:6	402	-0.055	0.049	2.58E-01	1.00E+00	0.003
PCae C42	402	-0.276	0.438	5.28E-01	1.00E+00	0.001
PCae C42:1	400	-0.019	0.238	9.38E-01	1.00E+00	0.000
PCae C42:2	402	-0.238	0.246	3.35E-01	1.00E+00	0.002
PCae C42:3	401	-0.192	0.238	4.21E-01	1.00E+00	0.002
PCae C42:4	402	-0.146	0.166	3.80E-01	1.00E+00	0.002
PCae C42:5	402	-0.091	0.095	3.39E-01	1.00E+00	0.002
PCae C42:6	402	-0.170	0.144	2.37E-01	1.00E+00	0.003
SM C32:2	326	2.847	0.286	1.50E-20	3.05E-18	0.234
SM C35	401	-0.127	0.140	3.66E-01	1.00E+00	0.002
SM C35:1	402	-0.029	0.037	4.26E-01	1.00E+00	0.002
SM C36	401	-0.007	0.049	8.91E-01	1.00E+00	0.000
SM C36:1	402	-0.002	0.006	7.66E-01	1.00E+00	0.000
SM C36:2	402	0.005	0.011	6.76E-01	1.00E+00	0.000
SM C37:1	401	-0.040	0.067	5.50E-01	1.00E+00	0.001
SM C38:1	402	-0.001	0.005	8.44E-01	1.00E+00	0.000
SM C38:2	402	-0.001	0.007	8.73E-01	1.00E+00	0.000
SM C38:3	402	0.205	0.166	2.18E-01	1.00E+00	0.004
SM C39:1	402	0.027	0.033	4.06E-01	1.00E+00	0.002
SM C39:2	400	0.134	0.101	1.87E-01	1.00E+00	0.004
SM C39:5	402	0.179	0.168	2.89E-01	1.00E+00	0.003
SM C40:1	399	0.001	0.005	9.01E-01	1.00E+00	0.000
SM C40:2	402	0.010	0.007	1.46E-01	1.00E+00	0.005
SM C40:3	399	0.019	0.014	1.87E-01	1.00E+00	0.004
SM C40:4	402	0.004	0.018	8.29E-01	1.00E+00	0.000

SM C41:1	402	0.007	0.017	6.66E-01	1.00E+00	0.000
SM C41:2	402	0.033	0.025	2.01E-01	1.00E+00	0.004
SM C41:3	394	0.178	0.113	1.15E-01	1.00E+00	0.006
SM C42:1	401	0.006	0.008	4.71E-01	1.00E+00	0.001
SM C42:2	402	0.003	0.004	4.86E-01	1.00E+00	0.001
SM C42:3	402	0.033	0.010	9.34E-04	1.90E-01	0.027
SM C42:4	401	0.036	0.025	1.58E-01	1.00E+00	0.005
SM C42:6	402	-0.039	0.053	4.64E-01	1.00E+00	0.001
SM C43	400	-0.226	0.244	3.53E-01	1.00E+00	0.002
SM C43:1	402	0.039	0.102	7.01E-01	1.00E+00	0.000
SM C43:2	402	0.026	0.066	6.92E-01	1.00E+00	0.000
SM C43:3	400	0.100	0.278	7.20E-01	1.00E+00	0.000
SM C44:2	398	0.194	0.352	5.82E-01	1.00E+00	0.001
SM C44:6	400	0.038	0.112	7.37E-01	1.00E+00	0.000
NEFA 10:0	323	-0.163	0.051	1.68E-03	3.41E-01	0.030
NEFA 12:0	398	-0.019	0.011	8.73E-02	1.00E+00	0.007
NEFA 12:1	395	-0.010	0.051	8.46E-01	1.00E+00	0.000
NEFA 14:0	401	-0.010	0.006	1.01E-01	1.00E+00	0.007
NEFA 14:1	399	-0.069	0.040	8.33E-02	1.00E+00	0.008
NEFA 15:0	394	-0.042	0.032	1.88E-01	1.00E+00	0.004
NEFA 15:1	335	-0.390	0.440	3.76E-01	1.00E+00	0.002
NEFA 16:0	401	-0.001	0.001	1.11E-01	1.00E+00	0.006
NEFA 16:1	400	-0.007	0.003	5.23E-02	1.00E+00	0.009
NEFA 16:2	398	0.137	0.325	6.73E-01	1.00E+00	0.000
NEFA 17:0	399	-0.029	0.032	3.74E-01	1.00E+00	0.002
NEFA 17:1	399	-0.036	0.047	4.41E-01	1.00E+00	0.001
NEFA 18:0	398	-0.003	0.002	2.30E-01	1.00E+00	0.004
NEFA 18:1	402	-0.001	0.001	1.29E-01	1.00E+00	0.006
NEFA 18:2	401	-0.002	0.002	3.01E-01	1.00E+00	0.003
NEFA 18:3	401	-0.002	0.017	9.25E-01	1.00E+00	0.000
NEFA 19:1	402	-0.109	0.104	2.95E-01	1.00E+00	0.003
NEFA 20:0	360	-0.123	0.185	5.04E-01	1.00E+00	0.001
NEFA 20:2	351	0.042	0.086	6.26E-01	1.00E+00	0.001
NEFA 20:3	285	0.164	0.109	1.32E-01	1.00E+00	0.008
NEFA 20:4	402	0.030	0.038	4.31E-01	1.00E+00	0.002
NEFA 20:5	387	0.112	0.251	6.55E-01	1.00E+00	0.001

NEFA 22:4	402	0.242	0.196	2.18E-01	1.00E+00	0.004
NEFA 22:5	402	0.072	0.101	4.72E-01	1.00E+00	0.001
NEFA 22:6	402	0.025	0.057	6.60E-01	1.00E+00	0.000
NEFA 24:0	399	0.025	0.640	9.69E-01	1.00E+00	0.000
NEFA 24:2	355	4.028	2.677	1.33E-01	1.00E+00	0.006
NEFA 24:4	396	3.218	3.175	3.12E-01	1.00E+00	0.003
NEFA 24:5	401	6.252	2.953	3.49E-02	1.00E+00	0.011
NEFA 26:1	402	3.256	1.112	3.60E-03	7.30E-01	0.021
Sum AA	334	0.000	0.000	5.63E-03	1.00E+00	0.023
Sum Carn	381	0.023	0.006	4.27E-04	8.67E-02	0.032
Sum LPC	397	0.002	0.002	3.40E-01	1.00E+00	0.002
Sum PCaa	399	0.000	0.000	3.40E-01	1.00E+00	0.002
Sum PCae	399	0.001	0.002	4.27E-01	1.00E+00	0.002
Sum SM	325	0.005	0.003	8.23E-02	1.00E+00	0.009
Sum NEFA	274	0.000	0.000	6.61E-01	1.00E+00	0.001

GINI-LISA 10 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	231	0.000	0.001	6.58E-01	1.00E+00	0.001
Arg	231	0.001	0.003	6.10E-01	1.00E+00	0.001
Asn	231	-0.008	0.005	9.48E-02	1.00E+00	0.012
Asp	230	0.008	0.005	1.14E-01	1.00E+00	0.011
Cit	231	0.000	0.007	9.59E-01	1.00E+00	0.000
Gln	203	0.000	0.001	4.85E-01	1.00E+00	0.002
Glu	231	0.001	0.001	4.68E-01	1.00E+00	0.002
Gly	231	-0.001	0.001	2.70E-01	1.00E+00	0.005
His	231	0.000	0.003	9.57E-01	1.00E+00	0.000
Ile	231	0.003	0.004	5.08E-01	1.00E+00	0.002
Leu	231	0.005	0.002	2.23E-02	1.00E+00	0.023
Lys	231	0.001	0.002	3.73E-01	1.00E+00	0.003
Met	231	-0.015	0.012	2.18E-01	1.00E+00	0.007
Orn	231	0.001	0.002	5.99E-01	1.00E+00	0.001
Phe	231	0.008	0.003	2.67E-02	1.00E+00	0.021
Pro	231	0.000	0.001	8.15E-01	1.00E+00	0.000
Ser	231	0.000	0.002	8.63E-01	1.00E+00	0.000
Thr	231	-0.003	0.002	7.49E-02	1.00E+00	0.014
Trp	231	0.003	0.005	5.70E-01	1.00E+00	0.001
Tyr	231	0.007	0.004	5.56E-02	1.00E+00	0.016
Val	231	0.003	0.001	4.96E-03	1.00E+00	0.034
H1	232	0.000	0.000	4.35E-01	1.00E+00	0.003
Carn	173	0.018	0.011	1.09E-01	1.00E+00	0.015
Carn C2	176	0.013	0.034	7.14E-01	1.00E+00	0.001
Carn C3	188	1.808	0.800	2.50E-02	1.00E+00	0.027
Carn C4	149	1.811	0.888	4.31E-02	1.00E+00	0.028
Carn C5	141	2.453	2.042	2.32E-01	1.00E+00	0.010
Carn C6	231	0.028	1.452	9.85E-01	1.00E+00	0.000
Carn C8	232	-0.057	0.219	7.96E-01	1.00E+00	0.000

Carn C8:1	231	1.782	0.914	5.23E-02	1.00E+00	0.016
Carn C9	215	-3.018	2.369	2.04E-01	1.00E+00	0.008
Carn C10	231	-0.180	0.159	2.60E-01	1.00E+00	0.006
Carn C10:1	232	-0.035	0.253	8.90E-01	1.00E+00	0.000
Carn C10:2	145	-0.592	1.421	6.78E-01	1.00E+00	0.001
Carn C12	231	-0.288	0.364	4.31E-01	1.00E+00	0.003
Carn C12:1	204	-0.047	0.168	7.81E-01	1.00E+00	0.000
Carn C14	153	-4.226	2.881	1.44E-01	1.00E+00	0.014
Carn C14:1	231	-0.132	0.544	8.08E-01	1.00E+00	0.000
Carn C14:2	151	0.166	2.142	9.38E-01	1.00E+00	0.000
Carn C16	213	1.960	2.263	3.87E-01	1.00E+00	0.004
Carn C16:1	183	2.683	3.625	4.60E-01	1.00E+00	0.003
Carn C18	176	-0.898	2.716	7.41E-01	1.00E+00	0.001
Carn C18:1	232	1.732	1.356	2.03E-01	1.00E+00	0.007
Carn C18:2	166	6.004	3.180	6.08E-02	1.00E+00	0.021
LPC C14	232	0.135	0.067	4.49E-02	1.00E+00	0.017
LPC C15	218	0.007	0.166	9.67E-01	1.00E+00	0.000
LPC C16	232	0.003	0.002	1.52E-01	1.00E+00	0.009
LPC C16:1	232	0.278	0.074	2.11E-04	5.12E-02	0.058
LPC C17	232	-0.089	0.105	3.96E-01	1.00E+00	0.003
LPC C17:1	218	-0.123	0.493	8.03E-01	1.00E+00	0.000
LPC C18	232	0.003	0.007	6.50E-01	1.00E+00	0.001
LPC C18:1	232	-0.014	0.013	3.18E-01	1.00E+00	0.004
LPC C18:2	232	-0.026	0.007	3.12E-04	7.57E-02	0.055
LPC C18:3	218	-0.392	0.241	1.05E-01	1.00E+00	0.012
LPC C18:6	143	-0.216	0.619	7.27E-01	1.00E+00	0.001
LPC C20:2	126	0.115	0.587	8.44E-01	1.00E+00	0.000
LPC C20:3	232	0.135	0.091	1.39E-01	1.00E+00	0.009
LPC C20:4	232	0.011	0.032	7.35E-01	1.00E+00	0.000
LPC C20:5	229	0.547	0.294	6.43E-02	1.00E+00	0.015

LPC C22:5	172	-0.430	0.372	2.49E-01	1.00E+00	0.008
LPC C22:6	218	-0.021	0.105	8.39E-01	1.00E+00	0.000
PCaa C30	232	-0.004	0.049	9.42E-01	1.00E+00	0.000
PCaa C30:2	161	-0.392	0.306	2.01E-01	1.00E+00	0.010
PCaa C30:3	159	0.169	0.855	8.44E-01	1.00E+00	0.000
PCaa C30:4	117	1.019	1.417	4.73E-01	1.00E+00	0.004
PCaa C32	232	-0.009	0.022	6.65E-01	1.00E+00	0.001
PCaa C32:1	232	0.040	0.011	6.36E-04	1.55E-01	0.050
PCaa C32:2	232	0.016	0.052	7.55E-01	1.00E+00	0.000
PCaa C32:3	182	0.076	0.358	8.32E-01	1.00E+00	0.000
PCaa C34:1	232	0.002	0.001	2.65E-01	1.00E+00	0.005
PCaa C34:2	232	-0.001	0.001	2.08E-01	1.00E+00	0.007
PCaa C34:3	232	0.008	0.014	5.74E-01	1.00E+00	0.001
PCaa C34:4	232	0.181	0.093	5.39E-02	1.00E+00	0.016
PCaa C34:5	152	1.109	0.881	2.10E-01	1.00E+00	0.010
PCaa C36	179	-0.050	0.033	1.37E-01	1.00E+00	0.012
PCaa C36:1	232	0.003	0.005	5.44E-01	1.00E+00	0.002
PCaa C36:2	232	-0.001	0.001	3.65E-01	1.00E+00	0.004
PCaa C36:3	232	0.002	0.002	3.03E-01	1.00E+00	0.005
PCaa C36:4	232	0.003	0.002	7.08E-02	1.00E+00	0.014
PCaa C36:5	231	0.030	0.012	1.14E-02	1.00E+00	0.028
PCaa C36:6	211	0.172	0.143	2.31E-01	1.00E+00	0.007
PCaa C38	232	-0.035	0.054	5.21E-01	1.00E+00	0.002
PCaa C38:2	109	0.046	0.046	3.22E-01	1.00E+00	0.009
PCaa C38:3	232	0.017	0.005	4.10E-04	9.95E-02	0.053
PCaa C38:4	232	0.006	0.002	1.47E-02	1.00E+00	0.026
PCaa C38:5	232	0.010	0.005	3.47E-02	1.00E+00	0.019
PCaa C38:6	232	0.003	0.003	2.84E-01	1.00E+00	0.005
PCaa C40	174	-0.225	0.142	1.16E-01	1.00E+00	0.014

PCaa C40:1	183	0.040	0.113	7.27E-01	1.00E+00	0.001
PCaa C40:3	128	-0.054	0.102	5.96E-01	1.00E+00	0.002
PCaa C40:4	232	0.053	0.046	2.44E-01	1.00E+00	0.006
PCaa C40:5	232	0.041	0.018	2.84E-02	1.00E+00	0.021
PCaa C40:6	232	0.015	0.008	6.05E-02	1.00E+00	0.015
PCaa C42	218	-0.279	0.208	1.82E-01	1.00E+00	0.008
PCaa C42:1	115	-0.836	0.391	3.47E-02	1.00E+00	0.039
PCaa C42:4	116	-0.308	0.260	2.38E-01	1.00E+00	0.012
PCaa C42:5	146	-0.654	0.328	4.83E-02	1.00E+00	0.027
PCaa C42:6	128	-0.353	0.190	6.55E-02	1.00E+00	0.027
PCaa C43:6	229	-0.446	0.180	1.42E-02	1.00E+00	0.026
PCaa C44:12	203	-0.344	0.237	1.48E-01	1.00E+00	0.010
PCae C32	232	-0.107	0.077	1.69E-01	1.00E+00	0.008
PCae C32:1	232	-0.095	0.073	1.95E-01	1.00E+00	0.007
PCae C32:2	199	0.032	0.198	8.72E-01	1.00E+00	0.000
PCae C34	216	0.103	0.137	4.52E-01	1.00E+00	0.003
PCae C34:1	232	-0.022	0.030	4.63E-01	1.00E+00	0.002
PCae C34:2	232	-0.032	0.021	1.37E-01	1.00E+00	0.010
PCae C34:3	232	-0.055	0.024	2.61E-02	1.00E+00	0.021
PCae C34:4	139	-0.340	0.660	6.07E-01	1.00E+00	0.002
PCae C36	170	-0.410	0.259	1.16E-01	1.00E+00	0.015
PCae C36:1	232	-0.022	0.018	2.22E-01	1.00E+00	0.006
PCae C36:2	232	-0.039	0.017	2.64E-02	1.00E+00	0.021
PCae C36:3	232	-0.018	0.028	5.26E-01	1.00E+00	0.002
PCae C36:4	232	0.003	0.012	7.71E-01	1.00E+00	0.000
PCae C36:5	232	0.002	0.017	8.87E-01	1.00E+00	0.000
PCae C36:6	117	-0.129	0.430	7.65E-01	1.00E+00	0.001
PCae C38	231	-0.018	0.063	7.76E-01	1.00E+00	0.000
PCae C38:2	232	-0.038	0.029	1.92E-01	1.00E+00	0.007
PCae C38:3	232	-0.009	0.020	6.48E-01	1.00E+00	0.001
PCae C38:4	232	-0.019	0.016	2.33E-01	1.00E+00	0.006
PCae C38:5	232	-0.002	0.013	9.02E-01	1.00E+00	0.000

PCae C38:6	232	0.007	0.027	8.04E-01	1.00E+00	0.000
PCae C40	204	0.005	0.021	8.08E-01	1.00E+00	0.000
PCae C40:1	218	-0.085	0.069	2.19E-01	1.00E+00	0.007
PCae C40:2	154	-0.002	0.072	9.80E-01	1.00E+00	0.000
PCae C40:3	177	0.018	0.035	6.03E-01	1.00E+00	0.002
PCae C40:4	204	-0.100	0.052	5.52E-02	1.00E+00	0.018
PCae C40:5	232	-0.060	0.037	1.11E-01	1.00E+00	0.011
PCae C40:6	232	-0.058	0.047	2.21E-01	1.00E+00	0.006
PCae C42	181	-0.261	0.178	1.45E-01	1.00E+00	0.012
PCae C42:1	160	-0.175	0.100	8.17E-02	1.00E+00	0.019
PCae C42:2	186	-0.166	0.155	2.86E-01	1.00E+00	0.006
PCae C42:3	199	-0.126	0.096	1.89E-01	1.00E+00	0.009
PCae C42:4	172	-0.203	0.196	3.02E-01	1.00E+00	0.006
PCae C42:5	216	-0.099	0.072	1.73E-01	1.00E+00	0.009
PCae C42:6	232	-0.184	0.133	1.67E-01	1.00E+00	0.008
SM C30:1	197	0.747	0.369	4.46E-02	1.00E+00	0.021
SM C31:1	117	1.358	0.968	1.63E-01	1.00E+00	0.017
SM C32:1	232	0.051	0.028	6.59E-02	1.00E+00	0.015
SM C32:2	232	1.347	0.241	6.57E-08	1.60E-05	0.119
SM C33:1	232	-0.009	0.044	8.42E-01	1.00E+00	0.000
SM C33:2	169	2.958	1.014	4.02E-03	9.76E-01	0.048
SM C33:3	170	-1.366	1.802	4.49E-01	1.00E+00	0.003
SM C34:1	232	-0.003	0.003	2.90E-01	1.00E+00	0.005
SM C34:2	232	0.040	0.019	4.07E-02	1.00E+00	0.018
SM C35	155	-0.300	0.401	4.55E-01	1.00E+00	0.004
SM C35:1	232	0.053	0.086	5.34E-01	1.00E+00	0.002
SM C35:2	188	0.209	0.512	6.84E-01	1.00E+00	0.001
SM C36:1	232	0.025	0.013	6.66E-02	1.00E+00	0.015
SM C36:2	232	0.068	0.024	4.95E-03	1.00E+00	0.034
SM C36:3	232	0.599	0.301	4.79E-02	1.00E+00	0.017
SM C37:1	115	-0.049	0.136	7.22E-01	1.00E+00	0.001
SM C37:3	156	0.024	0.525	9.64E-01	1.00E+00	0.000
SM C38:1	181	0.009	0.008	2.78E-01	1.00E+00	0.007
SM C38:2	232	-0.002	0.016	8.81E-01	1.00E+00	0.000
SM C38:3	144	0.627	0.500	2.13E-01	1.00E+00	0.011
SM C39:1	232	0.047	0.038	2.16E-01	1.00E+00	0.007
SM C39:2	142	-0.095	0.141	4.98E-01	1.00E+00	0.003
SM C39:5	118	0.606	0.454	1.84E-01	1.00E+00	0.015
SM C40:2	232	0.010	0.009	2.69E-01	1.00E+00	0.005
SM C40:4	220	0.181	0.115	1.16E-01	1.00E+00	0.011

SM C40:5	201	0.537	0.244	2.88E-02	1.00E+00	0.024
SM C41:1	232	0.017	0.020	4.10E-01	1.00E+00	0.003
SM C41:2	232	0.041	0.029	1.63E-01	1.00E+00	0.008
SM C42:1	232	0.003	0.012	8.28E-01	1.00E+00	0.000
SM C42:2	232	0.010	0.007	1.63E-01	1.00E+00	0.008
SM C42:3	218	0.025	0.011	2.12E-02	1.00E+00	0.024
SM C42:4	196	0.047	0.031	1.27E-01	1.00E+00	0.012
SM C42:6	220	0.074	0.076	3.28E-01	1.00E+00	0.004
SM C43	137	-0.191	0.374	6.11E-01	1.00E+00	0.002
SM C43:1	229	0.121	0.165	4.65E-01	1.00E+00	0.002
SM C43:2	232	0.256	0.095	7.40E-03	1.00E+00	0.031
SM C44:6	190	0.124	0.146	3.95E-01	1.00E+00	0.004
NEFA 10:0	220	-0.214	0.064	1.06E-03	2.57E-01	0.048
NEFA 12:0	192	-0.027	0.010	1.05E-02	1.00E+00	0.034
NEFA 12:1	134	-0.077	0.092	4.03E-01	1.00E+00	0.005
NEFA 13:0	93	-0.004	0.210	9.86E-01	1.00E+00	0.000
NEFA 13:1	179	-0.639	0.951	5.03E-01	1.00E+00	0.003
NEFA 14:0	231	-0.011	0.009	2.17E-01	1.00E+00	0.007
NEFA 14:1	231	0.027	0.055	6.24E-01	1.00E+00	0.001
NEFA 14:2	104	0.013	0.013	3.03E-01	1.00E+00	0.010
NEFA 16:0	232	-0.001	0.001	6.28E-01	1.00E+00	0.001
NEFA 16:1	204	-0.001	0.004	8.24E-01	1.00E+00	0.000
NEFA 16:2	211	0.016	0.232	9.47E-01	1.00E+00	0.000
NEFA 17:0	217	-0.061	0.048	2.05E-01	1.00E+00	0.007
NEFA 17:1	204	-0.030	0.070	6.67E-01	1.00E+00	0.001
NEFA 17:2	136	-2.761	1.524	7.23E-02	1.00E+00	0.024
NEFA 18:0	148	-0.006	0.004	8.21E-02	1.00E+00	0.021
NEFA 18:1	232	0.000	0.001	7.06E-01	1.00E+00	0.001
NEFA 18:2	232	-0.003	0.003	3.11E-01	1.00E+00	0.004
NEFA 18:3	232	0.000	0.009	9.64E-01	1.00E+00	0.000
NEFA 18:4	212	0.494	0.550	3.70E-01	1.00E+00	0.004
NEFA 19:0	216	-0.823	0.392	3.69E-02	1.00E+00	0.020
NEFA 19:1	219	-0.054	0.125	6.67E-01	1.00E+00	0.001
NEFA 20:0	123	-0.270	0.276	3.30E-01	1.00E+00	0.008
NEFA 20:1	232	-0.034	0.048	4.79E-01	1.00E+00	0.002
NEFA 20:2	183	-0.108	0.076	1.56E-01	1.00E+00	0.011
NEFA 20:3	213	0.118	0.062	5.93E-02	1.00E+00	0.017
NEFA 20:4	204	0.024	0.032	4.50E-01	1.00E+00	0.003
NEFA 20:5	168	0.071	0.114	5.35E-01	1.00E+00	0.002
NEFA 22:0	81	0.699	0.639	2.77E-01	1.00E+00	0.015
NEFA 22:1	229	-0.443	0.334	1.86E-01	1.00E+00	0.008

NEFA 22:2	124	-1.646	2.224	4.61E-01	1.00E+00	0.004
NEFA 22:3	204	1.251	1.527	4.14E-01	1.00E+00	0.003
NEFA 22:4	204	0.156	0.170	3.60E-01	1.00E+00	0.004
NEFA 22:5	232	0.059	0.090	5.13E-01	1.00E+00	0.002
NEFA 22:6	232	0.012	0.039	7.48E-01	1.00E+00	0.000
NEFA 24:0	188	-1.987	0.678	3.80E-03	9.23E-01	0.044
NEFA 24:1	199	-0.461	0.505	3.62E-01	1.00E+00	0.004
NEFA 24:2	149	2.147	4.099	6.01E-01	1.00E+00	0.002
NEFA 24:3	143	8.557	12.662	5.00E-01	1.00E+00	0.003
NEFA 24:4	204	2.455	3.293	4.57E-01	1.00E+00	0.003
NEFA 24:5	217	4.126	2.128	5.39E-02	1.00E+00	0.017
NEFA 24:6	174	5.436	3.445	1.16E-01	1.00E+00	0.014
NEFA 26:0	148	-6.889	2.644	1.01E-02	1.00E+00	0.044
NEFA 26:1	187	-1.167	2.534	6.46E-01	1.00E+00	0.001
NEFA 26:2	181	-0.942	3.437	7.84E-01	1.00E+00	0.000
NEFA 26:3	151	-0.809	3.924	8.37E-01	1.00E+00	0.000
NEFA 26:4	189	12.369	13.157	3.48E-01	1.00E+00	0.005
NEFA 26:5	176	37.551	18.271	4.14E-02	1.00E+00	0.024
NEFA 26:6	120	-10.638	7.696	1.69E-01	1.00E+00	0.016
Pyruvate	232	0.000	0.001	7.00E-01	1.00E+00	0.001
Lactate	232	0.000	0.000	7.61E-01	1.00E+00	0.000
Fumarate	232	-0.070	0.187	7.07E-01	1.00E+00	0.001
3-Methyl-2-oxobutanoate	232	0.021	0.019	2.79E-01	1.00E+00	0.005
Succininate	232	-0.021	0.026	4.36E-01	1.00E+00	0.003
Methylmalonate	232	-0.029	0.291	9.21E-01	1.00E+00	0.000
Taurine	232	0.002	0.003	3.30E-01	1.00E+00	0.004
3-Methyl-2-oxovalerate	232	0.003	0.018	8.48E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	232	0.006	0.011	5.67E-01	1.00E+00	0.001
Malate	232	-0.057	0.102	5.73E-01	1.00E+00	0.001
Alpha-ketoglutarate	231	0.069	0.046	1.33E-01	1.00E+00	0.010
Alpha-aminoadipate	232	1.57495327	0.588044898	0.007933885	1	0.0302
Isocitrate	219	0.147388242	0.342404861	0.66729539	1	0.0009
Citrate	232	-0.015389558	0.007590684	0.043772197	1	0.0176
Alpha-ketobutyrate	213	-0.016	0.018	3.66E-01	1.00E+00	0.004
Acetoacetate	228	-0.004	0.006	4.26E-01	1.00E+00	0.003
Sum AA	202	3.85E-06	0.000122199	0.97488105	1	0.0000
Sum Carn	122	0.008376627	0.010481906	0.42578171	1	0.0053
Sum LPC	215	-0.000144602	0.00135467	0.915092794	1	0.0001
Sum PCaa	231	0.000150318	0.000216817	0.488827004	1	0.0021
Sum PCae	203	-0.001987177	0.001796522	0.269994788	1	0.0061
Sum SM	232	0.003807366	0.002541004	0.135408264	1	0.0097
Sum NEFA	75	-0.000887122	0.00070936	0.21507582	1	0.020975125

Meta Analyses

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared	Q	Qp
Ala	986	0.001	0.000	1.49E-02	1.00E+00	0.0058	7.45	0.024
Arg	985	-0.001	0.001	4.34E-01	1.00E+00	0.0006	2.16	0.34
Asn	948	-0.006	0.003	5.47E-02	1.00E+00	0.0038	3.25	0.2
Asp	948	0.012	0.005	1.04E-02	1.00E+00	0.0067	1.64	0.44
Cit	987	-0.010	0.004	7.64E-03	8.79E-01	0.0069	4.39	0.11
Gln	957	-0.001	0.000	2.35E-03	2.71E-01	0.0094	2.34	0.31
Glu	987	0.001	0.001	6.13E-02	1.00E+00	0.0035	6.1	0.047
Gly	985	-0.002	0.001	4.23E-03	4.87E-01	0.0080	5.68	0.06
His	987	0.002	0.001	1.30E-01	1.00E+00	0.0023	4.44	0.11
Ile	946	0.008	0.003	4.77E-03	5.48E-01	0.0082	2.14	0.34
Leu	987	0.007	0.001	2.45E-06	2.82E-04	0.0215	1.07	0.59
Lys	986	0.002	0.001	3.51E-02	1.00E+00	0.0043	0.763	0.68
Met	987	0.003	0.006	6.40E-01	1.00E+00	0.0002	3.04	0.22
Orn	986	0.001	0.002	3.79E-01	1.00E+00	0.0008	0.472	0.79
Phe	986	0.009	0.003	2.96E-04	3.41E-02	0.0129	0.369	0.83
Pro	983	0.001	0.001	6.82E-02	1.00E+00	0.0033	2.27	0.32
Ser	985	-0.002	0.001	1.02E-01	1.00E+00	0.0026	1.66	0.44
Thr	987	0.001	0.001	6.47E-01	1.00E+00	0.0002	7.06	0.029
Trp	986	0.009	0.003	6.15E-04	7.07E-02	0.0114	2.77	0.25
Tyr	985	0.015	0.002	1.26E-12	1.45E-10	0.0479	11.9	0.003
Val	987	0.004	0.001	3.34E-09	3.84E-07	0.0334	1.62	0.44
H1	986	0.000	0.000	1.74E-01	1.00E+00	0.0018	3.35	0.19
Carn	928	0.010	0.002	2.69E-05	3.09E-03	0.0183	8.53	0.014
Carn C2	931	-0.025	0.013	5.85E-02	1.00E+00	0.0037	1.56	0.46
Carn C3	941	0.588	0.153	1.33E-04	1.53E-02	0.0150	4.29	0.12
Carn C5	890	2.013	0.547	2.47E-04	2.84E-02	0.0147	0.203	0.9

Carn C8:1	982	0.751	0.290	9.73E-03	1.00E+00	0.0065	1.94	0.38
Carn C10:1	985	0.009	0.170	9.56E-01	1.00E+00	0.0000	1.2	0.55
Carn C12:1	960	-0.201	0.121	9.67E-02	1.00E+00	0.0028	2.81	0.25
Carn C14:1	985	-0.399	0.242	1.00E-01	1.00E+00	0.0027	0.731	0.69
Carn C16	967	-1.505	0.965	1.19E-01	1.00E+00	0.0025	3.15	0.21
Carn C18	928	-5.444	1.749	1.91E-03	2.19E-01	0.0100	5.52	0.06
Carn C18:1	988	-0.947	0.716	1.86E-01	1.00E+00	0.0017	5.9	0.052
LPC C16	988	0.001	0.001	2.48E-01	1.00E+00	0.0013	3.75	0.15
LPC C16:1	987	0.158	0.035	9.13E-06	1.05E-03	0.0196	12.9	0.002
LPC C17	922	-0.008	0.053	8.77E-01	1.00E+00	0.0000	2.58	0.28
LPC C18	988	0.002	0.003	5.66E-01	1.00E+00	0.0003	2.43	0.3
LPC C18:1	988	-0.017	0.006	4.66E-03	5.36E-01	0.0078	2.27	0.32
LPC C18:2	988	-0.010	0.003	2.18E-03	2.51E-01	0.0091	9.02	0.011
LPC C18:3	840	-0.016	0.142	9.08E-01	1.00E+00	0.0000	9.38	0.009
LPC C20:3	919	0.113	0.048	1.80E-02	1.00E+00	0.0060	1.71	0.43
LPC C20:4	986	0.014	0.017	4.10E-01	1.00E+00	0.0007	2.14	0.34
LPC C20:5	799	0.403	0.162	1.28E-02	1.00E+00	0.0075	2.54	0.28

LPC C22:6	871	-0.099	0.062	1.12E-01	1.00E+00	0.0028	0.919	0.63
PCaa C32	988	-0.014	0.006	2.76E-02	1.00E+00	0.0048	3.46	0.18
PCaa C32:1	922	0.019	0.005	2.82E-04	3.24E-02	0.0137	4.07	0.13
PCaa C34:1	987	-0.001	0.001	4.55E-02	1.00E+00	0.0040	10.3	0.006
PCaa C34:2	922	-0.001	0.000	2.49E-02	1.00E+00	0.0053	2.84	0.24
PCaa C34:3	988	0.007	0.007	2.71E-01	1.00E+00	0.0012	7.3	0.026
PCaa C34:4	938	0.242	0.045	8.30E-08	9.54E-06	0.0291	0.579	0.75
PCaa C36:2	987	0.000	0.001	7.11E-01	1.00E+00	0.0001	4.19	0.12
PCaa C36:3	988	0.001	0.001	5.56E-01	1.00E+00	0.0003	7.21	0.027
PCaa C36:4	923	0.001	0.001	2.44E-01	1.00E+00	0.0014	7.36	0.025
PCaa C36:5	918	0.013	0.006	1.99E-02	1.00E+00	0.0057	6.02	0.049
PCaa C38	799	-0.017	0.031	5.84E-01	1.00E+00	0.0004	0.33	0.85
PCaa C38:3	800	0.016	0.003	7.31E-07	8.41E-05	0.0299	2.23	0.33
PCaa C38:4	817	0.005	0.001	4.84E-05	5.56E-03	0.0193	0.254	0.88
PCaa C38:5	872	0.004	0.003	1.67E-01	1.00E+00	0.0021	4.64	0.1
PCaa C38:6	988	-0.002	0.002	1.89E-01	1.00E+00	0.0017	5.88	0.053

PCaa C40:4	790	0.068	0.027	1.17E-02	1.00E+00	0.0078	0.172	0.92
PCaa C40:5	804	0.026	0.011	2.23E-02	1.00E+00	0.0063	2.71	0.26
PCaa C40:6	987	0.007	0.004	9.70E-02	1.00E+00	0.0027	5.24	0.07
PCae C34:1	988	-0.035	0.012	3.97E-03	4.57E-01	0.0081	0.264	0.88
PCae C34:2	921	-0.011	0.009	2.26E-01	1.00E+00	0.0015	2.8	0.25
PCae C34:3	988	-0.020	0.011	5.47E-02	1.00E+00	0.0036	7.58	0.023
PCae C36:1	873	-0.035	0.009	9.66E-05	1.11E-02	0.0164	1.36	0.51
PCae C36:2	789	-0.050	0.011	2.61E-06	3.00E-04	0.0262	2.82	0.24
PCae C36:3	988	-0.010	0.013	4.19E-01	1.00E+00	0.0006	2.12	0.35
PCae C36:4	920	0.007	0.006	2.37E-01	1.00E+00	0.0015	2.66	0.26
PCae C36:5	988	0.006	0.009	4.54E-01	1.00E+00	0.0006	3.06	0.22
PCae C38	814	-0.031	0.041	4.45E-01	1.00E+00	0.0007	1.94	0.38
PCae C38:3	816	-0.024	0.011	2.73E-02	1.00E+00	0.0058	0.634	0.73
PCae C38:4	805	-0.019	0.009	3.35E-02	1.00E+00	0.0055	4.22	0.12
PCae C38:5	921	-0.003	0.006	5.77E-01	1.00E+00	0.0003	1.49	0.47

PCae C38:6	872	0.012	0.014	3.77E-01	1.00E+00	0.0009	0.465	0.79
PCae C40	771	-0.012	0.015	4.17E-01	1.00E+00	0.0008	1.24	0.54
PCae C40:4	777	-0.095	0.031	2.56E-03	2.94E-01	0.0111	0.1	0.95
PCae C40:6	805	-0.063	0.029	2.99E-02	1.00E+00	0.0056	0.0243	0.99
SM C32:2	729	1.632	0.152	4.07E-25	4.68E-23	0.1331	24.8	<0.0001
SM C35:1	938	-0.020	0.031	5.20E-01	1.00E+00	0.0004	0.86	0.65
SM C36:1	988	0.005	0.005	2.87E-01	1.00E+00	0.0011	3.51	0.17
SM C36:2	855	0.023	0.010	1.58E-02	1.00E+00	0.0066	8.24	0.016

SM C41:1	872	0.002	0.011	8.83E-01	1.00E+00	0.0000	1.42	0.49
SM C41:2	871	0.021	0.015	1.57E-01	1.00E+00	0.0022	1.56	0.46
SM C42:1	821	0.002	0.006	7.59E-01	1.00E+00	0.0001	0.467	0.79
SM C42:2	807	0.004	0.003	2.44E-01	1.00E+00	0.0016	0.988	0.61
NEFA 12:0	927	-0.027	0.008	3.31E-04	3.80E-02	0.0135	3.71	0.16
NEFA 14:0	970	-0.012	0.004	3.22E-03	3.70E-01	0.0086	0.235	0.89
NEFA 14:1	967	-0.033	0.024	1.74E-01	1.00E+00	0.0019	2.29	0.32
NEFA 16:0	971	-0.001	0.001	4.28E-02	1.00E+00	0.0041	0.23	0.89
NEFA 16:1	942	-0.005	0.002	2.67E-02	1.00E+00	0.0050	1.62	0.44
NEFA 16:2	947	0.111	0.153	4.68E-01	1.00E+00	0.0005	0.167	0.92
NEFA 17:0	954	-0.056	0.020	6.00E-03	6.90E-01	0.0076	1.07	0.59
NEFA 17:1	941	-0.053	0.032	9.54E-02	1.00E+00	0.0029	0.668	0.72
NEFA 18:1	972	-0.001	0.000	2.37E-02	1.00E+00	0.0051	0.516	0.77
NEFA 18:2	969	-0.002	0.001	1.76E-01	1.00E+00	0.0018	0.236	0.89
NEFA 18:3	971	-0.010	0.006	7.43E-02	1.00E+00	0.0032	3.2	0.2
NEFA 19:1	959	-0.147	0.065	2.39E-02	1.00E+00	0.0051	1.46	0.48
NEFA 20:2	871	-0.033	0.043	4.35E-01	1.00E+00	0.0007	1.57	0.46
NEFA 20:3	836	0.060	0.031	5.28E-02	1.00E+00	0.0045	2.3	0.32
NEFA 20:4	944	0.011	0.009	2.05E-01	1.00E+00	0.0017	0.393	0.82
NEFA 20:5	891	0.010	0.073	8.90E-01	1.00E+00	0.0000	0.835	0.66

NEFA 22:4	943	0.131	0.091	1.52E-01	1.00E+00	0.0021	0.455	0.8
NEFA 22:5	972	-0.018	0.048	7.08E-01	1.00E+00	0.0001	2.75	0.25
NEFA 22:6	972	-0.011	0.022	6.08E-01	1.00E+00	0.0003	1.43	0.49
NEFA 24:0	925	-1.130	0.351	1.32E-03	1.52E-01	0.0107	4.77	0.09
NEFA 24:4	820	4.526	1.835	1.39E-02	1.00E+00	0.0073	1.41	0.49
NEFA 26:1	927	1.144	0.628	6.89E-02	1.00E+00	0.0035	4.77	0.09
Sum AA	887	0.000	0.000	1.18E-01	1.00E+00	0.0027	4.77	0.09
Sum Carn	853	0.008	0.002	6.84E-04	7.87E-02	0.0131	5.21	0.07
Sum LPC	665	0.000	0.001	7.08E-01	1.00E+00	0.0002	2.15	0.34
Sum PCaa	680	0.000	0.000	3.76E-01	1.00E+00	0.0011	2.21	0.33
Sum PCae	653	-0.001	0.001	6.25E-01	1.00E+00	0.0004	2.41	0.3
Sum SM	611	0.003	0.002	7.35E-02	1.00E+00	0.0050	2.82	0.24
Sum NEFA	564	0.000	0.000	6.18E-01	1.00E+00	0.0004	1.51	0.47

Supplemental Table 3 Results of the adjusted linear models and individual participant meta-analysis of the association of metabolites with weight. Statistical significance was evaluated using Bonferroni corrected p-values (p.adjust) < 0.05 (with dark grey background). AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-phosphatidylcholine; SM, sphingomyelin.

CHOP 5.5 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	388	0.001	0.002	5.99E-01	1.00E+00	0.001
Arg	386	0.011	0.010	2.40E-01	1.00E+00	0.004
Asn	388	-0.034	0.016	3.57E-02	1.00E+00	0.011
Asp	386	0.120	0.052	2.07E-02	1.00E+00	0.014
Cit	388	-0.030	0.022	1.75E-01	1.00E+00	0.005
Gln	388	-0.003	0.001	3.75E-02	1.00E+00	0.011
Glu	388	0.001	0.002	6.97E-01	1.00E+00	0.000
Gly	388	-0.004	0.004	3.18E-01	1.00E+00	0.003
His	388	-0.006	0.009	4.93E-01	1.00E+00	0.001
Ile	388	0.014	0.010	1.57E-01	1.00E+00	0.005
Leu	388	0.007	0.006	2.82E-01	1.00E+00	0.003
Lys	388	0.001	0.005	8.93E-01	1.00E+00	0.000
Met	388	0.028	0.036	4.41E-01	1.00E+00	0.002
Orn	388	0.001	0.009	9.41E-01	1.00E+00	0.000
Phe	388	0.009	0.015	5.40E-01	1.00E+00	0.001
Pro	388	-0.002	0.003	5.50E-01	1.00E+00	0.001
Ser	387	0.002	0.008	8.14E-01	1.00E+00	0.000
Thr	388	0.013	0.006	2.38E-02	1.00E+00	0.013
Trp	387	0.019	0.015	2.10E-01	1.00E+00	0.004
Tyr	388	0.021	0.011	5.03E-02	1.00E+00	0.010
Val	388	0.005	0.003	1.22E-01	1.00E+00	0.006
H1	387	0.000	0.000	9.77E-02	1.00E+00	0.007
Carn	393	0.071	0.019	1.44E-04	3.35E-02	0.036
Carn C2	393	-0.096	0.048	4.44E-02	1.00E+00	0.010
Carn C3	393	4.313	1.780	1.58E-02	1.00E+00	0.015
Carn C3:1	276	47.904	30.019	1.12E-01	1.00E+00	0.009
Carn C4	393	-0.427	1.626	7.93E-01	1.00E+00	0.000
Carn C4:0:OH	276	-3.599	2.156	9.62E-02	1.00E+00	0.010
Carn C4:1	351	4.226	5.444	4.38E-01	1.00E+00	0.002
Carn C5	393	13.412	4.651	4.15E-03	9.66E-01	0.021
Carn C5:0:OH	317	806.765	377.048	3.32E-02	1.00E+00	0.014
Carn C6	318	-6.608	5.913	2.65E-01	1.00E+00	0.004
Carn C6:1	208	33.106	55.884	5.54E-01	1.00E+00	0.002
Carn C8	325	-1.051	1.210	3.86E-01	1.00E+00	0.002
Carn C8:1	393	4.545	3.173	1.53E-01	1.00E+00	0.005
Carn C9	393	11.976	12.047	3.21E-01	1.00E+00	0.003

Carn C10	392	-0.319	0.757	6.74E-01	1.00E+00	0.000
Carn C10:1	393	1.459	1.005	1.47E-01	1.00E+00	0.005
Carn C10:2	393	4.982	9.043	5.82E-01	1.00E+00	0.001
Carn C12::DC	262	1.181	2.524	6.40E-01	1.00E+00	0.001
Carn C12	392	-1.912	2.050	3.52E-01	1.00E+00	0.002
Carn C12:1	393	0.101	0.752	8.93E-01	1.00E+00	0.000
Carn C14	393	-2.904	5.770	6.15E-01	1.00E+00	0.001
Carn C14:1	391	-0.989	1.463	4.99E-01	1.00E+00	0.001
Carn C14:2	393	-1.268	6.654	8.49E-01	1.00E+00	0.000
Carn C14:2:OH	251	5.211	20.144	7.96E-01	1.00E+00	0.000
Carn C15	393	-3.255	16.182	8.41E-01	1.00E+00	0.000
Carn C16	392	-0.101	6.219	9.87E-01	1.00E+00	0.000
Carn C16:OH	392	-1.682	6.728	8.03E-01	1.00E+00	0.000
Carn C16:1	290	7.640	37.321	8.38E-01	1.00E+00	0.000
Carn C16:2	276	7.253	22.541	7.48E-01	1.00E+00	0.000
Carn C16:2:OH	256	-31.803	28.175	2.60E-01	1.00E+00	0.005
Carn C18	393	-27.424	12.054	2.34E-02	1.00E+00	0.013
Carn C18:1	393	-1.865	3.917	6.34E-01	1.00E+00	0.001
Carn C18:1:OH	324	-0.750	26.679	9.78E-01	1.00E+00	0.000
Carn C18:2	393	4.201	5.460	4.42E-01	1.00E+00	0.002
Carn C18:2:OH	250	27.237	76.945	7.24E-01	1.00E+00	0.001
Carn C20	391	-27.494	39.050	4.82E-01	1.00E+00	0.001
Carn C20:1	316	-345.418	1015.561	7.34E-01	1.00E+00	0.000
Carn C20:3	393	11.778	25.619	6.46E-01	1.00E+00	0.001
Carn C20:4	393	46.823	290.355	8.72E-01	1.00E+00	0.000
Carn C22	291	-277.097	425.577	5.15E-01	1.00E+00	0.001
Carn C22:5	277	0.783	60.775	9.90E-01	1.00E+00	0.000
Carn C22:6	255	-67.910	249.067	7.85E-01	1.00E+00	0.000
LPC C14	245	0.688	0.281	1.52E-02	1.00E+00	0.024
LPC C15	248	-0.761	0.583	1.93E-01	1.00E+00	0.007
LPC C16	392	0.010	0.006	9.92E-02	1.00E+00	0.007
LPC C16:1	393	0.413	0.170	1.55E-02	1.00E+00	0.015
LPC C17	391	-0.040	0.262	8.80E-01	1.00E+00	0.000
LPC C18	393	0.022	0.015	1.45E-01	1.00E+00	0.005
LPC C18:1	393	0.000	0.033	9.99E-01	1.00E+00	0.000
LPC C18:2	393	0.004	0.017	8.18E-01	1.00E+00	0.000
LPC C18:3	352	0.120	0.579	8.36E-01	1.00E+00	0.000
LPC C20:1	202	-1.542	0.901	8.83E-02	1.00E+00	0.014
LPC C20:3	391	0.344	0.175	4.96E-02	1.00E+00	0.010
LPC C20:4	393	0.168	0.079	3.42E-02	1.00E+00	0.011
LPC C20:5	322	0.782	0.822	3.42E-01	1.00E+00	0.003

LPC C22:6	318	-0.034	0.257	8.94E-01	1.00E+00	0.000
PCaa C20:4	214	0.383	4.173	9.27E-01	1.00E+00	0.000
PCaa C28:2	322	6.493	3.876	9.49E-02	1.00E+00	0.009
PCaa C30	393	0.199	0.108	6.69E-02	1.00E+00	0.009
PCaa C30:2	392	0.558	0.739	4.50E-01	1.00E+00	0.001
PCaa C30:3	392	8.781	2.316	1.74E-04	4.05E-02	0.036
PCaa C30:4	168	10.085	7.322	1.70E-01	1.00E+00	0.011
PCaa C32	393	0.098	0.046	3.37E-02	1.00E+00	0.012
PCaa C32:1	393	0.102	0.032	1.69E-03	3.93E-01	0.025
PCaa C32:2	393	0.416	0.163	1.12E-02	1.00E+00	0.016
PCaa C34:1	393	0.002	0.003	6.15E-01	1.00E+00	0.001
PCaa C34:2	393	0.000	0.002	8.52E-01	1.00E+00	0.000
PCaa C34:3	391	0.112	0.036	2.19E-03	5.09E-01	0.024
PCaa C34:4	393	1.089	0.288	1.82E-04	4.23E-02	0.035
PCaa C36	275	0.312	0.079	9.28E-05	2.16E-02	0.055
PCaa C36:1	393	0.008	0.012	4.98E-01	1.00E+00	0.001
PCaa C36:2	393	0.000	0.003	9.38E-01	1.00E+00	0.000
PCaa C36:3	393	0.004	0.006	5.31E-01	1.00E+00	0.001
PCaa C36:4	393	0.002	0.004	6.43E-01	1.00E+00	0.001
PCaa C36:5	391	0.115	0.047	1.58E-02	1.00E+00	0.015

PCaa C36:6	323	0.333	0.256	1.95E-01	1.00E+00	0.005
PCaa C38	316	0.182	0.148	2.20E-01	1.00E+00	0.005
PCaa C38:3	393	0.029	0.016	6.03E-02	1.00E+00	0.009
PCaa C38:4	393	0.010	0.006	9.09E-02	1.00E+00	0.007
PCaa C38:5	393	0.016	0.017	3.26E-01	1.00E+00	0.002
PCaa C38:6	393	-0.007	0.010	4.87E-01	1.00E+00	0.001
PCaa C40	282	0.350	0.298	2.42E-01	1.00E+00	0.005
PCaa C40:4	392	0.221	0.141	1.18E-01	1.00E+00	0.006
PCaa C40:5	393	0.069	0.051	1.74E-01	1.00E+00	0.005
PCaa C40:6	393	-0.002	0.023	9.31E-01	1.00E+00	0.000
PCaa C42	245	0.608	0.558	2.77E-01	1.00E+00	0.005
PCaa C42:1	211	3.185	1.155	6.34E-03	1.00E+00	0.035
PCaa C42:6	202	-0.105	0.660	8.74E-01	1.00E+00	0.000
PCaa C43:6	251	0.138	0.418	7.42E-01	1.00E+00	0.000
PCaa C44:12	393	0.097	0.298	7.44E-01	1.00E+00	0.000
PCae C30:2	282	0.426	1.647	7.96E-01	1.00E+00	0.000
PCae C32	393	0.299	0.217	1.69E-01	1.00E+00	0.005

PCae C32:1	393	0.223	0.176	2.07E-01	1.00E+00	0.004
PCae C32:2	208	1.274	0.642	4.85E-02	1.00E+00	0.019
PCae C34	393	0.025	0.298	9.34E-01	1.00E+00	0.000
PCae C34:1	393	0.073	0.064	2.53E-01	1.00E+00	0.003
PCae C34:2	393	0.025	0.054	6.45E-01	1.00E+00	0.001
PCae C34:3	393	0.068	0.063	2.87E-01	1.00E+00	0.003
PCae C34:4	248	3.756	1.550	1.61E-02	1.00E+00	0.023
PCae C36	255	-0.097	0.347	7.81E-01	1.00E+00	0.000
PCae C36:1	392	0.063	0.029	3.40E-02	1.00E+00	0.011
PCae C36:2	392	0.006	0.036	8.70E-01	1.00E+00	0.000
PCae C36:3	393	0.068	0.064	2.90E-01	1.00E+00	0.003
PCae C36:4	392	0.028	0.033	3.98E-01	1.00E+00	0.002
PCae C36:5	393	0.035	0.042	4.04E-01	1.00E+00	0.002
PCae C36:6	178	-0.514	0.613	4.03E-01	1.00E+00	0.004
PCae C38	317	0.310	0.129	1.73E-02	1.00E+00	0.018
PCae C38:2	312	0.081	0.042	5.58E-02	1.00E+00	0.012
PCae C38:3	391	0.115	0.040	4.27E-03	9.95E-01	0.021
PCae C38:4	393	-0.033	0.043	4.43E-01	1.00E+00	0.002
PCae C38:5	393	0.007	0.034	8.47E-01	1.00E+00	0.000
PCae C38:6	393	0.061	0.073	4.06E-01	1.00E+00	0.002
PCae C40	393	0.040	0.058	4.87E-01	1.00E+00	0.001
PCae C40:1	237	0.532	0.221	1.68E-02	1.00E+00	0.024
PCae C40:3	322	0.080	0.055	1.48E-01	1.00E+00	0.007
PCae C40:4	353	0.306	0.090	7.99E-04	1.86E-01	0.032

PCae C40:5	393	0.128	0.098	1.90E-01	1.00E+00	0.004
PCae C40:6	393	-0.142	0.125	2.55E-01	1.00E+00	0.003
PCae C42:2	325	0.761	0.323	1.93E-02	1.00E+00	0.017
PCae C42:3	282	-0.112	0.256	6.63E-01	1.00E+00	0.001
PCae C42:4	198	1.328	0.538	1.45E-02	1.00E+00	0.030
PCae C42:5	318	0.327	0.205	1.11E-01	1.00E+00	0.008
PCae C42:6	392	0.403	0.329	2.21E-01	1.00E+00	0.004
SM C21:2	353	6.849	7.337	3.51E-01	1.00E+00	0.002
SM C32:1	393	0.201	0.073	6.03E-03	1.00E+00	0.019
SM C32:2	353	6.511	0.921	8.39E-12	1.95E-09	0.124
SM C33:1	393	0.200	0.130	1.24E-01	1.00E+00	0.006
SM C33:3	185	-2.240	3.427	5.14E-01	1.00E+00	0.002
SM C34:1	392	0.006	0.008	4.58E-01	1.00E+00	0.001
SM C34:2	392	0.204	0.052	1.16E-04	2.71E-02	0.037
SM C34:4	217	-6.449	11.922	5.89E-01	1.00E+00	0.001
SM C35:1	392	0.386	0.218	7.74E-02	1.00E+00	0.008
SM C35:2	203	-1.468	1.605	3.61E-01	1.00E+00	0.004
SM C36:1	391	0.058	0.037	1.22E-01	1.00E+00	0.006
SM C36:2	392	0.254	0.069	2.40E-04	5.59E-02	0.034
SM C36:3	187	2.703	0.728	2.71E-04	6.31E-02	0.070
SM C37:1	203	0.185	0.190	3.31E-01	1.00E+00	0.005
SM C37:3	212	-0.334	1.398	8.11E-01	1.00E+00	0.000
SM C38:2	393	0.032	0.045	4.75E-01	1.00E+00	0.001
SM C39:1	318	0.298	0.111	7.89E-03	1.00E+00	0.022
SM C40:2	243	0.023	0.027	3.93E-01	1.00E+00	0.003

SM C40:4	313	0.506	0.300	9.26E-02	1.00E+00	0.009
SM C40:5	353	0.885	0.542	1.03E-01	1.00E+00	0.008
SM C41:1	392	0.037	0.040	3.59E-01	1.00E+00	0.002
SM C41:2	392	0.085	0.058	1.42E-01	1.00E+00	0.006
SM C42:1	393	0.021	0.027	4.36E-01	1.00E+00	0.002
SM C42:2	392	0.027	0.016	9.70E-02	1.00E+00	0.007
SM C42:3	323	0.050	0.033	1.23E-01	1.00E+00	0.007
SM C42:6	393	-0.041	0.195	8.35E-01	1.00E+00	0.000
SM C43	176	-1.343	1.080	2.15E-01	1.00E+00	0.009
SM C43:1	205	0.752	0.417	7.29E-02	1.00E+00	0.016
SM C43:2	322	0.092	0.221	6.77E-01	1.00E+00	0.001
SM C44:6	238	0.434	0.515	4.00E-01	1.00E+00	0.003
SM C47:6	325	8.262	32.602	8.00E-01	1.00E+00	0.000
NEFA 12:0	180	-0.055	0.066	4.11E-01	1.00E+00	0.004
NEFA 14:0	323	-0.055	0.022	1.11E-02	1.00E+00	0.020
NEFA 14:1	390	-0.022	0.033	5.15E-01	1.00E+00	0.001
NEFA 15:0	180	-0.589	0.273	3.28E-02	1.00E+00	0.025
NEFA 16:0	247	-0.007	0.003	4.03E-02	1.00E+00	0.017
NEFA 16:1	390	-0.018	0.010	6.37E-02	1.00E+00	0.009
NEFA 16:2	310	0.169	0.359	6.39E-01	1.00E+00	0.001
NEFA 17:0	168	0.048	0.118	6.85E-01	1.00E+00	0.001
NEFA 17:1	390	-0.114	0.088	1.98E-01	1.00E+00	0.004
NEFA 17:2	168	-1.474	4.245	7.29E-01	1.00E+00	0.001
NEFA 18:1	390	-0.005	0.002	4.11E-03	9.57E-01	0.021
NEFA 18:2	390	-0.009	0.004	2.19E-02	1.00E+00	0.013
NEFA 18:3	390	-0.123	0.052	1.83E-02	1.00E+00	0.014
NEFA 18:4	168	-5.186	2.416	3.33E-02	1.00E+00	0.027
NEFA 19:1	308	-0.860	0.464	6.47E-02	1.00E+00	0.011
NEFA 20:1	390	-0.328	0.110	2.93E-03	6.82E-01	0.023
NEFA 20:2	390	-0.062	0.060	3.02E-01	1.00E+00	0.003
NEFA 20:3	390	0.060	0.119	6.18E-01	1.00E+00	0.001
NEFA 20:4	389	-0.004	0.040	9.28E-01	1.00E+00	0.000

NEFA 20:5	307	-0.082	0.236	7.30E-01	1.00E+00	0.000
NEFA 22:3	235	-6.277	6.855	3.61E-01	1.00E+00	0.004
NEFA 22:4	390	-0.367	0.511	4.73E-01	1.00E+00	0.001
NEFA 22:5	387	-0.284	0.262	2.80E-01	1.00E+00	0.003
NEFA 22:6	390	-0.052	0.104	6.19E-01	1.00E+00	0.001
NEFA 24:0	168	-3.142	1.804	8.35E-02	1.00E+00	0.018
NEFA 24:1	390	-1.203	0.714	9.27E-02	1.00E+00	0.007
NEFA 24:2	168	31.066	14.568	3.45E-02	1.00E+00	0.027
NEFA 24:3	242	-1.235	10.554	9.07E-01	1.00E+00	0.000
NEFA 24:4	390	-2.790	8.934	7.55E-01	1.00E+00	0.000
NEFA 24:6	167	-38.637	24.693	1.20E-01	1.00E+00	0.015
NEFA 26:0	335	1.279	1.079	2.37E-01	1.00E+00	0.004
NEFA 26:1	315	0.352	1.193	7.68E-01	1.00E+00	0.000
NEFA 26:2	390	0.707	1.487	6.35E-01	1.00E+00	0.001
NEFA 26:3	309	3.624	5.199	4.86E-01	1.00E+00	0.002
NEFA 26:4	390	-17.560	19.207	3.61E-01	1.00E+00	0.002
Pyruvate	385	0.000	0.001	8.48E-01	1.00E+00	0.000
Lactic_acid	390	0.000	0.000	4.33E-01	1.00E+00	0.002
Fumarate	383	-0.191	0.601	7.51E-01	1.00E+00	0.000
3-Methyl-2-oxobutanoate	385	-0.009	0.013	4.95E-01	1.00E+00	0.001
Succininate	388	0.066	0.052	2.05E-01	1.00E+00	0.004
Methylmalonate	390	4.704	2.490	5.96E-02	1.00E+00	0.009
Taurine	388	0.003	0.004	4.44E-01	1.00E+00	0.002
3-Methyl-2-oxovalerate	389	-0.004	0.014	7.77E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	384	0.002	0.007	7.21E-01	1.00E+00	0.000
Malate	386	0.108	0.102	2.90E-01	1.00E+00	0.003
Alpha-ketoglutarate	379	-0.044	0.032	1.73E-01	1.00E+00	0.005
Alpha-aminoadipate	388	0.669	1.098	5.42E-01	1.00E+00	0.001
Isocitrate	390	0.026	0.032	4.16E-01	1.00E+00	0.002
Citrate	390	0.003	0.002	1.91E-01	1.00E+00	0.004
Beta-hydroxybutyrate	151	0.005	0.007	4.73E-01	1.00E+00	0.003

CHOP 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	355	0.009	0.005	5.56E-02	1.00E+00	0.010
Arg	355	-0.032	0.021	1.34E-01	1.00E+00	0.006
Asn	355	-0.083	0.035	1.90E-02	1.00E+00	0.016
Asp	355	0.098	0.110	3.75E-01	1.00E+00	0.002
Cit	355	-0.163	0.048	8.41E-04	1.60E-01	0.031
Gln	354	-0.007	0.002	1.70E-03	3.23E-01	0.028
Glu	355	0.005	0.004	1.65E-01	1.00E+00	0.005
Gly	355	-0.021	0.008	7.74E-03	1.00E+00	0.020
His	355	-0.002	0.013	8.72E-01	1.00E+00	0.000
Ile	355	0.089	0.033	8.21E-03	1.00E+00	0.020
Leu	355	0.059	0.019	1.99E-03	3.78E-01	0.027
Lys	355	0.021	0.022	3.49E-01	1.00E+00	0.002
Met	355	0.016	0.080	8.41E-01	1.00E+00	0.000
Orn	355	0.040	0.023	8.36E-02	1.00E+00	0.008
Phe	354	0.070	0.037	5.99E-02	1.00E+00	0.010
Pro	355	0.001	0.009	8.98E-01	1.00E+00	0.000
Ser	354	-0.026	0.011	2.50E-02	1.00E+00	0.014
Thr	355	0.003	0.015	8.23E-01	1.00E+00	0.000
Trp	355	0.058	0.035	1.06E-01	1.00E+00	0.007
Tyr	354	0.142	0.027	1.63E-07	3.10E-05	0.075
Val	355	0.031	0.009	6.88E-04	1.31E-01	0.032
H1	355	0.000	0.001	4.09E-01	1.00E+00	0.002
Carn	355	0.054	0.016	9.59E-04	1.82E-01	0.030
Carn C2	355	-0.133	0.131	3.12E-01	1.00E+00	0.003
Carn C3	352	1.480	1.075	1.70E-01	1.00E+00	0.005
Carn C3:1	287	9.366	16.535	5.72E-01	1.00E+00	0.001
Carn C4:0:OH	238	-7.088	4.514	1.18E-01	1.00E+00	0.010
Carn C5	355	75.005	243.526	7.58E-01	1.00E+00	0.000
Carn C5:0:OH	355	9.644	4.356	2.75E-02	1.00E+00	0.014
Carn C6	355	0.551	7.029	9.38E-01	1.00E+00	0.000
Carn C6:1	355	-3.042	9.070	7.38E-01	1.00E+00	0.000
Carn C8	355	-3.035	1.987	1.28E-01	1.00E+00	0.007
Carn C8:1	355	2.491	4.830	6.06E-01	1.00E+00	0.001
Carn C9	355	-10.765	18.762	5.67E-01	1.00E+00	0.001

Carn C10	355	-2.405	1.169	4.04E-02	1.00E+00	0.012
Carn C10:1	354	0.044	1.935	9.82E-01	1.00E+00	0.000
Carn C10:2	355	7.650	13.833	5.81E-01	1.00E+00	0.001
Carn C12	355	-4.060	3.010	1.78E-01	1.00E+00	0.005
Carn C12:1	355	-0.400	1.261	7.52E-01	1.00E+00	0.000
Carn C14	355	-7.312	12.684	5.65E-01	1.00E+00	0.001
Carn C14:1	354	-1.456	2.076	4.83E-01	1.00E+00	0.001
Carn C14:2	355	-2.924	9.629	7.62E-01	1.00E+00	0.000
Carn C14:2:OH	353	-11.033	29.870	7.12E-01	1.00E+00	0.000
Carn C15	355	7.008	68.889	9.19E-01	1.00E+00	0.000
Carn C16	355	-5.175	15.504	7.39E-01	1.00E+00	0.000
Carn C16:0:OH	289	161.487	186.347	3.87E-01	1.00E+00	0.003
Carn C16:1	355	-8.786	13.383	5.12E-01	1.00E+00	0.001
Carn C16:2	355	-35.784	34.637	3.02E-01	1.00E+00	0.003
Carn C16:2:OH	305	20.304	69.064	7.69E-01	1.00E+00	0.000
Carn C18	355	-83.371	33.821	1.42E-02	1.00E+00	0.017
Carn C18:1	355	-11.099	10.207	2.78E-01	1.00E+00	0.003
Carn C18:1:OH	355	-78.817	46.113	8.83E-02	1.00E+00	0.008
Carn C18:2	353	-3.991	16.681	8.11E-01	1.00E+00	0.000
Carn C18:2:OH	233	25.269	125.334	8.40E-01	1.00E+00	0.000
Carn C20	349	-183.214	64.434	4.73E-03	8.99E-01	0.023
Carn C20:1	354	666.021	4735.474	8.88E-01	1.00E+00	0.000
Carn C20:3	355	359.235	178.841	4.53E-02	1.00E+00	0.011
Carn C20:4	305	3143.425	2368.305	1.85E-01	1.00E+00	0.006
Carn C22	222	-5614.830	2122.330	8.75E-03	1.00E+00	0.031
Carn C22:5	254	1070.093	347.980	2.34E-03	4.44E-01	0.036
Carn C22:6	184	255.572	243.994	2.96E-01	1.00E+00	0.006
LPC C16	355	-0.001	0.008	8.79E-01	1.00E+00	0.000
LPC C16:1	355	0.404	0.273	1.40E-01	1.00E+00	0.006
LPC C17	289	0.088	0.429	8.39E-01	1.00E+00	0.000
LPC C18	355	-0.010	0.021	6.33E-01	1.00E+00	0.001
LPC C18:1	355	-0.148	0.048	2.11E-03	4.01E-01	0.026
LPC C18:2	355	-0.083	0.026	1.75E-03	3.32E-01	0.027
LPC C18:3	221	-0.968	1.514	5.23E-01	1.00E+00	0.002
LPC C18:6	181	-0.506	2.204	8.19E-01	1.00E+00	0.000
LPC C20:3	288	0.288	0.391	4.61E-01	1.00E+00	0.002
LPC C20:4	355	-0.016	0.137	9.08E-01	1.00E+00	0.000
LPC C20:5	170	0.849	1.544	5.83E-01	1.00E+00	0.002

LPC C22:5	154	0.440	1.892	8.17E-01	1.00E+00	0.000
LPC C22:6	253	-0.514	0.585	3.81E-01	1.00E+00	0.003
PCaa C30:5	180	368.058	163.495	2.56E-02	1.00E+00	0.028
PCaa C32	355	-0.243	0.091	7.99E-03	1.00E+00	0.020
PCaa C32:1	289	0.080	0.059	1.75E-01	1.00E+00	0.006
PCaa C34:1	355	-0.017	0.006	3.74E-03	7.11E-01	0.024
PCaa C34:2	289	-0.012	0.004	5.31E-03	1.00E+00	0.027
PCaa C34:3	355	-0.049	0.063	4.37E-01	1.00E+00	0.002
PCaa C34:4	305	1.112	0.512	3.06E-02	1.00E+00	0.015
PCaa C36:2	355	-0.008	0.004	6.16E-02	1.00E+00	0.010
PCaa C36:3	355	-0.022	0.012	6.42E-02	1.00E+00	0.010
PCaa C36:4	289	-0.014	0.010	1.56E-01	1.00E+00	0.007
PCaa C36:5	286	-0.018	0.062	7.72E-01	1.00E+00	0.000

PCaa C38	166	-0.321	0.260	2.18E-01	1.00E+00	0.009
PCaa C38:3	167	0.027	0.044	5.39E-01	1.00E+00	0.002
PCaa C38:4	184	0.024	0.014	7.96E-02	1.00E+00	0.017
PCaa C38:5	239	-0.044	0.040	2.66E-01	1.00E+00	0.005
PCaa C38:6	355	-0.030	0.015	4.29E-02	1.00E+00	0.012
PCaa C40:4	156	0.290	0.434	5.04E-01	1.00E+00	0.003
PCaa C40:5	172	-0.123	0.147	4.04E-01	1.00E+00	0.004
PCaa C40:6	354	-0.012	0.038	7.44E-01	1.00E+00	0.000
PCaa C44:12	173	-4.248	1.601	8.71E-03	1.00E+00	0.040

PCae C34:1	355	-0.296	0.106	5.37E-03	1.00E+00	0.022
PCae C34:2	288	-0.157	0.083	5.76E-02	1.00E+00	0.013
PCae C34:3	355	-0.253	0.093	7.07E-03	1.00E+00	0.020
PCae C36:1	239	-0.164	0.067	1.61E-02	1.00E+00	0.024
PCae C36:2	155	-0.411	0.124	1.18E-03	2.25E-01	0.067
PCae C36:3	355	-0.190	0.101	6.02E-02	1.00E+00	0.010
PCae C36:4	288	-0.034	0.051	5.04E-01	1.00E+00	0.002
PCae C36:5	355	-0.051	0.082	5.36E-01	1.00E+00	0.001
PCae C38	183	-0.418	0.387	2.82E-01	1.00E+00	0.006
PCae C38:3	183	-0.166	0.084	4.85E-02	1.00E+00	0.022
PCae C38:4	173	-0.362	0.151	1.80E-02	1.00E+00	0.032
PCae C38:5	289	-0.067	0.059	2.53E-01	1.00E+00	0.005
PCae C38:6	239	0.010	0.157	9.47E-01	1.00E+00	0.000
PCae C40	166	-0.208	0.145	1.53E-01	1.00E+00	0.013
PCae C40:4	172	-0.496	0.290	8.84E-02	1.00E+00	0.017

PCae C40:6	172	-0.616	0.338	7.04E-02	1.00E+00	0.019
SM C21:2	181	-22.526	8.139	6.25E-03	1.00E+00	0.041
SM C31:1	182	12.185	5.141	1.88E-02	1.00E+00	0.030
SM C32:1	355	0.161	0.148	2.77E-01	1.00E+00	0.003
SM C32:2	171	5.820	1.750	1.09E-03	2.06E-01	0.060
SM C33:1	355	-0.224	0.204	2.72E-01	1.00E+00	0.003
SM C34:1	355	-0.042	0.014	3.15E-03	5.99E-01	0.024
SM C34:2	355	0.284	0.094	2.60E-03	4.94E-01	0.025
SM C35:1	305	-0.117	0.390	7.63E-01	1.00E+00	0.000
SM C36:1	355	0.088	0.054	1.04E-01	1.00E+00	0.007
SM C36:2	222	0.351	0.159	2.77E-02	1.00E+00	0.022
SM C36:3	287	1.835	1.113	1.00E-01	1.00E+00	0.009

SM C41:1	239	-0.136	0.113	2.31E-01	1.00E+00	0.006
SM C41:2	238	0.058	0.144	6.89E-01	1.00E+00	0.001
SM C42:1	188	-0.055	0.076	4.67E-01	1.00E+00	0.003
SM C42:2	173	0.029	0.040	4.63E-01	1.00E+00	0.003
NEFA 10:0	339	-0.003	0.130	9.82E-01	1.00E+00	0.000
NEFA 11:0	266	-0.921	4.031	8.19E-01	1.00E+00	0.000
NEFA 12:0	338	-0.467	0.178	9.19E-03	1.00E+00	0.020
NEFA 12:1	221	-0.194	4.526	9.66E-01	1.00E+00	0.000
NEFA 14:0	339	-0.066	0.040	9.35E-02	1.00E+00	0.008
NEFA 14:1	338	-0.021	0.214	9.22E-01	1.00E+00	0.000
NEFA 15:0	339	-0.277	0.186	1.37E-01	1.00E+00	0.007
NEFA 15:1	216	-3.229	2.789	2.48E-01	1.00E+00	0.006
NEFA 16:0	339	-0.005	0.005	3.79E-01	1.00E+00	0.002
NEFA 16:1	339	-0.011	0.022	6.30E-01	1.00E+00	0.001
NEFA 16:2	339	1.780	1.512	2.40E-01	1.00E+00	0.004
NEFA 17:0	339	-0.334	0.185	7.22E-02	1.00E+00	0.010
NEFA 17:1	339	-0.192	0.312	5.38E-01	1.00E+00	0.001
NEFA 18:0	284	-0.031	0.012	9.04E-03	1.00E+00	0.024
NEFA 18:1	339	-0.005	0.004	1.62E-01	1.00E+00	0.006
NEFA 18:2	337	-0.007	0.013	5.78E-01	1.00E+00	0.001
NEFA 18:3	339	-0.062	0.052	2.29E-01	1.00E+00	0.004
NEFA 18:4	337	-1.866	3.360	5.79E-01	1.00E+00	0.001
NEFA 19:0	284	-5.426	1.985	6.66E-03	1.00E+00	0.026
NEFA 19:1	339	-0.804	0.648	2.16E-01	1.00E+00	0.005
NEFA 20:0	339	-3.306	0.893	2.51E-04	4.76E-02	0.039
NEFA 20:1	339	-0.495	0.219	2.46E-02	1.00E+00	0.015
NEFA 20:2	338	0.010	0.379	9.79E-01	1.00E+00	0.000
NEFA 20:3	339	0.283	0.232	2.23E-01	1.00E+00	0.004
NEFA 20:4	339	0.080	0.061	1.88E-01	1.00E+00	0.005

NEFA 20:5	337	0.135	0.615	8.26E-01	1.00E+00	0.000
NEFA 22:0	288	-2.321	3.367	4.91E-01	1.00E+00	0.002
NEFA 22:1	338	-6.119	2.746	2.65E-02	1.00E+00	0.015
NEFA 22:2	284	-12.212	12.568	3.32E-01	1.00E+00	0.003
NEFA 22:3	233	8.242	11.485	4.74E-01	1.00E+00	0.002
NEFA 22:4	338	0.950	0.772	2.19E-01	1.00E+00	0.005
NEFA 22:5	339	-0.080	0.407	8.44E-01	1.00E+00	0.000
NEFA 22:6	339	-0.035	0.185	8.51E-01	1.00E+00	0.000
NEFA 24:0	339	-7.749	3.124	1.36E-02	1.00E+00	0.018
NEFA 24:1	339	-3.351	2.628	2.03E-01	1.00E+00	0.005
NEFA 24:3	150	-53.480	75.569	4.80E-01	1.00E+00	0.003
NEFA 24:4	221	48.800	18.527	9.04E-03	1.00E+00	0.031
NEFA 24:5	167	-25.352	16.358	1.23E-01	1.00E+00	0.014
NEFA 24:6	222	-1.719	11.666	8.83E-01	1.00E+00	0.000
NEFA 26:0	288	-30.214	21.189	1.55E-01	1.00E+00	0.007
NEFA 26:1	339	4.101	4.793	3.93E-01	1.00E+00	0.002
NEFA 26:2	289	2.628	6.401	6.82E-01	1.00E+00	0.001
NEFA 26:3	338	-8.734	10.757	4.17E-01	1.00E+00	0.002
NEFA 26:4	167	-131.581	60.696	3.16E-02	1.00E+00	0.028
NEFA 26:5	182	-25.936	58.406	6.58E-01	1.00E+00	0.001
Pyruvate	349	0.030	0.067	6.55E-01	1.00E+00	0.001
Lactate	349	0.016	0.039	6.91E-01	1.00E+00	0.000
Succininate	247	-0.004	0.003	2.03E-01	1.00E+00	0.007
Taurine	161	0.166	1.152	8.86E-01	1.00E+00	0.000
3-Methyl-2-oxovalerate	335	-0.004	0.014	7.65E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	297	-0.056	0.012	3.69E-06	7.01E-04	0.070
Malate	298	0.009	0.067	8.92E-01	1.00E+00	0.000
Alpha-ketoglutarate	347	0.000	0.000	8.59E-01	1.00E+00	0.000
Alpha-aminoadipate	347	-0.047	0.083	5.75E-01	1.00E+00	0.001
Isocitrate	349	0.115	0.054	3.26E-02	1.00E+00	0.013
Citrate	226	0.003	0.005	6.49E-01	1.00E+00	0.001
Alpha-ketobutyrate	349	0.040	0.074	5.90E-01	1.00E+00	0.001
Acetoacetate	298	0.024	0.012	5.45E-02	1.00E+00	0.012

UBCS 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	401	0.012	0.003	1.21E-04	2.46E-02	0.036
Arg	400	0.002	0.009	7.84E-01	1.00E+00	0.000
Asn	363	0.027	0.027	3.14E-01	1.00E+00	0.003
Asp	364	0.153	0.051	2.74E-03	5.56E-01	0.024
Cit	402	-0.061	0.027	2.26E-02	1.00E+00	0.013
Gln	401	-0.001	0.003	8.07E-01	1.00E+00	0.000
Glu	402	0.038	0.013	2.61E-03	5.29E-01	0.022
Gly	400	0.000	0.005	9.53E-01	1.00E+00	0.000
His	402	0.033	0.012	5.97E-03	1.00E+00	0.018
Ile	361	0.045	0.021	3.43E-02	1.00E+00	0.012
Leu	402	0.032	0.011	3.63E-03	7.37E-01	0.021
Lys	401	0.021	0.007	5.01E-03	1.00E+00	0.019
Met	402	0.064	0.045	1.51E-01	1.00E+00	0.005
Orn	401	0.012	0.015	4.52E-01	1.00E+00	0.001
Phe	402	0.048	0.021	2.49E-02	1.00E+00	0.012
Pro	398	0.006	0.003	4.99E-02	1.00E+00	0.010
Ser	401	-0.009	0.007	1.76E-01	1.00E+00	0.005
Thr	402	0.020	0.009	2.25E-02	1.00E+00	0.013
Trp	401	0.055	0.018	2.57E-03	5.21E-01	0.022
Tyr	401	0.088	0.015	1.61E-08	3.26E-06	0.076
Val	402	0.019	0.005	3.11E-04	6.31E-02	0.032
Hpro	400	0.034	0.024	1.68E-01	1.00E+00	0.005
H1	400	0.001	0.000	9.19E-04	1.86E-01	0.027
Carn	401	0.154	0.034	1.02E-05	2.07E-03	0.047
Carn C2	401	-0.227	0.090	1.20E-02	1.00E+00	0.015
Carn C3	402	4.847	1.667	3.84E-03	7.80E-01	0.020
Carn C4	402	1.386	2.861	6.28E-01	1.00E+00	0.001
Carn C5	395	4.798	4.603	2.98E-01	1.00E+00	0.003
Carn C8:1	397	3.666	1.580	2.09E-02	1.00E+00	0.013

Carn C10:1	400	-0.568	1.591	7.21E-01	1.00E+00	0.000
Carn C12:1	402	-3.299	1.538	3.25E-02	1.00E+00	0.011
Carn C14:1	401	-4.409	2.170	4.29E-02	1.00E+00	0.010
Carn C16	400	-12.330	5.637	2.93E-02	1.00E+00	0.012
Carn C18	398	-31.883	11.537	5.99E-03	1.00E+00	0.019
Carn C18:1	402	-10.993	4.662	1.89E-02	1.00E+00	0.014
LPC C14	402	3.047	0.490	1.26E-09	2.56E-07	0.087
LPC C15	402	3.199	1.194	7.68E-03	1.00E+00	0.017
LPC C15:1	402	27.167	9.994	6.85E-03	1.00E+00	0.018
LPC C16	402	0.063	0.020	1.50E-03	3.04E-01	0.025
LPC C16:1	401	2.440	0.465	2.52E-07	5.11E-05	0.064
LPC C17	402	-0.449	0.918	6.25E-01	1.00E+00	0.001
LPC C17:1	402	4.970	3.238	1.26E-01	1.00E+00	0.006
LPC C18	402	0.139	0.052	7.45E-03	1.00E+00	0.018
LPC C18:1	402	0.044	0.069	5.20E-01	1.00E+00	0.001
LPC C18:2	402	0.023	0.033	4.97E-01	1.00E+00	0.001
LPC C18:3	401	3.454	1.268	6.71E-03	1.00E+00	0.018
LPC C18:6	402	8.887	3.400	9.29E-03	1.00E+00	0.017
LPC C20	402	-1.721	3.460	6.19E-01	1.00E+00	0.001
LPC C20:1	402	0.314	3.044	9.18E-01	1.00E+00	0.000
LPC C20:2	402	2.592	2.859	3.65E-01	1.00E+00	0.002
LPC C20:3	400	1.251	0.541	2.12E-02	1.00E+00	0.013
LPC C20:4	400	0.569	0.231	1.43E-02	1.00E+00	0.015
LPC C20:5	400	4.960	1.530	1.29E-03	2.61E-01	0.025

LPC C22:4	402	2.256	2.038	2.69E-01	1.00E+00	0.003
LPC C22:5	402	0.103	1.099	9.25E-01	1.00E+00	0.000
LPC C22:6	401	0.282	0.664	6.72E-01	1.00E+00	0.000
PCaa C18	402	-0.215	5.452	9.69E-01	1.00E+00	0.000
PCaa C18:1	402	-12.241	6.473	5.93E-02	1.00E+00	0.009
PCaa C30	402	0.370	0.154	1.70E-02	1.00E+00	0.014
PCaa C30:2	402	0.370	0.524	4.81E-01	1.00E+00	0.001
PCaa C32	402	-0.004	0.034	9.10E-01	1.00E+00	0.000
PCaa C32:1	402	0.100	0.037	7.12E-03	1.00E+00	0.018
PCaa C32:2	402	0.506	0.147	6.12E-04	1.24E-01	0.029
PCaa C32:3	402	3.640	1.407	1.01E-02	1.00E+00	0.016
PCaa C34	400	-0.049	0.102	6.30E-01	1.00E+00	0.001
PCaa C34:1	401	0.000	0.005	9.86E-01	1.00E+00	0.000
PCaa C34:2	401	0.000	0.003	9.01E-01	1.00E+00	0.000
PCaa C34:3	402	0.158	0.055	4.23E-03	8.59E-01	0.020
PCaa C34:4	402	1.520	0.308	1.20E-06	2.44E-04	0.057
PCaa C34:5	402	6.662	2.397	5.71E-03	1.00E+00	0.019
PCaa C34:6	388	2.198	5.210	6.73E-01	1.00E+00	0.000
PCaa C36	401	0.022	0.250	9.30E-01	1.00E+00	0.000
PCaa C36:1	402	0.004	0.014	7.65E-01	1.00E+00	0.000
PCaa C36:2	401	0.007	0.005	2.21E-01	1.00E+00	0.004
PCaa C36:3	402	0.022	0.011	4.77E-02	1.00E+00	0.010
PCaa C36:4	402	0.017	0.007	1.79E-02	1.00E+00	0.014
PCaa C36:5	402	0.106	0.042	1.15E-02	1.00E+00	0.016

PCaa C36:6	402	3.838	0.942	5.58E-05	1.13E-02	0.039
PCaa C38	402	0.268	0.356	4.53E-01	1.00E+00	0.001
PCaa C38:1	398	0.205	0.327	5.31E-01	1.00E+00	0.001
PCaa C38:2	402	0.132	0.141	3.51E-01	1.00E+00	0.002
PCaa C38:3	401	0.110	0.027	5.87E-05	1.19E-02	0.039
PCaa C38:4	402	0.027	0.009	2.42E-03	4.91E-01	0.023
PCaa C38:5	402	0.027	0.019	1.44E-01	1.00E+00	0.005
PCaa C38:6	402	0.015	0.016	3.42E-01	1.00E+00	0.002
PCaa C40	401	-0.092	1.741	9.58E-01	1.00E+00	0.000
PCaa C40:1	395	0.125	3.294	9.70E-01	1.00E+00	0.000
PCaa C40:2	398	4.802	2.913	1.00E-01	1.00E+00	0.007
PCaa C40:3	394	-0.154	1.719	9.29E-01	1.00E+00	0.000
PCaa C40:4	402	0.385	0.189	4.22E-02	1.00E+00	0.010
PCaa C40:5	401	0.162	0.086	5.97E-02	1.00E+00	0.009
PCaa C40:6	402	0.145	0.046	1.81E-03	3.67E-01	0.024
PCaa C42	402	-1.117	1.548	4.71E-01	1.00E+00	0.001
PCaa C42:1	400	-1.415	3.142	6.53E-01	1.00E+00	0.001
PCaa C42:2	396	2.359	5.151	6.47E-01	1.00E+00	0.001
PCaa C42:4	400	1.096	3.469	7.52E-01	1.00E+00	0.000
PCaa C42:5	399	0.123	2.143	9.54E-01	1.00E+00	0.000
PCaa C42:6	402	1.746	1.826	3.40E-01	1.00E+00	0.002
PCaa C43:6	402	-0.414	0.704	5.57E-01	1.00E+00	0.001
PCae C30	402	0.943	1.589	5.53E-01	1.00E+00	0.001
PCae C32	399	-0.088	0.254	7.30E-01	1.00E+00	0.000

PCae C32:1	402	0.053	0.335	8.73E-01	1.00E+00	0.000
PCae C32:2	402	0.961	1.848	6.03E-01	1.00E+00	0.001
PCae C34	400	0.005	0.340	9.88E-01	1.00E+00	0.000
PCae C34:1	402	-0.111	0.103	2.84E-01	1.00E+00	0.003
PCae C34:2	402	0.026	0.077	7.36E-01	1.00E+00	0.000
PCae C34:3	402	0.032	0.087	7.08E-01	1.00E+00	0.000
PCae C34:4	402	4.575	2.355	5.28E-02	1.00E+00	0.009
PCae C36	401	-0.099	0.847	9.07E-01	1.00E+00	0.000
PCae C36:1	402	-0.354	0.187	5.94E-02	1.00E+00	0.009
PCae C36:2	402	-0.217	0.093	1.97E-02	1.00E+00	0.013
PCae C36:3	402	0.068	0.134	6.12E-01	1.00E+00	0.001
PCae C36:4	401	0.112	0.050	2.55E-02	1.00E+00	0.012
PCae C36:5	402	0.136	0.072	5.79E-02	1.00E+00	0.009
PCae C36:6	397	2.467	1.060	2.05E-02	1.00E+00	0.013
PCae C38	401	0.766	0.467	1.01E-01	1.00E+00	0.007
PCae C38:2	401	-0.466	0.421	2.69E-01	1.00E+00	0.003
PCae C38:3	402	-0.141	0.234	5.47E-01	1.00E+00	0.001
PCae C38:4	400	-0.019	0.060	7.44E-01	1.00E+00	0.000
PCae C38:5	401	0.047	0.046	3.16E-01	1.00E+00	0.002
PCae C38:6	402	0.158	0.102	1.22E-01	1.00E+00	0.006
PCae C40	402	0.043	0.191	8.22E-01	1.00E+00	0.000
PCae C40:1	397	0.440	0.432	3.09E-01	1.00E+00	0.003
PCae C40:2	402	-0.351	1.165	7.64E-01	1.00E+00	0.000
PCae C40:3	401	-1.240	1.166	2.88E-01	1.00E+00	0.003
PCae C40:4	402	-0.473	0.376	2.09E-01	1.00E+00	0.004

PCae C40:5	402	-0.534	0.280	5.68E-02	1.00E+00	0.009
PCae C40:6	402	-0.250	0.250	3.19E-01	1.00E+00	0.002
PCae C42	402	-0.712	2.232	7.50E-01	1.00E+00	0.000
PCae C42:1	400	0.646	1.215	5.95E-01	1.00E+00	0.001
PCae C42:2	402	-0.707	1.255	5.74E-01	1.00E+00	0.001
PCae C42:3	401	-1.053	1.214	3.86E-01	1.00E+00	0.002
PCae C42:4	402	-1.257	0.846	1.38E-01	1.00E+00	0.005
PCae C42:5	402	-0.718	0.485	1.40E-01	1.00E+00	0.005
PCae C42:6	402	-1.140	0.735	1.22E-01	1.00E+00	0.006
SM C32:2	326	15.022	1.499	9.39E-21	1.91E-18	0.228
SM C35	401	0.026	0.716	9.71E-01	1.00E+00	0.000
SM C35:1	402	-0.024	0.187	9.00E-01	1.00E+00	0.000
SM C36	401	0.216	0.248	3.83E-01	1.00E+00	0.002
SM C36:1	402	0.012	0.030	6.99E-01	1.00E+00	0.000
SM C36:2	402	0.071	0.057	2.12E-01	1.00E+00	0.004
SM C37:1	401	-0.026	0.341	9.40E-01	1.00E+00	0.000
SM C38:1	402	0.007	0.023	7.50E-01	1.00E+00	0.000
SM C38:2	402	0.015	0.034	6.61E-01	1.00E+00	0.000
SM C38:3	402	1.491	0.843	7.78E-02	1.00E+00	0.008
SM C39:1	402	0.091	0.168	5.88E-01	1.00E+00	0.001
SM C39:2	400	0.572	0.516	2.68E-01	1.00E+00	0.003
SM C39:5	402	1.322	0.854	1.23E-01	1.00E+00	0.006
SM C40:1	399	-0.003	0.024	8.94E-01	1.00E+00	0.000
SM C40:2	402	0.061	0.035	8.34E-02	1.00E+00	0.007
SM C40:3	399	0.110	0.072	1.27E-01	1.00E+00	0.006

SM C40:4	402	0.091	0.091	3.16E-01	1.00E+00	0.002
SM C41:1	402	-0.042	0.085	6.21E-01	1.00E+00	0.001
SM C41:2	402	0.128	0.129	3.23E-01	1.00E+00	0.002
SM C41:3	394	1.167	0.573	4.24E-02	1.00E+00	0.010
SM C42:1	401	-0.002	0.043	9.71E-01	1.00E+00	0.000
SM C42:2	402	0.016	0.021	4.62E-01	1.00E+00	0.001
SM C42:3	402	0.178	0.050	4.39E-04	8.91E-02	0.030
SM C42:4	401	0.279	0.129	3.07E-02	1.00E+00	0.012
SM C42:6	402	0.033	0.271	9.02E-01	1.00E+00	0.000
SM C43	400	-1.169	1.243	3.48E-01	1.00E+00	0.002
SM C43:1	402	-0.280	0.521	5.91E-01	1.00E+00	0.001
SM C43:2	402	-0.012	0.336	9.71E-01	1.00E+00	0.000
SM C43:3	400	-0.345	1.420	8.08E-01	1.00E+00	0.000
SM C44:2	398	-0.357	1.807	8.43E-01	1.00E+00	0.000
SM C44:6	400	0.540	0.567	3.42E-01	1.00E+00	0.002
NEFA 10:0	323	-0.989	0.264	2.11E-04	4.28E-02	0.041
NEFA 12:0	398	-0.170	0.056	2.56E-03	5.20E-01	0.022
NEFA 12:1	395	-0.435	0.256	9.03E-02	1.00E+00	0.007
NEFA 14:0	401	-0.104	0.032	1.07E-03	2.18E-01	0.026
NEFA 14:1	399	-0.630	0.202	1.90E-03	3.86E-01	0.024
NEFA 15:0	394	-0.389	0.160	1.57E-02	1.00E+00	0.015
NEFA 15:1	335	-3.679	2.220	9.85E-02	1.00E+00	0.008
NEFA 16:0	401	-0.015	0.004	4.89E-04	9.92E-02	0.030
NEFA 16:1	400	-0.065	0.017	1.98E-04	4.03E-02	0.034
NEFA 16:2	398	-1.699	1.656	3.05E-01	1.00E+00	0.003
NEFA 17:0	399	-0.359	0.164	2.94E-02	1.00E+00	0.012
NEFA 17:1	399	-0.521	0.238	2.90E-02	1.00E+00	0.012
NEFA 18:0	398	-0.033	0.011	3.54E-03	7.19E-01	0.021
NEFA 18:1	402	-0.009	0.003	9.39E-04	1.91E-01	0.027
NEFA 18:2	401	-0.031	0.011	3.14E-03	6.37E-01	0.021
NEFA 18:3	401	-0.159	0.085	6.13E-02	1.00E+00	0.009
NEFA 19:1	402	-1.331	0.527	1.20E-02	1.00E+00	0.015
NEFA 20:0	360	-2.137	0.938	2.34E-02	1.00E+00	0.014
NEFA 20:2	351	-0.574	0.439	1.91E-01	1.00E+00	0.005
NEFA 20:3	285	0.065	0.560	9.08E-01	1.00E+00	0.000
NEFA 20:4	402	0.024	0.193	9.00E-01	1.00E+00	0.000

NEFA 20:5	387	-0.305	1.281	8.12E-01	1.00E+00	0.000
NEFA 22:4	402	-0.202	1.001	8.40E-01	1.00E+00	0.000
NEFA 22:5	402	-0.254	0.515	6.22E-01	1.00E+00	0.001
NEFA 22:6	402	-0.057	0.291	8.44E-01	1.00E+00	0.000
NEFA 24:0	399	-0.884	3.252	7.86E-01	1.00E+00	0.000
NEFA 24:2	355	14.563	13.673	2.88E-01	1.00E+00	0.003
NEFA 24:4	396	3.671	16.184	8.21E-01	1.00E+00	0.000
NEFA 24:5	401	15.713	15.117	2.99E-01	1.00E+00	0.003
NEFA 26:1	402	11.851	5.691	3.79E-02	1.00E+00	0.011
						0.010

GINI-LISA 10 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	249	-0.001	0.005	9.01E-01	1.00E+00	0.000
Arg	249	-0.001	0.022	9.80E-01	1.00E+00	0.000
Asn	249	-0.081	0.040	4.24E-02	1.00E+00	0.016
Asp	248	0.110	0.041	8.28E-03	1.00E+00	0.027
Cit	249	-0.090	0.052	8.67E-02	1.00E+00	0.012
Gln	220	-0.009	0.004	3.43E-02	1.00E+00	0.020
Glu	249	0.018	0.009	3.33E-02	1.00E+00	0.018
Gly	249	-0.007	0.007	3.15E-01	1.00E+00	0.004
His	249	-0.009	0.022	6.85E-01	1.00E+00	0.001
Ile	249	0.016	0.033	6.15E-01	1.00E+00	0.001
Leu	249	0.031	0.018	8.18E-02	1.00E+00	0.012
Lys	249	0.016	0.012	1.79E-01	1.00E+00	0.007
Met	249	-0.142	0.095	1.35E-01	1.00E+00	0.009
Orn	249	0.017	0.016	3.10E-01	1.00E+00	0.004
Phe	249	0.056	0.028	4.48E-02	1.00E+00	0.016
Pro	249	0.000	0.007	9.57E-01	1.00E+00	0.000
Ser	249	-0.008	0.015	6.23E-01	1.00E+00	0.001
Thr	249	-0.007	0.015	6.58E-01	1.00E+00	0.001
Trp	249	0.006	0.038	8.70E-01	1.00E+00	0.000
Tyr	249	0.059	0.029	4.12E-02	1.00E+00	0.016
Val	249	0.017	0.009	6.98E-02	1.00E+00	0.013
H1	251	0.000	0.001	7.75E-01	1.00E+00	0.000
Carn	190	0.224	0.097	2.27E-02	1.00E+00	0.026
Carn C2	194	-0.012	0.291	9.67E-01	1.00E+00	0.000
Carn C3	206	13.383	6.531	4.17E-02	1.00E+00	0.020
Carn C4	163	10.600	7.744	1.73E-01	1.00E+00	0.011
Carn C5	152	28.811	17.736	1.06E-01	1.00E+00	0.017
Carn C6	250	-2.643	11.606	8.20E-01	1.00E+00	0.000
Carn C8	251	-0.683	1.566	6.63E-01	1.00E+00	0.001
Carn C8:1	250	6.543	7.317	3.72E-01	1.00E+00	0.003
Carn C9	229	-17.123	18.188	3.47E-01	1.00E+00	0.004

Carn C10	250	-1.997	1.213	1.01E-01	1.00E+00	0.011
Carn C10:1	251	-1.565	1.984	4.31E-01	1.00E+00	0.002
Carn C10:2	153	-16.250	11.402	1.56E-01	1.00E+00	0.013
Carn C12	250	-4.375	2.770	1.16E-01	1.00E+00	0.010
Carn C12:1	222	-0.923	1.362	4.99E-01	1.00E+00	0.002
Carn C14	161	-26.077	23.949	2.78E-01	1.00E+00	0.007
Carn C14:1	250	-5.577	4.265	1.92E-01	1.00E+00	0.007
Carn C14:2	163	-12.822	17.249	4.58E-01	1.00E+00	0.003
Carn C16	229	0.731	18.015	9.68E-01	1.00E+00	0.000
Carn C16:1	200	23.570	29.433	4.24E-01	1.00E+00	0.003
Carn C18	188	-15.426	21.787	4.80E-01	1.00E+00	0.003
Carn C18:1	251	8.939	10.920	4.14E-01	1.00E+00	0.003
Carn C18:2	178	40.252	26.268	1.27E-01	1.00E+00	0.013
LPC C14	251	0.697	0.517	1.79E-01	1.00E+00	0.007
LPC C15	233	-0.038	1.263	9.76E-01	1.00E+00	0.000
LPC C16	251	0.017	0.019	3.59E-01	1.00E+00	0.003
LPC C16:1	251	1.618	0.569	4.80E-03	1.00E+00	0.031
LPC C17	251	-0.589	0.809	4.68E-01	1.00E+00	0.002
LPC C17:1	233	-1.688	3.791	6.57E-01	1.00E+00	0.001
LPC C18	251	0.023	0.055	6.76E-01	1.00E+00	0.001
LPC C18:1	251	-0.171	0.107	1.12E-01	1.00E+00	0.010
LPC C18:2	251	-0.206	0.056	2.71E-04	6.59E-02	0.051
LPC C18:3	233	-3.756	1.927	5.25E-02	1.00E+00	0.016
LPC C18:6	151	3.688	4.971	4.59E-01	1.00E+00	0.003
LPC C20:2	135	2.747	4.295	5.24E-01	1.00E+00	0.003
LPC C20:3	251	0.344	0.736	6.41E-01	1.00E+00	0.001
LPC C20:4	251	0.062	0.267	8.17E-01	1.00E+00	0.000
LPC C20:5	248	0.679	2.406	7.78E-01	1.00E+00	0.000

LPC C22:5	186	-1.227	3.101	6.93E-01	1.00E+00	0.001
LPC C22:6	233	-0.479	0.834	5.67E-01	1.00E+00	0.001
PCaa C30	251	-0.468	0.378	2.18E-01	1.00E+00	0.006
PCaa C30:2	177	-3.587	2.578	1.66E-01	1.00E+00	0.011
PCaa C30:3	172	1.142	7.316	8.76E-01	1.00E+00	0.000
PCaa C30:4	126	2.959	12.530	8.14E-01	1.00E+00	0.000
PCaa C32	251	-0.263	0.168	1.18E-01	1.00E+00	0.010
PCaa C32:1	251	0.177	0.088	4.50E-02	1.00E+00	0.016
PCaa C32:2	251	-0.373	0.401	3.53E-01	1.00E+00	0.003
PCaa C32:3	196	0.366	2.869	8.99E-01	1.00E+00	0.000
PCaa C34:1	251	-0.005	0.011	6.63E-01	1.00E+00	0.001
PCaa C34:2	251	-0.014	0.006	2.57E-02	1.00E+00	0.019
PCaa C34:3	251	-0.065	0.107	5.43E-01	1.00E+00	0.001
PCaa C34:4	251	0.627	0.717	3.83E-01	1.00E+00	0.003
PCaa C34:5	166	3.676	6.550	5.75E-01	1.00E+00	0.002
PCaa C36	191	-0.473	0.285	9.88E-02	1.00E+00	0.014
PCaa C36:1	251	-0.011	0.041	7.81E-01	1.00E+00	0.000
PCaa C36:2	251	-0.015	0.009	9.75E-02	1.00E+00	0.011
PCaa C36:3	251	-0.006	0.017	7.27E-01	1.00E+00	0.000
PCaa C36:4	251	0.014	0.014	3.08E-01	1.00E+00	0.004
PCaa C36:5	250	0.074	0.096	4.43E-01	1.00E+00	0.002

PCaa C36:6	230	0.658	1.129	5.61E-01	1.00E+00	0.001
PCaa C38	251	-0.454	0.444	3.08E-01	1.00E+00	0.004
PCaa C38:2	116	-0.127	0.379	7.39E-01	1.00E+00	0.001
PCaa C38:3	251	0.094	0.038	1.42E-02	1.00E+00	0.023
PCaa C38:4	251	0.034	0.018	5.93E-02	1.00E+00	0.014
PCaa C38:5	251	0.028	0.039	4.70E-01	1.00E+00	0.002
PCaa C38:6	251	0.001	0.025	9.55E-01	1.00E+00	0.000
PCaa C40	183	-2.124	1.194	7.70E-02	1.00E+00	0.017
PCaa C40:1	199	0.726	0.893	4.17E-01	1.00E+00	0.003
PCaa C40:3	138	-0.819	0.775	2.93E-01	1.00E+00	0.008
PCaa C40:4	251	0.110	0.373	7.69E-01	1.00E+00	0.000
PCaa C40:5	251	0.114	0.146	4.37E-01	1.00E+00	0.002
PCaa C40:6	251	0.074	0.062	2.33E-01	1.00E+00	0.006
PCaa C42	237	-2.601	1.672	1.21E-01	1.00E+00	0.010
PCaa C42:1	123	-6.110	3.160	5.55E-02	1.00E+00	0.030
PCaa C42:4	121	-2.439	2.225	2.75E-01	1.00E+00	0.010
PCaa C42:5	160	-7.675	2.673	4.65E-03	1.00E+00	0.049
PCaa C42:6	137	-3.327	1.595	3.89E-02	1.00E+00	0.031
PCaa C43:6	248	-3.752	1.401	7.92E-03	1.00E+00	0.028
PCaa C44:12	221	-2.827	1.938	1.46E-01	1.00E+00	0.009
PCae C32	251	-1.145	0.609	6.14E-02	1.00E+00	0.014

PCae C32:1	251	-1.218	0.571	3.37E-02	1.00E+00	0.018
PCae C32:2	217	-0.910	1.555	5.59E-01	1.00E+00	0.002
PCae C34	230	-0.344	1.082	7.51E-01	1.00E+00	0.000
PCae C34:1	251	-0.486	0.226	3.22E-02	1.00E+00	0.018
PCae C34:2	251	-0.387	0.168	2.24E-02	1.00E+00	0.020
PCae C34:3	251	-0.620	0.187	1.08E-03	2.61E-01	0.041
PCae C34:4	144	-3.678	5.019	4.65E-01	1.00E+00	0.004
PCae C36	181	-3.532	2.182	1.07E-01	1.00E+00	0.014
PCae C36:1	251	-0.172	0.145	2.38E-01	1.00E+00	0.005
PCae C36:2	251	-0.318	0.132	1.70E-02	1.00E+00	0.022
PCae C36:3	251	-0.387	0.222	8.19E-02	1.00E+00	0.012
PCae C36:4	251	-0.068	0.095	4.78E-01	1.00E+00	0.002
PCae C36:5	251	-0.105	0.140	4.52E-01	1.00E+00	0.002
PCae C36:6	128	-3.806	3.584	2.90E-01	1.00E+00	0.009
PCae C38	250	-0.591	0.508	2.45E-01	1.00E+00	0.005
PCae C38:2	251	-0.233	0.237	3.27E-01	1.00E+00	0.004
PCae C38:3	251	-0.050	0.165	7.63E-01	1.00E+00	0.000
PCae C38:4	251	-0.201	0.129	1.20E-01	1.00E+00	0.009
PCae C38:5	251	-0.088	0.109	4.19E-01	1.00E+00	0.003
PCae C38:6	251	-0.131	0.217	5.47E-01	1.00E+00	0.001
PCae C40	222	-0.086	0.175	6.26E-01	1.00E+00	0.001
PCae C40:1	233	-0.946	0.561	9.29E-02	1.00E+00	0.012
PCae C40:2	170	0.105	0.583	8.58E-01	1.00E+00	0.000
PCae C40:3	188	0.214	0.276	4.39E-01	1.00E+00	0.003
PCae C40:4	222	-0.817	0.445	6.77E-02	1.00E+00	0.015

PCae C40:5	251	-0.534	0.308	8.37E-02	1.00E+00	0.012
PCae C40:6	251	-0.740	0.378	5.12E-02	1.00E+00	0.015
PCae C42	193	-0.172	1.483	9.08E-01	1.00E+00	0.000
PCae C42:1	171	-1.186	0.810	1.45E-01	1.00E+00	0.012
PCae C42:2	204	-1.669	1.326	2.10E-01	1.00E+00	0.008
PCae C42:3	211	-1.584	0.778	4.30E-02	1.00E+00	0.019
PCae C42:4	189	-1.487	1.647	3.68E-01	1.00E+00	0.004
PCae C42:5	231	-1.156	0.585	4.96E-02	1.00E+00	0.016
PCae C42:6	251	-2.537	1.057	1.72E-02	1.00E+00	0.022
SM C30:1	209	3.397	2.914	2.45E-01	1.00E+00	0.006
SM C31:1	125	4.927	7.411	5.07E-01	1.00E+00	0.003
SM C32:1	251	0.124	0.218	5.70E-01	1.00E+00	0.001
SM C32:2	251	10.062	1.951	5.15E-07	1.25E-04	0.094
SM C33:1	251	-0.457	0.339	1.78E-01	1.00E+00	0.007
SM C33:2	183	21.642	8.023	7.66E-03	1.00E+00	0.038
SM C33:3	180	-1.787	14.467	9.02E-01	1.00E+00	0.000
SM C34:1	251	-0.049	0.022	3.12E-02	1.00E+00	0.018
SM C34:2	251	0.230	0.153	1.35E-01	1.00E+00	0.009
SM C35	167	-1.647	3.249	6.13E-01	1.00E+00	0.002
SM C35:1	251	0.022	0.682	9.75E-01	1.00E+00	0.000
SM C35:2	202	2.368	4.199	5.73E-01	1.00E+00	0.002
SM C36:1	251	0.107	0.108	3.24E-01	1.00E+00	0.004
SM C36:2	251	0.549	0.195	5.24E-03	1.00E+00	0.030
SM C36:3	251	4.193	2.347	7.52E-02	1.00E+00	0.012
SM C37:1	127	-0.338	1.161	7.71E-01	1.00E+00	0.001
SM C37:3	170	-3.739	4.385	3.95E-01	1.00E+00	0.004
SM C38:1	194	0.017	0.060	7.78E-01	1.00E+00	0.000
SM C38:2	251	-0.110	0.123	3.72E-01	1.00E+00	0.003
SM C38:3	150	5.479	3.673	1.38E-01	1.00E+00	0.014
SM C39:1	251	0.084	0.298	7.77E-01	1.00E+00	0.000
SM C39:2	151	-1.178	1.179	3.20E-01	1.00E+00	0.007
SM C39:5	123	4.564	3.700	2.20E-01	1.00E+00	0.012
SM C40:2	251	-0.016	0.068	8.15E-01	1.00E+00	0.000

SM C40:4	239	0.724	0.909	4.27E-01	1.00E+00	0.003
SM C40:5	215	0.616	1.923	7.49E-01	1.00E+00	0.000
SM C41:1	251	-0.035	0.164	8.32E-01	1.00E+00	0.000
SM C41:2	251	0.115	0.230	6.17E-01	1.00E+00	0.001
SM C42:1	251	-0.066	0.100	5.11E-01	1.00E+00	0.002
SM C42:2	251	0.025	0.056	6.48E-01	1.00E+00	0.001
SM C42:3	233	0.100	0.086	2.48E-01	1.00E+00	0.006
SM C42:4	215	0.361	0.245	1.42E-01	1.00E+00	0.010
SM C42:6	239	-0.068	0.595	9.09E-01	1.00E+00	0.000
SM C43	143	-1.687	2.884	5.60E-01	1.00E+00	0.002
SM C43:1	247	0.067	1.320	9.59E-01	1.00E+00	0.000
SM C43:2	251	2.093	0.759	6.25E-03	1.00E+00	0.029
SM C44:6	209	-0.579	1.171	6.22E-01	1.00E+00	0.001
NEFA 10:0	239	-1.931	0.513	2.12E-04	5.14E-02	0.055
NEFA 12:0	207	-0.251	0.088	4.71E-03	1.00E+00	0.037
NEFA 12:1	151	-0.521	0.783	5.07E-01	1.00E+00	0.003
NEFA 13:0	97	-1.141	1.783	5.24E-01	1.00E+00	0.004
NEFA 13:1	192	-5.360	7.561	4.79E-01	1.00E+00	0.003
NEFA 14:0	250	-0.080	0.074	2.81E-01	1.00E+00	0.005
NEFA 14:1	250	0.138	0.437	7.52E-01	1.00E+00	0.000
NEFA 14:2	113	0.008	0.105	9.40E-01	1.00E+00	0.000
NEFA 16:0	251	-0.008	0.012	4.74E-01	1.00E+00	0.002
NEFA 16:1	222	0.014	0.036	7.04E-01	1.00E+00	0.001
NEFA 16:2	224	1.113	1.894	5.57E-01	1.00E+00	0.001
NEFA 17:0	234	-0.556	0.386	1.51E-01	1.00E+00	0.009
NEFA 17:1	222	0.046	0.592	9.38E-01	1.00E+00	0.000
NEFA 17:2	152	-16.140	13.449	2.32E-01	1.00E+00	0.009
NEFA 18:0	163	-0.051	0.032	1.09E-01	1.00E+00	0.016
NEFA 18:1	251	-0.003	0.008	7.02E-01	1.00E+00	0.001
NEFA 18:2	251	-0.021	0.024	3.68E-01	1.00E+00	0.003
NEFA 18:3	251	-0.047	0.073	5.20E-01	1.00E+00	0.002
NEFA 18:4	229	3.170	4.500	4.82E-01	1.00E+00	0.002
NEFA 19:0	235	-7.029	3.189	2.85E-02	1.00E+00	0.020
NEFA 19:1	238	-0.457	1.036	6.59E-01	1.00E+00	0.001
NEFA 20:0	131	-3.614	2.300	1.19E-01	1.00E+00	0.018
NEFA 20:1	251	-0.319	0.397	4.22E-01	1.00E+00	0.003
NEFA 20:2	202	-0.821	0.627	1.92E-01	1.00E+00	0.008
NEFA 20:3	229	0.753	0.502	1.35E-01	1.00E+00	0.010
NEFA 20:4	222	0.278	0.263	2.91E-01	1.00E+00	0.005

NEFA 20:5	187	-0.057	0.947	9.52E-01	1.00E+00	0.000
NEFA 22:0	93	5.479	4.747	2.52E-01	1.00E+00	0.015
NEFA 22:1	248	-2.825	2.666	2.90E-01	1.00E+00	0.004
NEFA 22:2	137	-2.685	20.102	8.94E-01	1.00E+00	0.000
NEFA 22:3	223	4.112	12.394	7.40E-01	1.00E+00	0.000
NEFA 22:4	223	1.159	1.420	4.16E-01	1.00E+00	0.003
NEFA 22:5	251	-0.169	0.728	8.16E-01	1.00E+00	0.000
NEFA 22:6	251	-0.169	0.310	5.86E-01	1.00E+00	0.001
NEFA 24:0	206	-16.935	5.650	3.06E-03	7.44E-01	0.041
NEFA 24:1	216	-4.804	4.203	2.54E-01	1.00E+00	0.006
NEFA 24:2	164	22.059	34.439	5.23E-01	1.00E+00	0.003
NEFA 24:3	154	-17.524	108.330	8.72E-01	1.00E+00	0.000
NEFA 24:4	222	17.046	27.403	5.35E-01	1.00E+00	0.002
NEFA 24:5	231	18.855	17.436	2.81E-01	1.00E+00	0.005
NEFA 24:6	192	24.567	29.174	4.01E-01	1.00E+00	0.004
NEFA 26:0	162	-48.629	22.428	3.16E-02	1.00E+00	0.027
NEFA 26:1	205	-28.682	21.120	1.76E-01	1.00E+00	0.009
NEFA 26:2	195	-17.631	28.892	5.42E-01	1.00E+00	0.002
NEFA 26:3	169	-2.434	33.916	9.43E-01	1.00E+00	0.000
NEFA 26:4	206	24.622	107.736	8.19E-01	1.00E+00	0.000
NEFA 26:5	194	200.510	153.535	1.93E-01	1.00E+00	0.009
NEFA 26:6	133	-80.570	66.352	2.27E-01	1.00E+00	0.011
Pyruvate	251	0.002	0.008	7.87E-01	1.00E+00	0.000
Lactate	251	0.000	0.000	4.78E-01	1.00E+00	0.002
Fumarate	251	0.458	1.455	7.53E-01	1.00E+00	0.000
3-Methyl-2-oxobutanoate	251	-0.053	0.156	7.33E-01	1.00E+00	0.000
Succininate	251	-0.073	0.214	7.34E-01	1.00E+00	0.000
Methylmalonate	251	1.155	2.353	6.24E-01	1.00E+00	0.001
Taurine	251	0.037	0.020	6.02E-02	1.00E+00	0.014
3-Methyl-2-oxovalerate	251	-0.152	0.145	2.96E-01	1.00E+00	0.004
4-Methyl-2-oxovalerate	251	-0.090	0.086	2.96E-01	1.00E+00	0.004
Malate	251	-0.036	0.813	9.65E-01	1.00E+00	0.000
Alpha-ketoglutarate	250	0.573	0.370	1.23E-01	1.00E+00	0.009
Alpha-aminoadipate	251	14.899	4.687	1.67E-03	4.06E-01	0.038
Isocitrate	238	1.512	2.757	5.84E-01	1.00E+00	0.001
Citrate	251	-0.085	0.061	1.63E-01	1.00E+00	0.008
Alpha-ketobutyrate	232	-0.127	0.146	3.82E-01	1.00E+00	0.003
Acetoacetate	247	-0.049	0.045	2.76E-01	1.00E+00	0.005

Meta Analyses

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared	Q	Qp
Ala	1005	0.006	0.002	9.29E-03	1.00E+00	0.005	4.82	0.09
Arg	1004	-0.002	0.009	8.52E-01	1.00E+00	0.000	2.23	0.33
Asn	967	-0.046	0.020	1.75E-02	1.00E+00	0.004	8.45	0.015
Asp	967	0.118	0.028	2.66E-05	3.06E-03	0.016	0.51	0.78
Cit	1006	-0.098	0.023	2.74E-05	3.15E-03	0.011	3.4	0.18
Gln	975	-0.006	0.002	1.80E-04	2.07E-02	0.009	4.69	0.1
Glu	1006	0.010	0.003	2.21E-03	2.54E-01	0.006	7.72	0.021
Gly	1004	-0.008	0.004	4.41E-02	1.00E+00	0.003	4.99	0.08
His	1006	0.007	0.009	4.04E-01	1.00E+00	0.000	5.19	0.07
Ile	965	0.045	0.016	5.92E-03	6.81E-01	0.006	2.45	0.29
Leu	1006	0.038	0.009	1.72E-05	1.98E-03	0.013	1.76	0.41
Lys	1005	0.019	0.006	3.62E-03	4.16E-01	0.006	0.1	0.95
Met	1006	-0.005	0.040	8.94E-01	1.00E+00	0.000	3.89	0.14
Orn	1005	0.019	0.010	5.55E-02	1.00E+00	0.003	1.08	0.58
Phe	1005	0.057	0.015	2.18E-04	2.51E-02	0.011	0.288	0.87
Pro	1002	0.004	0.003	2.04E-01	1.00E+00	0.001	0.759	0.68
Ser	1004	-0.012	0.006	5.33E-02	1.00E+00	0.002	1.65	0.44
Thr	1006	0.009	0.007	2.32E-01	1.00E+00	0.001	2.69	0.26
Trp	1005	0.040	0.016	1.63E-02	1.00E+00	0.004	1.44	0.49
Tyr	1004	0.091	0.013	8.20E-12	9.43E-10	0.032	4.92	0.09
Val	1006	0.022	0.004	7.42E-07	8.53E-05	0.017	1.47	0.48
H1	1006	0.000	0.000	2.50E-01	1.00E+00	0.001	7.84	0.02
Carn	946	0.068	0.015	7.57E-06	8.70E-04	0.014	9.18	0.01
Carn C2	950	-0.167	0.081	3.95E-02	1.00E+00	0.003	0.734	0.69
Carn C3	960	2.555	0.961	7.98E-03	9.18E-01	0.005	5.62	0.06
Carn C5	902	9.269	3.345	5.71E-03	6.57E-01	0.006	2	0.37
Carn C8:1	1002	3.673	1.815	4.33E-02	1.00E+00	0.003	0.214	0.9

Carn C10:1	1005	-1.230	1.038	2.37E-01	1.00E+00	0.001	0.344	0.84
Carn C12:1	979	-1.227	0.737	9.64E-02	1.00E+00	0.002	2.27	0.32
Carn C14:1	1005	-3.165	1.502	3.53E-02	1.00E+00	0.003	1.33	0.52
Carn C16	984	-9.007	5.964	1.31E-01	1.00E+00	0.002	0.612	0.74
Carn C18	941	-27.756	10.513	8.42E-03	9.69E-01	0.005	2.88	0.24
Carn C18:1	1008	-6.168	4.465	1.67E-01	1.00E+00	0.001	2.9	0.23
LPC C16	1008	0.008	0.007	2.41E-01	1.00E+00	0.001	9.46	0.009
LPC C16:1	1007	0.965	0.219	1.15E-05	1.32E-03	0.013	15.5	<0.0001
LPC C17	942	-0.058	0.334	8.62E-01	1.00E+00	0.000	0.697	0.71
LPC C18	1008	0.009	0.018	6.06E-01	1.00E+00	0.000	7.18	0.028
LPC C18:1	1008	-0.116	0.038	2.34E-03	2.69E-01	0.006	5.85	0.054
LPC C18:2	1008	-0.090	0.020	8.71E-06	1.00E-03	0.012	13.8	0.001
LPC C18:3	855	-0.865	0.895	3.34E-01	1.00E+00	0.001	11.2	0.004
LPC C20:3	939	0.408	0.298	1.71E-01	1.00E+00	0.001	2.2	0.33
LPC C20:4	1006	0.055	0.108	6.13E-01	1.00E+00	0.000	4.8	0.09
LPC C20:5	818	1.936	1.032	6.10E-02	1.00E+00	0.003	4.3	0.12

LPC C22:6	887	-0.395	0.388	3.10E-01	1.00E+00	0.001	0.918	0.63
PCaa C32	1008	-0.071	0.039	6.47E-02	1.00E+00	0.002	7.84	0.02
PCaa C32:1	942	0.109	0.033	1.06E-03	1.21E-01	0.007	0.866	0.65
PCaa C34:1	1007	-0.009	0.004	2.61E-02	1.00E+00	0.003	5.12	0.08
PCaa C34:2	941	-0.007	0.002	1.83E-03	2.10E-01	0.007	7.88	0.019
PCaa C34:3	1008	0.007	0.042	8.76E-01	1.00E+00	0.000	7.49	0.024
PCaa C34:4	958	1.141	0.279	4.59E-05	5.28E-03	0.011	1.52	0.47
PCaa C36:2	1007	-0.007	0.003	2.45E-02	1.00E+00	0.003	6.12	0.047
PCaa C36:3	1008	-0.006	0.008	4.32E-01	1.00E+00	0.000	7.51	0.023
PCaa C36:4	942	0.005	0.006	3.67E-01	1.00E+00	0.001	6.73	0.035
PCaa C36:5	938	0.060	0.036	9.86E-02	1.00E+00	0.002	2.73	0.26

PCaa C38	819	-0.341	0.197	8.31E-02	1.00E+00	0.002	2.25	0.32
PCaa C38:3	819	0.081	0.020	7.92E-05	9.11E-03	0.012	2.55	0.28
PCaa C38:4	837	0.028	0.008	2.82E-04	3.24E-02	0.009	0.175	0.92
PCaa C38:5	892	0.011	0.017	5.36E-01	1.00E+00	0.000	2.77	0.25
PCaa C38:6	1008	-0.010	0.010	3.28E-01	1.00E+00	0.001	4.53	0.1
PCaa C40:4	809	0.252	0.174	1.48E-01	1.00E+00	0.002	0.44	0.8
PCaa C40:5	824	0.071	0.071	3.15E-01	1.00E+00	0.001	2.82	0.24
PCaa C40:6	1007	0.044	0.027	1.06E-01	1.00E+00	0.002	7.07	0.029

PCae C34:1	1008	-0.289	0.076	1.45E-04	1.67E-02	0.009	3.01	0.22
PCae C34:2	941	-0.154	0.058	8.37E-03	9.63E-01	0.005	6.07	0.048
PCae C34:3	1008	-0.238	0.065	2.81E-04	3.23E-02	0.008	11.9	0.003
PCae C36:1	892	-0.187	0.056	9.61E-04	1.11E-01	0.008	0.924	0.63
PCae C36:2	808	-0.328	0.067	9.85E-07	1.13E-04	0.018	1.62	0.45
PCae C36:3	1008	-0.198	0.079	1.22E-02	1.00E+00	0.004	3.89	0.14
PCae C36:4	940	-0.007	0.036	8.37E-01	1.00E+00	0.000	5.31	0.07
PCae C36:5	1008	-0.010	0.054	8.47E-01	1.00E+00	0.000	4.11	0.13
PCae C38	834	-0.380	0.255	1.36E-01	1.00E+00	0.002	5.06	0.08
PCae C38:3	836	-0.158	0.069	2.34E-02	1.00E+00	0.004	0.395	0.82
PCae C38:4	824	-0.139	0.058	1.59E-02	1.00E+00	0.005	5.36	0.07
PCae C38:5	941	-0.041	0.038	2.77E-01	1.00E+00	0.001	2.94	0.23
PCae C38:6	892	0.016	0.088	8.57E-01	1.00E+00	0.000	1.73	0.42
PCae C40	790	-0.137	0.093	1.41E-01	1.00E+00	0.002	1.12	0.57
PCae C40:4	796	-0.688	0.200	6.36E-04	7.31E-02	0.009	0.434	0.8

PCae									
C40:6	825	-0.586	0.185	1.61E-03	1.85E-01		0.007	1.46	0.48
SM C32:2	748	9.746	1.017	1.39E-20	1.60E-18		0.081	16.2	<0.0001
SM C35:1	958	-0.017	0.193	9.30E-01	1.00E+00		0.000	0.055	0.97
SM C36:1	1008	0.050	0.030	9.77E-02	1.00E+00		0.002	1.99	0.37
SM C36:2	875	0.196	0.062	1.50E-03	1.72E-01		0.007	7.67	0.022

SM C41:1	892	-0.080	0.068	2.36E-01	1.00E+00	0.001	0.494	0.78
SM C41:2	891	0.091	0.094	3.37E-01	1.00E+00	0.001	0.136	0.93
SM C42:1	840	-0.042	0.039	2.90E-01	1.00E+00	0.001	0.606	0.74
SM C42:2	826	0.019	0.020	3.47E-01	1.00E+00	0.001	0.105	0.95
NEFA 12:0	943	-0.239	0.047	3.80E-07	4.38E-05	0.017	2.8	0.25
NEFA 14:0	990	-0.083	0.026	1.22E-03	1.41E-01	0.007	0.564	0.75
NEFA 14:1	987	-0.179	0.150	2.33E-01	1.00E+00	0.001	5.39	0.07
NEFA 16:0	991	-0.009	0.003	1.35E-02	1.00E+00	0.004	2.54	0.28
NEFA 16:1	961	-0.024	0.014	8.60E-02	1.00E+00	0.002	5.96	0.051
NEFA 16:2	961	0.790	0.944	4.02E-01	1.00E+00	0.001	2.58	0.28
NEFA 17:0	972	-0.350	0.127	6.14E-03	7.06E-01	0.005	0.274	0.87
NEFA 17:1	960	-0.251	0.198	2.05E-01	1.00E+00	0.001	1.22	0.54
NEFA 18:1	992	-0.007	0.002	6.12E-03	7.04E-01	0.005	0.949	0.62
NEFA 18:2	989	-0.019	0.008	2.59E-02	1.00E+00	0.003	2.22	0.33
NEFA 18:3	991	-0.068	0.036	5.97E-02	1.00E+00	0.002	1.19	0.55
NEFA 19:1	979	-0.824	0.407	4.33E-02	1.00E+00	0.003	0.753	0.69
NEFA 20:2	891	-0.386	0.265	1.46E-01	1.00E+00	0.002	1.72	0.42
NEFA 20:3	853	0.420	0.196	3.23E-02	1.00E+00	0.004	0.976	0.61
NEFA 20:4	963	0.101	0.057	7.56E-02	1.00E+00	0.002	0.645	0.72

NEFA 20:5	911	0.011	0.446	9.80E-01	1.00E+00	0.000	0.106	0.95
NEFA 22:4	963	0.870	0.568	1.26E-01	1.00E+00	0.002	1	0.61
NEFA 22:5	992	-0.098	0.299	7.42E-01	1.00E+00	0.000	0.071	0.97
NEFA 22:6	992	-0.062	0.137	6.54E-01	1.00E+00	0.000	0.14	0.93
NEFA 24:0	944	-8.122	2.183	2.11E-04	2.43E-02	0.009	6.53	0.038
NEFA 24:4	839	24.212	11.706	3.89E-02	1.00E+00	0.003	3.41	0.18
NEFA 26:1	946	3.643	3.937	3.55E-01	1.00E+00	0.001	3.91	0.14

Supplemental Table 4 Results of the adjusted linear models and individual participant meta-analysis of the association of metabolites with height. Statistical significance was evaluated using Bonferroni corrected p-values (p.adjust) < 0.05 (with dark grey background). AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-phosphatidylcholine; SM,

CHOP 5.5 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	387	-0.002	0.003	5.54E-01	1.00E+00	0.001
Arg	385	0.016	0.012	1.84E-01	1.00E+00	0.005
Asn	387	-0.014	0.021	5.02E-01	1.00E+00	0.001
Asp	385	0.089	0.067	1.84E-01	1.00E+00	0.005
Cit	387	-0.039	0.028	1.74E-01	1.00E+00	0.005
Gln	387	-0.001	0.002	4.08E-01	1.00E+00	0.002
Glu	387	0.000	0.003	8.70E-01	1.00E+00	0.000
Gly	387	0.000	0.005	9.54E-01	1.00E+00	0.000
His	387	-0.010	0.011	3.56E-01	1.00E+00	0.002
Ile	387	0.008	0.013	5.46E-01	1.00E+00	0.001
Leu	387	0.005	0.008	5.11E-01	1.00E+00	0.001
Lys	387	0.001	0.007	9.33E-01	1.00E+00	0.000
Met	387	-0.022	0.047	6.38E-01	1.00E+00	0.001
Orn	387	0.002	0.011	8.91E-01	1.00E+00	0.000
Phe	387	0.007	0.020	7.23E-01	1.00E+00	0.000
Pro	387	0.000	0.004	9.90E-01	1.00E+00	0.000
Ser	386	0.006	0.010	5.49E-01	1.00E+00	0.001
Thr	387	0.012	0.007	1.07E-01	1.00E+00	0.007
Trp	386	0.006	0.020	7.72E-01	1.00E+00	0.000
Tyr	387	-0.006	0.014	6.40E-01	1.00E+00	0.001
Val	387	0.003	0.004	5.17E-01	1.00E+00	0.001
H1	386	0.000	0.000	9.58E-01	1.00E+00	0.000
Carn	392	0.032	0.024	1.89E-01	1.00E+00	0.004
Carn C2	392	-0.075	0.062	2.28E-01	1.00E+00	0.004
Carn C3	392	2.123	2.311	3.59E-01	1.00E+00	0.002
Carn C3:1	274	46.130	39.952	2.49E-01	1.00E+00	0.005
Carn C4	392	-2.419	2.095	2.49E-01	1.00E+00	0.003
Carn C4:0:OH	274	-1.037	2.878	7.19E-01	1.00E+00	0.000
Carn C4:1	350	9.212	7.120	1.97E-01	1.00E+00	0.005
Carn C5	392	11.483	6.043	5.82E-02	1.00E+00	0.009
Carn C5:0:OH	315	897.784	490.229	6.80E-02	1.00E+00	0.011
Carn C6	316	-5.863	7.667	4.45E-01	1.00E+00	0.002
Carn C6:1	206	87.598	71.871	2.24E-01	1.00E+00	0.007
Carn C8	324	0.961	1.520	5.27E-01	1.00E+00	0.001
Carn C8:1	392	5.937	4.115	1.50E-01	1.00E+00	0.005
Carn C9	392	28.770	15.517	6.45E-02	1.00E+00	0.009
Carn C10	391	1.226	0.970	2.07E-01	1.00E+00	0.004

Carn C10:1	392	1.487	1.300	2.54E-01	1.00E+00	0.003
Carn C10:2	392	4.317	11.733	7.13E-01	1.00E+00	0.000
Carn C12::DC	261	4.383	3.158	1.66E-01	1.00E+00	0.007
Carn C12	391	0.090	2.659	9.73E-01	1.00E+00	0.000
Carn C12:1	392	0.982	0.973	3.13E-01	1.00E+00	0.003
Carn C14	392	8.124	7.472	2.78E-01	1.00E+00	0.003
Carn C14:1	390	0.811	1.902	6.70E-01	1.00E+00	0.000
Carn C14:2	392	-0.296	8.614	9.73E-01	1.00E+00	0.000
Carn C14:2:OH	249	-7.705	25.469	7.63E-01	1.00E+00	0.000
Carn C15	392	-8.737	20.971	6.77E-01	1.00E+00	0.000
Carn C16	391	-0.340	8.052	9.66E-01	1.00E+00	0.000
Carn C16:OH	391	5.077	8.723	5.61E-01	1.00E+00	0.001
Carn C16:1	289	-36.170	48.745	4.59E-01	1.00E+00	0.002
Carn C16:2	274	-27.012	29.776	3.65E-01	1.00E+00	0.003
Carn C16:2:OH	254	-54.281	36.404	1.37E-01	1.00E+00	0.009
Carn C18	392	-31.811	15.613	4.23E-02	1.00E+00	0.011
Carn C18:1	392	-2.611	5.069	6.07E-01	1.00E+00	0.001
Carn C18:1:OH	323	16.288	33.776	6.30E-01	1.00E+00	0.001
Carn C18:2	392	-3.248	7.075	6.46E-01	1.00E+00	0.001
Carn C18:2:OH	248	-20.607	97.224	8.32E-01	1.00E+00	0.000
Carn C20	390	-48.710	50.290	3.33E-01	1.00E+00	0.002
Carn C20:1	314	-1667.610	1309.132	2.04E-01	1.00E+00	0.005
Carn C20:3	392	-34.104	33.118	3.04E-01	1.00E+00	0.003
Carn C20:4	392	-309.639	375.469	4.10E-01	1.00E+00	0.002
Carn C22	290	-497.250	557.662	3.73E-01	1.00E+00	0.003
Carn C22:5	275	-88.756	80.262	2.70E-01	1.00E+00	0.004
Carn C22:6	253	-548.099	318.603	8.66E-02	1.00E+00	0.012
LPC C14	246	0.719	0.366	5.06E-02	1.00E+00	0.016
LPC C15	246	0.044	0.740	9.53E-01	1.00E+00	0.000
LPC C16	391	0.009	0.008	2.47E-01	1.00E+00	0.003
LPC C16:1	392	0.577	0.219	8.85E-03	1.00E+00	0.017
LPC C17	390	0.111	0.339	7.43E-01	1.00E+00	0.000
LPC C18	392	0.006	0.020	7.48E-01	1.00E+00	0.000
LPC C18:1	392	0.020	0.043	6.37E-01	1.00E+00	0.001
LPC C18:2	392	0.007	0.022	7.42E-01	1.00E+00	0.000
LPC C18:3	351	0.322	0.760	6.72E-01	1.00E+00	0.001
LPC C20:1	203	-0.669	1.229	5.86E-01	1.00E+00	0.001
LPC C20:3	390	0.375	0.227	9.99E-02	1.00E+00	0.007
LPC C20:4	392	0.211	0.103	4.06E-02	1.00E+00	0.011
LPC C20:5	321	1.186	1.044	2.57E-01	1.00E+00	0.004

LPC C22:6	316	0.211	0.333	5.27E-01	1.00E+00	0.001
PCaa C20:4	213	-7.219	5.223	1.68E-01	1.00E+00	0.009
PCaa C28:2	321	-1.146	4.952	8.17E-01	1.00E+00	0.000
PCaa C30	392	0.077	0.140	5.83E-01	1.00E+00	0.001
PCaa C30:2	391	-1.191	0.958	2.15E-01	1.00E+00	0.004
PCaa C30:3	391	6.058	3.045	4.73E-02	1.00E+00	0.010
PCaa C30:4	168	-1.804	9.747	8.53E-01	1.00E+00	0.000
PCaa C32	392	0.033	0.060	5.85E-01	1.00E+00	0.001
PCaa C32:1	392	0.028	0.042	5.06E-01	1.00E+00	0.001
PCaa C32:2	392	0.030	0.214	8.87E-01	1.00E+00	0.000
PCaa C34:1	392	-0.006	0.004	1.72E-01	1.00E+00	0.005
PCaa C34:2	392	-0.005	0.003	6.51E-02	1.00E+00	0.009
PCaa C34:3	390	0.050	0.048	2.91E-01	1.00E+00	0.003
PCaa C34:4	392	0.764	0.377	4.36E-02	1.00E+00	0.010
PCaa C36	273	0.225	0.106	3.50E-02	1.00E+00	0.016
PCaa C36:1	392	-0.023	0.015	1.36E-01	1.00E+00	0.006
PCaa C36:2	392	-0.008	0.004	3.40E-02	1.00E+00	0.011
PCaa C36:3	392	-0.005	0.008	5.18E-01	1.00E+00	0.001
PCaa C36:4	392	-0.004	0.006	4.67E-01	1.00E+00	0.001
PCaa C36:5	390	0.108	0.061	7.99E-02	1.00E+00	0.008

PCaa C36:6	322	0.270	0.326	4.08E-01	1.00E+00	0.002
PCaa C38	314	-0.050	0.200	8.03E-01	1.00E+00	0.000
PCaa C38:3	392	0.001	0.020	9.53E-01	1.00E+00	0.000
PCaa C38:4	392	0.003	0.008	7.05E-01	1.00E+00	0.000
PCaa C38:5	392	0.036	0.022	1.00E-01	1.00E+00	0.007
PCaa C38:6	392	0.002	0.013	8.62E-01	1.00E+00	0.000
PCaa C40	281	-0.179	0.387	6.44E-01	1.00E+00	0.001
PCaa C40:4	391	-0.071	0.185	7.01E-01	1.00E+00	0.000
PCaa C40:5	392	0.018	0.066	7.83E-01	1.00E+00	0.000
PCaa C40:6	392	0.001	0.030	9.76E-01	1.00E+00	0.000
PCaa C42	246	-0.285	0.728	6.96E-01	1.00E+00	0.001
PCaa C42:1	209	2.395	1.502	1.12E-01	1.00E+00	0.012
PCaa C42:6	203	-0.556	0.898	5.37E-01	1.00E+00	0.002
PCaa C43:6	249	-0.283	0.528	5.92E-01	1.00E+00	0.001
PCaa C44:12	392	-0.381	0.385	3.23E-01	1.00E+00	0.003
PCae C30:2	281	-2.025	2.133	3.43E-01	1.00E+00	0.003
PCae C32	392	-0.004	0.281	9.89E-01	1.00E+00	0.000

PCae C32:1	392	-0.127	0.229	5.79E-01	1.00E+00	0.001
PCae C32:2	206	0.485	0.843	5.66E-01	1.00E+00	0.002
PCae C34	392	0.048	0.388	9.02E-01	1.00E+00	0.000
PCae C34:1	392	0.004	0.083	9.62E-01	1.00E+00	0.000
PCae C34:2	392	-0.083	0.071	2.43E-01	1.00E+00	0.004
PCae C34:3	392	-0.071	0.082	3.92E-01	1.00E+00	0.002
PCae C34:4	246	1.022	1.990	6.08E-01	1.00E+00	0.001
PCae C36	254	-0.704	0.425	9.87E-02	1.00E+00	0.011
PCae C36:1	391	0.035	0.038	3.55E-01	1.00E+00	0.002
PCae C36:2	391	-0.054	0.047	2.50E-01	1.00E+00	0.003
PCae C36:3	392	-0.045	0.083	5.92E-01	1.00E+00	0.001
PCae C36:4	391	-0.011	0.043	7.97E-01	1.00E+00	0.000
PCae C36:5	392	-0.019	0.055	7.34E-01	1.00E+00	0.000
PCae C36:6	179	-0.628	0.794	4.31E-01	1.00E+00	0.003
PCae C38	315	0.343	0.168	4.21E-02	1.00E+00	0.013
PCae C38:2	313	-0.004	0.057	9.47E-01	1.00E+00	0.000
PCae C38:3	390	0.050	0.052	3.37E-01	1.00E+00	0.002
PCae C38:4	392	-0.087	0.056	1.17E-01	1.00E+00	0.006
PCae C38:5	392	-0.038	0.044	3.90E-01	1.00E+00	0.002
PCae C38:6	392	-0.047	0.095	6.20E-01	1.00E+00	0.001
PCae C40	392	0.069	0.075	3.55E-01	1.00E+00	0.002
PCae C40:1	237	0.200	0.303	5.09E-01	1.00E+00	0.002
PCae C40:3	321	0.010	0.070	8.92E-01	1.00E+00	0.000
PCae C40:4	352	0.189	0.121	1.18E-01	1.00E+00	0.007

PCae C40:5	392	0.080	0.127	5.30E-01	1.00E+00	0.001
PCae C40:6	392	-0.215	0.161	1.84E-01	1.00E+00	0.005
PCae C42:2	324	0.322	0.413	4.36E-01	1.00E+00	0.002
PCae C42:3	281	-0.523	0.330	1.15E-01	1.00E+00	0.009
PCae C42:4	198	0.651	0.764	3.95E-01	1.00E+00	0.004
PCae C42:5	316	0.393	0.266	1.40E-01	1.00E+00	0.007
PCae C42:6	391	0.160	0.427	7.09E-01	1.00E+00	0.000
SM C21:2	352	9.206	9.640	3.40E-01	1.00E+00	0.003
SM C32:1	392	0.086	0.096	3.70E-01	1.00E+00	0.002
SM C32:2	352	2.757	1.286	3.27E-02	1.00E+00	0.013
SM C33:1	392	0.224	0.169	1.85E-01	1.00E+00	0.004
SM C33:3	186	-5.439	4.433	2.21E-01	1.00E+00	0.008
SM C34:1	391	-0.012	0.010	2.11E-01	1.00E+00	0.004
SM C34:2	391	0.012	0.069	8.65E-01	1.00E+00	0.000
SM C34:4	215	-20.664	15.693	1.89E-01	1.00E+00	0.008
SM C35:1	391	0.310	0.284	2.76E-01	1.00E+00	0.003
SM C35:2	204	-2.095	2.183	3.38E-01	1.00E+00	0.005
SM C36:1	390	-0.018	0.048	7.17E-01	1.00E+00	0.000
SM C36:2	391	0.098	0.090	2.80E-01	1.00E+00	0.003
SM C36:3	185	1.717	0.928	6.59E-02	1.00E+00	0.018
SM C37:1	204	0.242	0.258	3.51E-01	1.00E+00	0.004
SM C37:3	213	-0.086	1.912	9.64E-01	1.00E+00	0.000
SM C38:2	392	-0.099	0.058	8.89E-02	1.00E+00	0.007
SM C39:1	316	0.268	0.145	6.60E-02	1.00E+00	0.011
SM C40:2	244	-0.015	0.035	6.68E-01	1.00E+00	0.001

SM C40:4	314	0.491	0.400	2.21E-01	1.00E+00	0.005
SM C40:5	352	1.485	0.713	3.81E-02	1.00E+00	0.012
SM C41:1	391	-0.071	0.052	1.68E-01	1.00E+00	0.005
SM C41:2	391	-0.004	0.075	9.58E-01	1.00E+00	0.000
SM C42:1	392	-0.076	0.035	3.04E-02	1.00E+00	0.012
SM C42:2	391	-0.005	0.021	8.04E-01	1.00E+00	0.000
SM C42:3	322	0.048	0.041	2.44E-01	1.00E+00	0.004
SM C42:6	392	-0.063	0.253	8.04E-01	1.00E+00	0.000
SM C43	177	0.230	1.368	8.67E-01	1.00E+00	0.000
SM C43:1	206	-0.040	0.560	9.44E-01	1.00E+00	0.000
SM C43:2	321	-0.120	0.280	6.68E-01	1.00E+00	0.001
SM C44:6	238	1.082	0.690	1.18E-01	1.00E+00	0.010
SM C47:6	324	-85.129	41.660	4.18E-02	1.00E+00	0.013
NEFA 12:0	178	-0.090	0.080	2.63E-01	1.00E+00	0.007
NEFA 14:0	322	-0.032	0.028	2.54E-01	1.00E+00	0.004
NEFA 14:1	389	-0.051	0.043	2.42E-01	1.00E+00	0.004
NEFA 15:0	178	-0.433	0.334	1.96E-01	1.00E+00	0.010
NEFA 16:0	245	-0.006	0.004	1.48E-01	1.00E+00	0.009
NEFA 16:1	389	-0.011	0.013	3.78E-01	1.00E+00	0.002
NEFA 16:2	311	0.254	0.476	5.94E-01	1.00E+00	0.001
NEFA 17:0	168	0.064	0.153	6.77E-01	1.00E+00	0.001
NEFA 17:1	389	-0.133	0.114	2.44E-01	1.00E+00	0.004
NEFA 17:2	168	-0.373	5.521	9.46E-01	1.00E+00	0.000
NEFA 18:1	389	-0.004	0.002	8.80E-02	1.00E+00	0.008
NEFA 18:2	389	-0.010	0.005	3.85E-02	1.00E+00	0.011
NEFA 18:3	389	-0.064	0.067	3.40E-01	1.00E+00	0.002
NEFA 18:4	168	-2.919	3.177	3.60E-01	1.00E+00	0.005
NEFA 19:1	309	-0.523	0.607	3.89E-01	1.00E+00	0.002
NEFA 20:1	389	-0.241	0.143	9.24E-02	1.00E+00	0.007
NEFA 20:2	389	-0.137	0.078	7.75E-02	1.00E+00	0.008

NEFA 20:3	389	-0.079	0.154	6.07E-01	1.00E+00	0.001
NEFA 20:4	388	0.013	0.052	8.03E-01	1.00E+00	0.000
NEFA 20:5	308	-0.003	0.311	9.93E-01	1.00E+00	0.000
NEFA 22:3	235	-10.081	9.205	2.75E-01	1.00E+00	0.005
NEFA 22:4	389	-0.017	0.660	9.80E-01	1.00E+00	0.000
NEFA 22:5	386	-0.161	0.338	6.34E-01	1.00E+00	0.001
NEFA 22:6	389	-0.096	0.134	4.76E-01	1.00E+00	0.001
NEFA 24:0	168	-4.064	2.346	8.50E-02	1.00E+00	0.018
NEFA 24:1	389	-1.355	0.923	1.43E-01	1.00E+00	0.006
NEFA 24:2	168	27.950	19.076	1.45E-01	1.00E+00	0.013
NEFA 24:3	243	-8.633	13.576	5.25E-01	1.00E+00	0.002
NEFA 24:4	389	-5.967	11.503	6.04E-01	1.00E+00	0.001
NEFA 24:6	167	-18.830	32.931	5.68E-01	1.00E+00	0.002
NEFA 26:0	336	-0.037	1.433	9.79E-01	1.00E+00	0.000
NEFA 26:1	313	-2.305	1.540	1.36E-01	1.00E+00	0.007
NEFA 26:2	389	-2.632	1.921	1.71E-01	1.00E+00	0.005
NEFA 26:3	310	-3.122	6.979	6.55E-01	1.00E+00	0.001
NEFA 26:4	389	-49.470	24.708	4.60E-02	1.00E+00	0.010
Pyruvate	384	-0.001	0.001	2.44E-01	1.00E+00	0.004
Lactic_acid	389	0.000	0.000	1.78E-01	1.00E+00	0.005
Fumarate	382	0.891	0.768	2.47E-01	1.00E+00	0.004
3-Methyl-2-oxobutanoate	384	-0.009	0.016	5.97E-01	1.00E+00	0.001
Succininate	387	0.158	0.069	2.22E-02	1.00E+00	0.014
Methylmalonate	389	5.382	3.228	9.63E-02	1.00E+00	0.007
Taurine	387	0.005	0.006	3.95E-01	1.00E+00	0.002
3-Methyl-2-oxovalerate	388	0.020	0.018	2.77E-01	1.00E+00	0.003
4-Methyl-2-oxovalerate	383	0.010	0.009	2.69E-01	1.00E+00	0.003
Malate	385	0.263	0.131	4.49E-02	1.00E+00	0.010
Alpha-ketoglutarate	378	-0.072	0.041	8.09E-02	1.00E+00	0.008
Alpha-aminoadipate	387	0.974	1.430	4.96E-01	1.00E+00	0.001
Isocitrate	389	0.082	0.041	4.75E-02	1.00E+00	0.010
Citrate	389	0.007	0.003	2.91E-02	1.00E+00	0.012
Beta-hydroxybutyrate	150	0.029	0.009	7.68E-04	1.79E-01	0.074

Sum AA	384	0.000	0.001	9.87E-01	1.00E+00	0.000
Sum Carn	389	0.019	0.022	4.04E-01	1.00E+00	0.002
Sum LPC	206	-0.001	0.007	9.33E-01	1.00E+00	0.000
Sum PCaa	311	-0.002	0.001	9.72E-02	1.00E+00	0.009
Sum PCae	274	0.003	0.008	7.33E-01	1.00E+00	0.000
Sum SM	350	-0.005	0.009	5.73E-01	1.00E+00	0.001
Sum NEFA	99	-0.002	0.001	1.07E-01	1.00E+00	0.027

CHOP 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	354	0.005	0.004	2.88E-01	1.00E+00	0.003
Arg	354	-0.003	0.020	8.88E-01	1.00E+00	0.000
Asn	354	-0.012	0.032	7.03E-01	1.00E+00	0.000
Asp	354	0.052	0.100	6.02E-01	1.00E+00	0.001
Cit	354	-0.073	0.044	1.02E-01	1.00E+00	0.008
Gln	353	-0.003	0.002	2.06E-01	1.00E+00	0.005
Glu	354	0.003	0.003	3.05E-01	1.00E+00	0.003
Gly	354	0.001	0.007	9.37E-01	1.00E+00	0.000
His	354	0.009	0.012	4.46E-01	1.00E+00	0.002
Ile	354	0.066	0.030	3.13E-02	1.00E+00	0.013
Leu	354	0.043	0.017	1.41E-02	1.00E+00	0.017
Lys	354	0.043	0.020	3.31E-02	1.00E+00	0.013
Met	354	0.032	0.072	6.61E-01	1.00E+00	0.001
Orn	354	0.043	0.021	3.98E-02	1.00E+00	0.012
Phe	353	0.026	0.035	4.51E-01	1.00E+00	0.002
Pro	354	0.005	0.008	5.40E-01	1.00E+00	0.001
Ser	353	-0.011	0.010	2.88E-01	1.00E+00	0.003
Thr	354	0.020	0.013	1.43E-01	1.00E+00	0.006
Trp	354	0.023	0.032	4.79E-01	1.00E+00	0.001
Tyr	353	0.063	0.025	1.21E-02	1.00E+00	0.018
Val	354	0.017	0.008	4.10E-02	1.00E+00	0.012
H1	354	0.000	0.001	5.04E-01	1.00E+00	0.001
Carn	354	0.037	0.015	1.26E-02	1.00E+00	0.018
Carn C2	354	-0.009	0.119	9.42E-01	1.00E+00	0.000
Carn C3	351	-0.119	0.978	9.03E-01	1.00E+00	0.000
Carn C3:1	286	-1.529	15.066	9.19E-01	1.00E+00	0.000
Carn C4:0:OH	237	-0.941	4.107	8.19E-01	1.00E+00	0.000
Carn C5	354	183.683	220.491	4.05E-01	1.00E+00	0.002
Carn C5:0:OH	354	3.008	3.989	4.51E-01	1.00E+00	0.002
Carn C6	354	0.485	6.399	9.40E-01	1.00E+00	0.000
Carn C6:1	354	-5.002	8.217	5.43E-01	1.00E+00	0.001
Carn C8	354	-0.629	1.822	7.30E-01	1.00E+00	0.000
Carn C8:1	354	3.103	4.375	4.79E-01	1.00E+00	0.001
Carn C9	354	0.041	17.013	9.98E-01	1.00E+00	0.000
Carn C10	354	-0.649	1.075	5.47E-01	1.00E+00	0.001

Carn C10:1	353	-1.835	1.777	3.03E-01	1.00E+00	0.003
Carn C10:2	354	11.028	12.540	3.80E-01	1.00E+00	0.002
Carn C12	354	0.218	2.738	9.36E-01	1.00E+00	0.000
Carn C12:1	354	1.007	1.145	3.80E-01	1.00E+00	0.002
Carn C14	354	6.715	11.495	5.59E-01	1.00E+00	0.001
Carn C14:1	353	0.722	1.879	7.01E-01	1.00E+00	0.000
Carn C14:2	354	-5.925	8.776	5.00E-01	1.00E+00	0.001
Carn C14:2:OH	352	2.246	27.114	9.34E-01	1.00E+00	0.000
Carn C15	354	109.690	62.151	7.85E-02	1.00E+00	0.009
Carn C16	354	8.108	14.045	5.64E-01	1.00E+00	0.001
Carn C16:0:OH	288	285.688	169.458	9.29E-02	1.00E+00	0.010
Carn C16:1	354	5.725	12.147	6.38E-01	1.00E+00	0.001
Carn C16:2	354	-32.074	31.497	3.09E-01	1.00E+00	0.003
Carn C16:2:OH	304	33.543	62.138	5.90E-01	1.00E+00	0.001
Carn C18	354	-22.213	30.899	4.73E-01	1.00E+00	0.001
Carn C18:1	354	0.270	9.265	9.77E-01	1.00E+00	0.000
Carn C18:1:OH	354	-19.157	41.950	6.48E-01	1.00E+00	0.001
Carn C18:2	352	-14.385	15.109	3.42E-01	1.00E+00	0.003
Carn C18:2:OH	233	0.255	110.183	9.98E-01	1.00E+00	0.000
Carn C20	348	-30.828	60.418	6.10E-01	1.00E+00	0.001
Carn C20:1	353	927.262	4279.390	8.29E-01	1.00E+00	0.000
Carn C20:3	354	303.913	162.251	6.19E-02	1.00E+00	0.010
Carn C20:4	304	1690.141	2134.693	4.29E-01	1.00E+00	0.002
Carn C22	221	-3715.298	1988.959	6.31E-02	1.00E+00	0.016
Carn C22:5	253	642.108	314.527	4.23E-02	1.00E+00	0.016
Carn C22:6	183	356.637	223.543	1.12E-01	1.00E+00	0.014
LPC C16	354	-0.006	0.007	3.63E-01	1.00E+00	0.002
LPC C16:1	354	0.132	0.248	5.96E-01	1.00E+00	0.001
LPC C17	288	-0.107	0.392	7.85E-01	1.00E+00	0.000
LPC C18	354	-0.025	0.019	1.95E-01	1.00E+00	0.005
LPC C18:1	354	-0.077	0.044	7.99E-02	1.00E+00	0.009
LPC C18:2	354	-0.053	0.024	2.71E-02	1.00E+00	0.014
LPC C18:3	221	0.330	1.367	8.10E-01	1.00E+00	0.000
LPC C18:6	180	1.027	1.990	6.07E-01	1.00E+00	0.002
LPC C20:3	287	0.037	0.359	9.17E-01	1.00E+00	0.000
LPC C20:4	354	-0.041	0.124	7.43E-01	1.00E+00	0.000
LPC C20:5	170	1.405	1.380	3.10E-01	1.00E+00	0.006

LPC C22:5	154	1.018	1.736	5.59E-01	1.00E+00	0.002
LPC C22:6	252	0.208	0.524	6.92E-01	1.00E+00	0.001
PCaa C30:5	179	306.225	147.070	3.88E-02	1.00E+00	0.024
PCaa C32	354	-0.105	0.083	2.09E-01	1.00E+00	0.004
PCaa C32:1	288	0.087	0.054	1.05E-01	1.00E+00	0.009
PCaa C34:1	354	-0.001	0.005	8.03E-01	1.00E+00	0.000
PCaa C34:2	289	-0.005	0.004	1.78E-01	1.00E+00	0.006
PCaa C34:3	354	0.040	0.057	4.83E-01	1.00E+00	0.001
PCaa C34:4	304	0.426	0.464	3.59E-01	1.00E+00	0.003
PCaa C36:2	354	-0.007	0.004	6.28E-02	1.00E+00	0.010
PCaa C36:3	354	-0.010	0.011	3.73E-01	1.00E+00	0.002
PCaa C36:4	289	0.002	0.009	8.65E-01	1.00E+00	0.000
PCaa C36:5	285	0.038	0.057	5.07E-01	1.00E+00	0.002

PCaa C38	165	-0.400	0.253	1.16E-01	1.00E+00	0.015
PCaa C38:3	167	-0.020	0.041	6.24E-01	1.00E+00	0.001
PCaa C38:4	183	0.006	0.013	6.57E-01	1.00E+00	0.001
PCaa C38:5	238	0.001	0.036	9.77E-01	1.00E+00	0.000
PCaa C38:6	354	-0.002	0.014	8.65E-01	1.00E+00	0.000
PCaa C40:4	156	-0.076	0.398	8.49E-01	1.00E+00	0.000
PCaa C40:5	171	-0.138	0.136	3.12E-01	1.00E+00	0.006
PCaa C40:6	353	0.004	0.034	9.07E-01	1.00E+00	0.000
PCaa C44:12	173	-0.634	1.456	6.64E-01	1.00E+00	0.001

PCae C34:1	354	-0.109	0.097	2.60E-01	1.00E+00	0.004
PCae C34:2	287	-0.088	0.076	2.52E-01	1.00E+00	0.005
PCae C34:3	354	-0.116	0.086	1.77E-01	1.00E+00	0.005
PCae C36:1	239	0.023	0.061	7.01E-01	1.00E+00	0.001
PCae C36:2	155	0.003	0.118	9.80E-01	1.00E+00	0.000
PCae C36:3	354	-0.103	0.092	2.64E-01	1.00E+00	0.004
PCae C36:4	287	-0.037	0.047	4.36E-01	1.00E+00	0.002
PCae C36:5	354	0.013	0.074	8.59E-01	1.00E+00	0.000
PCae C38	182	-0.061	0.357	8.65E-01	1.00E+00	0.000
PCae C38:3	182	-0.078	0.078	3.13E-01	1.00E+00	0.006
PCae C38:4	173	-0.031	0.137	8.22E-01	1.00E+00	0.000
PCae C38:5	288	-0.001	0.054	9.81E-01	1.00E+00	0.000
PCae C38:6	238	0.099	0.142	4.86E-01	1.00E+00	0.002
PCae C40	165	-0.082	0.141	5.60E-01	1.00E+00	0.002
PCae C40:4	171	0.005	0.269	9.85E-01	1.00E+00	0.000

PCae C40:6	171	-0.325	0.314	3.03E-01	1.00E+00	0.006
SM C21:2	181	-6.281	7.222	3.86E-01	1.00E+00	0.004
SM C31:1	181	12.846	4.698	6.89E-03	1.00E+00	0.040
SM C32:1	354	0.220	0.134	1.01E-01	1.00E+00	0.008
SM C32:2	171	1.394	1.631	3.94E-01	1.00E+00	0.004
SM C33:1	354	0.083	0.185	6.52E-01	1.00E+00	0.001
SM C34:1	354	-0.020	0.013	1.26E-01	1.00E+00	0.007
SM C34:2	354	0.209	0.085	1.47E-02	1.00E+00	0.017
SM C35:1	304	0.215	0.351	5.41E-01	1.00E+00	0.001
SM C36:1	354	0.097	0.049	4.63E-02	1.00E+00	0.011
SM C36:2	221	0.264	0.148	7.55E-02	1.00E+00	0.014
SM C36:3	287	1.859	0.992	6.19E-02	1.00E+00	0.012

SM C41:1	238	-0.086	0.103	4.03E-01	1.00E+00	0.003
SM C41:2	237	0.210	0.130	1.07E-01	1.00E+00	0.011
SM C42:1	188	-0.053	0.067	4.30E-01	1.00E+00	0.003
SM C42:2	173	0.063	0.035	7.88E-02	1.00E+00	0.018
NEFA 10:0	338	-0.044	0.119	7.11E-01	1.00E+00	0.000
NEFA 11:0	265	-0.289	3.601	9.36E-01	1.00E+00	0.000
NEFA 12:0	337	-0.313	0.163	5.56E-02	1.00E+00	0.011
NEFA 12:1	220	2.508	4.209	5.52E-01	1.00E+00	0.002
NEFA 14:0	338	-0.020	0.036	5.83E-01	1.00E+00	0.001
NEFA 14:1	337	0.125	0.194	5.19E-01	1.00E+00	0.001
NEFA 15:0	338	0.012	0.170	9.43E-01	1.00E+00	0.000
NEFA 15:1	215	-1.517	2.654	5.68E-01	1.00E+00	0.002
NEFA 16:0	338	-0.001	0.005	7.88E-01	1.00E+00	0.000
NEFA 16:1	338	0.006	0.020	7.71E-01	1.00E+00	0.000
NEFA 16:2	338	0.645	1.380	6.41E-01	1.00E+00	0.001
NEFA 17:0	338	-0.055	0.170	7.48E-01	1.00E+00	0.000
NEFA 17:1	338	0.132	0.284	6.42E-01	1.00E+00	0.001
NEFA 18:0	283	-0.013	0.011	2.29E-01	1.00E+00	0.005
NEFA 18:1	338	-0.003	0.003	3.72E-01	1.00E+00	0.002
NEFA 18:2	336	-0.012	0.011	2.84E-01	1.00E+00	0.003
NEFA 18:3	338	0.012	0.047	7.94E-01	1.00E+00	0.000
NEFA 18:4	336	0.229	3.068	9.41E-01	1.00E+00	0.000
NEFA 19:0	283	-0.648	1.852	7.27E-01	1.00E+00	0.000
NEFA 19:1	338	0.289	0.591	6.25E-01	1.00E+00	0.001
NEFA 20:0	338	-1.479	0.826	7.43E-02	1.00E+00	0.009
NEFA 20:1	338	-0.134	0.201	5.04E-01	1.00E+00	0.001
NEFA 20:2	337	-0.012	0.344	9.73E-01	1.00E+00	0.000

NEFA 20:3	338	0.108	0.212	6.09E-01	1.00E+00	0.001
NEFA 20:4	338	0.027	0.055	6.28E-01	1.00E+00	0.001
NEFA 20:5	336	0.313	0.559	5.75E-01	1.00E+00	0.001
NEFA 22:0	287	-1.775	3.060	5.62E-01	1.00E+00	0.001
NEFA 22:1	337	-0.884	2.521	7.26E-01	1.00E+00	0.000
NEFA 22:2	283	-5.713	11.585	6.22E-01	1.00E+00	0.001
NEFA 22:3	232	11.419	10.480	2.77E-01	1.00E+00	0.005
NEFA 22:4	337	0.370	0.703	5.99E-01	1.00E+00	0.001
NEFA 22:5	338	0.374	0.370	3.14E-01	1.00E+00	0.003
NEFA 22:6	338	0.120	0.168	4.74E-01	1.00E+00	0.002
NEFA 24:0	338	-2.681	2.867	3.50E-01	1.00E+00	0.003
NEFA 24:1	338	1.883	2.396	4.33E-01	1.00E+00	0.002
NEFA 24:3	150	-3.754	71.113	9.58E-01	1.00E+00	0.000
NEFA 24:4	220	32.004	17.248	6.49E-02	1.00E+00	0.016
NEFA 24:5	166	-21.046	15.863	1.86E-01	1.00E+00	0.011
NEFA 24:6	221	7.128	10.879	5.13E-01	1.00E+00	0.002
NEFA 26:0	287	-18.721	19.291	3.33E-01	1.00E+00	0.003
NEFA 26:1	338	6.430	4.363	1.41E-01	1.00E+00	0.006
NEFA 26:2	288	2.231	5.786	7.00E-01	1.00E+00	0.001
NEFA 26:3	337	-20.699	9.741	3.43E-02	1.00E+00	0.013
NEFA 26:4	167	-32.261	55.046	5.59E-01	1.00E+00	0.002
NEFA 26:5	181	-0.968	52.620	9.85E-01	1.00E+00	0.000
3-Methyl-2-oxovalerate	348	0.043	0.062	4.88E-01	1.00E+00	0.001
4-Methyl-2-oxovalerate	348	0.018	0.037	6.32E-01	1.00E+00	0.001
Acetoacetate	246	-0.005	0.003	5.30E-02	1.00E+00	0.015
Alpha-aminoadipate	161	-0.782	1.027	4.47E-01	1.00E+00	0.004
Alpha-ketobutyrate	334	-0.019	0.013	1.48E-01	1.00E+00	0.006
Citrate	296	-0.027	0.011	1.64E-02	1.00E+00	0.019
Isocitrate	297	-0.019	0.062	7.61E-01	1.00E+00	0.000
Lactate	346	0.000	0.000	6.96E-01	1.00E+00	0.000
Malate	346	-0.042	0.077	5.89E-01	1.00E+00	0.001
Alpha-ketoglutarate	348	0.034	0.050	5.00E-01	1.00E+00	0.001
Pyruvate	226	-0.006	0.005	1.99E-01	1.00E+00	0.007
Succininate	348	0.042	0.069	5.44E-01	1.00E+00	0.001
Taurine	297	0.009	0.012	4.24E-01	1.00E+00	0.002

Sum AA	351	0.001	0.001	2.28E-01	1.00E+00	0.004
Sum Carn	350	0.032	0.015	3.50E-02	1.00E+00	0.013
Sum LPC	53	-0.009	0.008	2.59E-01	1.00E+00	0.025
Sum PCaa	50	0.002	0.004	6.81E-01	1.00E+00	0.004
Sum PCae	51	0.003	0.027	9.11E-01	1.00E+00	0.000
Sum SM	54	0.021	0.034	5.34E-01	1.00E+00	0.008
Sum NEFA	215	-0.001	0.002	7.50E-01	1.00E+00	0.000

UBCS 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	401	0.009	0.003	4.49E-03	9.12E-01	0.019
Arg	400	0.016	0.009	9.90E-02	1.00E+00	0.007
Asn	363	0.067	0.029	1.92E-02	1.00E+00	0.014
Asp	364	0.163	0.055	3.11E-03	6.31E-01	0.023
Cit	402	-0.041	0.029	1.57E-01	1.00E+00	0.005
Gln	401	0.004	0.003	1.74E-01	1.00E+00	0.004
Glu	402	0.025	0.014	6.47E-02	1.00E+00	0.008
Gly	400	0.012	0.005	1.80E-02	1.00E+00	0.013
His	402	0.022	0.013	8.84E-02	1.00E+00	0.007
Ile	361	0.017	0.023	4.59E-01	1.00E+00	0.001
Leu	402	0.012	0.012	3.20E-01	1.00E+00	0.002
Lys	401	0.019	0.008	2.00E-02	1.00E+00	0.013
Met	402	0.089	0.048	6.59E-02	1.00E+00	0.008
Orn	401	0.034	0.016	3.75E-02	1.00E+00	0.010
Phe	402	0.037	0.023	1.02E-01	1.00E+00	0.006
Pro	398	0.003	0.004	4.67E-01	1.00E+00	0.001
Ser	401	-0.005	0.007	5.43E-01	1.00E+00	0.001
Thr	402	0.029	0.009	2.05E-03	4.17E-01	0.022
Trp	401	0.048	0.020	1.48E-02	1.00E+00	0.014
Tyr	401	0.070	0.017	3.69E-05	7.49E-03	0.040
Val	402	0.008	0.006	1.50E-01	1.00E+00	0.005
Hpro	400	0.063	0.026	1.57E-02	1.00E+00	0.014
H1	400	0.001	0.000	1.14E-03	2.31E-01	0.025
Carn	401	0.119	0.037	1.65E-03	3.34E-01	0.024
Carn C2	401	-0.235	0.097	1.58E-02	1.00E+00	0.014
Carn C3	402	2.961	1.803	1.01E-01	1.00E+00	0.006
Carn C4	402	-0.892	3.073	7.72E-01	1.00E+00	0.000
Carn C5	395	-0.938	4.944	8.50E-01	1.00E+00	0.000
Carn C8:1	397	2.124	1.726	2.19E-01	1.00E+00	0.004

Carn C10:1	400	1.597	1.701	3.48E-01	1.00E+00	0.002
Carn C12:1	402	-1.957	1.658	2.39E-01	1.00E+00	0.003
Carn C14:1	401	-3.670	2.335	1.17E-01	1.00E+00	0.006
Carn C16	400	-3.251	6.094	5.94E-01	1.00E+00	0.001
Carn C18	398	-14.488	12.761	2.57E-01	1.00E+00	0.003
Carn C18:1	402	-10.498	5.014	3.69E-02	1.00E+00	0.010
LPC C14	402	2.560	0.536	2.51E-06	5.10E-04	0.052
LPC C15	402	4.620	1.273	3.21E-04	6.51E-02	0.031
LPC C15:1	402	24.069	10.765	2.59E-02	1.00E+00	0.012
LPC C16	402	0.092	0.021	1.33E-05	2.69E-03	0.044
LPC C16:1	401	2.164	0.503	2.14E-05	4.35E-03	0.043
LPC C17	402	1.569	0.983	1.11E-01	1.00E+00	0.006
LPC C17:1	402	9.241	3.457	7.82E-03	1.00E+00	0.017
LPC C18	402	0.195	0.055	4.33E-04	8.80E-02	0.029
LPC C18:1	402	0.159	0.073	3.14E-02	1.00E+00	0.011
LPC C18:2	402	0.067	0.035	5.92E-02	1.00E+00	0.008
LPC C18:3	401	3.063	1.368	2.57E-02	1.00E+00	0.012
LPC C18:6	402	14.543	3.610	6.71E-05	1.36E-02	0.037
LPC C20	402	4.699	3.710	2.06E-01	1.00E+00	0.004
LPC C20:1	402	5.441	3.258	9.57E-02	1.00E+00	0.007
LPC C20:2	402	5.942	3.060	5.28E-02	1.00E+00	0.009
LPC C20:3	400	1.013	0.579	8.10E-02	1.00E+00	0.007
LPC C20:4	400	0.791	0.245	1.36E-03	2.77E-01	0.025
LPC C20:5	400	4.569	1.646	5.77E-03	1.00E+00	0.018

LPC C22:4	402	2.818	2.187	1.98E-01	1.00E+00	0.004
LPC C22:5	402	0.524	1.180	6.57E-01	1.00E+00	0.000
LPC C22:6	401	1.813	0.705	1.04E-02	1.00E+00	0.016
PCaa C18	402	10.509	5.832	7.23E-02	1.00E+00	0.008
PCaa C18:1	402	-3.391	6.980	6.27E-01	1.00E+00	0.001
PCaa C30	402	0.462	0.165	5.39E-03	1.00E+00	0.018
PCaa C30:2	402	0.731	0.562	1.94E-01	1.00E+00	0.004
PCaa C32	402	0.057	0.037	1.20E-01	1.00E+00	0.006
PCaa C32:1	402	0.073	0.040	6.91E-02	1.00E+00	0.008
PCaa C32:2	402	0.443	0.158	5.35E-03	1.00E+00	0.018
PCaa C32:3	402	3.900	1.511	1.02E-02	1.00E+00	0.016
PCaa C34	400	-0.001	0.109	9.95E-01	1.00E+00	0.000
PCaa C34:1	401	0.001	0.005	7.81E-01	1.00E+00	0.000
PCaa C34:2	401	0.002	0.003	4.95E-01	1.00E+00	0.001
PCaa C34:3	402	0.115	0.059	5.42E-02	1.00E+00	0.009
PCaa C34:4	402	1.265	0.335	1.84E-04	3.74E-02	0.033
PCaa C34:5	402	5.376	2.585	3.82E-02	1.00E+00	0.010
PCaa C34:6	388	10.056	5.598	7.32E-02	1.00E+00	0.008
PCaa C36	401	0.256	0.268	3.40E-01	1.00E+00	0.002
PCaa C36:1	402	0.012	0.015	4.03E-01	1.00E+00	0.002
PCaa C36:2	401	0.002	0.006	7.81E-01	1.00E+00	0.000
PCaa C36:3	402	0.012	0.012	3.30E-01	1.00E+00	0.002
PCaa C36:4	402	0.016	0.008	4.01E-02	1.00E+00	0.010
PCaa C36:5	402	0.065	0.045	1.52E-01	1.00E+00	0.005

PCaa C36:6	402	3.604	1.017	4.39E-04	8.92E-02	0.029
PCaa C38	402	0.772	0.381	4.35E-02	1.00E+00	0.010
PCaa C38:1	398	0.180	0.352	6.10E-01	1.00E+00	0.001
PCaa C38:2	402	0.061	0.152	6.88E-01	1.00E+00	0.000
PCaa C38:3	401	0.081	0.030	6.51E-03	1.00E+00	0.018
PCaa C38:4	402	0.026	0.010	6.11E-03	1.00E+00	0.018
PCaa C38:5	402	0.028	0.020	1.70E-01	1.00E+00	0.005
PCaa C38:6	402	0.046	0.017	5.82E-03	1.00E+00	0.018
PCaa C40	401	2.567	1.866	1.70E-01	1.00E+00	0.005
PCaa C40:1	395	2.340	3.527	5.07E-01	1.00E+00	0.001
PCaa C40:2	398	4.404	3.143	1.62E-01	1.00E+00	0.005
PCaa C40:3	394	2.649	1.844	1.52E-01	1.00E+00	0.005
PCaa C40:4	402	0.234	0.204	2.52E-01	1.00E+00	0.003
PCaa C40:5	401	0.117	0.094	2.10E-01	1.00E+00	0.004
PCaa C40:6	402	0.156	0.050	1.80E-03	3.64E-01	0.023
PCaa C42	402	0.173	1.664	9.17E-01	1.00E+00	0.000
PCaa C42:1	400	0.697	3.381	8.37E-01	1.00E+00	0.000
PCaa C42:2	396	4.624	5.556	4.06E-01	1.00E+00	0.002
PCaa C42:4	400	1.515	3.724	6.84E-01	1.00E+00	0.000
PCaa C42:5	399	-0.360	2.302	8.76E-01	1.00E+00	0.000
PCaa C42:6	402	1.172	1.962	5.51E-01	1.00E+00	0.001
PCaa C43:6	402	-0.125	0.756	8.69E-01	1.00E+00	0.000
PCae C30	402	3.274	1.700	5.48E-02	1.00E+00	0.009
PCae C32	399	0.485	0.272	7.49E-02	1.00E+00	0.008

PCae C32:1	402	0.641	0.359	7.49E-02	1.00E+00	0.008
PCae C32:2	402	2.734	1.981	1.68E-01	1.00E+00	0.005
PCae C34	400	0.232	0.366	5.27E-01	1.00E+00	0.001
PCae C34:1	402	0.072	0.111	5.19E-01	1.00E+00	0.001
PCae C34:2	402	0.076	0.082	3.52E-01	1.00E+00	0.002
PCae C34:3	402	0.060	0.093	5.18E-01	1.00E+00	0.001
PCae C34:4	402	3.898	2.534	1.25E-01	1.00E+00	0.006
PCae C36	401	0.362	0.910	6.91E-01	1.00E+00	0.000
PCae C36:1	402	-0.135	0.202	5.05E-01	1.00E+00	0.001
PCae C36:2	402	-0.124	0.100	2.14E-01	1.00E+00	0.004
PCae C36:3	402	0.089	0.144	5.34E-01	1.00E+00	0.001
PCae C36:4	401	0.117	0.054	2.96E-02	1.00E+00	0.011
PCae C36:5	402	0.128	0.077	9.75E-02	1.00E+00	0.007
PCae C36:6	397	1.585	1.142	1.66E-01	1.00E+00	0.005
PCae C38	401	1.266	0.499	1.15E-02	1.00E+00	0.015
PCae C38:2	401	-0.319	0.452	4.81E-01	1.00E+00	0.001
PCae C38:3	402	0.081	0.252	7.48E-01	1.00E+00	0.000
PCae C38:4	400	0.059	0.064	3.54E-01	1.00E+00	0.002
PCae C38:5	401	0.093	0.050	6.15E-02	1.00E+00	0.008
PCae C38:6	402	0.228	0.109	3.72E-02	1.00E+00	0.010
PCae C40	402	0.345	0.204	9.17E-02	1.00E+00	0.007
PCae C40:1	397	0.924	0.462	4.62E-02	1.00E+00	0.010
PCae C40:2	402	0.106	1.251	9.33E-01	1.00E+00	0.000
PCae C40:3	401	-0.357	1.256	7.76E-01	1.00E+00	0.000
PCae C40:4	402	0.002	0.405	9.95E-01	1.00E+00	0.000

PCae C40:5	402	-0.156	0.302	6.05E-01	1.00E+00	0.001
PCae C40:6	402	0.186	0.269	4.90E-01	1.00E+00	0.001
PCae C42	402	1.347	2.396	5.74E-01	1.00E+00	0.001
PCae C42:1	400	1.920	1.300	1.40E-01	1.00E+00	0.005
PCae C42:2	402	0.790	1.347	5.58E-01	1.00E+00	0.001
PCae C42:3	401	0.122	1.306	9.25E-01	1.00E+00	0.000
PCae C42:4	402	-0.851	0.910	3.50E-01	1.00E+00	0.002
PCae C42:5	402	-0.591	0.521	2.57E-01	1.00E+00	0.003
PCae C42:6	402	-0.407	0.792	6.08E-01	1.00E+00	0.001
SM C32:2	326	7.819	1.800	1.87E-05	3.80E-03	0.051
SM C35	401	1.112	0.767	1.48E-01	1.00E+00	0.005
SM C35:1	402	0.278	0.200	1.64E-01	1.00E+00	0.005
SM C36	401	0.531	0.265	4.56E-02	1.00E+00	0.010
SM C36:1	402	0.051	0.032	1.18E-01	1.00E+00	0.006
SM C36:2	402	0.138	0.060	2.34E-02	1.00E+00	0.012
SM C37:1	401	0.349	0.366	3.41E-01	1.00E+00	0.002
SM C38:1	402	0.028	0.025	2.63E-01	1.00E+00	0.003
SM C38:2	402	0.056	0.037	1.27E-01	1.00E+00	0.006
SM C38:3	402	1.748	0.905	5.41E-02	1.00E+00	0.009
SM C39:1	402	0.000	0.180	9.99E-01	1.00E+00	0.000
SM C39:2	400	0.170	0.555	7.59E-01	1.00E+00	0.000
SM C39:5	402	2.255	0.913	1.40E-02	1.00E+00	0.014
SM C40:1	399	-0.007	0.026	7.76E-01	1.00E+00	0.000
SM C40:2	402	0.058	0.038	1.28E-01	1.00E+00	0.006
SM C40:3	399	0.069	0.077	3.74E-01	1.00E+00	0.002

SM C40:4	402	0.204	0.097	3.73E-02	1.00E+00	0.010
SM C41:1	402	-0.163	0.091	7.35E-02	1.00E+00	0.008
SM C41:2	402	0.032	0.139	8.19E-01	1.00E+00	0.000
SM C41:3	394	1.240	0.620	4.61E-02	1.00E+00	0.010
SM C42:1	401	-0.048	0.047	3.02E-01	1.00E+00	0.003
SM C42:2	402	0.015	0.023	5.04E-01	1.00E+00	0.001
SM C42:3	402	0.146	0.054	7.32E-03	1.00E+00	0.017
SM C42:4	401	0.303	0.138	2.91E-02	1.00E+00	0.011
SM C42:6	402	0.489	0.289	9.17E-02	1.00E+00	0.007
SM C43	400	-0.389	1.338	7.71E-01	1.00E+00	0.000
SM C43:1	402	-0.967	0.558	8.38E-02	1.00E+00	0.007
SM C43:2	402	-0.263	0.360	4.67E-01	1.00E+00	0.001
SM C43:3	400	-0.716	1.522	6.38E-01	1.00E+00	0.001
SM C44:2	398	-1.976	1.945	3.10E-01	1.00E+00	0.002
SM C44:6	400	0.792	0.607	1.93E-01	1.00E+00	0.004
NEFA 10:0	323	-0.772	0.285	7.14E-03	1.00E+00	0.021
NEFA 12:0	398	-0.217	0.060	3.22E-04	6.54E-02	0.031
NEFA 12:1	395	-0.840	0.271	2.04E-03	4.14E-01	0.023
NEFA 14:0	401	-0.142	0.034	2.87E-05	5.83E-03	0.041
NEFA 14:1	399	-0.917	0.214	2.25E-05	4.57E-03	0.043
NEFA 15:0	394	-0.589	0.168	5.02E-04	1.02E-01	0.029
NEFA 15:1	335	-4.593	2.375	5.39E-02	1.00E+00	0.010
NEFA 16:0	401	-0.022	0.005	1.47E-06	2.98E-04	0.054
NEFA 16:1	400	-0.097	0.018	1.75E-07	3.56E-05	0.064
NEFA 16:2	398	-5.135	1.756	3.66E-03	7.43E-01	0.020
NEFA 17:0	399	-0.561	0.174	1.36E-03	2.76E-01	0.025
NEFA 17:1	399	-0.968	0.251	1.32E-04	2.68E-02	0.035
NEFA 18:0	398	-0.049	0.012	5.92E-05	1.20E-02	0.038
NEFA 18:1	402	-0.013	0.003	7.00E-06	1.42E-03	0.047
NEFA 18:2	401	-0.050	0.011	9.72E-06	1.97E-03	0.046
NEFA 18:3	401	-0.313	0.090	5.46E-04	1.11E-01	0.028
NEFA 19:1	402	-2.178	0.560	1.18E-04	2.39E-02	0.035
NEFA 20:0	360	-3.307	0.988	9.01E-04	1.83E-01	0.029
NEFA 20:2	351	-1.535	0.459	9.16E-04	1.86E-01	0.029

NEFA 20:3	285	-1.091	0.573	5.78E-02	1.00E+00	0.012
NEFA 20:4	402	-0.214	0.207	3.03E-01	1.00E+00	0.003
NEFA 20:5	387	-1.492	1.348	2.69E-01	1.00E+00	0.003
NEFA 22:4	402	-2.486	1.068	2.04E-02	1.00E+00	0.013
NEFA 22:5	402	-1.165	0.550	3.48E-02	1.00E+00	0.011
NEFA 22:6	402	-0.308	0.312	3.23E-01	1.00E+00	0.002
NEFA 24:0	399	-2.299	3.533	5.16E-01	1.00E+00	0.001
NEFA 24:2	355	4.004	14.746	7.86E-01	1.00E+00	0.000
NEFA 24:4	396	-13.488	17.300	4.36E-01	1.00E+00	0.001
NEFA 24:5	401	-15.937	16.235	3.27E-01	1.00E+00	0.002
NEFA 26:1	402	-1.278	6.144	8.35E-01	1.00E+00	0.000

Sum AA	334	0.003	0.001	2.94E-04	5.97E-02	0.037
Sum Carn	381	0.085	0.035	1.63E-02	1.00E+00	0.014
Sum LPC	397	0.032	0.010	1.14E-03	2.32E-01	0.025
Sum PCaa	399	0.002	0.001	7.34E-02	1.00E+00	0.008
Sum PCae	399	0.012	0.008	1.54E-01	1.00E+00	0.005
Sum SM	325	0.013	0.015	3.93E-01	1.00E+00	0.002
Sum NEFA	274	-0.007	0.002	3.46E-05	7.01E-03	0.058

GINI-LISA 10 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	250	-0.005	0.004	1.77E-01	1.00E+00	0.007
Arg	250	-0.025	0.017	1.48E-01	1.00E+00	0.008
Asn	250	-0.053	0.031	9.25E-02	1.00E+00	0.011
Asp	249	0.039	0.033	2.30E-01	1.00E+00	0.005
Cit	250	-0.089	0.041	2.94E-02	1.00E+00	0.018
Gln	221	-0.006	0.003	4.27E-02	1.00E+00	0.017
Glu	250	0.010	0.007	1.25E-01	1.00E+00	0.009
Gly	250	-0.001	0.006	7.99E-01	1.00E+00	0.000
His	250	-0.015	0.017	3.62E-01	1.00E+00	0.003
Ile	250	-0.020	0.026	4.42E-01	1.00E+00	0.002
Leu	250	-0.002	0.014	8.68E-01	1.00E+00	0.000
Lys	250	0.002	0.010	8.28E-01	1.00E+00	0.000
Met	250	-0.109	0.075	1.45E-01	1.00E+00	0.008
Orn	250	0.009	0.013	5.04E-01	1.00E+00	0.002
Phe	250	0.003	0.022	9.08E-01	1.00E+00	0.000
Pro	250	0.001	0.006	8.38E-01	1.00E+00	0.000
Ser	250	-0.006	0.012	6.49E-01	1.00E+00	0.001
Thr	250	0.012	0.012	3.03E-01	1.00E+00	0.004
Trp	250	-0.036	0.030	2.22E-01	1.00E+00	0.006
Tyr	250	0.002	0.023	9.32E-01	1.00E+00	0.000
Val	250	-0.003	0.007	6.48E-01	1.00E+00	0.001
H1	252	0.000	0.000	5.69E-01	1.00E+00	0.001
Carn	191	0.143	0.074	5.32E-02	1.00E+00	0.018
Carn C2	195	0.129	0.219	5.58E-01	1.00E+00	0.002
Carn C3	207	4.162	4.992	4.05E-01	1.00E+00	0.003
Carn C4	163	1.022	5.824	8.61E-01	1.00E+00	0.000
Carn C5	153	19.591	12.961	1.33E-01	1.00E+00	0.014
Carn C6	251	7.066	9.038	4.35E-01	1.00E+00	0.002
Carn C8	252	-0.114	1.230	9.26E-01	1.00E+00	0.000
Carn C8:1	251	-2.376	5.750	6.80E-01	1.00E+00	0.001
Carn C9	230	-2.770	14.503	8.49E-01	1.00E+00	0.000
Carn C10	251	-0.132	0.959	8.91E-01	1.00E+00	0.000

Carn C10:1	252	0.212	1.559	8.92E-01	1.00E+00	0.000
Carn C10:2	153	-16.421	9.508	8.62E-02	1.00E+00	0.018
Carn C12	251	-0.035	2.187	9.87E-01	1.00E+00	0.000
Carn C12:1	223	0.855	1.037	4.11E-01	1.00E+00	0.003
Carn C14	162	25.781	18.514	1.66E-01	1.00E+00	0.011
Carn C14:1	251	-0.014	3.364	9.97E-01	1.00E+00	0.000
Carn C14:2	163	-10.718	12.477	3.92E-01	1.00E+00	0.004
Carn C16	230	-2.312	14.065	8.70E-01	1.00E+00	0.000
Carn C16:1	200	15.771	21.940	4.73E-01	1.00E+00	0.002
Carn C18	189	-11.635	16.884	4.92E-01	1.00E+00	0.002
Carn C18:1	252	9.945	8.559	2.46E-01	1.00E+00	0.005
Carn C18:2	178	9.787	19.865	6.23E-01	1.00E+00	0.001
LPC C14	252	-0.155	0.407	7.04E-01	1.00E+00	0.001
LPC C15	234	0.005	1.008	9.96E-01	1.00E+00	0.000
LPC C16	252	0.007	0.015	6.37E-01	1.00E+00	0.001
LPC C16:1	252	0.761	0.451	9.28E-02	1.00E+00	0.010
LPC C17	252	0.222	0.636	7.28E-01	1.00E+00	0.000
LPC C17:1	234	-1.166	3.026	7.00E-01	1.00E+00	0.001
LPC C18	252	0.004	0.043	9.20E-01	1.00E+00	0.000
LPC C18:1	252	-0.043	0.085	6.09E-01	1.00E+00	0.001
LPC C18:2	252	-0.048	0.045	2.80E-01	1.00E+00	0.004
LPC C18:3	234	-2.448	1.541	1.13E-01	1.00E+00	0.010
LPC C18:6	152	6.875	4.014	8.88E-02	1.00E+00	0.017
LPC C20:2	135	0.235	3.515	9.47E-01	1.00E+00	0.000
LPC C20:3	252	0.142	0.579	8.07E-01	1.00E+00	0.000
LPC C20:4	252	0.190	0.208	3.62E-01	1.00E+00	0.003
LPC C20:5	249	-3.686	1.834	4.56E-02	1.00E+00	0.015

LPC C22:5	187	3.054	2.357	1.97E-01	1.00E+00	0.008
LPC C22:6	234	0.160	0.663	8.10E-01	1.00E+00	0.000
PCaa C30	252	-0.712	0.295	1.64E-02	1.00E+00	0.021
PCaa C30:2	178	-0.582	1.989	7.70E-01	1.00E+00	0.000
PCaa C30:3	173	2.092	5.605	7.09E-01	1.00E+00	0.001
PCaa C30:4	126	-6.652	8.591	4.40E-01	1.00E+00	0.004
PCaa C32	252	-0.182	0.132	1.68E-01	1.00E+00	0.007
PCaa C32:1	252	-0.088	0.069	2.06E-01	1.00E+00	0.006
PCaa C32:2	252	-0.803	0.310	1.03E-02	1.00E+00	0.024
PCaa C32:3	197	-0.595	2.161	7.83E-01	1.00E+00	0.000
PCaa C34:1	252	-0.016	0.009	6.60E-02	1.00E+00	0.013
PCaa C34:2	252	-0.009	0.005	6.80E-02	1.00E+00	0.012
PCaa C34:3	252	-0.171	0.083	4.04E-02	1.00E+00	0.016
PCaa C34:4	252	-0.765	0.562	1.75E-01	1.00E+00	0.007
PCaa C34:5	167	-9.320	5.049	6.68E-02	1.00E+00	0.019
PCaa C36	192	-0.178	0.217	4.11E-01	1.00E+00	0.003
PCaa C36:1	252	-0.070	0.032	2.92E-02	1.00E+00	0.018
PCaa C36:2	252	-0.013	0.007	6.02E-02	1.00E+00	0.013
PCaa C36:3	252	-0.015	0.014	2.84E-01	1.00E+00	0.004
PCaa C36:4	252	-0.001	0.011	9.57E-01	1.00E+00	0.000
PCaa C36:5	251	-0.137	0.075	6.79E-02	1.00E+00	0.012

PCaa C36:6	231	-1.114	0.880	2.07E-01	1.00E+00	0.007
PCaa C38	252	-0.332	0.349	3.42E-01	1.00E+00	0.003
PCaa C38:2	117	-0.472	0.305	1.25E-01	1.00E+00	0.018
PCaa C38:3	252	-0.006	0.030	8.45E-01	1.00E+00	0.000
PCaa C38:4	252	0.006	0.014	6.91E-01	1.00E+00	0.001
PCaa C38:5	252	-0.019	0.031	5.34E-01	1.00E+00	0.001
PCaa C38:6	252	-0.004	0.020	8.25E-01	1.00E+00	0.000
PCaa C40	184	-0.394	0.980	6.88E-01	1.00E+00	0.001
PCaa C40:1	200	-0.147	0.677	8.28E-01	1.00E+00	0.000
PCaa C40:3	139	-0.590	0.600	3.27E-01	1.00E+00	0.007
PCaa C40:4	252	-0.397	0.292	1.75E-01	1.00E+00	0.007
PCaa C40:5	252	-0.073	0.115	5.27E-01	1.00E+00	0.001
PCaa C40:6	252	0.004	0.049	9.42E-01	1.00E+00	0.000
PCaa C42	238	-0.247	1.292	8.48E-01	1.00E+00	0.000
PCaa C42:1	124	-1.429	2.436	5.58E-01	1.00E+00	0.003
PCaa C42:4	122	-0.778	1.852	6.75E-01	1.00E+00	0.001
PCaa C42:5	161	-4.227	2.059	4.18E-02	1.00E+00	0.023
PCaa C42:6	138	-0.858	1.250	4.93E-01	1.00E+00	0.003
PCaa C43:6	249	-1.340	1.088	2.19E-01	1.00E+00	0.006
PCaa C44:12	222	-0.427	1.481	7.73E-01	1.00E+00	0.000
PCae C32	252	-0.538	0.481	2.64E-01	1.00E+00	0.005

PCae C32:1	252	-0.563	0.451	2.13E-01	1.00E+00	0.006
PCae C32:2	217	-0.018	1.198	9.88E-01	1.00E+00	0.000
PCae C34	231	-1.822	0.878	3.92E-02	1.00E+00	0.017
PCae C34:1	252	-0.442	0.177	1.31E-02	1.00E+00	0.023
PCae C34:2	252	-0.292	0.132	2.82E-02	1.00E+00	0.018
PCae C34:3	252	-0.355	0.149	1.78E-02	1.00E+00	0.021
PCae C34:4	144	-4.703	3.907	2.31E-01	1.00E+00	0.010
PCae C36	182	-1.394	1.674	4.06E-01	1.00E+00	0.004
PCae C36:1	252	-0.065	0.114	5.71E-01	1.00E+00	0.001
PCae C36:2	252	-0.133	0.105	2.08E-01	1.00E+00	0.006
PCae C36:3	252	-0.379	0.174	3.00E-02	1.00E+00	0.018
PCae C36:4	252	-0.076	0.075	3.10E-01	1.00E+00	0.004
PCae C36:5	252	-0.109	0.109	3.20E-01	1.00E+00	0.004
PCae C36:6	129	-3.172	2.715	2.45E-01	1.00E+00	0.009
PCae C38	251	-0.608	0.397	1.27E-01	1.00E+00	0.009
PCae C38:2	252	-0.075	0.187	6.87E-01	1.00E+00	0.001
PCae C38:3	252	-0.011	0.130	9.31E-01	1.00E+00	0.000
PCae C38:4	252	-0.085	0.102	4.03E-01	1.00E+00	0.003
PCae C38:5	252	-0.061	0.086	4.75E-01	1.00E+00	0.002
PCae C38:6	252	-0.125	0.170	4.63E-01	1.00E+00	0.002
PCae C40	223	-0.084	0.134	5.30E-01	1.00E+00	0.002
PCae C40:1	234	-0.463	0.449	3.04E-01	1.00E+00	0.004
PCae C40:2	171	-0.040	0.452	9.30E-01	1.00E+00	0.000
PCae C40:3	189	-0.020	0.219	9.28E-01	1.00E+00	0.000
PCae C40:4	223	-0.125	0.341	7.16E-01	1.00E+00	0.001

PCae C40:5	252	-0.144	0.243	5.55E-01	1.00E+00	0.001
PCae C40:6	252	-0.271	0.298	3.65E-01	1.00E+00	0.003
PCae C42	194	0.700	1.181	5.54E-01	1.00E+00	0.002
PCae C42:1	172	-0.225	0.655	7.32E-01	1.00E+00	0.001
PCae C42:2	205	-0.814	0.985	4.10E-01	1.00E+00	0.003
PCae C42:3	212	-0.707	0.621	2.57E-01	1.00E+00	0.006
PCae C42:4	190	-0.256	1.239	8.36E-01	1.00E+00	0.000
PCae C42:5	232	-0.558	0.460	2.26E-01	1.00E+00	0.006
PCae C42:6	252	-1.421	0.835	9.01E-02	1.00E+00	0.011
SM C30:1	210	-1.955	2.260	3.88E-01	1.00E+00	0.003
SM C31:1	125	-1.496	5.647	7.92E-01	1.00E+00	0.001
SM C32:1	252	-0.152	0.171	3.75E-01	1.00E+00	0.003
SM C32:2	252	2.228	1.604	1.66E-01	1.00E+00	0.007
SM C33:1	252	-0.275	0.266	3.03E-01	1.00E+00	0.004
SM C33:2	184	8.246	6.428	2.01E-01	1.00E+00	0.008
SM C33:3	181	3.359	11.613	7.73E-01	1.00E+00	0.000
SM C34:1	252	-0.028	0.018	1.19E-01	1.00E+00	0.009
SM C34:2	252	0.045	0.121	7.12E-01	1.00E+00	0.001
SM C35	168	0.762	2.455	7.57E-01	1.00E+00	0.001
SM C35:1	252	0.108	0.535	8.40E-01	1.00E+00	0.000
SM C35:2	203	1.881	3.166	5.53E-01	1.00E+00	0.002
SM C36:1	252	0.000	0.084	1.00E+00	1.00E+00	0.000
SM C36:2	252	0.308	0.153	4.61E-02	1.00E+00	0.015
SM C36:3	252	1.943	1.848	2.94E-01	1.00E+00	0.004
SM C37:1	128	0.617	0.894	4.91E-01	1.00E+00	0.003
SM C37:3	171	-3.616	3.290	2.73E-01	1.00E+00	0.007
SM C38:1	195	-0.055	0.047	2.42E-01	1.00E+00	0.007
SM C38:2	252	-0.074	0.097	4.42E-01	1.00E+00	0.002
SM C38:3	151	3.927	3.114	2.09E-01	1.00E+00	0.010
SM C39:1	252	-0.297	0.233	2.03E-01	1.00E+00	0.006
SM C39:2	152	-1.026	0.894	2.53E-01	1.00E+00	0.008
SM C39:5	123	3.133	2.915	2.85E-01	1.00E+00	0.009
SM C40:2	252	-0.073	0.053	1.73E-01	1.00E+00	0.007

SM C40:4	240	-0.194	0.715	7.87E-01	1.00E+00	0.000
SM C40:5	216	-3.298	1.525	3.17E-02	1.00E+00	0.020
SM C41:1	252	-0.223	0.128	8.18E-02	1.00E+00	0.011
SM C41:2	252	-0.020	0.181	9.11E-01	1.00E+00	0.000
SM C42:1	252	-0.169	0.078	3.04E-02	1.00E+00	0.017
SM C42:2	252	-0.024	0.044	5.85E-01	1.00E+00	0.001
SM C42:3	234	0.026	0.069	7.07E-01	1.00E+00	0.001
SM C42:4	216	0.167	0.195	3.93E-01	1.00E+00	0.003
SM C42:6	240	0.014	0.467	9.76E-01	1.00E+00	0.000
SM C43	144	1.951	2.371	4.12E-01	1.00E+00	0.004
SM C43:1	248	-0.644	1.034	5.34E-01	1.00E+00	0.001
SM C43:2	252	1.092	0.601	7.06E-02	1.00E+00	0.012
SM C44:6	210	-0.805	0.897	3.70E-01	1.00E+00	0.004
NEFA 10:0	240	-1.105	0.410	7.55E-03	1.00E+00	0.028
NEFA 12:0	208	-0.134	0.071	5.84E-02	1.00E+00	0.016
NEFA 12:1	151	0.317	0.552	5.66E-01	1.00E+00	0.002
NEFA 13:0	98	-1.326	1.401	3.46E-01	1.00E+00	0.008
NEFA 13:1	193	-1.925	5.903	7.45E-01	1.00E+00	0.001
NEFA 14:0	251	0.016	0.057	7.81E-01	1.00E+00	0.000
NEFA 14:1	251	0.518	0.342	1.31E-01	1.00E+00	0.008
NEFA 14:2	114	-0.058	0.077	4.52E-01	1.00E+00	0.005
NEFA 16:0	252	0.001	0.009	9.32E-01	1.00E+00	0.000
NEFA 16:1	223	0.049	0.027	7.27E-02	1.00E+00	0.013
NEFA 16:2	225	1.894	1.490	2.05E-01	1.00E+00	0.007
NEFA 17:0	235	-0.159	0.308	6.06E-01	1.00E+00	0.001
NEFA 17:1	223	0.586	0.448	1.93E-01	1.00E+00	0.007
NEFA 17:2	153	-1.707	10.360	8.69E-01	1.00E+00	0.000
NEFA 18:0	164	-0.007	0.024	7.64E-01	1.00E+00	0.001
NEFA 18:1	252	0.004	0.007	5.60E-01	1.00E+00	0.001
NEFA 18:2	252	0.006	0.019	7.66E-01	1.00E+00	0.000
NEFA 18:3	252	-0.023	0.057	6.86E-01	1.00E+00	0.001
NEFA 18:4	230	1.793	3.416	6.00E-01	1.00E+00	0.001
NEFA 19:0	236	-3.342	2.512	1.85E-01	1.00E+00	0.007
NEFA 19:1	239	0.578	0.812	4.77E-01	1.00E+00	0.002
NEFA 20:0	132	-3.217	1.842	8.32E-02	1.00E+00	0.020
NEFA 20:1	252	0.170	0.311	5.84E-01	1.00E+00	0.001
NEFA 20:2	203	-0.363	0.500	4.68E-01	1.00E+00	0.002

NEFA 20:3	230	0.347	0.393	3.79E-01	1.00E+00	0.003
NEFA 20:4	223	0.199	0.200	3.23E-01	1.00E+00	0.004
NEFA 20:5	188	-0.259	0.753	7.32E-01	1.00E+00	0.001
NEFA 22:0	93	1.286	3.399	7.06E-01	1.00E+00	0.002
NEFA 22:1	249	-1.288	2.085	5.37E-01	1.00E+00	0.001
NEFA 22:2	138	9.066	13.715	5.10E-01	1.00E+00	0.003
NEFA 22:3	224	4.960	9.735	6.11E-01	1.00E+00	0.001
NEFA 22:4	224	0.737	1.114	5.09E-01	1.00E+00	0.002
NEFA 22:5	252	-0.272	0.571	6.35E-01	1.00E+00	0.001
NEFA 22:6	252	-0.258	0.243	2.89E-01	1.00E+00	0.004
NEFA 24:0	207	-9.381	4.329	3.14E-02	1.00E+00	0.020
NEFA 24:1	217	-1.698	3.178	5.94E-01	1.00E+00	0.001
NEFA 24:2	165	34.280	26.013	1.89E-01	1.00E+00	0.010
NEFA 24:3	155	-38.001	82.752	6.47E-01	1.00E+00	0.001
NEFA 24:4	223	4.997	20.899	8.11E-01	1.00E+00	0.000
NEFA 24:5	232	-0.030	13.695	9.98E-01	1.00E+00	0.000
NEFA 24:6	193	-2.536	21.664	9.07E-01	1.00E+00	0.000
NEFA 26:0	163	-27.275	16.925	1.09E-01	1.00E+00	0.014
NEFA 26:1	206	-26.171	15.960	1.03E-01	1.00E+00	0.012
NEFA 26:2	196	-2.513	21.774	9.08E-01	1.00E+00	0.000
NEFA 26:3	170	-17.497	25.739	4.98E-01	1.00E+00	0.002
NEFA 26:4	207	-41.124	85.931	6.33E-01	1.00E+00	0.001
NEFA 26:5	195	86.510	116.526	4.59E-01	1.00E+00	0.003
NEFA 26:6	134	-52.320	47.480	2.73E-01	1.00E+00	0.009
Pyruvate	252	-0.004	0.006	4.98E-01	1.00E+00	0.002
Lactate	252	0.000	0.000	5.92E-01	1.00E+00	0.001
Acetoacetate	248	-0.022	0.036	5.33E-01	1.00E+00	0.001
Alpha-ketobutyrate	233	-0.201	0.112	7.42E-02	1.00E+00	0.013
Fumarate	252	1.073	1.140	3.48E-01	1.00E+00	0.003
3-Methyl-2-oxobutanoate	252	-0.152	0.122	2.11E-01	1.00E+00	0.006
Succininate	252	0.000	0.168	9.99E-01	1.00E+00	0.000
Methylmalonate	252	1.538	1.846	4.06E-01	1.00E+00	0.003
Taurine	252	0.020	0.016	2.06E-01	1.00E+00	0.006
3-Methyl-2-oxovalerate	252	-0.191	0.113	9.41E-02	1.00E+00	0.010
4-Methyl-2-oxovalerate	252	-0.128	0.067	5.81E-02	1.00E+00	0.013
Malate	252	0.398	0.638	5.34E-01	1.00E+00	0.001
Alpha-ketoglutarate	251	0.220	0.286	4.42E-01	1.00E+00	0.002
Alpha-aminoadipate	252	3.570	3.744	3.41E-01	1.00E+00	0.003
Isocitrate	239	1.774	2.176	4.16E-01	1.00E+00	0.003
Citrate	252	0.013	0.048	7.81E-01	1.00E+00	0.000

Sum AA	220	0.000	0.001	5.70E-01	1.00E+00	0.001
Sum Carn	133	0.139	0.067	3.97E-02	1.00E+00	0.029
Sum LPC	231	-0.006	0.008	4.70E-01	1.00E+00	0.002
Sum PCaa	251	-0.002	0.001	1.42E-01	1.00E+00	0.008
Sum PCae	222	-0.019	0.011	8.74E-02	1.00E+00	0.012
Sum SM	252	-0.010	0.016	5.20E-01	1.00E+00	0.002
Sum NEFA	81	0.004	0.005	3.68E-01	1.00E+00	0.009

Meta Analyses

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared	Q	Qp
Ala	1005	0.002	0.002	2.50E-01	1.00E+00	0.0007	8.53	0.014
Arg	1004	0.005	0.008	5.18E-01	1.00E+00	0.0003	4.46	0.11
Asn	967	-0.001	0.018	9.59E-01	1.00E+00	0.0000	8.45	0.015
Asp	967	0.064	0.026	1.23E-02	1.00E+00	0.0049	3.79	0.15
Cit	1006	-0.071	0.021	8.78E-04	1.01E-01	0.0054	1.04	0.59
Gln	975	-0.002	0.001	1.54E-01	1.00E+00	0.0010	6.39	0.041
Glu	1006	0.006	0.003	3.83E-02	1.00E+00	0.0020	3.03	0.22
Gly	1004	0.004	0.003	2.03E-01	1.00E+00	0.0010	3.64	0.16
His	1006	0.007	0.008	3.76E-01	1.00E+00	0.0004	3.12	0.21
Ile	965	0.016	0.015	2.99E-01	1.00E+00	0.0006	4.62	0.1
Leu	1006	0.013	0.008	1.00E-01	1.00E+00	0.0014	4.18	0.12
Lys	1005	0.013	0.006	2.62E-02	1.00E+00	0.0030	3.92	0.14
Met	1006	0.020	0.037	5.75E-01	1.00E+00	0.0001	4.96	0.08
Orn	1005	0.019	0.009	3.00E-02	1.00E+00	0.0031	2.67	0.26
Phe	1005	0.019	0.014	1.72E-01	1.00E+00	0.0012	1.23	0.54
Pro	1002	0.003	0.003	3.65E-01	1.00E+00	0.0004	0.14	0.93
Ser	1004	-0.005	0.006	3.92E-01	1.00E+00	0.0003	0.276	0.87
Thr	1006	0.024	0.007	3.27E-04	3.76E-02	0.0072	1.24	0.54
Trp	1005	0.015	0.015	3.11E-01	1.00E+00	0.0005	5.61	0.06
Tyr	1004	0.045	0.012	2.29E-04	2.63E-02	0.0070	6.17	0.046
Val	1006	0.007	0.004	9.02E-02	1.00E+00	0.0014	3.49	0.17
H1	1006	0.000	0.000	4.09E-01	1.00E+00	0.0003	9.94	0.007
Carn	946	0.047	0.014	7.18E-04	8.26E-02	0.0063	5.67	0.06
Carn C2	950	-0.104	0.074	1.59E-01	1.00E+00	0.0011	3.56	0.17
Carn C3	960	0.561	0.879	5.23E-01	1.00E+00	0.0002	2.75	0.25
Carn C5	902	2.586	3.088	4.03E-01	1.00E+00	0.0004	2.24	0.33
Carn C8:1	1002	1.801	1.663	2.79E-01	1.00E+00	0.0005	0.645	0.72

Carn C10:1	1005	-0.366	0.952	7.01E-01	1.00E+00	0.0001	1.96	0.37
Carn C12:1	979	0.334	0.672	6.19E-01	1.00E+00	0.0001	2.49	0.29
Carn C14:1	1005	-0.667	1.374	6.27E-01	1.00E+00	0.0001	2.22	0.33
Carn C16	984	-2.104	5.460	7.00E-01	1.00E+00	0.0001	0.554	0.76
Carn C18	941	-11.250	9.750	2.49E-01	1.00E+00	0.0007	0.091	0.96
Carn C18:1	1008	-3.899	4.075	3.39E-01	1.00E+00	0.0004	4.54	0.1
LPC C16	1008	0.003	0.006	5.76E-01	1.00E+00	0.0001	20.1	<0.000 1
LPC C16:1	1007	0.544	0.201	6.88E-03	7.91E-01	0.0035	13.3	0.001
LPC C17	942	0.219	0.306	4.75E-01	1.00E+00	0.0003	2.53	0.28
LPC C18	1008	-0.002	0.017	9.03E-01	1.00E+00	0.0000	14.3	0.001
LPC C18:1	1008	-0.029	0.035	4.12E-01	1.00E+00	0.0003	7.68	0.021
LPC C18:2	1008	-0.030	0.019	1.06E-01	1.00E+00	0.0012	8.35	0.015
LPC C18:3	856	-0.032	0.826	9.69E-01	1.00E+00	0.0000	7.19	0.028
LPC C20:3	939	0.164	0.273	5.49E-01	1.00E+00	0.0002	2.12	0.35
LPC C20:4	1006	0.109	0.098	2.67E-01	1.00E+00	0.0006	9.22	0.01
LPC C20:5	819	0.822	0.934	3.79E-01	1.00E+00	0.0004	11.3	0.004

LPC C22:6	887	0.468	0.355	1.88E-01	1.00E+00	0.0009	3.96	0.14
PCaa C32	1008	0.004	0.035	9.13E-01	1.00E+00	0.0000	5.62	0.06
PCaa C32:1	942	0.036	0.030	2.34E-01	1.00E+00	0.0007	4.77	0.09
PCaa C34:1	1007	-0.004	0.004	2.55E-01	1.00E+00	0.0006	3.04	0.22
PCaa C34:2	942	-0.003	0.002	1.59E-01	1.00E+00	0.0010	4.67	0.1
PCaa C34:3	1008	0.001	0.038	9.72E-01	1.00E+00	0.0000	7.92	0.019
PCaa C34:4	958	0.471	0.256	6.57E-02	1.00E+00	0.0016	9.94	0.007
PCaa C36:2	1007	-0.008	0.003	1.04E-02	1.00E+00	0.0030	2.81	0.25
PCaa C36:3	1008	-0.007	0.007	3.06E-01	1.00E+00	0.0005	2.6	0.27
PCaa C36:4	943	0.006	0.005	2.38E-01	1.00E+00	0.0007	2.21	0.33
PCaa C36:5	938	0.009	0.033	7.80E-01	1.00E+00	0.0000	5.5	0.06

PCaa C38	819	-0.271	0.182	1.38E-01	1.00E+00	0.0012	7.07	0.029
PCaa C38:3	820	0.012	0.019	5.12E-01	1.00E+00	0.0002	5.84	0.054
PCaa C38:4	837	0.014	0.007	4.77E-02	1.00E+00	0.0020	2.37	0.31
PCaa C38:5	892	0.004	0.016	8.11E-01	1.00E+00	0.0000	1.72	0.42
PCaa C38:6	1008	0.009	0.009	3.25E-01	1.00E+00	0.0004	5.98	0.0503
PCaa C40:4	810	-0.073	0.159	6.48E-01	1.00E+00	0.0001	3.19	0.2
PCaa C40:5	824	-0.023	0.065	7.28E-01	1.00E+00	0.0001	3	0.22
PCaa C40:6	1007	0.031	0.025	2.09E-01	1.00E+00	0.0007	7.13	0.028

PCae C34:1	1008	-0.131	0.069	5.92E-02	1.00E+00	0.0017	6.12	0.047
PCae C34:2	941	-0.087	0.053	1.04E-01	1.00E+00	0.0013	5.96	0.051
PCae C34:3	1008	-0.114	0.060	5.75E-02	1.00E+00	0.0017	5.86	0.053
PCae C36:1	893	-0.026	0.052	6.14E-01	1.00E+00	0.0001	0.905	0.64
PCae C36:2	809	-0.109	0.062	7.86E-02	1.00E+00	0.0018	0.901	0.64
PCae C36:3	1008	-0.147	0.072	4.14E-02	1.00E+00	0.0019	4.31	0.12
PCae C36:4	940	-0.010	0.033	7.57E-01	1.00E+00	0.0000	6.3	0.043
PCae C36:5	1008	0.013	0.049	7.97E-01	1.00E+00	0.0000	3.28	0.19
PCae C38	834	-0.143	0.233	5.39E-01	1.00E+00	0.0002	8.79	0.012
PCae C38:3	836	-0.075	0.064	2.42E-01	1.00E+00	0.0007	0.494	0.78
PCae C38:4	825	-0.016	0.053	7.66E-01	1.00E+00	0.0000	1.56	0.46
PCae C38:5	941	0.008	0.035	8.21E-01	1.00E+00	0.0000	3.09	0.21
PCae C38:6	892	0.072	0.080	3.70E-01	1.00E+00	0.0004	3.08	0.21
PCae C40	790	-0.066	0.086	4.43E-01	1.00E+00	0.0004	3.59	0.17
PCae C40:4	796	-0.162	0.184	3.79E-01	1.00E+00	0.0004	0.1	0.95

PCae C40:6	825	-0.189	0.171	2.70E-01	1.00E+00	0.0007	1.97	0.37
SM C32:2	749	3.364	0.967	5.34E-04	6.14E-02	0.0081	8.05	0.018
SM C35:1	958	0.272	0.176	1.23E-01	1.00E+00	0.0011	0.1	0.95
SM C36:1	1008	0.061	0.027	2.53E-02	1.00E+00	0.0023	1.17	0.56
SM C36:2	875	0.195	0.056	5.82E-04	6.70E-02	0.0062	1.49	0.47

SM C41:1	892	-0.163	0.062	8.24E-03	9.48E-01	0.0035	0.739	0.69
SM C41:2	891	0.085	0.086	3.24E-01	1.00E+00	0.0005	1.4	0.5
SM C42:1	841	-0.093	0.036	9.30E-03	1.00E+00	0.0036	1.91	0.38
SM C42:2	827	0.016	0.018	3.83E-01	1.00E+00	0.0004	2.5	0.29
NEFA 12:0	943	-0.200	0.043	4.32E-06	4.97E-04	0.0108	1.4	0.5
NEFA 14:0	990	-0.062	0.023	8.66E-03	9.96E-01	0.0032	8.79	0.012
NEFA 14:1	987	-0.143	0.137	3.00E-01	1.00E+00	0.0005	18.4	<0.0001
NEFA 16:0	991	-0.009	0.003	5.55E-03	6.39E-01	0.0036	12.1	0.002
NEFA 16:1	961	-0.021	0.013	1.04E-01	1.00E+00	0.0013	25.1	<0.0001
NEFA 16:2	961	0.001	0.867	9.99E-01	1.00E+00	0.0000	10.2	0.006
NEFA 17:0	972	-0.230	0.117	4.92E-02	1.00E+00	0.0019	4.53	0.1
NEFA 17:1	960	-0.208	0.180	2.47E-01	1.00E+00	0.0007	13.3	0.001
NEFA 18:1	992	-0.007	0.002	1.91E-03	2.19E-01	0.0045	8.51	0.014
NEFA 18:2	989	-0.023	0.008	2.94E-03	3.38E-01	0.0041	9.02	0.011
NEFA 18:3	991	-0.042	0.033	2.04E-01	1.00E+00	0.0008	10.5	0.005
NEFA 19:1	979	-0.455	0.374	2.23E-01	1.00E+00	0.0007	12.2	0.002
NEFA 20:2	891	-0.493	0.245	4.40E-02	1.00E+00	0.0022	7.17	0.028

NEFA 20:3	853	0.110	0.175	5.30E-01	1.00E+00	0.0002	4.61	0.1
NEFA 20:4	963	0.035	0.052	4.99E-01	1.00E+00	0.0002	2.08	0.35
NEFA 20:5	911	-0.117	0.414	7.78E-01	1.00E+00	0.0000	1.64	0.44
NEFA 22:4	963	-0.008	0.522	9.88E-01	1.00E+00	0.0000	5.94	0.051
NEFA 22:5	992	-0.089	0.273	7.46E-01	1.00E+00	0.0000	5.45	0.07
NEFA 22:6	992	-0.049	0.126	6.94E-01	1.00E+00	0.0001	2.45	0.29
NEFA 24:0	944	-4.108	2.009	4.12E-02	1.00E+00	0.0022	1.99	0.37
NEFA 24:4	839	8.292	10.692	4.38E-01	1.00E+00	0.0003	3.5	0.17
NEFA 26:1	946	1.601	3.598	6.56E-01	1.00E+00	0.0001	4.42	0.11

Sum AA	905	0.001	0.000	3.88E-02	1.00E+00	0.0028	8.24	0.016
Sum Carn	864	0.040	0.013	3.30E-03	3.80E-01	0.0056	4.05	0.13
Sum LPC	681	0.000	0.005	9.90E-01	1.00E+00	0.0000	12.3	0.002
Sum PCaa	700	0.000	0.001	9.58E-01	1.00E+00	0.0000	5.18	0.08
Sum PCae	672	-0.005	0.007	4.44E-01	1.00E+00	0.0004	4.98	0.08
Sum SM	631	0.002	0.011	8.22E-01	1.00E+00	0.0000	1.4	0.5
Sum NEFA	570	-0.003	0.001	1.66E-02	1.00E+00	0.0055	9.3	0.01

Supplemental Table 5 Associations of metabolites with HOMA in all studies and follow-ups, and in the meta-analysis. Associations between HOMA levels and metabolites for each study follow-up visit were calculated in linear models adjusted for child age and sex and individual participant meta-analysis. Statistical significance was evaluated using Bonferroni corrected p-values (p.adjust) < 0.05 (with dark grey background). AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-phosphatidylcholine; SM, sphingomyelin.

CHOP 5.5 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	374	7.95E-04	3.52E-04	2.45E-02	1.00E+00	0.014
Arg	372	1.93E-03	1.62E-03	2.34E-01	1.00E+00	0.004
Asn	374	9.02E-04	2.85E-03	7.52E-01	1.00E+00	0.000
Asp	372	1.87E-03	9.53E-03	8.45E-01	1.00E+00	0.000
Cit	374	-3.94E-03	3.68E-03	2.84E-01	1.00E+00	0.003
Gln	374	-2.17E-04	2.29E-04	3.44E-01	1.00E+00	0.002
Glu	374	-2.63E-04	3.50E-04	4.54E-01	1.00E+00	0.002
Gly	374	-3.17E-04	6.10E-04	6.04E-01	1.00E+00	0.001
His	374	6.37E-04	1.50E-03	6.71E-01	1.00E+00	0.000
Ile	374	-1.63E-03	1.79E-03	3.65E-01	1.00E+00	0.002
Leu	374	-7.91E-04	1.10E-03	4.72E-01	1.00E+00	0.001
Lys	374	7.83E-04	8.61E-04	3.64E-01	1.00E+00	0.002
Met	374	9.97E-03	6.30E-03	1.15E-01	1.00E+00	0.007
Orn	374	2.22E-03	1.54E-03	1.51E-01	1.00E+00	0.006
Phe	374	-5.44E-04	2.62E-03	8.36E-01	1.00E+00	0.000
Pro	374	9.50E-04	5.24E-04	7.07E-02	1.00E+00	0.009
Ser	373	-1.14E-03	1.32E-03	3.86E-01	1.00E+00	0.002
Thr	374	1.64E-03	9.80E-04	9.51E-02	1.00E+00	0.007
Trp	373	2.78E-04	2.63E-03	9.16E-01	1.00E+00	0.000
Tyr	374	4.23E-03	1.89E-03	2.58E-02	1.00E+00	0.013
Val	374	-2.07E-04	5.33E-04	6.99E-01	1.00E+00	0.000
H1	375	9.42E-05	3.63E-05	9.82E-03	1.00E+00	0.018
Carn	379	1.17E-02	3.21E-03	2.97E-04	6.91E-02	0.034
Carn C2	379	-2.22E-02	7.99E-03	5.78E-03	1.00E+00	0.020
Carn C3	379	1.14E+00	2.92E-01	1.07E-04	2.50E-02	0.039
Carn C3:1	268	5.92E+00	5.22E+00	2.58E-01	1.00E+00	0.005
Carn C4	379	5.86E-01	2.70E-01	3.09E-02	1.00E+00	0.012
Carn C4:0:OH	268	-1.90E+00	3.67E-01	4.60E-07	1.07E-04	0.092
Carn C4:1	338	-1.20E+00	9.33E-01	1.98E-01	1.00E+00	0.005
Carn C5	379	1.45E+00	7.82E-01	6.37E-02	1.00E+00	0.009
Carn C5:0:OH	308	3.92E+01	6.41E+01	5.41E-01	1.00E+00	0.001
Carn C6	309	-2.30E+00	9.97E-01	2.15E-02	1.00E+00	0.017
Carn C6:1	203	-4.05E+01	8.52E+00	3.91E-06	9.12E-04	0.102
Carn C8	314	-5.76E-01	1.90E-01	2.64E-03	6.16E-01	0.029
Carn C8:1	379	-1.68E+00	5.24E-01	1.46E-03	3.41E-01	0.027
Carn C9	379	-1.23E+00	2.03E+00	5.44E-01	1.00E+00	0.001

Carn C10	378	-3.51E-01	1.28E-01	6.57E-03	1.00E+00	0.020
Carn C10:1	379	-8.66E-02	1.70E-01	6.11E-01	1.00E+00	0.001
Carn C10:2	379	8.66E-01	1.52E+00	5.68E-01	1.00E+00	0.001
Carn C12::DC	253	-2.51E-01	3.96E-01	5.27E-01	1.00E+00	0.002
Carn C12	378	-1.27E+00	3.44E-01	2.47E-04	5.75E-02	0.035
Carn C12:1	379	-3.51E-01	1.27E-01	6.11E-03	1.00E+00	0.020
Carn C14	379	-2.76E+00	9.63E-01	4.40E-03	1.00E+00	0.021
Carn C14:1	377	-1.01E+00	2.45E-01	4.78E-05	1.11E-02	0.043
Carn C14:2	379	-2.06E+00	1.12E+00	6.63E-02	1.00E+00	0.009
Carn C14:2:OH	245	3.23E+00	3.10E+00	2.98E-01	1.00E+00	0.004
Carn C15	379	-8.06E-01	2.70E+00	7.66E-01	1.00E+00	0.000
Carn C16	378	-1.10E+00	1.05E+00	2.96E-01	1.00E+00	0.003
Carn C16:OH	378	-3.37E+00	1.13E+00	3.02E-03	7.03E-01	0.023
Carn C16:1	279	5.70E-01	6.48E+00	9.30E-01	1.00E+00	0.000
Carn C16:2	268	1.85E+00	3.86E+00	6.32E-01	1.00E+00	0.001
Carn C16:2:OH	249	2.15E+00	4.83E+00	6.57E-01	1.00E+00	0.001
Carn C18	379	-5.26E-01	2.03E+00	7.96E-01	1.00E+00	0.000
Carn C18:1	379	-4.70E-01	6.62E-01	4.79E-01	1.00E+00	0.001
Carn C18:1:OH	313	-8.18E-01	4.16E+00	8.44E-01	1.00E+00	0.000
Carn C18:2	379	9.06E-01	9.05E-01	3.17E-01	1.00E+00	0.003
Carn C18:2:OH	244	8.33E+00	1.20E+01	4.87E-01	1.00E+00	0.002
Carn C20	377	-8.17E+00	6.46E+00	2.07E-01	1.00E+00	0.004
Carn C20:1	307	5.50E+00	1.70E+02	9.74E-01	1.00E+00	0.000
Carn C20:3	379	8.79E+00	4.22E+00	3.76E-02	1.00E+00	0.011
Carn C20:4	379	1.02E+02	4.81E+01	3.41E-02	1.00E+00	0.012
Carn C22	280	1.04E+02	7.36E+01	1.59E-01	1.00E+00	0.007
Carn C22:5	269	1.17E+01	1.05E+01	2.65E-01	1.00E+00	0.005
Carn C22:6	248	5.13E+01	4.20E+01	2.23E-01	1.00E+00	0.006
LPC C14	235	1.09E-01	4.65E-02	1.95E-02	1.00E+00	0.023
LPC C15	241	1.08E-01	9.25E-02	2.45E-01	1.00E+00	0.006
LPC C16	379	2.08E-03	1.03E-03	4.40E-02	1.00E+00	0.011
LPC C16:1	379	1.54E-02	2.95E-02	6.02E-01	1.00E+00	0.001
LPC C17	378	4.66E-02	4.35E-02	2.85E-01	1.00E+00	0.003
LPC C18	379	6.37E-03	2.70E-03	1.90E-02	1.00E+00	0.015
LPC C18:1	379	6.28E-03	5.76E-03	2.77E-01	1.00E+00	0.003
LPC C18:2	379	3.05E-03	2.96E-03	3.04E-01	1.00E+00	0.003
LPC C18:3	339	1.00E-01	1.01E-01	3.23E-01	1.00E+00	0.003
LPC C20:1	192	-8.11E-02	1.75E-01	6.44E-01	1.00E+00	0.001
LPC C20:3	377	3.59E-02	3.00E-02	2.33E-01	1.00E+00	0.004
LPC C20:4	379	1.74E-02	1.40E-02	2.14E-01	1.00E+00	0.004
LPC C20:5	310	-2.84E-01	1.34E-01	3.41E-02	1.00E+00	0.014

LPC C22:6	309	-4.64E-02	4.30E-02	2.81E-01	1.00E+00	0.004
PCaa C20:4	207	1.48E+00	6.22E-01	1.86E-02	1.00E+00	0.027
PCaa C28:2	310	7.87E-01	6.41E-01	2.21E-01	1.00E+00	0.005
PCaa C30	379	1.83E-02	1.84E-02	3.20E-01	1.00E+00	0.003
PCaa C30:2	379	4.79E-02	1.23E-01	6.97E-01	1.00E+00	0.000
PCaa C30:3	378	3.07E-01	4.09E-01	4.54E-01	1.00E+00	0.001
PCaa C30:4	162	1.67E+00	1.28E+00	1.92E-01	1.00E+00	0.010
PCaa C32	379	-7.61E-03	7.87E-03	3.34E-01	1.00E+00	0.002
PCaa C32:1	379	-6.03E-03	5.50E-03	2.74E-01	1.00E+00	0.003
PCaa C32:2	379	8.12E-03	2.77E-02	7.70E-01	1.00E+00	0.000
PCaa C34:1	379	-2.85E-04	5.72E-04	6.19E-01	1.00E+00	0.001
PCaa C34:2	379	-1.39E-04	3.88E-04	7.20E-01	1.00E+00	0.000
PCaa C34:3	378	-9.65E-03	6.12E-03	1.15E-01	1.00E+00	0.007
PCaa C34:4	379	3.04E-02	4.89E-02	5.34E-01	1.00E+00	0.001
PCaa C36	267	-2.11E-03	1.40E-02	8.81E-01	1.00E+00	0.000
PCaa C36:1	379	-1.48E-03	2.01E-03	4.63E-01	1.00E+00	0.001
PCaa C36:2	379	4.39E-05	5.09E-04	9.31E-01	1.00E+00	0.000
PCaa C36:3	379	-6.49E-04	1.00E-03	5.18E-01	1.00E+00	0.001
PCaa C36:4	379	-2.64E-04	7.48E-04	7.24E-01	1.00E+00	0.000
PCaa C36:5	377	-1.86E-02	7.88E-03	1.89E-02	1.00E+00	0.015
PCaa C36:6	311	-8.00E-02	4.28E-02	6.23E-02	1.00E+00	0.011
PCaa C38	307	-6.01E-04	2.51E-02	9.81E-01	1.00E+00	0.000
PCaa C38:3	379	-3.49E-04	2.62E-03	8.94E-01	1.00E+00	0.000
PCaa C38:4	379	-5.12E-04	1.01E-03	6.14E-01	1.00E+00	0.001
PCaa C38:5	379	-9.24E-03	2.76E-03	8.85E-04	2.06E-01	0.029
PCaa C38:6	379	-2.20E-03	1.67E-03	1.89E-01	1.00E+00	0.005
PCaa C40	272	6.28E-03	4.96E-02	8.99E-01	1.00E+00	0.000
PCaa C40:4	378	-2.70E-02	2.41E-02	2.64E-01	1.00E+00	0.003
PCaa C40:5	379	-2.06E-02	8.41E-03	1.48E-02	1.00E+00	0.016
PCaa C40:6	379	-5.98E-03	3.89E-03	1.25E-01	1.00E+00	0.006
PCaa C42	236	-2.43E-02	9.24E-02	7.92E-01	1.00E+00	0.000
PCaa C42:1	206	-4.74E-02	1.88E-01	8.01E-01	1.00E+00	0.000
PCaa C42:6	193	3.02E-02	1.20E-01	8.02E-01	1.00E+00	0.000

PCaa C43:6	245	1.40E-01	6.50E-02	3.25E-02	1.00E+00	0.019
PCaa C44:12	379	-2.22E-03	4.99E-02	9.65E-01	1.00E+00	0.000
PCae C30:2	272	1.32E-01	2.75E-01	6.30E-01	1.00E+00	0.001
PCae C32	379	-3.29E-02	3.65E-02	3.68E-01	1.00E+00	0.002
PCae C32:1	379	-2.82E-02	3.06E-02	3.58E-01	1.00E+00	0.002
PCae C32:2	202	-1.27E-01	1.05E-01	2.28E-01	1.00E+00	0.007
PCae C34	379	-5.88E-02	5.01E-02	2.41E-01	1.00E+00	0.004
PCae C34:1	379	-2.36E-02	1.07E-02	2.85E-02	1.00E+00	0.013
PCae C34:2	379	-8.88E-03	9.09E-03	3.29E-01	1.00E+00	0.003
PCae C34:3	379	-4.94E-03	1.07E-02	6.44E-01	1.00E+00	0.001
PCae C34:4	241	-1.30E-01	2.45E-01	5.98E-01	1.00E+00	0.001
PCae C36	247	-7.16E-02	5.03E-02	1.55E-01	1.00E+00	0.008
PCae C36:1	379	-5.94E-03	4.88E-03	2.24E-01	1.00E+00	0.004
PCae C36:2	379	-4.23E-03	5.97E-03	4.79E-01	1.00E+00	0.001
PCae C36:3	379	-9.20E-04	1.07E-02	9.32E-01	1.00E+00	0.000
PCae C36:4	378	3.40E-03	5.49E-03	5.36E-01	1.00E+00	0.001
PCae C36:5	379	5.34E-03	7.08E-03	4.51E-01	1.00E+00	0.002
PCae C36:6	169	-9.57E-02	1.10E-01	3.86E-01	1.00E+00	0.005
PCae C38	308	-5.32E-02	2.15E-02	1.38E-02	1.00E+00	0.020
PCae C38:2	300	1.36E-03	7.55E-03	8.57E-01	1.00E+00	0.000
PCae C38:3	378	-1.54E-03	6.89E-03	8.23E-01	1.00E+00	0.000
PCae C38:4	379	7.40E-04	7.23E-03	9.19E-01	1.00E+00	0.000
PCae C38:5	379	3.00E-03	5.67E-03	5.97E-01	1.00E+00	0.001
PCae C38:6	379	6.88E-03	1.22E-02	5.74E-01	1.00E+00	0.001
PCae C40	379	-2.43E-02	9.57E-03	1.16E-02	1.00E+00	0.017
PCae C40:1	229	4.55E-03	4.10E-02	9.12E-01	1.00E+00	0.000
PCae C40:3	311	-1.17E-02	8.85E-03	1.88E-01	1.00E+00	0.006
PCae C40:4	340	-3.63E-03	1.63E-02	8.24E-01	1.00E+00	0.000
PCae C40:5	379	-3.19E-02	1.64E-02	5.20E-02	1.00E+00	0.010
PCae C40:6	379	-2.68E-02	2.09E-02	2.01E-01	1.00E+00	0.004
PCae C42:2	315	-3.53E-02	5.12E-02	4.92E-01	1.00E+00	0.002
PCae C42:3	272	-2.68E-02	4.22E-02	5.25E-01	1.00E+00	0.001
PCae C42:4	191	-3.86E-02	1.04E-01	7.11E-01	1.00E+00	0.001
PCae C42:5	309	-8.36E-02	3.39E-02	1.41E-02	1.00E+00	0.019
PCae C42:6	379	-8.03E-02	5.46E-02	1.43E-01	1.00E+00	0.006
SM C21:2	340	2.09E+00	1.28E+00	1.02E-01	1.00E+00	0.008
SM C32:1	379	2.78E-02	1.27E-02	2.90E-02	1.00E+00	0.013
SM C32:2	340	1.57E-01	1.68E-01	3.50E-01	1.00E+00	0.003
SM C33:1	379	-3.96E-03	2.25E-02	8.61E-01	1.00E+00	0.000
SM C33:3	177	-9.06E-01	6.12E-01	1.41E-01	1.00E+00	0.012
SM C34:1	379	-6.55E-04	1.26E-03	6.04E-01	1.00E+00	0.001

SM C34:2	379	2.13E-02	8.97E-03	1.81E-02	1.00E+00	0.015
SM C34:4	211	-1.41E+00	2.09E+00	5.02E-01	1.00E+00	0.002
SM C35:1	379	-6.09E-03	3.64E-02	8.67E-01	1.00E+00	0.000
SM C35:2	193	-2.14E-01	2.95E-01	4.69E-01	1.00E+00	0.003
SM C36:1	378	-1.16E-03	6.21E-03	8.51E-01	1.00E+00	0.000
SM C36:2	379	3.27E-03	1.17E-02	7.79E-01	1.00E+00	0.000
SM C36:3	182	1.17E-01	1.21E-01	3.35E-01	1.00E+00	0.005
SM C37:1	193	2.22E-02	3.56E-02	5.33E-01	1.00E+00	0.002
SM C37:3	202	-2.68E-01	2.61E-01	3.06E-01	1.00E+00	0.005
SM C38:2	379	-2.93E-03	7.67E-03	7.03E-01	1.00E+00	0.000
SM C39:1	309	3.76E-02	1.86E-02	4.42E-02	1.00E+00	0.013
SM C40:2	232	-4.10E-03	4.60E-03	3.74E-01	1.00E+00	0.003
SM C40:4	300	-1.50E-02	5.30E-02	7.77E-01	1.00E+00	0.000
SM C40:5	340	-2.12E-01	9.13E-02	2.09E-02	1.00E+00	0.016
SM C41:1	379	8.13E-04	6.66E-03	9.03E-01	1.00E+00	0.000
SM C41:2	379	8.11E-03	9.66E-03	4.02E-01	1.00E+00	0.002
SM C42:1	379	1.81E-03	4.63E-03	6.97E-01	1.00E+00	0.000
SM C42:2	379	-1.27E-03	2.69E-03	6.38E-01	1.00E+00	0.001
SM C42:3	311	-5.62E-03	5.21E-03	2.82E-01	1.00E+00	0.004
SM C42:6	379	-1.57E-02	3.26E-02	6.30E-01	1.00E+00	0.001
SM C43	168	-1.10E-01	1.68E-01	5.13E-01	1.00E+00	0.003
SM C43:1	197	4.47E-04	7.23E-02	9.95E-01	1.00E+00	0.000
SM C43:2	311	-2.33E-02	3.56E-02	5.14E-01	1.00E+00	0.001
SM C44:6	230	-4.98E-02	9.33E-02	5.94E-01	1.00E+00	0.001
SM C47:6	315	-7.21E+00	5.11E+00	1.59E-01	1.00E+00	0.006
NEFA 12:0	176	8.93E-03	9.24E-03	3.35E-01	1.00E+00	0.005
NEFA 14:0	312	-6.99E-03	3.49E-03	4.62E-02	1.00E+00	0.013
NEFA 14:1	376	-3.55E-04	5.54E-03	9.49E-01	1.00E+00	0.000
NEFA 15:0	176	-3.15E-02	3.92E-02	4.23E-01	1.00E+00	0.004

NEFA 16:0	241	-1.49E-03	5.35E-04	5.83E-03	1.00E+00	0.031
NEFA 16:1	376	-4.05E-03	1.68E-03	1.64E-02	1.00E+00	0.015
NEFA 16:2	297	-7.28E-02	6.58E-02	2.69E-01	1.00E+00	0.004
NEFA 17:0	163	-2.89E-02	1.98E-02	1.46E-01	1.00E+00	0.013
NEFA 17:1	376	-1.35E-02	1.48E-02	3.63E-01	1.00E+00	0.002
NEFA 17:2	163	-1.34E+00	7.12E-01	6.25E-02	1.00E+00	0.022
NEFA 18:1	376	-5.65E-04	2.74E-04	3.99E-02	1.00E+00	0.011
NEFA 18:2	376	-8.80E-04	6.34E-04	1.66E-01	1.00E+00	0.005
NEFA 18:3	376	-2.41E-02	8.70E-03	5.97E-03	1.00E+00	0.020
NEFA 18:4	163	-5.45E-01	4.03E-01	1.78E-01	1.000	0.011
NEFA 19:1	296	-2.16E-01	7.81E-02	6.02E-03	1.00E+00	0.026
NEFA 20:1	376	-5.54E-02	1.84E-02	2.78E-03	6.48E-01	0.024
NEFA 20:2	376	-1.01E-03	1.00E-02	9.20E-01	1.00E+00	0.000
NEFA 20:3	376	2.72E-02	2.08E-02	1.92E-01	1.00E+00	0.005
NEFA 20:4	376	-1.56E-03	6.70E-03	8.17E-01	1.00E+00	0.000
NEFA 20:5	294	-1.25E-02	4.30E-02	7.71E-01	1.00E+00	0.000
NEFA 22:3	227	-2.24E+00	1.22E+00	6.75E-02	1.00E+00	0.015
NEFA 22:4	376	-9.18E-02	8.78E-02	2.97E-01	1.00E+00	0.003
NEFA 22:5	374	-6.79E-02	4.30E-02	1.15E-01	1.00E+00	0.007
NEFA 22:6	376	1.56E-02	1.79E-02	3.84E-01	1.00E+00	0.002
NEFA 24:0	163	-2.11E-02	2.99E-01	9.44E-01	1.00E+00	0.000
NEFA 24:1	376	-4.56E-02	1.21E-01	7.06E-01	1.00E+00	0.000
NEFA 24:2	163	2.64E-01	2.49E+00	9.16E-01	1.00E+00	0.000
NEFA 24:3	233	-8.03E-01	1.73E+00	6.43E-01	1.00E+00	0.001
NEFA 24:4	376	-1.21E-01	1.52E+00	9.37E-01	1.00E+00	0.000
NEFA 24:6	161	-4.13E+00	4.37E+00	3.46E-01	1.00E+00	0.005
NEFA 26:0	321	2.48E-01	1.95E-01	2.05E-01	1.00E+00	0.005
NEFA 26:1	306	3.99E-01	2.09E-01	5.74E-02	1.00E+00	0.012
NEFA 26:2	376	4.96E-01	2.53E-01	5.08E-02	1.00E+00	0.010
NEFA 26:3	296	4.36E-02	9.40E-01	9.63E-01	1.00E+00	0.000
NEFA 26:4	376	2.00E+00	3.30E+00	5.45E-01	1.00E+00	0.001
Pyruvate	372	4.43E-04	1.53E-04	3.98E-03	9.28E-01	0.022
Lactic_acid	376	8.29E-06	1.50E-05	5.80E-01	1.00E+00	0.001
Fumarate	370	-1.01E-01	1.09E-01	3.52E-01	1.00E+00	0.002
3-Methyl-2-oxobutanoate	372	2.64E-03	2.11E-03	2.12E-01	1.00E+00	0.004
Succininate	374	-8.42E-03	8.94E-03	3.47E-01	1.00E+00	0.002
Methylmalonate	376	6.12E-01	4.18E-01	1.44E-01	1.00E+00	0.006
Taurine	374	-6.57E-04	7.81E-04	4.01E-01	1.00E+00	0.002

3-Methyl-2-oxovalerate	375	-9.86E-04	2.41E-03	6.82E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	371	3.09E-04	1.17E-03	7.92E-01	1.00E+00	0.000
Malate	373	-4.91E-03	1.71E-02	7.75E-01	1.00E+00	0.000
Alpha-ketoglutarate	366	6.30E-03	5.38E-03	2.42E-01	1.00E+00	0.004
Alpha-aminoadipate	375	1.85E-01	1.87E-01	3.24E-01	1.00E+00	0.003
Isocitrate	376	-3.97E-03	5.36E-03	4.59E-01	1.00E+00	0.001
Citrate	376	1.07E-05	4.03E-04	9.79E-01	1.00E+00	0.000
Beta-hydroxybutyrate	148	-2.88E-03	1.13E-03	1.21E-02	1.00E+00	0.043
	371	3.95E-05	7.02E-05	5.74E-01	1.00E+00	0.001
Sum AA	376	6.19E-03	2.90E-03	3.36E-02	1.00E+00	0.012
Sum Carn	202	2.55E-04	8.51E-04	7.65E-01	1.00E+00	0.000
Sum LPC	304	-8.22E-05	1.20E-04	4.94E-01	1.00E+00	0.002
Sum PCaa	268	-6.46E-04	1.04E-03	5.36E-01	1.00E+00	0.001
Sum PCae	339	3.48E-05	1.11E-03	9.75E-01	1.00E+00	0.000
Sum SM	96	-3.68E-04	1.70E-04	3.29E-02	1.00E+00	0.046
Sum NEFA						

CHOP 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	349	3.98E-03	5.04E-04	4.03E-14	7.66E-12	0.152
Arg	349	1.10E-02	2.40E-03	5.87E-06	1.12E-03	0.058
Asn	349	1.65E-02	3.98E-03	4.49E-05	8.53E-03	0.047
Asp	349	-6.92E-02	1.21E-02	2.22E-08	4.22E-06	0.086
Cit	349	8.70E-03	5.57E-03	1.19E-01	1.00E+00	0.007
Gln	348	1.15E-03	2.49E-04	5.25E-06	9.97E-04	0.058
Glu	349	-2.41E-03	4.00E-04	4.19E-09	7.97E-07	0.095
Gly	349	1.64E-03	8.78E-04	6.28E-02	1.00E+00	0.010
His	349	5.44E-04	1.60E-03	7.34E-01	1.00E+00	0.000
Ile	349	-1.73E-03	3.87E-03	6.55E-01	1.00E+00	0.001
Leu	349	-1.35E-05	2.21E-03	9.95E-01	1.00E+00	0.000
Lys	349	6.21E-03	2.49E-03	1.32E-02	1.00E+00	0.018
Met	349	2.45E-02	8.99E-03	6.81E-03	1.00E+00	0.021
Orn	349	2.61E-03	2.62E-03	3.20E-01	1.00E+00	0.003
Phe	348	3.17E-03	4.30E-03	4.61E-01	1.00E+00	0.002
Pro	349	6.64E-04	1.00E-03	5.08E-01	1.00E+00	0.001
Ser	348	-1.65E-03	1.31E-03	2.10E-01	1.00E+00	0.005
Thr	349	7.09E-03	1.63E-03	1.81E-05	3.44E-03	0.052
Trp	349	9.62E-03	4.01E-03	1.70E-02	1.00E+00	0.016
Tyr	348	1.95E-02	2.96E-03	1.67E-10	3.17E-08	0.112
Val	349	1.64E-03	1.04E-03	1.17E-01	1.00E+00	0.007
H1	349	3.20E-04	6.21E-05	4.18E-07	7.95E-05	0.071
Carn	349	8.25E-03	1.84E-03	1.02E-05	1.94E-03	0.054
Carn C2	349	-6.45E-02	1.46E-02	1.28E-05	2.42E-03	0.053
Carn C3	346	-9.55E-02	1.23E-01	4.38E-01	1.00E+00	0.002
Carn C3:1	284	4.34E+00	1.88E+00	2.18E-02	1.00E+00	0.018
Carn C4:0:OH	236	-2.40E+00	4.97E-01	2.51E-06	4.76E-04	0.090
Carn C5	349	-2.94E+01	2.76E+01	2.88E-01	1.00E+00	0.003
Carn C5:0:OH	349	-9.46E-01	4.97E-01	5.77E-02	1.00E+00	0.010
Carn C6	349	-1.37E+00	7.93E-01	8.62E-02	1.00E+00	0.008
Carn C6:1	349	-1.34E+00	1.03E+00	1.96E-01	1.00E+00	0.005
Carn C8	349	-4.59E-01	2.25E-01	4.20E-02	1.00E+00	0.012
Carn C8:1	349	7.85E-01	5.75E-01	1.73E-01	1.00E+00	0.005
Carn C9	349	-1.44E+00	2.13E+00	5.01E-01	1.00E+00	0.001

Carn C10	349	-3.81E-01	1.32E-01	4.15E-03	7.89E-01	0.023
Carn C10:1	348	7.13E-02	2.20E-01	7.46E-01	1.00E+00	0.000
Carn C10:2	349	2.74E+00	1.60E+00	8.70E-02	1.00E+00	0.008
Carn C12	349	-1.30E+00	3.35E-01	1.25E-04	2.38E-02	0.041
Carn C12:1	349	-4.92E-01	1.41E-01	5.34E-04	1.01E-01	0.034
Carn C14	349	-8.48E+00	1.37E+00	1.55E-09	2.94E-07	0.099
Carn C14:1	348	-1.08E+00	2.28E-01	3.31E-06	6.29E-04	0.060
Carn C14:2	349	-2.47E+00	1.09E+00	2.40E-02	1.00E+00	0.014
Carn C14:2:OH	347	-1.20E+01	3.33E+00	3.68E-04	6.99E-02	0.036
Carn C15	349	-3.37E+01	7.65E+00	1.45E-05	2.75E-03	0.053
Carn C16	349	-8.89E+00	1.70E+00	2.75E-07	5.22E-05	0.073
Carn C16:0:OH	286	-8.83E+01	2.08E+01	3.09E-05	5.88E-03	0.059
Carn C16:1	349	-7.68E+00	1.46E+00	2.67E-07	5.07E-05	0.073
Carn C16:2	349	-1.26E+01	3.89E+00	1.29E-03	2.46E-01	0.029
Carn C16:2:OH	300	-4.24E+01	7.46E+00	3.11E-08	5.92E-06	0.098
Carn C18	349	-1.19E+01	3.83E+00	2.10E-03	3.98E-01	0.027
Carn C18:1	349	-6.62E+00	1.10E+00	5.12E-09	9.72E-07	0.093
Carn C18:1:OH	349	-2.65E+01	5.08E+00	3.12E-07	5.93E-05	0.072
Carn C18:2	347	1.57E-01	1.89E+00	9.34E-01	1.00E+00	0.000
Carn C18:2:OH	229	5.18E+00	1.36E+01	7.03E-01	1.00E+00	0.001
Carn C20	343	-7.02E+00	7.41E+00	3.44E-01	1.00E+00	0.003
Carn C20:1	348	1.03E+03	5.38E+02	5.57E-02	1.00E+00	0.011
Carn C20:3	349	3.20E+00	2.05E+01	8.76E-01	1.00E+00	0.000
Carn C20:4	300	4.43E+02	2.69E+02	1.00E-01	1.00E+00	0.009
Carn C22	219	3.62E+02	2.33E+02	1.21E-01	1.00E+00	0.011
Carn C22:5	251	1.57E+01	4.07E+01	6.99E-01	1.00E+00	0.001
Carn C22:6	182	-2.29E+01	3.17E+01	4.71E-01	1.00E+00	0.003
LPC C16	349	-4.73E-03	8.36E-04	3.24E-08	6.16E-06	0.084
LPC C16:1	349	-9.94E-02	3.07E-02	1.34E-03	2.55E-01	0.029
LPC C17	286	-2.51E-01	4.72E-02	2.12E-07	4.02E-05	0.091
LPC C18	349	-1.16E-02	2.32E-03	8.85E-07	1.68E-04	0.067
LPC C18:1	349	-2.59E-02	5.37E-03	2.14E-06	4.07E-04	0.063
LPC C18:2	349	7.02E-03	3.01E-03	2.01E-02	1.00E+00	0.015
LPC C18:3	218	1.28E-01	1.69E-01	4.51E-01	1.00E+00	0.003
LPC C18:6	178	2.51E-01	2.30E-01	2.78E-01	1.00E+00	0.007
LPC C20:3	282	8.78E-03	4.23E-02	8.36E-01	1.00E+00	0.000
LPC C20:4	349	-3.93E-03	1.56E-02	8.01E-01	1.00E+00	0.000
LPC C20:5	165	-1.12E-01	1.52E-01	4.62E-01	1.00E+00	0.003
LPC C22:5	151	1.96E-01	1.82E-01	2.84E-01	1.00E+00	0.008

LPC C22:6	250	-2.57E-01	6.45E-02	8.82E-05	1.67E-02	0.060
PCaa C30:5	180	1.17E+01	1.92E+01	5.44E-01	1.00E+00	0.002
PCaa C32	349	-6.89E-03	1.05E-02	5.11E-01	1.00E+00	0.001
PCaa C32:1	286	1.50E-02	6.74E-03	2.65E-02	1.00E+00	0.017
PCaa C34:1	349	-8.11E-04	6.77E-04	2.32E-01	1.00E+00	0.004
PCaa C34:2	283	1.39E-03	4.71E-04	3.40E-03	6.46E-01	0.030
PCaa C34:3	349	1.62E-02	7.16E-03	2.42E-02	1.00E+00	0.015
PCaa C34:4	300	2.57E-01	5.70E-02	9.79E-06	1.86E-03	0.064
PCaa C36:2	349	1.84E-03	4.65E-04	9.16E-05	1.74E-02	0.043
PCaa C36:3	349	2.31E-03	1.38E-03	9.46E-02	1.00E+00	0.008
PCaa C36:4	283	2.22E-03	1.10E-03	4.51E-02	1.00E+00	0.014
PCaa C36:5	280	4.94E-03	6.79E-03	4.68E-01	1.00E+00	0.002
PCaa C38	163	-4.94E-02	3.21E-02	1.25E-01	1.00E+00	0.014
PCaa C38:3	161	1.37E-03	5.04E-03	7.87E-01	1.00E+00	0.000
PCaa C38:4	182	2.38E-03	1.81E-03	1.90E-01	1.00E+00	0.010
PCaa C38:5	237	-8.70E-03	4.58E-03	5.86E-02	1.00E+00	0.015
PCaa C38:6	349	-1.66E-03	1.73E-03	3.37E-01	1.00E+00	0.003
PCaa C40:4	153	1.50E-02	4.25E-02	7.25E-01	1.00E+00	0.001
PCaa C40:5	170	1.03E-03	1.56E-02	9.47E-01	1.00E+00	0.000
PCaa C40:6	348	1.26E-03	4.36E-03	7.73E-01	1.00E+00	0.000

PCaa C44:12	171	-1.52E-01	1.79E-01	3.97E-01	1.00E+00	0.004
PCae C34:1	349	-9.51E-03	1.21E-02	4.33E-01	1.00E+00	0.002
PCae C34:2	282	2.63E-02	8.81E-03	3.04E-03	5.78E-01	0.030
PCae C34:3	349	-4.40E-03	1.07E-02	6.81E-01	1.00E+00	0.000
PCae C36:1	234	-2.07E-02	7.32E-03	5.13E-03	9.75E-01	0.033
PCae C36:2	152	3.23E-03	1.23E-02	7.94E-01	1.00E+00	0.000
PCae C36:3	349	1.38E-02	1.15E-02	2.31E-01	1.00E+00	0.004
PCae C36:4	282	1.16E-02	5.51E-03	3.61E-02	1.00E+00	0.015
PCae C36:5	349	1.20E-02	9.25E-03	1.95E-01	1.00E+00	0.005
PCae C38	181	-8.86E-02	4.98E-02	7.67E-02	1.00E+00	0.018
PCae C38:3	181	-2.40E-02	1.08E-02	2.78E-02	1.00E+00	0.027
PCae C38:4	171	-1.09E-02	1.69E-02	5.19E-01	1.00E+00	0.002
PCae C38:5	286	1.29E-02	6.72E-03	5.53E-02	1.00E+00	0.013
PCae C38:6	237	9.99E-03	1.81E-02	5.81E-01	1.00E+00	0.001
PCae C40	163	-3.57E-02	1.82E-02	5.15E-02	1.00E+00	0.023
PCae C40:4	170	-6.54E-02	3.03E-02	3.23E-02	1.00E+00	0.027
PCae C40:6	170	-1.59E-02	3.59E-02	6.59E-01	1.00E+00	0.001
SM C21:2	178	2.75E-02	9.00E-01	9.76E-01	1.00E+00	0.000
SM C31:1	181	1.47E-01	6.52E-01	8.22E-01	1.00E+00	0.000
SM C32:1	349	-3.34E-02	1.68E-02	4.78E-02	1.00E+00	0.011
SM C32:2	170	-4.17E-02	2.03E-01	8.38E-01	1.00E+00	0.000
SM C33:1	349	-1.03E-01	2.25E-02	7.52E-06	1.43E-03	0.056
SM C34:1	349	-4.61E-03	1.60E-03	4.10E-03	7.79E-01	0.023

SM C34:2	349	-2.11E-02	1.08E-02	5.08E-02	1.00E+00	0.011
SM C35:1	300	-1.35E-01	4.36E-02	2.12E-03	4.02E-01	0.031
SM C36:1	349	-1.89E-02	6.06E-03	1.94E-03	3.68E-01	0.027
SM C36:2	219	-1.52E-02	1.73E-02	3.80E-01	1.00E+00	0.003
SM C36:3	281	-2.78E-01	1.22E-01	2.33E-02	1.00E+00	0.018
SM C41:1	237	-2.68E-02	1.30E-02	4.00E-02	1.00E+00	0.018
SM C41:2	236	-2.37E-02	1.66E-02	1.55E-01	1.00E+00	0.009
SM C42:1	185	-8.23E-03	8.26E-03	3.20E-01	1.00E+00	0.005
SM C42:2	171	-6.82E-03	4.38E-03	1.21E-01	1.00E+00	0.014
NEFA 10:0	334	-6.90E-02	1.45E-02	2.86E-06	5.43E-04	0.064
NEFA 11:0	261	-2.70E-01	4.37E-01	5.37E-01	1.00E+00	0.001
NEFA 12:0	333	-3.79E-02	2.05E-02	6.49E-02	1.00E+00	0.010
NEFA 12:1	218	-1.14E+00	4.82E-01	1.90E-02	1.00E+00	0.025
NEFA 14:0	334	-2.58E-02	4.33E-03	6.21E-09	1.18E-06	0.096
NEFA 14:1	333	-1.00E-01	2.39E-02	3.32E-05	6.31E-03	0.050
NEFA 15:0	334	-1.39E-01	1.99E-02	1.97E-11	3.73E-09	0.126
NEFA 15:1	211	-1.28E+00	3.22E-01	9.45E-05	1.80E-02	0.069

NEFA 16:0	334	-3.76E-03	5.50E-04	4.09E-11	7.78E-09	0.122
NEFA 16:1	334	-1.29E-02	2.48E-03	3.40E-07	6.45E-05	0.075
NEFA 16:2	334	-4.47E-01	1.72E-01	9.83E-03	1.00E+00	0.020
NEFA 17:0	334	-1.32E-01	2.01E-02	1.68E-10	3.19E-08	0.115
NEFA 17:1	334	-2.05E-01	3.40E-02	4.75E-09	9.03E-07	0.098
NEFA 18:0	279	-7.29E-03	1.42E-03	5.02E-07	9.53E-05	0.086
NEFA 18:1	334	-2.38E-03	4.18E-04	2.58E-08	4.90E-06	0.089
NEFA 18:2	332	-6.31E-03	1.42E-03	1.15E-05	2.19E-03	0.056
NEFA 18:3	334	-1.60E-02	5.97E-03	7.74E-03	1.00E+00	0.021
NEFA 18:4	332	-7.20E-01	3.90E-01	6.57E-02	1.00E+00	0.010
NEFA 19:0	279	-1.25E+00	2.38E-01	3.24E-07	6.16E-05	0.090
NEFA 19:1	334	-3.93E-01	7.19E-02	9.40E-08	1.79E-05	0.082
NEFA 20:0	334	-7.05E-01	9.83E-02	5.03E-12	9.56E-10	0.133
NEFA 20:1	334	-1.38E-01	2.45E-02	3.59E-08	6.82E-06	0.087
NEFA 20:2	333	-1.67E-01	4.30E-02	1.21E-04	2.31E-02	0.044
NEFA 20:3	334	-1.64E-01	2.51E-02	2.43E-10	4.62E-08	0.113
NEFA 20:4	334	-4.62E-02	6.55E-03	9.95E-12	1.89E-09	0.130
NEFA 20:5	332	-4.26E-01	6.65E-02	5.16E-10	9.81E-08	0.110
NEFA 22:0	285	-9.60E-01	3.81E-01	1.23E-02	1.00E+00	0.022
NEFA 22:1	333	-1.60E+00	3.10E-01	4.10E-07	7.78E-05	0.074
NEFA 22:2	279	-4.88E+00	1.54E+00	1.75E-03	3.33E-01	0.035
NEFA 22:3	230	-3.35E+00	1.39E+00	1.65E-02	1.00E+00	0.025
NEFA 22:4	333	-4.40E-01	8.58E-02	5.02E-07	9.53E-05	0.073
NEFA 22:5	334	-2.36E-01	4.48E-02	2.46E-07	4.67E-05	0.077
NEFA 22:6	334	-1.11E-01	2.02E-02	8.66E-08	1.65E-05	0.082
NEFA 24:0	334	-6.48E-01	3.70E-01	8.11E-02	1.00E+00	0.009
NEFA 24:1	334	-1.71E+00	2.96E-01	1.80E-08	3.42E-06	0.091
NEFA 24:3	145	-1.39E+01	8.57E+00	1.07E-01	1.00E+00	0.018
NEFA 24:4	218	-4.84E+00	1.99E+00	1.57E-02	1.00E+00	0.026
NEFA 24:5	164	-4.73E+00	1.99E+00	1.88E-02	1.00E+00	0.033
NEFA 24:6	219	-2.32E+00	1.25E+00	6.45E-02	1.00E+00	0.015
NEFA 26:0	285	-3.14E+00	2.42E+00	1.96E-01	1.00E+00	0.006
NEFA 26:1	334	5.02E-01	5.52E-01	3.64E-01	1.00E+00	0.002
NEFA 26:2	285	8.55E-01	7.40E-01	2.49E-01	1.00E+00	0.005
NEFA 26:3	333	1.87E+00	1.24E+00	1.30E-01	1.00E+00	0.007
NEFA 26:4	164	-7.67E+00	7.22E+00	2.90E-01	1.00E+00	0.007
NEFA 26:5	180	-9.73E+00	7.30E+00	1.84E-01	1.00E+00	0.010
3-Methyl-2-oxovalerate	343	-4.66E-03	7.75E-03	5.48E-01	1.00E+00	0.001
4-Methyl-2-oxovalerate	343	-2.49E-03	4.54E-03	5.84E-01	1.00E+00	0.001
Acetoacetate	243	-7.13E-04	3.40E-04	3.72E-02	1.00E+00	0.018
Alpha-aminoadipate	158	3.08E-01	1.25E-01	1.49E-02	1.00E+00	0.038
Alpha-ketobutyrate	329	-2.03E-03	1.66E-03	2.22E-01	1.00E+00	0.005
Citrate	293	-2.26E-03	1.41E-03	1.12E-01	1.00E+00	0.009
Isocitrate	294	-8.68E-03	7.73E-03	2.62E-01	1.00E+00	0.004

Lactate	341	9.27E-05	5.43E-05	8.87E-02	1.00E+00	0.008
Malate	341	-4.79E-02	9.28E-03	4.11E-07	7.82E-05	0.073
Alpha-ketoglutarate	343	-4.56E-03	6.73E-03	4.98E-01	1.00E+00	0.001
Pyruvate	222	2.71E-03	5.77E-04	4.65E-06	8.84E-04	0.091
Succininate	343	-4.25E-02	8.25E-03	4.53E-07	8.61E-05	0.072
Taurine	294	-1.33E-03	1.43E-03	3.51E-01	1.00E+00	0.003
Sum AA	346	6.45E-04	1.43E-04	9.35E-06	1.78E-03	0.056
Sum Carn	345	6.67E-03	1.86E-03	3.85E-04	7.32E-02	0.036
Sum LPC	53	-2.16E-03	5.47E-04	2.53E-04	4.81E-02	0.240
Sum PCaa	48	2.62E-04	4.42E-04	5.57E-01	1.00E+00	0.008
Sum PCae	49	-4.38E-05	3.15E-03	9.89E-01	1.00E+00	0.000
Sum SM	54	-3.24E-03	2.75E-03	2.45E-01	1.00E+00	0.026
Sum NEFA	213	-8.19E-04	2.14E-04	1.68E-04	0.032	0.064

UBCS 8 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	379	1.33E-03	1.96E-04	5.55E-11	1.13E-08	0.107
Arg	378	2.52E-04	6.04E-04	6.76E-01	1.00E+00	0.000
Asn	343	1.68E-03	1.81E-03	3.53E-01	1.00E+00	0.002
Asp	344	6.94E-03	3.48E-03	4.68E-02	1.00E+00	0.011
Cit	380	-1.61E-03	1.82E-03	3.76E-01	1.00E+00	0.002
Gln	379	6.93E-05	1.71E-04	6.86E-01	1.00E+00	0.000
Glu	380	1.48E-03	8.76E-04	9.24E-02	1.00E+00	0.007
Gly	378	9.26E-04	3.27E-04	4.90E-03	9.94E-01	0.021
His	380	7.91E-04	8.29E-04	3.40E-01	1.00E+00	0.002
Ile	341	1.37E-03	1.49E-03	3.56E-01	1.00E+00	0.002
Leu	380	2.44E-04	7.78E-04	7.54E-01	1.00E+00	0.000
Lys	379	1.08E-03	5.14E-04	3.62E-02	1.00E+00	0.011
Met	380	8.19E-03	3.01E-03	6.89E-03	1.00E+00	0.019
Orn	379	2.28E-03	1.05E-03	3.05E-02	1.00E+00	0.012
Phe	380	2.12E-03	1.50E-03	1.60E-01	1.00E+00	0.005
Pro	376	9.80E-04	2.15E-04	7.32E-06	1.49E-03	0.051
Ser	379	-3.12E-04	4.72E-04	5.09E-01	1.00E+00	0.001
Thr	380	1.60E-03	5.97E-04	7.76E-03	1.00E+00	0.018
Trp	379	3.29E-03	1.25E-03	9.14E-03	1.00E+00	0.018
Tyr	379	6.50E-03	1.04E-03	1.10E-09	2.24E-07	0.093
Val	380	5.36E-04	3.71E-04	1.49E-01	1.00E+00	0.005
Hpro	378	2.03E-03	1.64E-03	2.15E-01	1.00E+00	0.004
H1	379	1.52E-04	2.96E-05	4.16E-07	8.43E-05	0.064
Carn	379	1.10E-02	2.32E-03	3.26E-06	6.62E-04	0.055
Carn C2	379	-3.60E-02	5.95E-03	3.29E-09	6.69E-07	0.087
Carn C3	380	2.48E-01	1.13E-01	2.83E-02	1.00E+00	0.012
Carn C4	380	1.58E-01	1.93E-01	4.12E-01	1.00E+00	0.002
Carn C5	374	-1.43E-01	3.10E-01	6.46E-01	1.00E+00	0.001
Carn C8:1	376	-2.01E-02	1.09E-01	8.54E-01	1.00E+00	0.000

Carn C10:1	378	-2.80E-01	1.08E-01	9.49E-03	1.00E+00	0.017
Carn C12:1	380	-5.15E-01	1.03E-01	9.28E-07	1.88E-04	0.060
Carn C14:1	379	-7.08E-01	1.44E-01	1.31E-06	2.67E-04	0.059
Carn C16	378	-2.12E+00	3.72E-01	2.39E-08	4.86E-06	0.078
Carn C18	376	-3.37E+00	7.86E-01	2.39E-05	4.86E-03	0.046
Carn C18:1	380	-1.57E+00	3.09E-01	5.80E-07	1.18E-04	0.063
LPC C14	380	1.30E-01	3.52E-02	2.69E-04	5.47E-02	0.034
LPC C15	380	3.10E-02	8.28E-02	7.08E-01	1.00E+00	0.000
LPC C15:1	380	3.71E-01	6.88E-01	5.90E-01	1.00E+00	0.001
LPC C16	380	4.53E-03	1.41E-03	1.40E-03	2.85E-01	0.026
LPC C16:1	379	7.76E-02	3.33E-02	2.04E-02	1.00E+00	0.014
LPC C17	380	-3.37E-02	6.28E-02	5.91E-01	1.00E+00	0.001
LPC C17:1	380	2.41E-02	2.19E-01	9.13E-01	1.00E+00	0.000
LPC C18	380	1.18E-02	3.58E-03	1.09E-03	2.21E-01	0.027
LPC C18:1	380	1.07E-02	4.70E-03	2.39E-02	1.00E+00	0.013
LPC C18:2	380	3.62E-03	2.24E-03	1.07E-01	1.00E+00	0.007
LPC C18:3	379	2.50E-01	8.66E-02	4.19E-03	8.50E-01	0.021
LPC C18:6	380	7.07E-01	2.37E-01	3.03E-03	6.16E-01	0.023
LPC C20	380	-1.38E-01	2.34E-01	5.56E-01	1.00E+00	0.001
LPC C20:1	380	4.75E-02	2.04E-01	8.16E-01	1.00E+00	0.000
LPC C20:2	380	1.58E-01	1.95E-01	4.17E-01	1.00E+00	0.002
LPC C20:3	379	4.10E-02	3.69E-02	2.67E-01	1.00E+00	0.003
LPC C20:4	379	1.54E-02	1.56E-02	3.26E-01	1.00E+00	0.003
LPC C20:5	378	7.61E-02	1.05E-01	4.70E-01	1.00E+00	0.001
LPC C22:4	380	-1.58E-01	1.38E-01	2.55E-01	1.00E+00	0.003
LPC C22:5	380	-6.58E-02	7.59E-02	3.86E-01	1.00E+00	0.002

LPC C22:6	379	-3.21E-02	4.48E-02	4.74E-01	1.00E+00	0.001
PCaa C18	380	-9.26E-02	3.69E-01	8.02E-01	1.00E+00	0.000
PCaa C18:1	380	-9.18E-01	4.39E-01	3.72E-02	1.00E+00	0.011
PCaa C30	380	3.34E-03	1.05E-02	7.51E-01	1.00E+00	0.000
PCaa C30:2	380	-6.93E-02	3.57E-02	5.30E-02	1.00E+00	0.010
PCaa C32	380	-3.65E-03	2.28E-03	1.10E-01	1.00E+00	0.007
PCaa C32:1	380	1.52E-03	2.56E-03	5.52E-01	1.00E+00	0.001
PCaa C32:2	380	1.41E-02	1.02E-02	1.70E-01	1.00E+00	0.005
PCaa C32:3	380	3.64E-02	9.69E-02	7.08E-01	1.00E+00	0.000
PCaa C34	378	-1.04E-02	6.79E-03	1.26E-01	1.00E+00	0.006
PCaa C34:1	379	-4.05E-04	3.28E-04	2.17E-01	1.00E+00	0.004
PCaa C34:2	379	-1.63E-04	1.83E-04	3.75E-01	1.00E+00	0.002
PCaa C34:3	380	3.39E-03	3.81E-03	3.75E-01	1.00E+00	0.002
PCaa C34:4	380	4.07E-02	2.19E-02	6.35E-02	1.00E+00	0.009
PCaa C34:5	380	2.08E-01	1.63E-01	2.03E-01	1.00E+00	0.004
PCaa C34:6	366	-2.24E-01	3.54E-01	5.27E-01	1.00E+00	0.001
PCaa C36	379	-2.90E-02	1.67E-02	8.35E-02	1.00E+00	0.008
PCaa C36:1	380	-2.13E-04	9.18E-04	8.17E-01	1.00E+00	0.000
PCaa C36:2	379	4.18E-04	3.70E-04	2.60E-01	1.00E+00	0.003
PCaa C36:3	380	-2.44E-04	7.59E-04	7.48E-01	1.00E+00	0.000
PCaa C36:4	380	-8.63E-04	5.02E-04	8.66E-02	1.00E+00	0.008
PCaa C36:5	380	1.80E-03	2.85E-03	5.29E-01	1.00E+00	0.001
PCaa C36:6	380	1.02E-01	6.49E-02	1.16E-01	1.00E+00	0.006
PCaa C38	380	-3.04E-02	2.41E-02	2.08E-01	1.00E+00	0.004
PCaa C38:1	376	-2.02E-02	2.20E-02	3.60E-01	1.00E+00	0.002
PCaa C38:2	380	3.07E-03	9.45E-03	7.45E-01	1.00E+00	0.000
PCaa C38:3	379	1.64E-03	1.92E-03	3.95E-01	1.00E+00	0.002
PCaa C38:4	380	-6.53E-04	6.16E-04	2.90E-01	1.00E+00	0.003
PCaa C38:5	380	-2.33E-03	1.26E-03	6.49E-02	1.00E+00	0.009
PCaa C38:6	380	-1.97E-03	1.04E-03	5.85E-02	1.00E+00	0.009
PCaa C40	379	-1.79E-01	1.17E-01	1.28E-01	1.00E+00	0.006
PCaa C40:1	374	-9.76E-02	2.20E-01	6.57E-01	1.00E+00	0.001
PCaa C40:2	376	-3.89E-02	1.97E-01	8.44E-01	1.00E+00	0.000
PCaa C40:3	374	-5.69E-02	1.15E-01	6.20E-01	1.00E+00	0.001
PCaa C40:4	380	-9.05E-03	1.28E-02	4.80E-01	1.00E+00	0.001
PCaa C40:5	379	-9.58E-03	5.78E-03	9.84E-02	1.00E+00	0.007
PCaa C40:6	380	7.09E-05	3.18E-03	9.82E-01	1.00E+00	0.000
PCaa C42	380	-1.22E-01	1.05E-01	2.46E-01	1.00E+00	0.003
PCaa C42:1	378	-2.93E-01	2.13E-01	1.69E-01	1.00E+00	0.005
PCaa C42:2	374	4.38E-01	3.44E-01	2.03E-01	1.00E+00	0.004
PCaa C42:4	378	-3.44E-01	2.32E-01	1.39E-01	1.00E+00	0.006
PCaa C42:5	377	-1.43E-01	1.45E-01	3.24E-01	1.00E+00	0.003
PCaa C42:6	380	-1.42E-01	1.23E-01	2.49E-01	1.00E+00	0.003

PCaa C43:6	380	-5.66E-02	4.75E-02	2.34E-01	1.00E+00	0.004
PCae C30	380	-1.36E-01	1.07E-01	2.05E-01	1.00E+00	0.004
PCae C32	377	-3.27E-02	1.69E-02	5.40E-02	1.00E+00	0.010
PCae C32:1	380	-5.93E-02	2.23E-02	8.24E-03	1.00E+00	0.018
PCae C32:2	380	-2.64E-01	1.24E-01	3.41E-02	1.00E+00	0.012
PCae C34	378	-5.15E-02	2.26E-02	2.29E-02	1.00E+00	0.013
PCae C34:1	380	-1.70E-02	6.83E-03	1.31E-02	1.00E+00	0.016
PCae C34:2	380	-3.70E-03	5.29E-03	4.85E-01	1.00E+00	0.001
PCae C34:3	380	-9.79E-03	5.98E-03	1.03E-01	1.00E+00	0.007
PCae C34:4	380	-1.87E-02	1.66E-01	9.11E-01	1.00E+00	0.000
PCae C36	379	-1.01E-01	5.63E-02	7.24E-02	1.00E+00	0.008
PCae C36:1	380	-3.90E-02	1.24E-02	1.82E-03	3.70E-01	0.025
PCae C36:2	380	-1.94E-02	6.19E-03	1.83E-03	3.71E-01	0.025
PCae C36:3	380	-3.62E-03	9.13E-03	6.92E-01	1.00E+00	0.000
PCae C36:4	379	-2.14E-03	3.44E-03	5.33E-01	1.00E+00	0.001
PCae C36:5	380	-6.80E-03	4.92E-03	1.68E-01	1.00E+00	0.005
PCae C36:6	375	4.06E-02	7.26E-02	5.76E-01	1.00E+00	0.001
PCae C38	379	-2.98E-02	3.16E-02	3.48E-01	1.00E+00	0.002
PCae C38:2	379	-6.84E-02	2.79E-02	1.49E-02	1.00E+00	0.015
PCae C38:3	380	-4.71E-02	1.56E-02	2.79E-03	5.65E-01	0.023
PCae C38:4	378	-1.14E-02	3.96E-03	4.36E-03	8.85E-01	0.021
PCae C38:5	379	-2.93E-03	3.16E-03	3.54E-01	1.00E+00	0.002
PCae C38:6	380	-6.66E-03	7.01E-03	3.42E-01	1.00E+00	0.002
PCae C40	380	-3.12E-02	1.26E-02	1.41E-02	1.00E+00	0.016
PCae C40:1	375	-3.12E-02	2.95E-02	2.90E-01	1.00E+00	0.003
PCae C40:2	380	-2.36E-01	7.80E-02	2.63E-03	5.33E-01	0.023
PCae C40:3	379	-1.87E-01	7.76E-02	1.62E-02	1.00E+00	0.015
PCae C40:4	380	-7.71E-02	2.49E-02	2.13E-03	4.31E-01	0.024
PCae C40:5	380	-6.60E-02	1.85E-02	4.05E-04	8.23E-02	0.032
PCae C40:6	380	-4.92E-02	1.67E-02	3.39E-03	6.89E-01	0.022
PCae C42	380	-3.77E-01	1.48E-01	1.13E-02	1.00E+00	0.017
PCae C42:1	378	-1.42E-01	8.28E-02	8.81E-02	1.00E+00	0.008
PCae C42:2	380	-2.30E-01	8.34E-02	6.02E-03	1.00E+00	0.019
PCae C42:3	379	-2.10E-01	8.05E-02	9.32E-03	1.00E+00	0.017
PCae C42:4	380	-1.26E-01	5.67E-02	2.69E-02	1.00E+00	0.013
PCae C42:5	380	-6.86E-02	3.26E-02	3.60E-02	1.00E+00	0.011
PCae C42:6	380	-1.18E-01	4.91E-02	1.68E-02	1.00E+00	0.015
SM C32:2	308	2.55E-01	1.14E-01	2.64E-02	1.00E+00	0.016

SM C35	379	-8.63E-02	4.80E-02	7.26E-02	1.00E+00	0.008
SM C35:1	380	-2.15E-02	1.26E-02	8.87E-02	1.00E+00	0.007
SM C36	379	-1.80E-02	1.67E-02	2.82E-01	1.00E+00	0.003
SM C36:1	380	-3.97E-03	2.04E-03	5.19E-02	1.00E+00	0.010
SM C36:2	380	-3.97E-03	3.87E-03	3.05E-01	1.00E+00	0.003
SM C37:1	379	-4.92E-02	2.29E-02	3.21E-02	1.00E+00	0.012
SM C38:1	380	-2.05E-03	1.56E-03	1.91E-01	1.00E+00	0.004
SM C38:2	380	-1.93E-03	2.33E-03	4.08E-01	1.00E+00	0.002
SM C38:3	380	-3.07E-02	5.88E-02	6.02E-01	1.00E+00	0.001
SM C39:1	380	-2.90E-02	1.12E-02	9.78E-03	1.00E+00	0.017
SM C39:2	378	-2.87E-02	3.48E-02	4.10E-01	1.00E+00	0.002
SM C39:5	380	-4.07E-02	6.06E-02	5.02E-01	1.00E+00	0.001
SM C40:1	377	-3.22E-03	1.65E-03	5.17E-02	1.00E+00	0.010
SM C40:2	380	-1.61E-03	2.36E-03	4.96E-01	1.00E+00	0.001
SM C40:3	377	-5.58E-03	4.94E-03	2.59E-01	1.00E+00	0.003
SM C40:4	380	-7.50E-03	6.22E-03	2.29E-01	1.00E+00	0.004
SM C41:1	380	-1.61E-02	5.69E-03	4.99E-03	1.00E+00	0.020
SM C41:2	380	-2.13E-02	8.77E-03	1.56E-02	1.00E+00	0.015
SM C41:3	373	-4.03E-03	3.93E-02	9.18E-01	1.00E+00	0.000
SM C42:1	379	-5.10E-03	2.92E-03	8.11E-02	1.00E+00	0.008
SM C42:2	380	-2.09E-03	1.43E-03	1.46E-01	1.00E+00	0.005
SM C42:3	380	-1.17E-03	3.42E-03	7.32E-01	1.00E+00	0.000
SM C42:4	379	-1.33E-02	8.74E-03	1.30E-01	1.00E+00	0.006
SM C42:6	380	-2.28E-02	1.81E-02	2.11E-01	1.00E+00	0.004
SM C43	378	-1.46E-01	8.38E-02	8.26E-02	1.00E+00	0.008
SM C43:1	380	-5.99E-02	3.53E-02	9.09E-02	1.00E+00	0.007
SM C43:2	380	-4.61E-02	2.28E-02	4.37E-02	1.00E+00	0.011
SM C43:3	378	-2.22E-01	9.52E-02	2.00E-02	1.00E+00	0.014
SM C44:2	376	-1.47E-01	1.22E-01	2.26E-01	1.00E+00	0.004
SM C44:6	378	-1.17E-02	3.86E-02	7.62E-01	1.00E+00	0.000
NEFA 10:0	307	-9.57E-02	1.81E-02	2.30E-07	4.67E-05	0.083
NEFA 12:0	377	-1.61E-02	3.73E-03	1.92E-05	3.89E-03	0.047
NEFA 12:1	374	-7.80E-02	1.73E-02	8.81E-06	1.79E-03	0.051
NEFA 14:0	379	-1.03E-02	2.16E-03	2.70E-06	5.49E-04	0.056
NEFA 14:1	378	-4.54E-02	1.36E-02	8.92E-04	1.81E-01	0.028
NEFA 15:0	374	-4.24E-02	1.06E-02	7.75E-05	1.57E-02	0.041
NEFA 15:1	317	-7.25E-01	1.50E-01	2.04E-06	4.15E-04	0.067

NEFA 16:0	380	-1.40E-03	2.84E-04	1.18E-06	2.40E-04	0.060
NEFA 16:1	379	-6.09E-03	1.15E-03	2.01E-07	4.07E-05	0.068
NEFA 16:2	376	-2.71E-01	1.14E-01	1.76E-02	1.00E+00	0.015
NEFA 17:0	377	-3.79E-02	1.13E-02	8.42E-04	1.71E-01	0.029
NEFA 17:1	377	-6.77E-02	1.66E-02	5.43E-05	1.10E-02	0.042
NEFA 18:0	376	-2.78E-03	7.64E-04	3.07E-04	6.24E-02	0.034
NEFA 18:1	380	-8.47E-04	1.90E-04	1.14E-05	2.30E-03	0.049
NEFA 18:2	379	-3.10E-03	7.34E-04	3.02E-05	6.13E-03	0.044
NEFA 18:3	379	-2.18E-02	5.79E-03	1.95E-04	3.97E-02	0.036
NEFA 19:1	380	-1.53E-01	3.64E-02	3.49E-05	7.09E-03	0.044
NEFA 20:0	340	-2.07E-01	6.31E-02	1.17E-03	2.37E-01	0.030
NEFA 20:2	331	-8.99E-02	2.96E-02	2.57E-03	5.21E-01	0.027
NEFA 20:3	266	-7.89E-02	3.77E-02	3.75E-02	1.00E+00	0.016
NEFA 20:4	380	-3.40E-02	1.29E-02	8.79E-03	1.00E+00	0.018
NEFA 20:5	365	-2.04E-01	8.47E-02	1.63E-02	1.00E+00	0.015
NEFA 22:4	380	-2.24E-01	6.78E-02	1.07E-03	2.17E-01	0.027
NEFA 22:5	380	-1.15E-01	3.47E-02	1.03E-03	2.08E-01	0.028
NEFA 22:6	380	-4.29E-02	1.96E-02	2.92E-02	1.00E+00	0.012
NEFA 24:0	377	-2.36E-01	2.15E-01	2.73E-01	1.00E+00	0.003
NEFA 24:2	336	-6.72E-01	9.09E-01	4.60E-01	1.00E+00	0.002
NEFA 24:4	374	-2.71E+00	1.08E+00	1.26E-02	1.00E+00	0.016
NEFA 24:5	379	-1.12E+00	1.03E+00	2.77E-01	1.00E+00	0.003
NEFA 26:1	380	4.58E-01	3.88E-01	2.39E-01	1.00E+00	0.004

Sum AA	314	1.79E-04	4.45E-05	7.39E-05	1.50E-02	0.048
Sum Carn	361	5.03E-03	2.25E-03	2.59E-02	1.00E+00	0.013
Sum LPC	376	1.53E-03	6.33E-04	1.64E-02	1.00E+00	0.015
Sum PCaa	377	-8.11E-05	6.17E-05	1.89E-01	1.00E+00	0.004
Sum PCae	377	-9.51E-04	5.33E-04	7.54E-02	1.00E+00	0.008
Sum SM	307	-1.79E-03	9.15E-04	5.11E-02	1.00E+00	0.012
Sum NEFA	255	-0.000363934	0.00010808	0.000878428	0.17832087	0.041288364

GINI/LISA 10 years

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	237	1.76E-03	5.66E-04	2.04E-03	4.97E-01	0.038
Arg	237	9.34E-04	2.73E-03	7.33E-01	1.00E+00	0.000
Asn	237	6.65E-04	4.86E-03	8.91E-01	1.00E+00	0.000
Asp	236	2.44E-03	5.22E-03	6.40E-01	1.00E+00	0.001
Cit	237	-2.10E-03	6.45E-03	7.45E-01	1.00E+00	0.000
Gln	209	3.70E-04	5.01E-04	4.61E-01	1.00E+00	0.002
Glu	237	7.71E-04	1.09E-03	4.81E-01	1.00E+00	0.002
Gly	237	6.70E-04	9.10E-04	4.62E-01	1.00E+00	0.002
His	237	-3.65E-04	2.65E-03	8.91E-01	1.00E+00	0.000
Ile	237	7.43E-03	4.08E-03	7.02E-02	1.00E+00	0.013
Leu	237	2.68E-03	2.21E-03	2.27E-01	1.00E+00	0.006
Lys	237	8.75E-04	1.51E-03	5.64E-01	1.00E+00	0.001
Met	237	9.75E-03	1.17E-02	4.05E-01	1.00E+00	0.003
Orn	237	9.05E-04	2.04E-03	6.58E-01	1.00E+00	0.001
Phe	237	6.66E-03	3.45E-03	5.45E-02	1.00E+00	0.015
Pro	237	3.20E-03	8.86E-04	3.76E-04	9.13E-02	0.050
Ser	237	-1.15E-04	1.88E-03	9.51E-01	1.00E+00	0.000
Thr	237	1.67E-03	1.88E-03	3.75E-01	1.00E+00	0.003
Trp	237	9.57E-03	4.64E-03	4.05E-02	1.00E+00	0.017
Tyr	237	1.13E-02	3.47E-03	1.29E-03	3.14E-01	0.041
Val	237	2.52E-03	1.14E-03	2.83E-02	1.00E+00	0.019
H1	239	6.62E-05	6.79E-05	3.31E-01	1.00E+00	0.004
Carn	181	1.98E-02	1.16E-02	9.01E-02	1.00E+00	0.014
Carn C2	183	-9.48E-02	3.39E-02	5.76E-03	1.00E+00	0.038
Carn C3	195	6.37E-01	7.66E-01	4.07E-01	1.00E+00	0.003
Carn C4	153	5.53E-01	8.26E-01	5.04E-01	1.00E+00	0.003
Carn C5	143	2.70E+00	2.16E+00	2.13E-01	1.00E+00	0.010
Carn C6	238	-4.55E+00	1.37E+00	1.05E-03	2.55E-01	0.042
Carn C8	239	-6.05E-01	1.84E-01	1.18E-03	2.87E-01	0.041
Carn C8:1	238	-7.29E-01	9.07E-01	4.22E-01	1.00E+00	0.003
Carn C9	220	8.07E-01	2.26E+00	7.21E-01	1.00E+00	0.001

Carn C10	238	-5.66E-01	1.43E-01	1.06E-04	2.59E-02	0.058
Carn C10:1	239	-9.28E-01	2.34E-01	9.94E-05	2.42E-02	0.059
Carn C10:2	146	-3.50E+00	1.22E+00	4.72E-03	1.00E+00	0.053
Carn C12	238	-1.36E+00	3.30E-01	5.54E-05	1.35E-02	0.063
Carn C12:1	211	-6.33E-01	1.56E-01	6.79E-05	1.65E-02	0.068
Carn C14	153	-9.72E+00	2.95E+00	1.22E-03	2.97E-01	0.062
Carn C14:1	238	-2.73E+00	4.91E-01	7.38E-08	1.79E-05	0.107
Carn C14:2	155	-6.42E+00	2.00E+00	1.66E-03	4.04E-01	0.060
Carn C16	217	-7.06E+00	2.33E+00	2.78E-03	6.76E-01	0.039
Carn C16:1	188	-9.86E+00	3.18E+00	2.20E-03	5.34E-01	0.047
Carn C18	180	-5.70E+00	2.72E+00	3.76E-02	1.00E+00	0.022
Carn C18:1	239	-3.95E+00	1.37E+00	4.44E-03	1.00E+00	0.032
Carn C18:2	169	-6.14E+00	2.89E+00	3.52E-02	1.00E+00	0.025
LPC C14	239	1.53E-01	6.42E-02	1.78E-02	1.00E+00	0.022
LPC C15	222	1.06E-01	1.68E-01	5.27E-01	1.00E+00	0.002
LPC C16	239	2.03E-03	2.49E-03	4.17E-01	1.00E+00	0.003
LPC C16:1	239	1.43E-01	7.33E-02	5.27E-02	1.00E+00	0.015
LPC C17	239	1.78E-03	1.09E-01	9.87E-01	1.00E+00	0.000
LPC C17:1	222	2.25E-01	4.99E-01	6.52E-01	1.00E+00	0.001
LPC C18	239	6.82E-03	7.08E-03	3.37E-01	1.00E+00	0.004
LPC C18:1	239	-3.42E-04	1.37E-02	9.80E-01	1.00E+00	0.000
LPC C18:2	239	-3.46E-03	6.99E-03	6.21E-01	1.00E+00	0.001
LPC C18:3	222	2.69E-01	2.40E-01	2.63E-01	1.00E+00	0.005
LPC C18:6	144	-1.16E-01	6.70E-01	8.62E-01	1.00E+00	0.000
LPC C20:2	128	1.80E-01	5.15E-01	7.28E-01	1.00E+00	0.001
LPC C20:3	239	1.50E-01	9.40E-02	1.11E-01	1.00E+00	0.010
LPC C20:4	239	2.26E-03	3.30E-02	9.45E-01	1.00E+00	0.000
LPC C20:5	237	3.40E-01	2.90E-01	2.41E-01	1.00E+00	0.006
LPC C22:5	177	-1.54E-01	4.15E-01	7.10E-01	1.00E+00	0.001

LPC C22:6	222	-6.32E-02	1.04E-01	5.45E-01	1.00E+00	0.002
PCaa C30	239	5.08E-02	4.58E-02	2.68E-01	1.00E+00	0.005
PCaa C30:2	166	-4.97E-01	3.13E-01	1.14E-01	1.00E+00	0.014
PCaa C30:3	164	-8.41E-01	8.76E-01	3.38E-01	1.00E+00	0.005
PCaa C30:4	118	-1.91E+00	1.45E+00	1.91E-01	1.00E+00	0.014
PCaa C32	239	-1.90E-02	2.06E-02	3.57E-01	1.00E+00	0.003
PCaa C32:1	239	3.09E-02	1.05E-02	3.62E-03	8.79E-01	0.033
PCaa C32:2	239	6.48E-02	4.84E-02	1.81E-01	1.00E+00	0.007
PCaa C32:3	187	-9.38E-02	3.47E-01	7.87E-01	1.00E+00	0.000
PCaa C34:1	239	-2.53E-04	1.35E-03	8.51E-01	1.00E+00	0.000
PCaa C34:2	239	-5.29E-04	7.86E-04	5.01E-01	1.00E+00	0.002
PCaa C34:3	239	2.22E-02	1.29E-02	8.60E-02	1.00E+00	0.012
PCaa C34:4	239	1.63E-01	8.65E-02	6.13E-02	1.00E+00	0.014
PCaa C34:5	158	5.21E-01	8.19E-01	5.26E-01	1.00E+00	0.002
PCaa C36	186	-4.11E-02	3.48E-02	2.39E-01	1.00E+00	0.007
PCaa C36:1	239	1.29E-02	4.89E-03	8.71E-03	1.00E+00	0.027
PCaa C36:2	239	7.34E-04	1.07E-03	4.92E-01	1.00E+00	0.002
PCaa C36:3	239	2.61E-03	2.16E-03	2.26E-01	1.00E+00	0.006
PCaa C36:4	239	5.34E-04	1.69E-03	7.53E-01	1.00E+00	0.000
PCaa C36:5	238	1.38E-02	1.15E-02	2.32E-01	1.00E+00	0.006
PCaa C36:6	218	8.54E-02	1.39E-01	5.41E-01	1.00E+00	0.002
PCaa C38	239	-8.64E-02	5.54E-02	1.20E-01	1.00E+00	0.010
PCaa C38:2	110	8.91E-03	5.21E-02	8.65E-01	1.00E+00	0.000
PCaa C38:3	239	1.51E-02	4.66E-03	1.39E-03	3.37E-01	0.040
PCaa C38:4	239	1.52E-03	2.21E-03	4.93E-01	1.00E+00	0.002
PCaa C38:5	239	7.37E-04	4.84E-03	8.79E-01	1.00E+00	0.000
PCaa C38:6	239	-2.05E-03	3.05E-03	5.01E-01	1.00E+00	0.002
PCaa C40	174	-1.22E-01	1.61E-01	4.49E-01	1.00E+00	0.003
PCaa C40:1	188	-1.22E-01	1.22E-01	3.21E-01	1.00E+00	0.005
PCaa C40:3	131	-1.24E-01	1.12E-01	2.73E-01	1.00E+00	0.009
PCaa C40:4	239	6.93E-02	4.52E-02	1.27E-01	1.00E+00	0.009
PCaa C40:5	239	2.27E-02	1.79E-02	2.06E-01	1.00E+00	0.006
PCaa C40:6	239	8.17E-03	7.52E-03	2.78E-01	1.00E+00	0.005
PCaa C42	226	-4.59E-01	2.16E-01	3.49E-02	1.00E+00	0.019
PCaa C42:1	116	-3.32E-01	4.16E-01	4.26E-01	1.00E+00	0.005
PCaa C42:4	114	1.77E-01	3.35E-01	5.98E-01	1.00E+00	0.002
PCaa C42:5	150	-1.42E-01	3.45E-01	6.82E-01	1.00E+00	0.001
PCaa C42:6	127	6.72E-05	2.53E-01	1.00E+00	1.00E+00	0.000

PCaa C43:6	238	-4.75E-01	1.72E-01	6.29E-03	1.00E+00	0.030
PCaa C44:12	211	-5.42E-01	2.25E-01	1.70E-02	1.00E+00	0.026
PCae C32	239	-1.33E-01	7.48E-02	7.65E-02	1.00E+00	0.013
PCae C32:1	239	-1.55E-01	6.99E-02	2.78E-02	1.00E+00	0.019
PCae C32:2	204	-5.51E-01	1.83E-01	2.97E-03	7.22E-01	0.041
PCae C34	219	-8.13E-02	1.38E-01	5.57E-01	1.00E+00	0.002
PCae C34:1	239	-2.87E-02	2.77E-02	3.00E-01	1.00E+00	0.004
PCae C34:2	239	-2.62E-02	2.09E-02	2.10E-01	1.00E+00	0.006
PCae C34:3	239	-6.63E-02	2.29E-02	4.12E-03	1.00E+00	0.033
PCae C34:4	137	-4.16E-01	6.58E-01	5.28E-01	1.00E+00	0.003
PCae C36	174	-2.70E-01	2.60E-01	3.02E-01	1.00E+00	0.006
PCae C36:1	239	-1.91E-02	1.88E-02	3.12E-01	1.00E+00	0.004
PCae C36:2	239	-9.62E-03	1.66E-02	5.62E-01	1.00E+00	0.001
PCae C36:3	239	-3.01E-02	2.85E-02	2.92E-01	1.00E+00	0.004
PCae C36:4	239	-1.39E-02	1.20E-02	2.48E-01	1.00E+00	0.005
PCae C36:5	239	-2.90E-02	1.74E-02	9.62E-02	1.00E+00	0.011
PCae C36:6	121	-3.56E-01	4.60E-01	4.40E-01	1.00E+00	0.005
PCae C38	238	-1.27E-02	6.37E-02	8.42E-01	1.00E+00	0.000
PCae C38:2	239	-1.26E-02	3.07E-02	6.82E-01	1.00E+00	0.001
PCae C38:3	239	-8.61E-03	2.10E-02	6.82E-01	1.00E+00	0.001
PCae C38:4	239	-2.60E-02	1.64E-02	1.15E-01	1.00E+00	0.010
PCae C38:5	239	-1.85E-02	1.38E-02	1.82E-01	1.00E+00	0.007
PCae C38:6	239	-3.60E-02	2.70E-02	1.85E-01	1.00E+00	0.007
PCae C40	211	-1.75E-03	2.09E-02	9.34E-01	1.00E+00	0.000
PCae C40:1	222	-2.94E-02	7.44E-02	6.94E-01	1.00E+00	0.001
PCae C40:2	162	-4.22E-02	7.38E-02	5.68E-01	1.00E+00	0.002
PCae C40:3	179	2.97E-04	3.75E-02	9.94E-01	1.00E+00	0.000
PCae C40:4	211	-6.99E-02	5.56E-02	2.10E-01	1.00E+00	0.007
PCae C40:5	239	-7.53E-02	3.89E-02	5.44E-02	1.00E+00	0.015
PCae C40:6	239	-7.01E-02	4.70E-02	1.37E-01	1.00E+00	0.009
PCae C42	187	-8.64E-02	1.94E-01	6.56E-01	1.00E+00	0.001
PCae C42:1	162	-7.91E-03	1.21E-01	9.48E-01	1.00E+00	0.000
PCae C42:2	194	-2.53E-01	1.73E-01	1.47E-01	1.00E+00	0.010
PCae C42:3	200	-1.16E-01	1.06E-01	2.78E-01	1.00E+00	0.006
PCae C42:4	180	-2.86E-01	2.02E-01	1.59E-01	1.00E+00	0.010
PCae C42:5	221	-1.77E-01	7.58E-02	2.04E-02	1.00E+00	0.023
PCae C42:6	239	-3.00E-01	1.33E-01	2.49E-02	1.00E+00	0.020
SM C30:1	199	4.87E-01	3.75E-01	1.96E-01	1.00E+00	0.008
SM C31:1	116	-3.36E-01	9.08E-01	7.12E-01	1.00E+00	0.001
SM C32:1	239	-6.40E-03	2.67E-02	8.11E-01	1.00E+00	0.000
SM C32:2	239	5.78E-01	2.52E-01	2.29E-02	1.00E+00	0.021
SM C33:1	239	-3.94E-02	4.24E-02	3.53E-01	1.00E+00	0.003
SM C33:2	175	1.43E-01	1.06E+00	8.93E-01	1.00E+00	0.000
SM C33:3	172	-3.20E+00	1.76E+00	7.12E-02	1.00E+00	0.018
SM C34:1	239	-8.06E-03	2.75E-03	3.77E-03	9.16E-01	0.033

SM C34:2	239	-1.69E-02	1.88E-02	3.67E-01	1.00E+00	0.003
SM C35	159	-4.29E-01	3.96E-01	2.80E-01	1.00E+00	0.007
SM C35:1	239	-6.64E-02	8.47E-02	4.34E-01	1.00E+00	0.002
SM C35:2	193	-6.93E-01	5.03E-01	1.70E-01	1.00E+00	0.009
SM C36:1	239	-1.94E-02	1.31E-02	1.39E-01	1.00E+00	0.009
SM C36:2	239	-1.89E-02	2.39E-02	4.30E-01	1.00E+00	0.002
SM C36:3	239	-2.83E-01	2.87E-01	3.26E-01	1.00E+00	0.004
SM C37:1	117	-3.02E-01	1.42E-01	3.52E-02	1.00E+00	0.032
SM C37:3	163	-1.25E+00	5.26E-01	1.84E-02	1.00E+00	0.031
SM C38:1	184	1.12E-02	7.31E-03	1.27E-01	1.00E+00	0.012
SM C38:2	239	-1.25E-02	1.49E-02	4.03E-01	1.00E+00	0.003
SM C38:3	142	7.65E-03	4.94E-01	9.88E-01	1.00E+00	0.000
SM C39:1	239	9.06E-04	3.64E-02	9.80E-01	1.00E+00	0.000
SM C39:2	142	-3.31E-02	1.45E-01	8.20E-01	1.00E+00	0.000
SM C39:5	113	-4.78E-01	4.52E-01	2.92E-01	1.00E+00	0.009
SM C40:2	239	4.77E-03	8.23E-03	5.63E-01	1.00E+00	0.001
SM C40:4	227	-4.17E-02	1.15E-01	7.16E-01	1.00E+00	0.001
SM C40:5	205	2.03E-01	2.46E-01	4.11E-01	1.00E+00	0.003
SM C41:1	239	-3.67E-02	2.01E-02	6.84E-02	1.00E+00	0.013
SM C41:2	239	-3.23E-02	2.84E-02	2.58E-01	1.00E+00	0.005
SM C42:1	239	-2.64E-02	1.20E-02	2.92E-02	1.00E+00	0.019
SM C42:2	239	-1.62E-02	6.80E-03	1.77E-02	1.00E+00	0.022
SM C42:3	222	-1.47E-02	1.07E-02	1.68E-01	1.00E+00	0.008
SM C42:4	203	1.31E-02	2.98E-02	6.61E-01	1.00E+00	0.001
SM C42:6	227	-8.44E-02	7.36E-02	2.53E-01	1.00E+00	0.005
SM C43	136	1.13E-01	4.16E-01	7.85E-01	1.00E+00	0.001
SM C43:1	237	-3.86E-01	1.59E-01	1.60E-02	1.00E+00	0.023
SM C43:2	239	-6.59E-02	9.66E-02	4.96E-01	1.00E+00	0.002
SM C44:6	198	-3.38E-02	1.40E-01	8.10E-01	1.00E+00	0.000
NEFA 10:0	227	-1.15E-01	6.22E-02	6.47E-02	1.00E+00	0.014
NEFA 12:0	199	-3.05E-02	1.05E-02	3.99E-03	9.70E-01	0.038
NEFA 12:1	141	-1.64E-01	8.08E-02	4.45E-02	1.00E+00	0.027
NEFA 13:0	96	-3.09E-01	2.11E-01	1.46E-01	1.00E+00	0.019
NEFA 13:1	186	-1.13E+00	8.87E-01	2.06E-01	1.00E+00	0.008
NEFA 14:0	238	-2.41E-02	8.68E-03	5.86E-03	1.00E+00	0.030
NEFA 14:1	238	-1.10E-01	5.30E-02	3.88E-02	1.00E+00	0.017
NEFA 14:2	110	-1.84E-02	1.40E-02	1.93E-01	1.00E+00	0.014

NEFA 16:0	239	-4.25E-03	1.39E-03	2.50E-03	6.08E-01	0.035
NEFA 16:1	211	-1.42E-02	4.13E-03	6.99E-04	1.70E-01	0.049
NEFA 16:2	216	-2.65E-01	2.30E-01	2.50E-01	1.00E+00	0.006
NEFA 17:0	222	-1.22E-01	4.70E-02	1.02E-02	1.00E+00	0.028
NEFA 17:1	211	-2.35E-01	6.80E-02	6.67E-04	1.62E-01	0.050
NEFA 17:2	141	-5.47E+00	1.57E+00	6.56E-04	1.59E-01	0.072
NEFA 18:0	152	-6.00E-03	3.76E-03	1.13E-01	1.00E+00	0.016
NEFA 18:1	239	-3.42E-03	9.86E-04	6.21E-04	1.51E-01	0.045
NEFA 18:2	239	-9.04E-03	2.82E-03	1.53E-03	3.71E-01	0.039
NEFA 18:3	239	-2.03E-02	8.71E-03	2.06E-02	1.00E+00	0.021
NEFA 18:4	223	-5.20E-01	5.36E-01	3.33E-01	1.00E+00	0.004
NEFA 19:0	223	-1.08E+00	3.81E-01	4.95E-03	1.00E+00	0.032
NEFA 19:1	226	-2.58E-01	1.22E-01	3.58E-02	1.00E+00	0.018
NEFA 20:0	128	-6.11E-01	2.92E-01	3.86E-02	1.00E+00	0.032
NEFA 20:1	239	-1.80E-01	4.67E-02	1.46E-04	3.54E-02	0.055
NEFA 20:2	190	-1.71E-01	7.74E-02	2.81E-02	1.00E+00	0.024
NEFA 20:3	217	-6.86E-02	6.36E-02	2.82E-01	1.00E+00	0.005
NEFA 20:4	211	-8.69E-02	3.10E-02	5.53E-03	1.00E+00	0.034
NEFA 20:5	175	-1.13E-01	1.16E-01	3.31E-01	1.00E+00	0.005
NEFA 22:0	86	3.55E-01	5.55E-01	5.23E-01	1.00E+00	0.005
NEFA 22:1	236	-6.74E-01	3.19E-01	3.56E-02	1.00E+00	0.018
NEFA 22:2	131	-5.52E+00	2.23E+00	1.44E-02	1.00E+00	0.040
NEFA 22:3	211	-3.47E+00	1.45E+00	1.80E-02	1.00E+00	0.025
NEFA 22:4	211	-3.48E-01	1.65E-01	3.60E-02	1.00E+00	0.019
NEFA 22:5	239	-2.02E-01	8.75E-02	2.20E-02	1.00E+00	0.021
NEFA 22:6	239	-6.92E-02	3.73E-02	6.50E-02	1.00E+00	0.013
NEFA 24:0	195	-1.23E+00	6.61E-01	6.37E-02	1.00E+00	0.016
NEFA 24:1	205	-1.31E+00	5.03E-01	9.72E-03	1.00E+00	0.030
NEFA 24:2	153	-1.24E+01	4.10E+00	2.84E-03	6.91E-01	0.054
NEFA 24:3	144	-2.81E+01	1.27E+01	2.85E-02	1.00E+00	0.030
NEFA 24:4	211	-8.85E+00	3.18E+00	5.93E-03	1.00E+00	0.033
NEFA 24:5	223	-3.49E+00	2.11E+00	1.01E-01	1.00E+00	0.011
NEFA 24:6	182	-3.97E+00	3.37E+00	2.40E-01	1.00E+00	0.007
NEFA 26:0	153	2.37E+00	2.70E+00	3.81E-01	1.00E+00	0.005
NEFA 26:1	194	-7.82E+00	2.46E+00	1.69E-03	4.11E-01	0.046
NEFA 26:2	186	-6.01E+00	3.48E+00	8.58E-02	1.00E+00	0.015
NEFA 26:3	158	-5.89E+00	3.83E+00	1.26E-01	1.00E+00	0.014
NEFA 26:4	194	-1.54E+01	1.27E+01	2.27E-01	1.00E+00	0.007
NEFA 26:5	183	-2.93E+01	1.81E+01	1.07E-01	1.00E+00	0.013
NEFA 26:6	127	-1.66E+01	8.17E+00	4.41E-02	1.00E+00	0.028
Pyruvate	239	2.09E-03	1.01E-03	3.96E-02	1.00E+00	0.017
Lactate	239	6.30E-05	5.43E-05	2.47E-01	1.00E+00	0.005
Acetoacetate	236	-1.69E-02	5.33E-03	1.76E-03	4.27E-01	0.039
Alpha-ketobutyrate	222	-2.48E-02	1.76E-02	1.60E-01	1.00E+00	0.008
Fumarate	239	-1.70E-01	1.93E-01	3.79E-01	1.00E+00	0.003
3-Methyl-2-oxobutanoate	239	-4.05E-03	1.98E-02	8.38E-01	1.00E+00	0.000
Succininate	239	-2.44E-02	2.74E-02	3.74E-01	1.00E+00	0.003

Methylmalonate	239	-1.96E-01	3.00E-01	5.14E-01	1.00E+00	0.002
Taurine	239	2.21E-03	2.44E-03	3.64E-01	1.00E+00	0.003
3-Methyl-2-oxovalerate	239	-6.99E-03	1.83E-02	7.03E-01	1.00E+00	0.001
4-Methyl-2-oxovalerate	239	-1.02E-02	1.09E-02	3.52E-01	1.00E+00	0.003
Malate	239	-9.49E-02	1.10E-01	3.89E-01	1.00E+00	0.003
Alpha-ketoglutarate	239	1.18E-01	4.45E-02	8.37E-03	1.00E+00	0.028
Alpha-aminoadipate	239	1.49E+00	5.69E-01	9.42E-03	1.00E+00	0.027
Isocitrate	226	-7.73E-01	3.29E-01	1.97E-02	1.00E+00	0.023
Citrate	239	-1.25E-02	7.32E-03	8.96E-02	1.00E+00	0.011
Sum AA	208	2.68E-04	1.20E-04	2.71E-02	1.00E+00	0.022
Sum Carn	127	3.58E-03	1.12E-02	7.49E-01	1.00E+00	0.001
Sum LPC	220	8.26E-04	1.40E-03	5.54E-01	1.00E+00	0.002
Sum PCaa	238	9.26E-05	2.06E-04	6.54E-01	1.00E+00	0.001
Sum PCae	210	-2.19E-03	1.83E-03	2.31E-01	1.00E+00	0.007
Sum SM	239	-5.04E-03	2.49E-03	4.43E-02	1.00E+00	0.016
Sum NEFA	77	-2.18E-03	7.82E-04	6.74E-03	1.000	0.088

Meta-analyses

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared	Q	Qp
Ala	967	2.20E-03	2.51E-04	8.49E-18	9.77E-16	0.042	24	<0.0001
Arg	966	2.73E-03	9.64E-04	4.73E-03	5.44E-01	0.005	19	<0.0001
Asn	931	6.34E-03	2.16E-03	3.40E-03	3.90E-01	0.005	11.9	0.003
Asp	931	-9.52E-04	3.20E-03	7.67E-01	1.00E+00	0.000	36.7	<0.0001
Cit	968	-1.50E-04	2.58E-03	9.54E-01	1.00E+00	0.000	3.15	0.21
Gln	938	7.22E-04	1.72E-04	3.01E-05	3.46E-03	0.010	12.8	0.002
Glu	968	-1.56E-03	3.46E-04	6.88E-06	7.91E-04	0.012	21.1	<0.0001
Gly	966	1.06E-03	4.12E-04	1.01E-02	1.00E+00	0.004	0.706	0.7
His	968	6.30E-04	9.89E-04	5.25E-01	1.00E+00	0.000	0.18	0.91
Ile	929	3.28E-03	1.87E-03	8.01E-02	1.00E+00	0.002	2.8	0.25
Leu	968	1.33E-03	1.00E-03	1.87E-01	1.00E+00	0.001	1.13	0.57
Lys	967	1.69E-03	7.24E-04	1.98E-02	1.00E+00	0.003	4.13	0.13
Met	968	1.35E-02	4.39E-03	2.17E-03	2.49E-01	0.006	2.95	0.23
Orn	967	1.39E-03	1.09E-03	2.02E-01	1.00E+00	0.001	0.405	0.82
Phe	967	4.99E-03	1.75E-03	4.38E-03	5.04E-01	0.005	1.47	0.48
Pro	964	1.67E-03	3.48E-04	2.00E-06	2.31E-04	0.014	6.1	0.047
Ser	966	-3.35E-04	6.79E-04	6.22E-01	1.00E+00	0.000	0.951	0.62
Thr	968	3.42E-03	7.89E-04	1.63E-05	1.88E-03	0.011	10.1	0.006
Trp	967	6.76E-03	1.83E-03	2.25E-04	2.59E-02	0.008	3.69	0.16
Tyr	966	1.16E-02	1.44E-03	1.64E-15	1.88E-13	0.036	18.1	<0.0001
Val	968	1.59E-03	4.92E-04	1.28E-03	1.48E-01	0.006	3.42	0.18
H1	968	1.66E-04	3.18E-05	2.16E-07	2.48E-05	0.016	8.54	0.014
Carn	911	9.07E-03	1.62E-03	2.91E-08	3.34E-06	0.021	1.65	0.44
Carn C2	913	-5.41E-02	8.71E-03	8.01E-10	9.21E-08	0.023	5.81	0.055
Carn C3	923	-9.49E-03	1.03E-01	9.27E-01	1.00E+00	0.000	4.74	0.09
Carn C5	868	-4.70E-01	3.60E-01	1.92E-01	1.00E+00	0.001	3.87	0.14
Carn C8:1	965	-3.65E-02	2.02E-01	8.57E-01	1.00E+00	0.000	2.55	0.28

Carn C10:1	967	-5.09E-01	1.13E-01	7.77E-06	8.94E-04	0.012	10	0.007
Carn C12:1	942	-5.66E-01	7.81E-02	9.07E-13	1.04E-10	0.030	0.529	0.77
Carn C14:1	967	-1.28E+00	1.60E-01	3.07E-15	3.53E-13	0.036	16.2	<0.0001
Carn C16	946	-4.17E+00	6.64E-01	5.18E-10	5.96E-08	0.024	19.1	<0.0001
Carn C18	907	-4.67E+00	1.17E+00	7.60E-05	8.74E-03	0.010	5.23	0.07
Carn C18:1	970	-3.18E+00	4.89E-01	1.29E-10	1.48E-08	0.027	21.4	<0.0001
LPC C16	970	-3.07E-03	7.20E-04	2.28E-05	2.62E-03	0.011	34.8	<0.0001
LPC C16:1	969	-2.67E-02	2.45E-02	2.76E-01	1.00E+00	0.001	19.6	<0.0001
LPC C17	907	-1.80E-01	3.71E-02	1.54E-06	1.77E-04	0.015	9.94	0.007
LPC C18	970	-7.37E-03	1.99E-03	2.22E-04	2.56E-02	0.008	32.5	<0.0001
LPC C18:1	970	-1.58E-02	4.20E-03	1.83E-04	2.10E-02	0.008	26.3	<0.0001
LPC C18:2	970	3.22E-03	2.23E-03	1.49E-01	1.00E+00	0.001	2.14	0.34
LPC C18:3	821	1.75E-01	9.79E-02	7.38E-02	1.00E+00	0.002	0.442	0.8
LPC C20:3	902	3.85E-02	3.24E-02	2.36E-01	1.00E+00	0.001	1.91	0.38
LPC C20:4	969	-3.12E-03	1.18E-02	7.92E-01	1.00E+00	0.000	0.775	0.68
LPC C20:5	782	6.37E-02	1.10E-01	5.61E-01	1.00E+00	0.000	2.2	0.33

LPC C22:6	853	-1.53E-01	4.23E-02	3.01E-04	3.46E-02	0.009	8.36	0.015
PCaa C32	970	-5.95E-03	4.21E-03	1.57E-01	1.00E+00	0.001	0.631	0.73
PCaa C32:1	907	1.31E-02	3.64E-03	3.60E-04	4.14E-02	0.008	10.1	0.006
PCaa C34:1	969	-5.68E-04	4.29E-04	1.86E-01	1.00E+00	0.001	0.318	0.85
PCaa C34:2	903	1.81E-04	2.61E-04	4.88E-01	1.00E+00	0.000	9.96	0.007
PCaa C34:3	970	1.22E-02	4.57E-03	7.46E-03	8.57E-01	0.004	3.94	0.14
PCaa C34:4	921	1.35E-01	3.08E-02	1.36E-05	1.57E-03	0.012	13.6	0.001
PCaa C36:2	969	1.18E-03	3.49E-04	7.36E-04	8.46E-02	0.007	5.78	0.06
PCaa C36:3	970	1.44E-03	8.54E-04	9.22E-02	1.00E+00	0.002	3.64	0.16
PCaa C36:4	904	6.38E-04	6.37E-04	3.17E-01	1.00E+00	0.001	6.71	0.035
PCaa C36:5	900	5.70E-03	3.91E-03	1.45E-01	1.00E+00	0.001	1.13	0.57
PCaa C38	784	-6.62E-02	2.17E-02	2.33E-03	2.68E-01	0.007	0.928	0.63
PCaa C38:3	781	7.52E-03	2.25E-03	8.86E-04	1.02E-01	0.008	7.29	0.026
PCaa C38:4	803	7.11E-04	8.66E-04	4.12E-01	1.00E+00	0.000	3.18	0.2
PCaa C38:5	858	-2.89E-03	1.91E-03	1.29E-01	1.00E+00	0.002	2.3	0.32
PCaa C38:6	970	-1.77E-03	1.14E-03	1.19E-01	1.00E+00	0.001	0.0267	0.99
PCaa C40:4	774	2.16E-02	1.83E-02	2.40E-01	1.00E+00	0.001	2.95	0.23
PCaa C40:5	790	5.21E-03	7.61E-03	4.94E-01	1.00E+00	0.000	3.16	0.21
PCaa C40:6	969	3.36E-03	2.97E-03	2.57E-01	1.00E+00	0.001	0.984	0.61

PCae C34:1	970	-1.58E-02	8.28E-03	5.64E-02	1.00E+00	0.002	0.519	0.77
PCae C34:2	903	4.01E-03	6.31E-03	5.25E-01	1.00E+00	0.000	10.6	0.005
PCae C34:3	970	-2.12E-02	7.21E-03	3.41E-03	3.92E-01	0.005	6.26	0.044
PCae C36:1	855	-2.44E-02	6.11E-03	6.92E-05	7.95E-03	0.011	1.71	0.42
PCae C36:2	773	-1.03E-02	7.11E-03	1.50E-01	1.00E+00	0.002	2.78	0.25
PCae C36:3	970	-1.45E-03	8.76E-03	8.69E-01	1.00E+00	0.000	2.69	0.26
PCae C36:4	902	7.95E-04	3.91E-03	8.39E-01	1.00E+00	0.000	6.08	0.048
PCae C36:5	970	-5.38E-03	5.98E-03	3.68E-01	1.00E+00	0.000	5.39	0.07
PCae C38	800	-6.16E-02	2.87E-02	3.23E-02	1.00E+00	0.003	1.24	0.54
PCae C38:3	802	-2.57E-02	7.80E-03	1.01E-03	1.16E-01	0.008	2.49	0.29
PCae C38:4	790	-1.66E-02	6.32E-03	8.66E-03	9.96E-01	0.006	0.753	0.69
PCae C38:5	906	6.01E-04	4.19E-03	8.86E-01	1.00E+00	0.000	6.27	0.044
PCae C38:6	858	-1.16E-02	9.76E-03	2.34E-01	1.00E+00	0.001	2.02	0.36
PCae C40	756	-2.09E-02	1.01E-02	3.97E-02	1.00E+00	0.004	1.79	0.41
PCae C40:4	763	-8.21E-02	2.12E-02	1.18E-04	1.35E-02	0.011	0.0918	0.96
PCae C40:6	791	-5.08E-02	2.00E-02	1.13E-02	1.00E+00	0.005	1	0.61
SM C32:2	719	2.93E-01	1.19E-01	1.37E-02	1.00E+00	0.005	3.73	0.15

SM C35:1	921	-5.78E-02	2.12E-02	6.53E-03	7.51E-01	0.005	6.46	0.04
SM C36:1	970	-1.07E-02	3.27E-03	1.11E-03	1.28E-01	0.006	6.59	0.037
SM C36:2	840	-8.84E-03	6.71E-03	1.88E-01	1.00E+00	0.001	0.755	0.69
SM C41:1	858	-2.76E-02	7.42E-03	2.16E-04	2.48E-02	0.009	1.41	0.49
SM C41:2	857	-2.62E-02	1.04E-02	1.18E-02	1.00E+00	0.004	0.141	0.93
SM C42:1	805	-1.19E-02	4.23E-03	5.18E-03	5.96E-01	0.005	3.01	0.22
SM C42:2	792	-6.71E-03	2.20E-03	2.36E-03	2.72E-01	0.007	4.96	0.08
NEFA 12:0	911	-2.31E-02	5.09E-03	6.67E-06	7.67E-04	0.013	2.61	0.27
NEFA 14:0	953	-1.90E-02	2.78E-03	1.35E-11	1.55E-09	0.027	11.8	0.003
NEFA 14:1	951	-8.11E-02	1.63E-02	7.39E-07	8.50E-05	0.015	4.91	0.09

NEFA 16:0	955	-2.80E-03	3.73E-04	1.50E-13	1.73E-11	0.032	17.2	<0.0001
NEFA 16:1	926	-1.02E-02	1.46E-03	6.98E-12	8.03E-10	0.028	8.86	0.012
NEFA 16:2	928	-3.18E-01	1.03E-01	2.04E-03	2.34E-01	0.006	0.783	0.68
NEFA 17:0	935	-9.40E-02	1.38E-02	1.78E-11	2.05E-09	0.027	18.5	<0.0001
NEFA 17:1	924	-1.48E-01	2.13E-02	6.05E-12	6.96E-10	0.028	17.2	<0.0001
NEFA 18:1	955	-1.78E-03	2.66E-04	3.63E-11	4.18E-09	0.026	16.5	<0.0001
NEFA 18:2	952	-5.53E-03	9.16E-04	2.19E-09	2.52E-07	0.021	7.35	0.025
NEFA 18:3	954	-1.73E-02	3.96E-03	1.37E-05	1.58E-03	0.012	0.502	0.78
NEFA 19:1	942	-2.59E-01	4.40E-02	5.06E-09	5.82E-07	0.020	9.06	0.011
NEFA 20:2	856	-1.46E-01	2.90E-02	6.21E-07	7.14E-05	0.017	2.68	0.26
NEFA 20:3	819	-1.29E-01	2.19E-02	5.71E-09	6.56E-07	0.026	4.61	0.1
NEFA 20:4	927	-4.78E-02	5.93E-03	2.28E-15	2.62E-13	0.037	2.59	0.27
NEFA 20:5	874	-2.96E-01	4.74E-02	6.25E-10	7.18E-08	0.024	7.44	0.024
NEFA 22:4	926	-3.53E-01	6.02E-02	6.27E-09	7.21E-07	0.020	3.97	0.14
NEFA 22:5	955	-1.94E-01	3.22E-02	2.20E-09	2.53E-07	0.022	4.77	0.09
NEFA 22:6	955	-8.48E-02	1.48E-02	1.30E-08	1.49E-06	0.020	5.82	0.055
NEFA 24:0	908	-6.46E-01	2.38E-01	6.77E-03	7.79E-01	0.005	2.61	0.27
NEFA 24:4	805	-5.37E+00	1.22E+00	1.15E-05	1.32E-03	0.014	3.79	0.15
NEFA 26:1	910	2.08E-02	4.24E-01	9.61E-01	1.00E+00	0.000	11.2	0.004

Sum AA	870	3.12E-04	5.81E-05	1.05E-07	1.21E-05	0.019	9.78	0.008
Sum Carn	835	6.40E-03	1.58E-03	5.43E-05	6.25E-03	0.012	0.363	0.83
Sum LPC	651	-6.66E-04	5.45E-04	2.22E-01	1.00E+00	0.001	20.3	<0.0001
Sum PCaa	665	-1.96E-05	9.41E-05	8.35E-01	1.00E+00	0.000	1.2	0.55
Sum PCae	638	-1.81E-03	7.85E-04	2.15E-02	1.00E+00	0.005	0.525	0.77
Sum SM	602	-3.65E-03	1.24E-03	3.37E-03	3.88E-01	0.008	1.63	0.44
Sum NEFA	547	-7.10E-04	1.42E-04	8.54E-07	9.83E-05	0.022	8.4	0.015

Supplemental Table 6 Associations of metabolites to LDL or ApoAI for each study follow-up visit were calculated in linear models adjusted for child age and sex. Statistical significance was evaluated using Bonferroni corrected p-values (p.adjust) < 0.05 (with dark grey background). AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-

CHOP 5.5 years - LDL

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	378	0.011	0.016	4.77E-01	1.00E+00	0.001
Arg	376	0.004	0.073	9.54E-01	1.00E+00	0.000
Asn	378	0.009	0.127	9.42E-01	1.00E+00	0.000
Asp	376	0.394	0.395	3.19E-01	1.00E+00	0.003
Cit	378	0.184	0.165	2.66E-01	1.00E+00	0.003
Gln	378	0.026	0.010	1.18E-02	1.00E+00	0.017
Glu	378	-0.035	0.015	2.48E-02	1.00E+00	0.013
Gly	378	0.017	0.027	5.31E-01	1.00E+00	0.001
His	378	-0.158	0.066	1.78E-02	1.00E+00	0.015
Ile	378	-0.023	0.079	7.75E-01	1.00E+00	0.000
Leu	378	-0.012	0.049	8.04E-01	1.00E+00	0.000
Lys	378	0.021	0.039	5.87E-01	1.00E+00	0.001
Met	378	-0.197	0.279	4.81E-01	1.00E+00	0.001
Orn	378	0.014	0.067	8.34E-01	1.00E+00	0.000
Phe	378	0.039	0.116	7.39E-01	1.00E+00	0.000
Pro	378	0.006	0.023	7.87E-01	1.00E+00	0.000
Ser	377	0.061	0.057	2.88E-01	1.00E+00	0.003
Thr	378	0.008	0.044	8.64E-01	1.00E+00	0.000
Trp	377	0.162	0.116	1.64E-01	1.00E+00	0.005
Tyr	378	0.007	0.082	9.36E-01	1.00E+00	0.000
Val	378	0.028	0.024	2.43E-01	1.00E+00	0.004
H1	377	-0.002	0.002	2.40E-01	1.00E+00	0.004
Carn	383	-0.108	0.143	4.49E-01	1.00E+00	0.001
Carn C2	383	-0.205	0.365	5.75E-01	1.00E+00	0.001
Carn C3	383	-3.357	13.465	8.03E-01	1.00E+00	0.000
Carn C3:1	269	501.178	236.904	3.53E-02	1.00E+00	0.016
Carn C4	383	-21.192	12.225	8.38E-02	1.00E+00	0.008
Carn C4:0:OH	269	0.613	17.075	9.71E-01	1.00E+00	0.000
Carn C4:1	341	28.218	42.007	5.02E-01	1.00E+00	0.001
Carn C5	383	-33.411	35.466	3.47E-01	1.00E+00	0.002
Carn C5:0:OH	310	1636.347	2917.968	5.75E-01	1.00E+00	0.001
Carn C6	311	-67.770	45.893	1.41E-01	1.00E+00	0.007
Carn C6:1	209	1394.960	414.355	9.09E-04	2.12E-01	0.051
Carn C8	323	4.792	8.946	5.93E-01	1.00E+00	0.001
Carn C8:1	383	27.982	24.595	2.56E-01	1.00E+00	0.003
Carn C9	383	-76.514	92.033	4.06E-01	1.00E+00	0.002
Carn C10	382	-3.503	5.787	5.45E-01	1.00E+00	0.001

Carn C10:1	383	-6.261	7.791	4.22E-01	1.00E+00	0.002
Carn C10:2	383	72.137	69.460	3.00E-01	1.00E+00	0.003
Carn C12::DC	260	76.716	17.842	2.43E-05	5.67E-03	0.067
Carn C12	382	-1.927	15.472	9.01E-01	1.00E+00	0.000
Carn C12:1	383	-3.329	5.666	5.57E-01	1.00E+00	0.001
Carn C14	383	23.030	43.463	5.97E-01	1.00E+00	0.001
Carn C14:1	381	8.327	11.040	4.51E-01	1.00E+00	0.001
Carn C14:2	383	31.674	51.212	5.37E-01	1.00E+00	0.001
Carn C14:2:OH	252	-166.547	148.071	2.62E-01	1.00E+00	0.005
Carn C15	383	61.458	124.567	6.22E-01	1.00E+00	0.001
Carn C16	382	86.032	47.523	7.10E-02	1.00E+00	0.009
Carn C16:OH	382	-1.340	50.617	9.79E-01	1.00E+00	0.000
Carn C16:1	280	215.283	287.940	4.55E-01	1.00E+00	0.002
Carn C16:2	269	-89.367	178.189	6.16E-01	1.00E+00	0.001
Carn C16:2:OH	249	-43.973	217.772	8.40E-01	1.00E+00	0.000
Carn C18	383	173.727	91.462	5.83E-02	1.00E+00	0.009
Carn C18:1	383	15.339	30.055	6.10E-01	1.00E+00	0.001
Carn C18:1:OH	322	157.412	196.641	4.24E-01	1.00E+00	0.002
Carn C18:2	383	2.420	43.140	9.55E-01	1.00E+00	0.000
Carn C18:2:OH	251	-537.117	572.558	3.49E-01	1.00E+00	0.003
Carn C20	381	268.683	294.167	3.62E-01	1.00E+00	0.002
Carn C20:1	309	2677.887	7930.640	7.36E-01	1.00E+00	0.000
Carn C20:3	383	-43.957	196.063	8.23E-01	1.00E+00	0.000
Carn C20:4	383	1679.996	2254.374	4.57E-01	1.00E+00	0.001
Carn C22	281	3038.971	3363.686	3.67E-01	1.00E+00	0.003
Carn C22:5	270	-230.613	482.280	6.33E-01	1.00E+00	0.001
Carn C22:6	248	81.677	1927.416	9.66E-01	1.00E+00	0.000
LPC C14	242	4.502	1.840	1.51E-02	1.00E+00	0.024
LPC C15	241	-1.968	4.787	6.81E-01	1.00E+00	0.001
LPC C16	382	0.028	0.047	5.49E-01	1.00E+00	0.001
LPC C16:1	383	0.127	1.301	9.22E-01	1.00E+00	0.000
LPC C17	381	1.934	1.991	3.32E-01	1.00E+00	0.002
LPC C18	383	0.047	0.116	6.85E-01	1.00E+00	0.000
LPC C18:1	383	0.330	0.251	1.90E-01	1.00E+00	0.004
LPC C18:2	383	0.198	0.131	1.32E-01	1.00E+00	0.006
LPC C18:3	342	-0.543	4.439	9.03E-01	1.00E+00	0.000
LPC C20:1	191	-9.972	6.934	1.52E-01	1.00E+00	0.011
LPC C20:3	381	1.216	1.342	3.66E-01	1.00E+00	0.002
LPC C20:4	383	-0.546	0.601	3.65E-01	1.00E+00	0.002
LPC C20:5	312	18.482	6.405	4.19E-03	9.75E-01	0.026

LPC C22:6	311	7.375	1.937	1.70E-04	3.96E-02	0.044
PCaa C20:4	212	-109.761	32.621	9.12E-04	2.13E-01	0.051
PCaa C28:2	312	95.203	30.198	1.78E-03	4.14E-01	0.031
PCaa C30	383	2.505	0.810	2.14E-03	4.99E-01	0.024
PCaa C30:2	382	26.732	5.447	1.37E-06	3.20E-04	0.060
PCaa C30:3	382	40.720	17.954	2.39E-02	1.00E+00	0.013
PCaa C30:4	160	68.778	56.409	2.25E-01	1.00E+00	0.009
PCaa C32	383	1.753	0.338	3.59E-07	8.36E-05	0.066
PCaa C32:1	383	0.933	0.244	1.56E-04	3.63E-02	0.037
PCaa C32:2	383	6.918	1.199	1.66E-08	3.88E-06	0.080
PCaa C34:1	383	0.073	0.025	3.66E-03	8.54E-01	0.022
PCaa C34:2	383	0.088	0.017	4.76E-07	1.11E-04	0.064
PCaa C34:3	381	1.379	0.270	5.23E-07	1.22E-04	0.064
PCaa C34:4	383	8.779	2.169	6.28E-05	1.46E-02	0.041
PCaa C36	268	0.780	0.608	2.01E-01	1.00E+00	0.006
PCaa C36:1	383	0.482	0.085	3.09E-08	7.19E-06	0.077
PCaa C36:2	383	0.107	0.022	2.55E-06	5.94E-04	0.056
PCaa C36:3	383	0.234	0.044	1.46E-07	3.40E-05	0.070
PCaa C36:4	383	0.078	0.034	2.25E-02	1.00E+00	0.014
PCaa C36:5	381	1.585	0.350	8.07E-06	1.88E-03	0.051
PCaa C36:6	313	4.450	2.002	2.70E-02	1.00E+00	0.015
PCaa C38	309	1.883	1.181	1.12E-01	1.00E+00	0.008
PCaa C38:3	383	0.652	0.114	2.08E-08	4.84E-06	0.079
PCaa C38:4	383	0.185	0.045	5.07E-05	1.18E-02	0.042
PCaa C38:5	383	0.868	0.119	1.66E-12	3.86E-10	0.122
PCaa C38:6	383	0.285	0.075	1.72E-04	4.01E-02	0.036
PCaa C40	272	-1.675	2.502	5.04E-01	1.00E+00	0.002
PCaa C40:4	382	5.668	1.039	8.94E-08	2.08E-05	0.072
PCaa C40:5	383	2.307	0.368	1.01E-09	2.35E-07	0.093
PCaa C40:6	383	1.004	0.169	6.26E-09	1.46E-06	0.085
PCaa C42	242	6.860	3.714	6.60E-02	1.00E+00	0.014
PCaa C42:1	212	13.228	8.912	1.39E-01	1.00E+00	0.010

PCaa C42:6	191	8.122	4.977	1.04E-01	1.00E+00	0.014
PCaa C43:6	252	-5.622	3.106	7.15E-02	1.00E+00	0.013
PCaa C44:12	383	-2.568	2.258	2.56E-01	1.00E+00	0.003
PCae C30:2	272	13.809	13.873	3.20E-01	1.00E+00	0.004
PCae C32	383	3.762	1.629	2.15E-02	1.00E+00	0.014
PCae C32:1	383	1.066	1.345	4.28E-01	1.00E+00	0.002
PCae C32:2	201	4.976	5.440	3.61E-01	1.00E+00	0.004
PCae C34	383	9.843	2.230	1.32E-05	3.08E-03	0.049
PCae C34:1	383	1.790	0.471	1.68E-04	3.90E-02	0.036
PCae C34:2	383	1.833	0.399	5.97E-06	1.39E-03	0.052
PCae C34:3	383	0.765	0.479	1.11E-01	1.00E+00	0.007
PCae C34:4	241	3.594	12.673	7.77E-01	1.00E+00	0.000
PCae C36	253	5.850	2.663	2.89E-02	1.00E+00	0.019
PCae C36:1	382	0.500	0.221	2.44E-02	1.00E+00	0.013
PCae C36:2	382	0.960	0.269	4.13E-04	9.63E-02	0.032
PCae C36:3	383	1.685	0.479	4.89E-04	1.14E-01	0.031
PCae C36:4	382	0.498	0.249	4.65E-02	1.00E+00	0.010
PCae C36:5	383	0.581	0.320	7.06E-02	1.00E+00	0.009
PCae C36:6	167	-1.349	4.539	7.67E-01	1.00E+00	0.001
PCae C38	310	3.894	0.972	7.80E-05	1.82E-02	0.049
PCae C38:2	301	0.277	0.300	3.56E-01	1.00E+00	0.003
PCae C38:3	381	0.494	0.308	1.10E-01	1.00E+00	0.007
PCae C38:4	383	0.278	0.327	3.95E-01	1.00E+00	0.002
PCae C38:5	383	0.412	0.256	1.09E-01	1.00E+00	0.007
PCae C38:6	383	1.453	0.551	8.73E-03	1.00E+00	0.018
PCae C40	383	2.714	0.417	2.43E-10	5.67E-08	0.100
PCae C40:1	229	5.377	1.581	7.91E-04	1.84E-01	0.049
PCae C40:3	312	0.237	0.436	5.87E-01	1.00E+00	0.001
PCae C40:4	343	1.165	0.700	9.70E-02	1.00E+00	0.008
PCae C40:5	383	2.011	0.730	6.18E-03	1.00E+00	0.019
PCae C40:6	383	2.706	0.935	4.01E-03	9.34E-01	0.021
PCae C42:2	323	6.710	2.378	5.08E-03	1.00E+00	0.024
PCae C42:3	272	-0.228	2.118	9.14E-01	1.00E+00	0.000
PCae C42:4	190	7.283	3.862	6.09E-02	1.00E+00	0.019
PCae C42:5	311	4.350	1.562	5.69E-03	1.00E+00	0.024
PCae C42:6	382	7.489	2.458	2.47E-03	5.76E-01	0.024
SM C21:2	343	60.611	56.941	2.88E-01	1.00E+00	0.003
SM C32:1	383	1.956	0.547	3.97E-04	9.26E-02	0.032

SM C32:2	343	44.200	7.131	1.66E-09	3.86E-07	0.101
SM C33:1	383	4.938	0.956	3.90E-07	9.09E-05	0.065
SM C33:3	182	22.908	22.086	3.01E-01	1.00E+00	0.006
SM C34:1	382	0.311	0.055	3.11E-08	7.24E-06	0.078
SM C34:2	382	0.756	0.405	6.29E-02	1.00E+00	0.009
SM C34:4	210	215.221	92.004	2.03E-02	1.00E+00	0.026
SM C35:1	382	7.921	1.605	1.20E-06	2.79E-04	0.060
SM C35:2	192	26.767	12.181	2.92E-02	1.00E+00	0.025
SM C36:1	381	1.267	0.275	5.43E-06	1.27E-03	0.053
SM C36:2	382	2.115	0.515	4.97E-05	1.16E-02	0.043
SM C36:3	180	2.653	6.224	6.71E-01	1.00E+00	0.001
SM C37:1	192	2.614	1.465	7.61E-02	1.00E+00	0.017
SM C37:3	201	16.783	9.628	8.29E-02	1.00E+00	0.015
SM C38:2	383	1.690	0.332	5.78E-07	1.35E-04	0.064
SM C39:1	311	2.300	0.859	7.84E-03	1.00E+00	0.023
SM C40:2	232	0.702	0.192	3.17E-04	7.38E-02	0.055
SM C40:4	302	7.123	2.085	7.23E-04	1.69E-01	0.038
SM C40:5	343	22.364	3.987	4.24E-08	9.88E-06	0.084
SM C41:1	382	1.161	0.301	1.34E-04	3.13E-02	0.038
SM C41:2	382	0.280	0.439	5.25E-01	1.00E+00	0.001
SM C42:1	383	0.706	0.206	6.85E-04	1.60E-01	0.030
SM C42:2	382	0.250	0.123	4.25E-02	1.00E+00	0.011
SM C42:3	313	1.079	0.258	3.72E-05	8.66E-03	0.053
SM C42:6	383	2.547	1.477	8.54E-02	1.00E+00	0.008
SM C43	173	11.925	7.455	1.12E-01	1.00E+00	0.015
SM C43:1	202	9.814	2.666	3.00E-04	6.98E-02	0.064
SM C43:2	312	3.999	1.766	2.42E-02	1.00E+00	0.016
SM C44:6	230	7.544	3.587	3.66E-02	1.00E+00	0.019
SM C47:6	323	1066.189	232.159	6.31E-06	1.47E-03	0.061
NEFA 12:0	181	-1.071	0.518	4.03E-02	1.00E+00	0.023

NEFA 14:0	321	-0.176	0.160	2.73E-01	1.00E+00	0.004
NEFA 14:1	380	-0.243	0.252	3.35E-01	1.00E+00	0.002
NEFA 15:0	181	-5.272	2.158	1.56E-02	1.00E+00	0.032
NEFA 16:0	248	-0.046	0.026	7.11E-02	1.00E+00	0.013
NEFA 16:1	380	-0.206	0.073	4.88E-03	1.00E+00	0.021
NEFA 16:2	299	-0.124	2.486	9.60E-01	1.00E+00	0.000
NEFA 17:0	168	-0.194	0.761	7.99E-01	1.00E+00	0.000
NEFA 17:1	380	-0.823	0.663	2.15E-01	1.00E+00	0.004
NEFA 17:2	168	-28.059	27.299	3.06E-01	1.00E+00	0.006
NEFA 18:1	380	-0.030	0.012	1.44E-02	1.00E+00	0.016
NEFA 18:2	380	-0.056	0.028	4.66E-02	1.00E+00	0.010
NEFA 18:3	380	-0.218	0.394	5.80E-01	1.00E+00	0.001
NEFA 18:4	168	-19.841	15.612	2.06E-01	1.00E+00	0.010
NEFA 19:1	297	-0.600	3.152	8.49E-01	1.00E+00	0.000
NEFA 20:1	380	-0.436	0.839	6.03E-01	1.00E+00	0.001
NEFA 20:2	380	-0.122	0.461	7.91E-01	1.00E+00	0.000
NEFA 20:3	380	-1.693	0.893	5.87E-02	1.00E+00	0.009
NEFA 20:4	379	-0.648	0.299	3.07E-02	1.00E+00	0.012
NEFA 20:5	296	-0.486	1.616	7.64E-01	1.00E+00	0.000
NEFA 22:3	227	28.760	47.652	5.47E-01	1.00E+00	0.002
NEFA 22:4	380	-2.798	3.828	4.65E-01	1.00E+00	0.001
NEFA 22:5	377	-1.624	1.960	4.08E-01	1.00E+00	0.002
NEFA 22:6	380	-0.287	0.791	7.16E-01	1.00E+00	0.000
NEFA 24:0	168	21.323	12.924	1.01E-01	1.00E+00	0.016
NEFA 24:1	380	0.792	5.448	8.84E-01	1.00E+00	0.000
NEFA 24:2	168	200.275	93.916	3.45E-02	1.00E+00	0.027
NEFA 24:3	239	15.272	69.387	8.26E-01	1.00E+00	0.000
NEFA 24:4	380	-5.286	67.012	9.37E-01	1.00E+00	0.000
NEFA 24:6	159	235.416	188.603	2.14E-01	1.00E+00	0.010
NEFA 26:0	324	8.514	8.061	2.92E-01	1.00E+00	0.003
NEFA 26:1	308	8.900	9.826	3.66E-01	1.00E+00	0.003
NEFA 26:2	380	-1.163	11.726	9.21E-01	1.00E+00	0.000
NEFA 26:3	298	31.631	36.680	3.89E-01	1.00E+00	0.003
NEFA 26:4	380	-192.793	146.244	1.88E-01	1.00E+00	0.005

Pyruvate	375	-0.001	0.007	8.67E-01	1.00E+00	0.000
Lactic_acid	380	0.001	0.001	2.19E-02	1.00E+00	0.014
Fumarate	373	-0.837	4.682	8.58E-01	1.00E+00	0.000
3-Methyl-2-oxobutanoate	375	0.047	0.095	6.25E-01	1.00E+00	0.001
Succininate	378	0.145	0.405	7.20E-01	1.00E+00	0.000
Methylmalonate	380	35.840	18.777	5.71E-02	1.00E+00	0.010
Taurine	379	0.053	0.035	1.28E-01	1.00E+00	0.006
3-Methyl-2-oxovalerate	379	0.150	0.107	1.63E-01	1.00E+00	0.005
4-Methyl-2-oxovalerate	374	0.019	0.054	7.31E-01	1.00E+00	0.000
Malate	376	0.515	0.769	5.04E-01	1.00E+00	0.001
Alpha-ketoglutarate	369	-0.251	0.244	3.04E-01	1.00E+00	0.003
Alpha-aminoadipate	379	-6.942	8.515	4.15E-01	1.00E+00	0.002
Isocitrate	380	-0.153	0.244	5.32E-01	1.00E+00	0.001
Citrate	380	0.011	0.018	5.54E-01	1.00E+00	0.001
Beta-hydroxybutyrate	147	0.075	0.052	1.48E-01	1.00E+00	0.015
Sum AA	375	0.002	0.003	5.83E-01	1.00E+00	0.001
Sum Carn	380	-0.117	0.131	3.71E-01	1.00E+00	0.002
Sum LPC	201	0.028	0.044	5.17E-01	1.00E+00	0.002
Sum PCaa	306	0.032	0.005	7.42E-09	1.73E-06	0.104
Sum PCae	269	0.199	0.046	2.21E-05	5.14E-03	0.065
Sum SM	341	0.165	0.050	1.00E-03	2.34E-01	0.031
Sum NEFA	99	-0.013	0.008	1.13E-01	1.00E+00	0.026

CHOP 8 years - LDL

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	348	0.005	0.019	8.10E-01	1.00E+00	0.000
Arg	348	0.119	0.086	1.69E-01	1.00E+00	0.005
Asn	348	-0.041	0.141	7.72E-01	1.00E+00	0.000
Asp	348	-0.504	0.443	2.56E-01	1.00E+00	0.004
Cit	348	0.247	0.195	2.07E-01	1.00E+00	0.005
Gln	347	-0.001	0.009	8.90E-01	1.00E+00	0.000
Glu	348	-0.017	0.015	2.35E-01	1.00E+00	0.004
Gly	348	-0.063	0.030	3.88E-02	1.00E+00	0.012
His	348	0.081	0.055	1.46E-01	1.00E+00	0.006
Ile	348	0.161	0.134	2.28E-01	1.00E+00	0.004
Leu	348	0.071	0.077	3.54E-01	1.00E+00	0.002
Lys	348	0.036	0.087	6.81E-01	1.00E+00	0.000
Met	348	-0.295	0.318	3.55E-01	1.00E+00	0.002
Orn	348	-0.039	0.091	6.69E-01	1.00E+00	0.001
Phe	347	0.034	0.151	8.20E-01	1.00E+00	0.000
Pro	348	0.008	0.035	8.31E-01	1.00E+00	0.000
Ser	347	-0.043	0.048	3.71E-01	1.00E+00	0.002
Thr	348	0.014	0.058	8.07E-01	1.00E+00	0.000
Trp	348	0.163	0.141	2.48E-01	1.00E+00	0.004
Tyr	347	-0.022	0.111	8.43E-01	1.00E+00	0.000
Val	348	0.092	0.036	1.05E-02	1.00E+00	0.019
H1	348	0.004	0.002	9.79E-02	1.00E+00	0.008
Carn	348	0.074	0.066	2.58E-01	1.00E+00	0.004
Carn C2	348	0.494	0.528	3.51E-01	1.00E+00	0.002
Carn C3	345	3.333	4.231	4.31E-01	1.00E+00	0.002
Carn C3:1	283	-20.261	63.759	7.51E-01	1.00E+00	0.000
Carn C4:0:OH	235	5.393	18.750	7.74E-01	1.00E+00	0.000
Carn C5	348	-1221.383	957.252	2.03E-01	1.00E+00	0.005
Carn C5:0:OH	348	-8.179	17.398	6.39E-01	1.00E+00	0.001
Carn C6	348	2.626	27.650	9.24E-01	1.00E+00	0.000
Carn C6:1	348	8.402	35.873	8.15E-01	1.00E+00	0.000
Carn C8	348	-5.354	7.858	4.96E-01	1.00E+00	0.001
Carn C8:1	348	38.049	19.882	5.65E-02	1.00E+00	0.010
Carn C9	348	-13.089	74.057	8.60E-01	1.00E+00	0.000
Carn C10	348	-3.524	4.633	4.47E-01	1.00E+00	0.002

Carn C10:1	347	0.179	7.692	9.81E-01	1.00E+00	0.000
Carn C10:2	348	99.929	55.390	7.21E-02	1.00E+00	0.009
Carn C12	348	5.725	11.876	6.30E-01	1.00E+00	0.001
Carn C12:1	348	-0.925	4.964	8.52E-01	1.00E+00	0.000
Carn C14	348	32.127	49.969	5.21E-01	1.00E+00	0.001
Carn C14:1	347	7.103	8.128	3.83E-01	1.00E+00	0.002
Carn C14:2	348	27.781	37.981	4.65E-01	1.00E+00	0.002
Carn C14:2:OH	346	206.130	116.504	7.77E-02	1.00E+00	0.009
Carn C15	348	508.808	271.502	6.18E-02	1.00E+00	0.010
Carn C16	348	66.821	61.112	2.75E-01	1.00E+00	0.003
Carn C16:0:OH	285	434.914	725.206	5.49E-01	1.00E+00	0.001
Carn C16:1	348	35.159	52.735	5.05E-01	1.00E+00	0.001
Carn C16:2	348	172.248	136.511	2.08E-01	1.00E+00	0.005
Carn C16:2:OH	299	203.867	272.378	4.55E-01	1.00E+00	0.002
Carn C18	348	399.292	132.940	2.86E-03	5.44E-01	0.025
Carn C18:1	348	-65.834	40.244	1.03E-01	1.00E+00	0.008
Carn C18:1:OH	348	165.129	183.429	3.69E-01	1.00E+00	0.002
Carn C18:2	346	32.159	65.740	6.25E-01	1.00E+00	0.001
Carn C18:2:OH	228	627.065	487.653	2.00E-01	1.00E+00	0.007
Carn C20	342	-215.027	264.694	4.17E-01	1.00E+00	0.002
Carn C20:1	347	69937.297	18298.352	1.57E-04	2.99E-02	0.040
Carn C20:3	348	720.905	709.009	3.10E-01	1.00E+00	0.003
Carn C20:4	299	8640.888	9332.190	3.55E-01	1.00E+00	0.003
Carn C22	218	13487.501	8236.943	1.03E-01	1.00E+00	0.012
Carn C22:5	251	3430.910	1353.262	1.19E-02	1.00E+00	0.025
Carn C22:6	181	2792.275	1008.734	6.24E-03	1.00E+00	0.041
LPC C16	348	0.032	0.030	2.92E-01	1.00E+00	0.003
LPC C16:1	348	1.656	1.079	1.26E-01	1.00E+00	0.007
LPC C17	285	3.614	1.648	2.91E-02	1.00E+00	0.016
LPC C18	348	0.148	0.084	7.72E-02	1.00E+00	0.009
LPC C18:1	348	0.283	0.193	1.44E-01	1.00E+00	0.006
LPC C18:2	348	0.242	0.105	2.16E-02	1.00E+00	0.015
LPC C18:3	217	10.737	5.845	6.76E-02	1.00E+00	0.015
LPC C18:6	178	18.578	8.182	2.44E-02	1.00E+00	0.028
LPC C20:3	281	5.603	1.502	2.33E-04	4.42E-02	0.047
LPC C20:4	348	1.719	0.533	1.39E-03	2.64E-01	0.029
LPC C20:5	164	20.251	5.833	6.65E-04	1.26E-01	0.070

LPC C22:5	150	30.826	6.664	8.15E-06	1.55E-03	0.126
LPC C22:6	250	8.912	2.160	5.05E-05	9.60E-03	0.064
PCaa C30:5	180	531.952	602.552	3.79E-01	1.00E+00	0.004
PCaa C32	348	1.266	0.358	4.63E-04	8.80E-02	0.034
PCaa C32:1	285	0.543	0.227	1.73E-02	1.00E+00	0.020
PCaa C34:1	348	0.111	0.023	1.64E-06	3.12E-04	0.064
PCaa C34:2	282	0.066	0.017	9.55E-05	1.81E-02	0.053
PCaa C34:3	348	1.026	0.245	3.52E-05	6.68E-03	0.048
PCaa C34:4	299	8.330	1.991	3.79E-05	7.21E-03	0.055
PCaa C36:2	348	0.070	0.016	1.58E-05	3.01E-03	0.052
PCaa C36:3	348	0.178	0.047	1.88E-04	3.57E-02	0.039
PCaa C36:4	282	0.179	0.038	4.15E-06	7.89E-04	0.072
PCaa C36:5	279	0.811	0.241	8.56E-04	1.63E-01	0.039
PCaa C38	162	1.217	1.103	2.71E-01	1.00E+00	0.007
PCaa C38:3	160	0.784	0.186	4.07E-05	7.73E-03	0.103
PCaa C38:4	181	0.084	0.058	1.55E-01	1.00E+00	0.011
PCaa C38:5	236	0.455	0.151	2.86E-03	5.44E-01	0.037
PCaa C38:6	348	0.243	0.059	4.36E-05	8.29E-03	0.047
PCaa C40:4	152	4.809	1.598	3.09E-03	5.86E-01	0.057
PCaa C40:5	169	1.609	0.532	2.89E-03	5.49E-01	0.051
PCaa C40:6	347	0.710	0.146	1.71E-06	3.24E-04	0.064

PCaa C44:12	170	8.431	6.199	1.76E-01	1.00E+00	0.011
PCae C34:1	348	1.802	0.409	1.44E-05	2.74E-03	0.052
PCae C34:2	281	0.760	0.322	1.88E-02	1.00E+00	0.019
PCae C34:3	348	0.531	0.370	1.53E-01	1.00E+00	0.006
PCae C36:1	233	-0.024	0.268	9.29E-01	1.00E+00	0.000
PCae C36:2	151	1.085	0.473	2.32E-02	1.00E+00	0.034
PCae C36:3	348	1.631	0.390	3.71E-05	7.06E-03	0.047
PCae C36:4	281	0.584	0.199	3.54E-03	6.73E-01	0.030
PCae C36:5	348	1.193	0.315	1.83E-04	3.47E-02	0.039
PCae C38	180	2.138	1.630	1.91E-01	1.00E+00	0.010
PCae C38:3	180	-0.099	0.357	7.82E-01	1.00E+00	0.000
PCae C38:4	170	1.732	0.571	2.81E-03	5.35E-01	0.052
PCae C38:5	285	0.769	0.223	6.28E-04	1.19E-01	0.040
PCae C38:6	236	2.643	0.577	7.55E-06	1.44E-03	0.081
PCae C40	162	0.667	0.630	2.91E-01	1.00E+00	0.007
PCae C40:4	169	1.390	1.080	2.00E-01	1.00E+00	0.010
PCae C40:6	169	2.318	1.258	6.73E-02	1.00E+00	0.019
SM C21:2	178	54.355	30.752	7.89E-02	1.00E+00	0.018
SM C31:1	181	37.422	20.633	7.14E-02	1.00E+00	0.017
SM C32:1	348	2.843	0.569	9.51E-07	1.81E-04	0.067

SM C32:2	170	16.972	6.610	1.11E-02	1.00E+00	0.037
SM C33:1	348	3.833	0.781	1.41E-06	2.68E-04	0.065
SM C34:1	348	0.350	0.053	1.31E-10	2.49E-08	0.112
SM C34:2	348	1.259	0.369	7.15E-04	1.36E-01	0.033
SM C35:1	299	6.572	1.490	1.44E-05	2.74E-03	0.061
SM C36:1	348	1.030	0.206	9.31E-07	1.77E-04	0.067
SM C36:2	218	2.541	0.585	2.14E-05	4.07E-03	0.079
SM C36:3	280	2.660	4.396	5.46E-01	1.00E+00	0.001
SM C41:1	236	1.961	0.418	4.71E-06	8.95E-04	0.085
SM C41:2	235	2.122	0.538	1.06E-04	2.01E-02	0.063
SM C42:1	185	1.160	0.274	3.73E-05	7.08E-03	0.089
SM C42:2	170	0.426	0.150	4.97E-03	9.45E-01	0.046
NEFA 10:0	333	-0.581	0.516	2.61E-01	1.00E+00	0.004
NEFA 11:0	260	34.067	15.340	2.72E-02	1.00E+00	0.018
NEFA 12:0	332	1.313	0.705	6.36E-02	1.00E+00	0.010
NEFA 12:1	217	-8.184	17.258	6.36E-01	1.00E+00	0.001

NEFA 14:0	333	-0.033	0.158	8.37E-01	1.00E+00	0.000
NEFA 14:1	332	-0.026	0.851	9.76E-01	1.00E+00	0.000
NEFA 15:0	333	-0.242	0.739	7.43E-01	1.00E+00	0.000
NEFA 15:1	210	-8.840	12.067	4.65E-01	1.00E+00	0.003
NEFA 16:0	333	-0.007	0.020	7.44E-01	1.00E+00	0.000
NEFA 16:1	333	-0.054	0.090	5.50E-01	1.00E+00	0.001
NEFA 16:2	333	4.548	5.990	4.48E-01	1.00E+00	0.002
NEFA 17:0	333	0.054	0.739	9.42E-01	1.00E+00	0.000
NEFA 17:1	333	-0.020	1.243	9.87E-01	1.00E+00	0.000
NEFA 18:0	278	-0.046	0.051	3.70E-01	1.00E+00	0.003
NEFA 18:1	333	-0.001	0.015	9.27E-01	1.00E+00	0.000
NEFA 18:2	331	-0.011	0.051	8.30E-01	1.00E+00	0.000
NEFA 18:3	333	0.249	0.207	2.30E-01	1.00E+00	0.004
NEFA 18:4	331	19.783	13.387	1.40E-01	1.00E+00	0.007
NEFA 19:0	278	-2.536	8.578	7.68E-01	1.00E+00	0.000
NEFA 19:1	333	2.550	2.597	3.27E-01	1.00E+00	0.003
NEFA 20:0	333	-1.175	3.649	7.48E-01	1.00E+00	0.000
NEFA 20:1	333	0.611	0.890	4.93E-01	1.00E+00	0.001
NEFA 20:2	332	1.123	1.523	4.62E-01	1.00E+00	0.002
NEFA 20:3	333	0.156	0.927	8.66E-01	1.00E+00	0.000
NEFA 20:4	333	-0.033	0.242	8.91E-01	1.00E+00	0.000
NEFA 20:5	331	2.762	2.458	2.62E-01	1.00E+00	0.004
NEFA 22:0	285	3.791	12.890	7.69E-01	1.00E+00	0.000
NEFA 22:1	332	10.388	11.086	3.49E-01	1.00E+00	0.003
NEFA 22:2	278	46.480	53.839	3.89E-01	1.00E+00	0.003
NEFA 22:3	230	104.835	46.356	2.47E-02	1.00E+00	0.021
NEFA 22:4	332	1.014	3.081	7.42E-01	1.00E+00	0.000
NEFA 22:5	333	1.723	1.608	2.85E-01	1.00E+00	0.003
NEFA 22:6	333	1.229	0.726	9.14E-02	1.00E+00	0.008
NEFA 24:0	333	18.771	12.749	1.42E-01	1.00E+00	0.006
NEFA 24:1	333	17.858	10.657	9.47E-02	1.00E+00	0.008
NEFA 24:3	144	-201.038	332.838	5.47E-01	1.00E+00	0.003
NEFA 24:4	218	59.436	70.500	4.00E-01	1.00E+00	0.003
NEFA 24:5	163	-54.732	69.811	4.34E-01	1.00E+00	0.004
NEFA 24:6	218	5.753	44.572	8.97E-01	1.00E+00	0.000
NEFA 26:0	285	22.808	81.325	7.79E-01	1.00E+00	0.000
NEFA 26:1	333	75.681	18.530	5.56E-05	1.06E-02	0.047
NEFA 26:2	284	22.846	25.367	3.69E-01	1.00E+00	0.003
NEFA 26:3	332	-16.126	42.543	7.05E-01	1.00E+00	0.000
NEFA 26:4	164	254.061	247.747	3.07E-01	1.00E+00	0.006
NEFA 26:5	180	108.568	241.683	6.54E-01	1.00E+00	0.001

3-Methyl-2-oxovalerate	342	0.173	0.273	5.27E-01	1.00E+00	0.001
4-Methyl-2-oxovalerate	342	0.090	0.160	5.74E-01	1.00E+00	0.001
Acetoacetate	243	0.002	0.013	8.53E-01	1.00E+00	0.000
Alpha-aminoadipate	158	3.657	4.556	4.23E-01	1.00E+00	0.004
Alpha-ketobutyrate	328	-0.018	0.059	7.64E-01	1.00E+00	0.000
Citrate	293	0.041	0.049	3.97E-01	1.00E+00	0.002
Isocitrate	294	-0.155	0.266	5.60E-01	1.00E+00	0.001
Lactate	340	0.002	0.002	2.83E-01	1.00E+00	0.003
Malate	340	-0.077	0.339	8.20E-01	1.00E+00	0.000
Alpha-ketoglutarate	342	-0.133	0.228	5.59E-01	1.00E+00	0.001
Pyruvate	222	-0.018	0.022	4.12E-01	1.00E+00	0.003
Succininate	342	0.130	0.301	6.67E-01	1.00E+00	0.001
Taurine	294	-0.021	0.049	6.63E-01	1.00E+00	0.001
Sum AA	345	-0.001	0.005	9.10E-01	1.00E+00	0.000
Sum Carn	344	0.059	0.066	3.72E-01	1.00E+00	0.002
Sum LPC	53	0.052	0.028	6.70E-02	1.00E+00	0.067
Sum PCaa	47	0.023	0.018	2.00E-01	1.00E+00	0.038
Sum PCae	48	0.159	0.134	2.44E-01	1.00E+00	0.031
Sum SM	54	0.359	0.110	1.97E-03	3.75E-01	0.171
Sum NEFA	213	0.005	0.008	4.85E-01	1.00E+00	0.002

GINI-LISA 10 years - LDL

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	250	-0.038	0.016	1.60E-02	1.00E+00	0.023
Arg	250	-0.090	0.073	2.22E-01	1.00E+00	0.006
Asn	250	-0.212	0.133	1.13E-01	1.00E+00	0.010
Asp	249	0.093	0.140	5.08E-01	1.00E+00	0.002
Cit	250	-0.353	0.174	4.35E-02	1.00E+00	0.016
Gln	221	-0.037	0.012	2.60E-03	6.31E-01	0.041
Glu	250	-0.012	0.029	6.82E-01	1.00E+00	0.001
Gly	250	-0.070	0.024	4.53E-03	1.00E+00	0.032
His	250	0.030	0.072	6.79E-01	1.00E+00	0.001
Ile	250	-0.044	0.109	6.85E-01	1.00E+00	0.001
Leu	250	0.008	0.059	8.90E-01	1.00E+00	0.000
Lys	250	-0.071	0.041	8.35E-02	1.00E+00	0.012
Met	250	-0.597	0.317	6.08E-02	1.00E+00	0.014
Orn	250	-0.088	0.054	1.05E-01	1.00E+00	0.011
Phe	250	-0.050	0.094	5.99E-01	1.00E+00	0.001
Pro	250	-0.078	0.024	1.56E-03	3.79E-01	0.040
Ser	250	-0.063	0.052	2.25E-01	1.00E+00	0.006
Thr	250	-0.176	0.050	5.10E-04	1.24E-01	0.048
Trp	250	-0.013	0.127	9.17E-01	1.00E+00	0.000
Tyr	250	-0.125	0.096	1.96E-01	1.00E+00	0.007
Val	250	0.033	0.031	2.83E-01	1.00E+00	0.005
H1	252	0.001	0.002	5.37E-01	1.00E+00	0.002
Carn	191	0.122	0.283	6.66E-01	1.00E+00	0.001
Carn C2	195	1.721	0.837	4.11E-02	1.00E+00	0.022
Carn C3	207	24.668	19.901	2.17E-01	1.00E+00	0.008
Carn C4	163	66.587	23.391	5.00E-03	1.00E+00	0.048
Carn C5	153	62.305	56.370	2.71E-01	1.00E+00	0.008
Carn C6	251	43.343	38.566	2.62E-01	1.00E+00	0.005
Carn C8	252	3.538	5.212	4.98E-01	1.00E+00	0.002
Carn C8:1	251	24.067	24.404	3.25E-01	1.00E+00	0.004
Carn C9	230	-21.111	62.424	7.36E-01	1.00E+00	0.001
Carn C10	251	0.377	4.076	9.26E-01	1.00E+00	0.000

Carn C10:1	252	4.583	6.608	4.89E-01	1.00E+00	0.002
Carn C10:2	153	50.199	45.398	2.71E-01	1.00E+00	0.008
Carn C12	251	7.832	9.284	4.00E-01	1.00E+00	0.003
Carn C12:1	223	3.301	4.068	4.18E-01	1.00E+00	0.003
Carn C14	162	31.652	74.215	6.70E-01	1.00E+00	0.001
Carn C14:1	251	17.214	14.257	2.28E-01	1.00E+00	0.006
Carn C14:2	163	143.405	51.589	6.10E-03	1.00E+00	0.046
Carn C16	230	190.945	59.772	1.60E-03	3.89E-01	0.043
Carn C16:1	200	152.195	89.639	9.11E-02	1.00E+00	0.014
Carn C18	189	270.731	75.964	4.65E-04	1.13E-01	0.064
Carn C18:1	252	61.417	36.196	9.10E-02	1.00E+00	0.011
Carn C18:2	178	139.441	82.393	9.24E-02	1.00E+00	0.016
LPC C14	252	4.139	1.707	1.61E-02	1.00E+00	0.023
LPC C15	234	12.624	4.284	3.54E-03	8.60E-01	0.036
LPC C16	252	0.184	0.062	3.49E-03	8.48E-01	0.034
LPC C16:1	252	3.577	1.911	6.24E-02	1.00E+00	0.014
LPC C17	252	6.913	2.664	1.00E-02	1.00E+00	0.026
LPC C17:1	234	15.621	13.065	2.33E-01	1.00E+00	0.006
LPC C18	252	0.572	0.180	1.72E-03	4.19E-01	0.039
LPC C18:1	252	0.606	0.357	9.07E-02	1.00E+00	0.011
LPC C18:2	252	0.233	0.190	2.20E-01	1.00E+00	0.006
LPC C18:3	234	2.608	6.704	6.98E-01	1.00E+00	0.001
LPC C18:6	152	-9.503	15.972	5.53E-01	1.00E+00	0.002
LPC C20:2	135	21.703	15.971	1.77E-01	1.00E+00	0.014
LPC C20:3	252	9.812	2.374	4.90E-05	1.19E-02	0.064
LPC C20:4	252	2.310	0.870	8.42E-03	1.00E+00	0.028
LPC C20:5	249	17.587	7.885	2.66E-02	1.00E+00	0.020

LPC C22:5	187	20.751	9.005	2.23E-02	1.00E+00	0.028
LPC C22:6	234	9.343	2.805	1.01E-03	2.45E-01	0.046
PCaa C30	252	5.149	1.221	3.50E-05	8.50E-03	0.067
PCaa C30:2	178	30.719	7.191	3.18E-05	7.73E-03	0.095
PCaa C30:3	173	80.443	20.913	1.69E-04	4.12E-02	0.080
PCaa C30:4	126	63.299	39.441	1.11E-01	1.00E+00	0.021
PCaa C32	252	2.541	0.538	3.82E-06	9.29E-04	0.082
PCaa C32:1	252	0.542	0.293	6.52E-02	1.00E+00	0.014
PCaa C32:2	252	5.781	1.283	1.02E-05	2.49E-03	0.076
PCaa C32:3	197	45.524	7.888	3.09E-08	7.51E-06	0.147
PCaa C34:1	252	0.154	0.036	2.34E-05	5.68E-03	0.070
PCaa C34:2	252	0.101	0.021	1.54E-06	3.74E-04	0.089
PCaa C34:3	252	1.056	0.349	2.73E-03	6.63E-01	0.036
PCaa C34:4	252	8.864	2.325	1.74E-04	4.23E-02	0.055
PCaa C34:5	167	24.770	23.355	2.90E-01	1.00E+00	0.007
PCaa C36	192	2.087	0.842	1.41E-02	1.00E+00	0.032
PCaa C36:1	252	0.429	0.135	1.64E-03	3.98E-01	0.039
PCaa C36:2	252	0.127	0.028	1.28E-05	3.11E-03	0.074
PCaa C36:3	252	0.325	0.054	7.76E-09	1.89E-06	0.125
PCaa C36:4	252	0.216	0.044	1.39E-06	3.37E-04	0.090
PCaa C36:5	251	1.061	0.309	6.97E-04	1.69E-01	0.045
PCaa C36:6	231	10.088	3.733	7.40E-03	1.00E+00	0.031
PCaa C38	252	3.009	1.470	4.17E-02	1.00E+00	0.017
PCaa C38:2	117	5.125	1.233	6.33E-05	1.54E-02	0.130
PCaa C38:3	252	0.699	0.121	2.28E-08	5.55E-06	0.118
PCaa C38:4	252	0.273	0.057	3.44E-06	8.36E-04	0.083
PCaa C38:5	252	0.646	0.125	4.39E-07	1.07E-04	0.097
PCaa C38:6	252	0.399	0.080	1.02E-06	2.48E-04	0.092
PCaa C40	184	6.666	3.941	9.25E-02	1.00E+00	0.016
PCaa C40:1	200	4.873	3.027	1.09E-01	1.00E+00	0.013
PCaa C40:3	139	4.110	2.730	1.35E-01	1.00E+00	0.016
PCaa C40:4	252	5.262	1.198	1.66E-05	4.03E-03	0.072
PCaa C40:5	252	2.191	0.467	4.59E-06	1.12E-03	0.081
PCaa C40:6	252	0.842	0.199	3.22E-05	7.82E-03	0.067
PCaa C42	238	7.192	5.490	1.91E-01	1.00E+00	0.007
PCaa C42:1	124	3.438	9.484	7.18E-01	1.00E+00	0.001

PCaa C42:4	122	5.522	7.046	4.35E-01	1.00E+00	0.005
PCaa C42:5	161	24.973	8.220	2.79E-03	6.78E-01	0.055
PCaa C42:6	138	12.025	4.872	1.48E-02	1.00E+00	0.043
PCaa C43:6	249	9.335	4.702	4.82E-02	1.00E+00	0.016
PCaa C44:12	222	8.289	5.778	1.53E-01	1.00E+00	0.009
PCae C32	252	8.339	1.974	3.37E-05	8.19E-03	0.067
PCae C32:1	252	6.433	1.875	7.02E-04	1.71E-01	0.045
PCae C32:2	217	19.685	5.051	1.30E-04	3.17E-02	0.066
PCae C34	231	21.468	3.528	4.90E-09	1.19E-06	0.140
PCae C34:1	252	2.216	0.746	3.28E-03	7.97E-01	0.034
PCae C34:2	252	1.525	0.558	6.76E-03	1.00E+00	0.029
PCae C34:3	252	1.896	0.626	2.72E-03	6.62E-01	0.036
PCae C34:4	144	31.681	19.350	1.04E-01	1.00E+00	0.019
PCae C36	182	18.649	6.599	5.25E-03	1.00E+00	0.043
PCae C36:1	252	0.882	0.483	6.89E-02	1.00E+00	0.013
PCae C36:2	252	1.850	0.431	2.50E-05	6.07E-03	0.069
PCae C36:3	252	2.627	0.724	3.47E-04	8.44E-02	0.050
PCae C36:4	252	0.871	0.313	5.81E-03	1.00E+00	0.030
PCae C36:5	252	1.776	0.451	1.08E-04	2.61E-02	0.059
PCae C36:6	129	19.078	10.207	6.40E-02	1.00E+00	0.027
PCae C38	251	4.729	1.652	4.57E-03	1.00E+00	0.032
PCae C38:2	252	1.031	0.789	1.93E-01	1.00E+00	0.007
PCae C38:3	252	1.472	0.541	7.00E-03	1.00E+00	0.029
PCae C38:4	252	1.467	0.422	5.97E-04	1.45E-01	0.046
PCae C38:5	252	0.840	0.360	2.04E-02	1.00E+00	0.021
PCae C38:6	252	2.984	0.696	2.62E-05	6.37E-03	0.069
PCae C40	223	2.129	0.504	3.58E-05	8.70E-03	0.075
PCae C40:1	234	5.979	1.908	1.95E-03	4.74E-01	0.041
PCae C40:2	171	2.425	1.907	2.05E-01	1.00E+00	0.010
PCae C40:3	189	0.867	0.972	3.73E-01	1.00E+00	0.004
PCae C40:4	223	3.783	1.315	4.41E-03	1.00E+00	0.036
PCae C40:5	252	2.743	1.016	7.42E-03	1.00E+00	0.028
PCae C40:6	252	4.965	1.228	7.01E-05	1.70E-02	0.062
PCae C42	194	4.840	4.626	2.97E-01	1.00E+00	0.006
PCae C42:1	172	-1.382	2.805	6.23E-01	1.00E+00	0.001
PCae C42:2	205	13.213	3.940	9.53E-04	2.32E-01	0.053
PCae C42:3	212	7.362	2.725	7.46E-03	1.00E+00	0.034
PCae C42:4	190	7.893	4.616	8.90E-02	1.00E+00	0.015
PCae C42:5	232	4.239	2.026	3.75E-02	1.00E+00	0.019
PCae C42:6	252	10.182	3.505	4.00E-03	9.72E-01	0.033
SM C30:1	210	56.678	9.582	1.36E-08	3.31E-06	0.145
SM C31:1	125	100.883	22.482	1.65E-05	4.02E-03	0.141
SM C32:1	252	5.012	0.652	3.44E-13	8.36E-11	0.192

SM C32:2	252	40.864	6.319	5.29E-10	1.28E-07	0.144
SM C33:1	252	7.181	1.036	3.60E-11	8.75E-09	0.162
SM C33:2	184	107.846	26.011	5.20E-05	1.26E-02	0.087
SM C33:3	181	182.594	42.823	3.26E-05	7.93E-03	0.093
SM C34:1	252	0.518	0.068	5.23E-13	1.27E-10	0.189
SM C34:2	252	3.342	0.467	9.12E-12	2.22E-09	0.170
SM C35	168	27.975	9.379	3.29E-03	8.00E-01	0.051
SM C35:1	252	14.156	2.085	8.21E-11	1.99E-08	0.157
SM C35:2	203	59.767	12.310	2.43E-06	5.90E-04	0.106
SM C36:1	252	2.463	0.323	4.85E-13	1.18E-10	0.190
SM C36:2	252	3.718	0.612	4.73E-09	1.15E-06	0.129
SM C36:3	252	42.733	7.375	2.07E-08	5.04E-06	0.119
SM C37:1	128	7.883	3.656	3.30E-02	1.00E+00	0.036
SM C37:3	171	45.634	12.983	5.66E-04	1.38E-01	0.069
SM C38:1	195	1.022	0.201	8.35E-07	2.03E-04	0.120
SM C38:2	252	1.901	0.392	2.14E-06	5.20E-04	0.086
SM C38:3	151	39.487	14.688	8.01E-03	1.00E+00	0.047
SM C39:1	252	6.796	0.892	5.28E-13	1.28E-10	0.190
SM C39:2	152	15.451	3.504	1.98E-05	4.81E-03	0.116
SM C39:5	123	40.417	13.141	2.61E-03	6.33E-01	0.074
SM C40:2	252	1.439	0.208	3.88E-11	9.43E-09	0.161
SM C40:4	240	12.982	2.853	8.58E-06	2.08E-03	0.080
SM C40:5	216	22.230	6.436	6.67E-04	1.62E-01	0.053
SM C41:1	252	4.721	0.456	4.10E-21	9.96E-19	0.300
SM C41:2	252	5.158	0.693	1.57E-12	3.82E-10	0.182
SM C42:1	252	2.868	0.279	6.95E-21	1.69E-18	0.296
SM C42:2	252	1.144	0.170	1.19E-10	2.90E-08	0.154
SM C42:3	234	1.339	0.285	4.66E-06	1.13E-03	0.087
SM C42:4	216	1.980	0.807	1.50E-02	1.00E+00	0.027
SM C42:6	240	10.421	1.821	3.15E-08	7.66E-06	0.122
SM C43	144	-7.624	11.486	5.08E-01	1.00E+00	0.003
SM C43:1	248	22.328	4.123	1.46E-07	3.55E-05	0.107
SM C43:2	252	12.814	2.435	3.08E-07	7.48E-05	0.100
SM C44:6	210	15.343	3.757	6.33E-05	1.54E-02	0.075
NEFA 10:0	240	0.107	1.761	9.52E-01	1.00E+00	0.000
NEFA 12:0	208	0.182	0.297	5.41E-01	1.00E+00	0.002
NEFA 12:1	151	1.140	2.347	6.28E-01	1.00E+00	0.002

NEFA 13:0	98	6.134	5.637	2.79E-01	1.00E+00	0.012
NEFA 13:1	193	20.348	26.147	4.37E-01	1.00E+00	0.003
NEFA 14:0	251	0.369	0.242	1.28E-01	1.00E+00	0.009
NEFA 14:1	251	2.255	1.450	1.21E-01	1.00E+00	0.010
NEFA 14:2	114	0.102	0.268	7.06E-01	1.00E+00	0.001
NEFA 16:0	252	0.076	0.039	5.04E-02	1.00E+00	0.015
NEFA 16:1	223	0.131	0.108	2.23E-01	1.00E+00	0.007
NEFA 16:2	225	8.621	6.519	1.87E-01	1.00E+00	0.008
NEFA 17:0	235	2.176	1.288	9.25E-02	1.00E+00	0.012
NEFA 17:1	223	3.082	1.752	8.00E-02	1.00E+00	0.014
NEFA 17:2	153	70.756	37.886	6.38E-02	1.00E+00	0.023
NEFA 18:0	164	0.125	0.093	1.82E-01	1.00E+00	0.011
NEFA 18:1	252	0.037	0.028	1.78E-01	1.00E+00	0.007
NEFA 18:2	252	0.169	0.078	3.18E-02	1.00E+00	0.018
NEFA 18:3	252	0.521	0.240	3.09E-02	1.00E+00	0.019
NEFA 18:4	230	16.048	14.571	2.72E-01	1.00E+00	0.005
NEFA 19:0	236	12.894	10.849	2.36E-01	1.00E+00	0.006
NEFA 19:1	239	4.522	3.426	1.88E-01	1.00E+00	0.007
NEFA 20:0	132	4.017	6.547	5.41E-01	1.00E+00	0.003
NEFA 20:1	252	1.437	1.315	2.75E-01	1.00E+00	0.005
NEFA 20:2	203	1.564	2.037	4.43E-01	1.00E+00	0.003
NEFA 20:3	230	5.175	1.675	2.26E-03	5.48E-01	0.040
NEFA 20:4	223	1.944	0.776	1.30E-02	1.00E+00	0.028
NEFA 20:5	188	9.390	3.060	2.48E-03	6.02E-01	0.049
NEFA 22:0	93	24.444	11.333	3.37E-02	1.00E+00	0.049
NEFA 22:1	249	-4.243	8.867	6.33E-01	1.00E+00	0.001
NEFA 22:2	138	102.434	49.248	3.94E-02	1.00E+00	0.031
NEFA 22:3	224	72.302	41.665	8.41E-02	1.00E+00	0.013
NEFA 22:4	224	7.480	4.775	1.19E-01	1.00E+00	0.011
NEFA 22:5	252	6.917	2.383	4.03E-03	9.80E-01	0.033
NEFA 22:6	252	3.508	1.008	5.90E-04	1.43E-01	0.046
NEFA 24:0	207	55.445	17.057	1.35E-03	3.28E-01	0.049
NEFA 24:1	217	15.363	12.414	2.17E-01	1.00E+00	0.007
NEFA 24:2	165	262.363	99.683	9.31E-03	1.00E+00	0.041
NEFA 24:3	155	942.072	337.057	5.86E-03	1.00E+00	0.049
NEFA 24:4	223	143.038	81.396	8.03E-02	1.00E+00	0.014
NEFA 24:5	232	117.978	57.021	3.97E-02	1.00E+00	0.018
NEFA 24:6	193	247.534	86.586	4.73E-03	1.00E+00	0.041
NEFA 26:0	163	83.882	70.896	2.39E-01	1.00E+00	0.009
NEFA 26:1	206	132.994	62.784	3.54E-02	1.00E+00	0.022
NEFA 26:2	196	187.836	84.969	2.82E-02	1.00E+00	0.025
NEFA 26:3	170	52.120	98.597	5.98E-01	1.00E+00	0.002
NEFA 26:4	207	458.455	365.913	2.12E-01	1.00E+00	0.008
NEFA 26:5	195	788.666	446.253	7.88E-02	1.00E+00	0.016

NEFA 26:6	134	234.563	186.328	2.10E-01	1.00E+00	0.012
Pyruvate	252	-0.019	0.027	4.88E-01	1.00E+00	0.002
Lactate	252	-0.001	0.001	5.73E-01	1.00E+00	0.001
Acetoacetate	248	-0.021	0.152	8.91E-01	1.00E+00	0.000
Alpha-ketobutyrate	233	1.293	0.477	7.20E-03	1.00E+00	0.031
Fumarate	252	-2.313	4.843	6.33E-01	1.00E+00	0.001
3-Methyl-2-oxobutanoate	252	0.722	0.515	1.63E-01	1.00E+00	0.008
Succininate	252	-0.258	0.711	7.16E-01	1.00E+00	0.001
Methylmalonate	252	1.542	7.842	8.44E-01	1.00E+00	0.000
Taurine	252	0.065	0.066	3.25E-01	1.00E+00	0.004
3-Methyl-2-oxovalerate	252	0.799	0.481	9.79E-02	1.00E+00	0.011
4-Methyl-2-oxovalerate	252	0.524	0.286	6.79E-02	1.00E+00	0.013
Malate	252	-0.991	2.709	7.15E-01	1.00E+00	0.001
Alpha-ketoglutarate	251	-0.971	1.237	4.33E-01	1.00E+00	0.002
Alpha-aminoadipate	252	19.90611709	15.85881044	0.210584464	1	0.006304908
Isocitrate	239	-0.46631659	9.218630569	0.959699861	1	1.08717E-05
Citrate	252	-0.41071929	0.201773031	0.042858618	1	0.016382982
Sum AA	220	-0.01024548	0.00297492	0.000688503	0.167306186	0.051985037
Sum Carn	133	0.196205515	0.281534483	0.487110175	1	0.003741729
Sum LPC	231	0.093968764	0.036125836	0.009901787	1	0.028834103
Sum PCaa	251	0.028826155	0.005266063	1.08014E-07	2.62475E-05	0.107727762
Sum PCae	222	0.168605306	0.042619755	0.000103074	0.025046939	0.066661235
Sum SM	252	0.537666229	0.059122288	3.17538E-17	7.71618E-15	0.249147072
Sum NEFA	81	0.000113005	0.016588333	0.994582213	1	6.00283E-07

UBCS 8 years - ApoB

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	397	0.000127758	8.0248E-05	0.11218019	1	0.006321407
Arg	396	-9.6161E-05	0.0002356	0.68339027	1	0.000418082
Asn	359	-0.00061993	0.00070833	0.38206004	1	0.002117495
Asp	360	0.002062043	0.00136292	0.13117635	1	0.006301444
Cit	398	-0.0005733	0.00071704	0.42445782	1	0.001594429
Gln	397	-4.6431E-05	6.6649E-05	0.48643221	1	0.001212438
Glu	398	0.000320631	0.000341	0.34765894	1	0.002203715
Gly	396	-0.00011287	0.0001298	0.3850744	1	0.00189229
His	398	-1.7094E-05	0.0003239	0.95793745	1	6.95881E-06
Ile	358	-0.00036297	0.00056493	0.5209634	1	0.001145796
Leu	398	9.48741E-05	0.00029428	0.74732846	1	0.000259591
Lys	397	9.52297E-05	0.00019784	0.6305355	1	0.000580745
Met	398	-0.00029025	0.00119121	0.80762234	1	0.000148263
Orn	397	0.000232687	0.000409	0.56973277	1	0.000811318
Phe	398	-0.00018701	0.00058934	0.75116967	1	0.000251437
Pro	394	0.00017436	8.6521E-05	0.04456652	1	0.010150213
Ser	397	-0.00013349	0.00018204	0.46379804	1	0.001341968
Thr	398	-9.8807E-05	0.00023497	0.6743423	1	0.000441447
Trp	397	-0.00039885	0.00048899	0.41518596	1	0.001662847
Tyr	397	0.000438844	0.00042573	0.30326837	1	0.002654307
Val	398	0.000274935	0.00014366	0.05637218	1	0.009076217
Hpro	396	-0.00067854	0.000644	0.29269681	1	0.002777292
H1	396	2.57853E-05	1.128E-05	0.0227883	1	0.012922033
Carn	397	0.001097233	0.00093893	0.24327509	1	0.003406412
Carn C2	397	-0.00363772	0.00240619	0.13138405	1	0.005702327
Carn C3	398	-0.05876549	0.04466588	0.18905038	1	0.004307667
Carn C4	398	-0.10833369	0.07598105	0.15471819	1	0.00506377
Carn C5	391	-0.07474521	0.1229451	0.5435733	1	0.000938347
Carn C8:1	393	-0.03368186	0.04239698	0.42742367	1	0.001591567

Carn C10:1	396	-0.0781617	0.04212297	0.06426668	1	0.008560279
Carn C12:1	398	-0.0903446	0.04086344	0.02761711	1	0.012054823
Carn C14:1	397	0.090529716	0.05764171	0.11708983	1	0.006142421
Carn C16	396	0.170873301	0.15002618	0.25541681	1	0.00324704
Carn C18	394	0.837869369	0.31701153	0.00854805	1	0.017272921
Carn C18:1	398	-0.10371968	0.1244345	0.40505184	1	0.001732659
LPC C14	398	0.045600626	0.01345251	0.0007702	0.15635119	0.027924894
LPC C15	398	0.12638784	0.03137925	6.7574E-05	0.01371745	0.039074877
LPC C15:1	398	0.616610995	0.26532637	0.0206349	1	0.013322039
LPC C16	398	0.002790917	0.00050934	7.6233E-08	1.5475E-05	0.070064567
LPC C16:1	397	0.023110313	0.01282962	0.07241815	1	0.008077153
LPC C17	398	0.113993795	0.02366363	2.0799E-06	0.00042221	0.054764572
LPC C17:1	398	0.196636001	0.08582046	0.02247614	1	0.012947894
LPC C18	398	0.008919616	0.00131062	3.759E-11	7.6307E-09	0.104081007
LPC C18:1	398	0.004736015	0.00182035	0.00962554	1	0.016671104
LPC C18:2	398	0.001395815	0.00088098	0.11390713	1	0.006241393
LPC C18:3	397	0.055906039	0.03399502	0.10086515	1	0.006723228
LPC C18:6	398	0.248649679	0.09006552	0.00603615	1	0.018741722
LPC C20	398	0.244674176	0.09085347	0.00738215	1	0.017768036
LPC C20:1	398	0.173812473	0.08044867	0.0313332	1	0.011511951
LPC C20:2	398	0.178661167	0.07533281	0.01818997	1	0.013854608
LPC C20:3	396	0.030975859	0.01442277	0.03234961	1	0.011456983
LPC C20:4	396	0.01086438	0.00612867	0.07705257	1	0.007842326
LPC C20:5	396	0.131698344	0.04061959	0.00128745	0.26135319	0.025678232
LPC C22:4	398	0.080663466	0.05396354	0.13577311	1	0.005543078

LPC C22:5	398	0.06910986	0.02896625	0.01751008	1	0.014009549
LPC C22:6	397	0.036837729	0.0175403	0.03635019	1	0.01091854
PCaa C18	398	0.375952186	0.14398744	0.0093722	1	0.016728126
PCaa C18:1	398	0.335938839	0.17149635	0.05083312	1	0.009489436
PCaa C30	398	0.018386209	0.00400954	6.0888E-06	0.00123602	0.04986146
PCaa C30:2	398	0.072160302	0.0136899	2.2397E-07	4.5466E-05	0.065039093
PCaa C32	398	0.002617948	0.00089953	0.00381515	0.77447574	0.020725682
PCaa C32:1	398	0.003324506	0.00098462	0.00080734	0.16389073	0.02770045
PCaa C32:2	398	0.016546537	0.00385921	2.2745E-05	0.00461728	0.0439936
PCaa C32:3	398	0.171363812	0.03684685	4.5223E-06	0.00091802	0.051519372
PCaa C34	396	0.008356425	0.0026541	0.0017668	0.35865988	0.024200521
PCaa C34:1	397	0.000527554	0.00012759	4.3447E-05	0.00881978	0.041074108
PCaa C34:2	397	0.000294349	6.9312E-05	2.7101E-05	0.00550159	0.043357708
PCaa C34:3	398	0.005993029	0.00144507	4.124E-05	0.00837169	0.04121964
PCaa C34:4	398	0.038595266	0.00818878	3.388E-06	0.00068777	0.05252522
PCaa C34:5	398	0.233490547	0.06303374	0.00024233	0.0491922	0.033054023
PCaa C34:6	384	0.291376344	0.13901814	0.03674681	1	0.011252938
PCaa C36	397	0.022824944	0.00652649	0.00052373	0.10631728	0.029630222
PCaa C36:1	398	0.001410267	0.00035511	8.4943E-05	0.01724335	0.037939433
PCaa C36:2	397	0.000570566	0.00014278	7.6913E-05	0.01561329	0.03858194
PCaa C36:3	398	0.001562122	0.00028592	8.2902E-08	1.6829E-05	0.069280378
PCaa C36:4	398	0.000946567	0.00018792	7.2161E-07	0.00014649	0.059404415
PCaa C36:5	398	0.00420973	0.00109254	0.00013609	0.02762546	0.035670513
PCaa C36:6	398	0.097628923	0.02496973	0.0001087	0.022067	0.03669763
PCaa C38	398	0.026027217	0.00938058	0.00579031	1	0.018825667
PCaa C38:1	394	0.028800146	0.00844983	0.00072163	0.14649146	0.028311262
PCaa C38:2	398	0.00994254	0.00371274	0.00771728	1	0.017563886
PCaa C38:3	397	0.00407387	0.00071742	2.6453E-08	5.3699E-06	0.074597101
PCaa C38:4	398	0.001045517	0.00023378	1.0136E-05	0.00205763	0.047513483
PCaa C38:5	398	0.002070124	0.00048685	2.6476E-05	0.00537457	0.043112519
PCaa C38:6	398	0.001681407	0.00040257	3.6442E-05	0.00739773	0.041668137
PCaa C40	397	0.069272118	0.04605814	0.13338078	1	0.005624894
PCaa C40:1	391	0.074684233	0.08764259	0.39466042	1	0.001841153
PCaa C40:2	394	0.211390259	0.07732941	0.0065493	1	0.018465791
PCaa C40:3	390	0.05194275	0.04541611	0.25345373	1	0.003321508
PCaa C40:4	398	0.01436995	0.00499932	0.00426763	0.86632807	0.020169155
PCaa C40:5	397	0.00735379	0.00230327	0.00152266	0.30909909	0.024860025
PCaa C40:6	398	0.005415866	0.00121169	1.0254E-05	0.0020816	0.047374963
PCaa C42	398	0.017190317	0.04102535	0.67543212	1	0.000438217
PCaa C42:1	396	0.117365309	0.08251214	0.15570527	1	0.005034605
PCaa C42:2	392	0.155680849	0.13680376	0.25582828	1	0.003264298

PCaa C42:4	396	0.128779662	0.09166942	0.16086467	1	0.00492514
PCaa C42:5	395	0.129844055	0.05657795	0.02226446	1	0.013064394
PCaa C42:6	398	0.124371489	0.04809138	0.0100634	1	0.016361342
PCaa C43:6	398	-0.01069539	0.01862828	0.56619549	1	0.00082351
PCae C30	398	0.094335518	0.04182349	0.02464592	1	0.012539721
PCae C32	395	0.021751962	0.0066391	0.00114553	0.23254346	0.026287705
PCae C32:1	398	0.020520906	0.0088323	0.02066621	1	0.013292673
PCae C32:2	398	0.084369736	0.04885268	0.08494713	1	0.007406376
PCae C34	396	0.032195219	0.00886649	0.00031965	0.06488844	0.031944889
PCae C34:1	398	0.00745358	0.0027081	0.00619073	1	0.018562789
PCae C34:2	398	0.005528991	0.00202063	0.0064952	1	0.01837658
PCae C34:3	398	0.003966201	0.00229787	0.08512513	1	0.007384671
PCae C34:4	398	0.145403541	0.06242784	0.0203562	1	0.013363764
PCae C36	397	0.075674063	0.02210881	0.00068493	0.13904087	0.02843755
PCae C36:1	398	0.014652565	0.0049274	0.0031233	0.63402958	0.021587128
PCae C36:2	398	0.006346168	0.00244858	0.00990312	1	0.016497777
PCae C36:3	398	0.005984318	0.00356274	0.09380949	1	0.006994548
PCae C36:4	397	0.003972261	0.00133238	0.00304852	0.61884997	0.021700004
PCae C36:5	398	0.005697527	0.00189418	0.00279922	0.56824219	0.022049047
PCae C36:6	393	0.074687544	0.02813098	0.00825676	1	0.017474206
PCae C38	397	0.055862738	0.01206886	5.0071E-06	0.00101644	0.050933686
PCae C38:2	397	0.038610666	0.01099906	0.00049937	0.10137267	0.02986206
PCae C38:3	398	0.020709333	0.00612866	0.00079979	0.16235676	0.027611964
PCae C38:4	396	0.004983054	0.0015658	0.00157688	0.32010737	0.024678219
PCae C38:5	397	0.003188742	0.00122476	0.00957547	1	0.01667167
PCae C38:6	398	0.009404302	0.00267479	0.00048924	0.09931633	0.029909514
PCae C40	398	0.017399233	0.0049795	0.00052953	0.10749448	0.029504382
PCae C40:1	393	0.050723422	0.01119412	7.8127E-06	0.00158598	0.049266075
PCae C40:2	398	0.09510773	0.03059076	0.00201333	0.40870556	0.023531386
PCae C40:3	397	0.05154214	0.03086057	0.09568361	1	0.00693204
PCae C40:4	398	0.019954623	0.00993415	0.04525188	1	0.009952702
PCae C40:5	398	0.01374088	0.00740591	0.06428649	1	0.008505684
PCae C40:6	398	0.02077129	0.0065589	0.00166079	0.337141	0.024306039
PCae C42	398	0.064290008	0.05898739	0.27642591	1	0.002955521
PCae C42:1	396	0.065226407	0.03200316	0.04220831	1	0.010308737
PCae C42:2	398	0.094070039	0.03290475	0.00447758	0.90894901	0.019952894
PCae C42:3	397	0.070009317	0.03197633	0.02915447	1	0.011843576
PCae C42:4	398	0.013731211	0.02247368	0.54155807	1	0.000931189
PCae C42:5	398	0.001930962	0.01287239	0.88083509	1	5.62062E-05
PCae C42:6	398	0.014308775	0.01953698	0.46436341	1	0.001337033

SM C32:2	322	0.299562214	0.04342515	2.8498E-11	5.7851E-09	0.129923174
SM C35	397	0.056451233	0.01881947	0.00287529	0.58368322	0.022093041
SM C35:1	398	0.018336376	0.0048721	0.000193	0.03917906	0.034221135
SM C36	397	0.017015254	0.00651661	0.00937172	1	0.016775382
SM C36:1	398	0.003235766	0.00079418	5.5812E-05	0.01132986	0.03992541
SM C36:2	398	0.004845281	0.00149474	0.00128997	0.26186409	0.025667762
SM C37:1	397	0.026649987	0.00899321	0.00322833	0.65535039	0.021558762
SM C38:1	398	0.002278696	0.00060387	0.00018574	0.0377062	0.034397803
SM C38:2	398	0.002913208	0.00089156	0.00118008	0.23955706	0.02605813
SM C38:3	398	0.049283519	0.02226522	0.02743713	1	0.012103302
SM C39:1	398	0.019490681	0.00436605	1.051E-05	0.00213357	0.047542733
SM C39:2	396	0.044171868	0.0135497	0.00121153	0.24594079	0.025996445
SM C39:5	398	0.055268982	0.02251775	0.01454121	1	0.014810465
SM C40:1	395	0.001857956	0.00064148	0.00398732	0.80942583	0.020661241
SM C40:2	398	0.004692618	0.00091295	4.3338E-07	8.7977E-05	0.062183747
SM C40:3	395	0.006012656	0.00187191	0.00142709	0.28969892	0.025282502
SM C40:4	398	0.007784336	0.00238083	0.00117171	0.2378567	0.026011402
SM C41:1	398	0.009007137	0.00223586	6.7371E-05	0.01367625	0.038840415
SM C41:2	398	0.010590025	0.00346066	0.00236391	0.47987327	0.022901813
SM C41:3	390	0.027285106	0.01525477	0.07445895	1	0.00811819
SM C42:1	397	0.004170347	0.00113806	0.00028189	0.05722399	0.032335358
SM C42:2	398	0.001311808	0.00056311	0.02033281	1	0.013352435
SM C42:3	398	0.003071877	0.00135137	0.02355389	1	0.012748203
SM C42:4	397	0.010748468	0.00340088	0.00169705	0.34450035	0.024396844
SM C42:6	398	0.026525381	0.00704456	0.00019164	0.03890393	0.034151264
SM C43	396	0.068556359	0.03294227	0.03807279	1	0.010752358
SM C43:1	398	0.023355341	0.0138492	0.0925098	1	0.007041664
SM C43:2	398	0.006733922	0.00896201	0.45286929	1	0.001407286
SM C43:3	396	0.020450128	0.03779719	0.58878118	1	0.000735137
SM C44:2	394	0.089069142	0.04727401	0.06029454	1	0.00883437
SM C44:6	396	0.030841008	0.01503615	0.04091908	1	0.010447193
NEFA 10:0	321	-0.00123899	0.0072518	0.86444834	1	9.08349E-05
NEFA 12:0	394	-0.00101642	0.00150131	0.49879104	1	0.001158532
NEFA 12:1	391	-0.00993386	0.00674652	0.14171451	1	0.005478679

NEFA 14:0	397	-0.00043933	0.00084697	0.60425382	1	0.000673972
NEFA 14:1	395	0.001328604	0.00541981	0.80647791	1	0.000151391
NEFA 15:0	390	-0.00248802	0.00426892	0.56035285	1	0.000868203
NEFA 15:1	332	-0.08656089	0.05995161	0.14973676	1	0.00623448
NEFA 16:0	397	-0.00010557	0.00011475	0.35816036	1	0.002119181
NEFA 16:1	396	-0.0006177	0.00046778	0.18743981	1	0.00436721
NEFA 16:2	394	-0.05817911	0.04392686	0.18612786	1	0.004411554
NEFA 17:0	395	-0.00356465	0.00438558	0.41682112	1	0.001662491
NEFA 17:1	395	-0.01015887	0.00631811	0.10866515	1	0.006485215
NEFA 18:0	394	-0.00018824	0.00030143	0.532674	1	0.000985165
NEFA 18:1	398	-8.8397E-05	7.3378E-05	0.22904643	1	0.003616497
NEFA 18:2	397	-0.00019153	0.00028176	0.49707147	1	0.001157923
NEFA 18:3	397	-0.00153752	0.00223474	0.49185305	1	0.001186506
NEFA 19:1	398	-0.01807845	0.0140711	0.1996193	1	0.004112332
NEFA 20:0	357	-0.06060694	0.0246651	0.01448306	1	0.016675321
NEFA 20:2	348	-0.01368753	0.011421	0.23156553	1	0.004121224
NEFA 20:3	282	0.008652449	0.01485768	0.56079927	1	0.001199331
NEFA 20:4	398	0.012460226	0.00508471	0.01469856	1	0.014711678
NEFA 20:5	383	-0.00803514	0.03361105	0.81118643	1	0.00014859
NEFA 22:4	398	-0.00093854	0.02654805	0.97181656	1	3.12249E-06
NEFA 22:5	398	-0.00318349	0.01364477	0.81564022	1	0.00013602
NEFA 22:6	398	0.000559448	0.0077065	0.94216582	1	1.31647E-05
NEFA 24:0	395	-0.01329107	0.08751216	0.8793624	1	5.80866E-05
NEFA 24:2	351	-0.35923895	0.36367038	0.32393168	1	0.002758117
NEFA 24:4	392	-0.26468484	0.4298588	0.53842165	1	0.000960487
NEFA 24:5	397	0.207996724	0.40092786	0.6042003	1	0.000673604
NEFA 26:1	398	0.10527793	0.1539072	0.4943551	1	0.001167418

SUM_AA	331	1.17877E-05	1.7736E-05	0.50677152	1	0.001324616
SUM_Carn	377	0.000596567	0.00089957	0.50763345	1	0.001154673
SUM_LPC	393	0.001002123	0.0002403	3.7537E-05	0.00761996	0.042298292
SUM_PCaa	395	0.000132827	2.3785E-05	4.3922E-08	8.9162E-06	0.072842317
SUM_PCae	395	0.00072784	0.00020659	0.00047684	0.09679863	0.030182582
SUM_SM	321	0.003024851	0.00034534	1.2061E-16	2.4484E-14	0.192389403
SUM_NEFA	271	-3.617E-05	4.3314E-05	0.40443525	1	0.002574696

Supplemental Table 7 Associations of metabolites with HDL or ApoB for each study follow-up visit were calculated in linear models adjusted for child age and sex. Statistical significance was evaluated using Bonferroni corrected p-values (p.adjust) < 0.05 (with dark grey background). AA, amino acids; Carn, Acylcarnitines; lyso.PC, lyso-phosphatidylcholine; NEFA, nonesterified fatty acid; PCaa, Diacyl-phosphatidylcholine; PCae, Alkyl-acyl-

CHOP 5.5 years - HDL

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	383	0.002	0.009	8.48E-01	1.00E+00	0.000
Arg	381	0.083	0.040	3.70E-02	1.00E+00	0.011
Asn	383	0.173	0.069	1.31E-02	1.00E+00	0.016
Asp	381	-0.142	0.218	5.15E-01	1.00E+00	0.001
Cit	383	0.372	0.089	3.68E-05	8.58E-03	0.044
Gln	383	0.002	0.006	7.87E-01	1.00E+00	0.000
Glu	383	0.003	0.008	7.51E-01	1.00E+00	0.000
Gly	383	0.021	0.015	1.66E-01	1.00E+00	0.005
His	383	0.197	0.035	4.89E-08	1.14E-05	0.075
Ile	383	0.030	0.043	4.81E-01	1.00E+00	0.001
Leu	383	0.048	0.027	7.43E-02	1.00E+00	0.008
Lys	383	0.045	0.021	3.34E-02	1.00E+00	0.012
Met	383	0.209	0.153	1.72E-01	1.00E+00	0.005
Orn	383	0.034	0.037	3.57E-01	1.00E+00	0.002
Phe	383	0.111	0.064	8.17E-02	1.00E+00	0.008
Pro	383	0.003	0.013	8.19E-01	1.00E+00	0.000
Ser	382	-0.009	0.032	7.83E-01	1.00E+00	0.000
Thr	383	0.009	0.024	7.13E-01	1.00E+00	0.000
Trp	382	0.157	0.063	1.32E-02	1.00E+00	0.016
Tyr	383	0.092	0.045	3.90E-02	1.00E+00	0.011
Val	383	0.019	0.013	1.41E-01	1.00E+00	0.006
H1	382	-0.002	0.001	8.82E-02	1.00E+00	0.008
Carn	388	0.192	0.078	1.36E-02	1.00E+00	0.016
Carn C2	388	0.596	0.198	2.72E-03	6.34E-01	0.023
Carn C3	388	20.831	7.338	4.77E-03	1.00E+00	0.020
Carn C3:1	272	-3.488	135.557	9.79E-01	1.00E+00	0.000
Carn C4	388	18.615	6.695	5.70E-03	1.00E+00	0.020
Carn C4:0:OH	272	-24.772	9.555	1.00E-02	1.00E+00	0.024
Carn C4:1	346	4.901	22.885	8.31E-01	1.00E+00	0.000
Carn C5	388	55.905	19.404	4.19E-03	9.75E-01	0.021
Carn C5:0:OH	313	4944.973	1635.579	2.71E-03	6.31E-01	0.029
Carn C6	314	57.976	25.901	2.59E-02	1.00E+00	0.016
Carn C6:1	209	-607.983	233.190	9.80E-03	1.00E+00	0.032
Carn C8	325	1.959	4.823	6.85E-01	1.00E+00	0.001
Carn C8:1	388	-23.294	13.303	8.07E-02	1.00E+00	0.008
Carn C9	388	37.740	50.743	4.57E-01	1.00E+00	0.001
Carn C10	387	-0.818	3.174	7.97E-01	1.00E+00	0.000

Carn C10:1	388	13.002	4.151	1.87E-03	4.35E-01	0.025
Carn C10:2	388	73.872	37.692	5.07E-02	1.00E+00	0.010
Carn C12::DC	262	-10.408	9.471	2.73E-01	1.00E+00	0.005
Carn C12	387	23.223	8.396	5.95E-03	1.00E+00	0.020
Carn C12:1	388	8.595	3.095	5.75E-03	1.00E+00	0.020
Carn C14	388	48.538	23.859	4.26E-02	1.00E+00	0.011
Carn C14:1	386	8.724	6.036	1.49E-01	1.00E+00	0.005
Carn C14:2	388	94.033	27.271	6.27E-04	1.46E-01	0.030
Carn C14:2:OH	252	244.288	81.463	2.99E-03	6.96E-01	0.035
Carn C15	388	172.049	67.403	1.11E-02	1.00E+00	0.017
Carn C16	387	59.508	25.953	2.24E-02	1.00E+00	0.014
Carn C16:OH	387	59.612	27.717	3.21E-02	1.00E+00	0.012
Carn C16:1	285	455.836	148.815	2.40E-03	5.60E-01	0.032
Carn C16:2	272	249.747	99.387	1.26E-02	1.00E+00	0.023
Carn C16:2:OH	252	480.548	115.647	4.48E-05	1.04E-02	0.063
Carn C18	388	185.323	49.522	2.10E-04	4.90E-02	0.035
Carn C18:1	388	43.492	16.276	7.86E-03	1.00E+00	0.018
Carn C18:1:OH	324	77.789	106.066	4.64E-01	1.00E+00	0.002
Carn C18:2	388	74.425	22.564	1.06E-03	2.48E-01	0.028
Carn C18:2:OH	251	754.009	316.860	1.81E-02	1.00E+00	0.022
Carn C20	386	430.115	160.512	7.69E-03	1.00E+00	0.018
Carn C20:1	312	16059.920	4391.483	3.00E-04	6.99E-02	0.042
Carn C20:3	388	259.499	106.283	1.51E-02	1.00E+00	0.015
Carn C20:4	388	2915.356	1209.793	1.64E-02	1.00E+00	0.015
Carn C22	286	4731.179	1746.836	7.17E-03	1.00E+00	0.025
Carn C22:5	273	900.745	267.561	8.72E-04	2.03E-01	0.040
Carn C22:6	251	5016.463	1004.253	1.11E-06	2.59E-04	0.088
LPC C14	244	-0.462	1.029	6.54E-01	1.00E+00	0.001
LPC C15	244	0.719	2.763	7.95E-01	1.00E+00	0.000
LPC C16	387	-0.001	0.026	9.75E-01	1.00E+00	0.000
LPC C16:1	388	-0.073	0.713	9.19E-01	1.00E+00	0.000
LPC C17	386	0.762	1.096	4.87E-01	1.00E+00	0.001
LPC C18	388	0.092	0.064	1.49E-01	1.00E+00	0.005
LPC C18:1	388	0.231	0.138	9.42E-02	1.00E+00	0.007
LPC C18:2	388	0.208	0.072	3.85E-03	8.98E-01	0.021
LPC C18:3	347	0.282	2.443	9.08E-01	1.00E+00	0.000
LPC C20:1	196	2.023	3.891	6.04E-01	1.00E+00	0.001
LPC C20:3	386	1.488	0.735	4.37E-02	1.00E+00	0.011
LPC C20:4	388	1.282	0.325	9.30E-05	2.17E-02	0.039
LPC C20:5	317	-5.979	3.595	9.73E-02	1.00E+00	0.009

LPC C22:6	314	-1.954	1.121	8.23E-02	1.00E+00	0.010
PCaa C20:4	214	57.162	17.633	1.38E-03	3.22E-01	0.048
PCaa C28:2	317	6.806	17.040	6.90E-01	1.00E+00	0.001
PCaa C30	388	0.456	0.451	3.12E-01	1.00E+00	0.003
PCaa C30:2	387	11.167	3.044	2.79E-04	6.50E-02	0.034
PCaa C30:3	387	47.581	9.625	1.15E-06	2.68E-04	0.060
PCaa C30:4	163	-6.072	34.416	8.60E-01	1.00E+00	0.000
PCaa C32	388	0.070	0.192	7.16E-01	1.00E+00	0.000
PCaa C32:1	388	-0.050	0.136	7.16E-01	1.00E+00	0.000
PCaa C32:2	388	2.461	0.672	2.86E-04	6.68E-02	0.034
PCaa C34:1	388	0.057	0.013	2.67E-05	6.22E-03	0.045
PCaa C34:2	388	0.070	0.009	7.55E-14	1.76E-11	0.136
PCaa C34:3	386	-0.025	0.153	8.73E-01	1.00E+00	0.000
PCaa C34:4	388	2.072	1.212	8.82E-02	1.00E+00	0.008
PCaa C36	271	-0.270	0.358	4.50E-01	1.00E+00	0.002
PCaa C36:1	388	0.096	0.049	5.05E-02	1.00E+00	0.010
PCaa C36:2	388	0.089	0.012	2.53E-13	5.90E-11	0.130
PCaa C36:3	388	0.144	0.024	3.82E-09	8.91E-07	0.086
PCaa C36:4	388	0.108	0.018	3.60E-09	8.39E-07	0.087
PCaa C36:5	386	0.307	0.197	1.20E-01	1.00E+00	0.006
PCaa C36:6	318	-1.737	1.116	1.21E-01	1.00E+00	0.008
PCaa C38	312	0.802	0.671	2.33E-01	1.00E+00	0.005
PCaa C38:3	388	0.127	0.065	5.01E-02	1.00E+00	0.010
PCaa C38:4	388	0.085	0.025	7.10E-04	1.65E-01	0.029
PCaa C38:5	388	0.127	0.069	6.85E-02	1.00E+00	0.009
PCaa C38:6	388	0.124	0.042	3.24E-03	7.55E-01	0.022
PCaa C40	277	0.952	1.366	4.87E-01	1.00E+00	0.002
PCaa C40:4	387	0.254	0.595	6.69E-01	1.00E+00	0.000
PCaa C40:5	388	0.201	0.211	3.40E-01	1.00E+00	0.002
PCaa C40:6	388	0.051	0.097	5.97E-01	1.00E+00	0.001
PCaa C42	244	1.545	2.048	4.51E-01	1.00E+00	0.002
PCaa C42:1	212	0.658	5.019	8.96E-01	1.00E+00	0.000

PCaa C42:6	196	2.984	2.806	2.89E-01	1.00E+00	0.006
PCaa C43:6	252	2.465	1.739	1.58E-01	1.00E+00	0.008
PCaa C44:12	388	3.547	1.229	4.11E-03	9.58E-01	0.021
PCae C30:2	277	22.996	7.530	2.48E-03	5.78E-01	0.033
PCae C32	388	3.496	0.882	8.83E-05	2.06E-02	0.039
PCae C32:1	388	3.334	0.719	4.85E-06	1.13E-03	0.053
PCae C32:2	204	8.100	3.119	1.01E-02	1.00E+00	0.033
PCae C34	388	3.525	1.244	4.86E-03	1.00E+00	0.020
PCae C34:1	388	0.857	0.260	1.05E-03	2.45E-01	0.028
PCae C34:2	388	1.298	0.216	4.29E-09	1.00E-06	0.086
PCae C34:3	388	1.993	0.244	4.76E-15	1.11E-12	0.147
PCae C34:4	244	13.315	7.269	6.82E-02	1.00E+00	0.014
PCae C36	255	0.781	1.442	5.89E-01	1.00E+00	0.001
PCae C36:1	387	-0.018	0.123	8.83E-01	1.00E+00	0.000
PCae C36:2	387	0.738	0.146	6.48E-07	1.51E-04	0.063
PCae C36:3	388	1.879	0.250	4.45E-13	1.04E-10	0.127
PCae C36:4	387	0.751	0.133	3.09E-08	7.21E-06	0.077
PCae C36:5	388	1.072	0.169	5.89E-10	1.37E-07	0.095
PCae C36:6	172	6.477	2.387	7.36E-03	1.00E+00	0.042
PCae C38	313	-0.882	0.565	1.20E-01	1.00E+00	0.008
PCae C38:2	306	0.085	0.168	6.11E-01	1.00E+00	0.001
PCae C38:3	386	-0.043	0.170	8.01E-01	1.00E+00	0.000
PCae C38:4	388	1.192	0.170	1.08E-11	2.53E-09	0.113
PCae C38:5	388	0.764	0.136	4.14E-08	9.65E-06	0.075
PCae C38:6	388	1.908	0.291	1.74E-10	4.04E-08	0.101
PCae C40	388	0.009	0.243	9.72E-01	1.00E+00	0.000
PCae C40:1	232	2.392	0.932	1.09E-02	1.00E+00	0.028
PCae C40:3	317	-0.067	0.242	7.83E-01	1.00E+00	0.000
PCae C40:4	348	0.060	0.385	8.76E-01	1.00E+00	0.000
PCae C40:5	388	0.305	0.405	4.52E-01	1.00E+00	0.001
PCae C40:6	388	1.710	0.513	9.48E-04	2.21E-01	0.028
PCae C42:2	325	-0.685	1.303	5.99E-01	1.00E+00	0.001
PCae C42:3	277	0.705	1.157	5.43E-01	1.00E+00	0.001
PCae C42:4	193	4.730	2.216	3.41E-02	1.00E+00	0.023
PCae C42:5	314	-0.677	0.896	4.50E-01	1.00E+00	0.002
PCae C42:6	387	-0.856	1.369	5.32E-01	1.00E+00	0.001
SM C21:2	348	138.496	30.383	7.18E-06	1.67E-03	0.057
SM C32:1	388	1.612	0.294	7.68E-08	1.79E-05	0.073

SM C32:2	348	5.125	4.114	2.14E-01	1.00E+00	0.004
SM C33:1	388	2.373	0.529	9.66E-06	2.25E-03	0.050
SM C33:3	184	20.479	11.214	6.95E-02	1.00E+00	0.018
SM C34:1	387	0.103	0.031	1.09E-03	2.54E-01	0.027
SM C34:2	387	1.195	0.215	5.52E-08	1.29E-05	0.074
SM C34:4	213	9.265	50.912	8.56E-01	1.00E+00	0.000
SM C35:1	387	2.152	0.903	1.76E-02	1.00E+00	0.015
SM C35:2	197	10.641	6.787	1.19E-01	1.00E+00	0.013
SM C36:1	386	0.229	0.155	1.42E-01	1.00E+00	0.006
SM C36:2	387	0.680	0.289	1.91E-02	1.00E+00	0.014
SM C36:3	183	-0.082	3.453	9.81E-01	1.00E+00	0.000
SM C37:1	197	2.182	0.807	7.49E-03	1.00E+00	0.036
SM C37:3	206	28.947	4.622	2.23E-09	5.19E-07	0.160
SM C38:2	388	1.032	0.181	2.34E-08	5.46E-06	0.078
SM C39:1	314	2.045	0.479	2.56E-05	5.98E-03	0.056
SM C40:2	237	0.263	0.111	1.84E-02	1.00E+00	0.024
SM C40:4	307	5.767	1.142	7.67E-07	1.79E-04	0.077
SM C40:5	348	-4.395	2.272	5.39E-02	1.00E+00	0.011
SM C41:1	387	0.683	0.165	4.33E-05	1.01E-02	0.043
SM C41:2	387	1.286	0.233	6.08E-08	1.42E-05	0.074
SM C42:1	388	0.505	0.112	8.94E-06	2.08E-03	0.050
SM C42:2	387	0.193	0.067	3.98E-03	9.28E-01	0.021
SM C42:3	318	0.017	0.147	9.06E-01	1.00E+00	0.000
SM C42:6	388	3.179	0.802	8.76E-05	2.04E-02	0.039
SM C43	175	4.621	4.175	2.70E-01	1.00E+00	0.007
SM C43:1	204	1.744	1.505	2.48E-01	1.00E+00	0.007
SM C43:2	317	0.945	0.979	3.35E-01	1.00E+00	0.003
SM C44:6	233	4.018	2.111	5.82E-02	1.00E+00	0.016
SM C47:6	325	359.481	128.098	5.32E-03	1.00E+00	0.024
NEFA 12:0	181	0.280	0.296	3.46E-01	1.00E+00	0.005

NEFA 14:0	323	0.081	0.087	3.48E-01	1.00E+00	0.003
NEFA 14:1	385	0.386	0.138	5.28E-03	1.00E+00	0.020
NEFA 15:0	181	2.800	1.223	2.32E-02	1.00E+00	0.029
NEFA 16:0	248	0.023	0.014	1.11E-01	1.00E+00	0.010
NEFA 16:1	385	0.069	0.040	8.69E-02	1.00E+00	0.008
NEFA 16:2	304	2.554	1.386	6.64E-02	1.00E+00	0.011
NEFA 17:0	168	0.731	0.444	1.02E-01	1.00E+00	0.016
NEFA 17:1	385	1.090	0.362	2.79E-03	6.50E-01	0.023
NEFA 17:2	168	32.395	15.927	4.36E-02	1.00E+00	0.024
NEFA 18:1	385	0.018	0.007	6.10E-03	1.00E+00	0.020
NEFA 18:2	385	0.054	0.015	4.73E-04	1.10E-01	0.032
NEFA 18:3	385	0.312	0.217	1.51E-01	1.00E+00	0.005
NEFA 18:4	168	18.229	9.128	4.75E-02	1.00E+00	0.023
NEFA 19:1	302	0.781	1.759	6.58E-01	1.00E+00	0.001
NEFA 20:1	385	1.027	0.457	2.54E-02	1.00E+00	0.013
NEFA 20:2	385	0.920	0.247	2.29E-04	5.33E-02	0.035
NEFA 20:3	385	1.116	0.492	2.37E-02	1.00E+00	0.013
NEFA 20:4	384	0.379	0.165	2.20E-02	1.00E+00	0.014
NEFA 20:5	301	0.240	0.901	7.90E-01	1.00E+00	0.000
NEFA 22:3	230	67.414	27.683	1.57E-02	1.00E+00	0.025
NEFA 22:4	385	5.318	2.096	1.16E-02	1.00E+00	0.017
NEFA 22:5	382	2.579	1.068	1.62E-02	1.00E+00	0.015
NEFA 22:6	385	1.102	0.431	1.09E-02	1.00E+00	0.017
NEFA 24:0	168	23.734	7.446	1.72E-03	4.00E-01	0.058
NEFA 24:1	385	7.704	2.949	9.34E-03	1.00E+00	0.018
NEFA 24:2	168	-99.511	55.523	7.49E-02	1.00E+00	0.019
NEFA 24:3	241	-8.288	38.348	8.29E-01	1.00E+00	0.000
NEFA 24:4	385	107.675	36.434	3.32E-03	7.73E-01	0.022
NEFA 24:6	162	313.458	113.252	6.32E-03	1.00E+00	0.045
NEFA 26:0	329	2.266	4.605	6.23E-01	1.00E+00	0.001
NEFA 26:1	311	21.442	5.431	9.77E-05	2.28E-02	0.048
NEFA 26:2	385	25.515	6.278	5.85E-05	1.36E-02	0.041
NEFA 26:3	303	31.058	20.582	1.32E-01	1.00E+00	0.008
NEFA 26:4	385	176.783	79.528	2.68E-02	1.00E+00	0.013

Pyruvate	380	-0.001	0.004	7.19E-01	1.00E+00	0.000
Lactic_acid	385	0.000	0.000	3.52E-01	1.00E+00	0.002
Fumarate	378	3.813	2.576	1.40E-01	1.00E+00	0.006
3-Methyl-2-oxobutanoate	380	-0.003	0.053	9.48E-01	1.00E+00	0.000
Succininate	383	-0.420	0.222	5.95E-02	1.00E+00	0.009
Methylmalonate	385	-16.039	10.369	1.23E-01	1.00E+00	0.006
Taurine	383	-0.001	0.019	9.53E-01	1.00E+00	0.000
3-Methyl-2-oxovalerate	384	-0.034	0.059	5.63E-01	1.00E+00	0.001
4-Methyl-2-oxovalerate	379	0.021	0.030	4.74E-01	1.00E+00	0.001
Malate	381	-1.004	0.417	1.65E-02	1.00E+00	0.015
Alpha-ketoglutarate	374	0.130	0.135	3.35E-01	1.00E+00	0.003
Alpha-aminoadipate	384	2.436	4.591	5.96E-01	1.00E+00	0.001
Isocitrate	385	-0.033	0.134	8.04E-01	1.00E+00	0.000
Citrate	385	-0.015	0.010	1.41E-01	1.00E+00	0.006
Beta-hydroxybutyrate	148	-0.022	0.032	4.85E-01	1.00E+00	0.003
Sum AA	380	0.003	0.002	5.12E-02	1.00E+00	0.010
Sum Carn	385	0.246	0.070	5.11E-04	1.19E-01	0.031
Sum LPC	204	0.055	0.025	3.18E-02	1.00E+00	0.023
Sum PCaa	309	0.018	0.003	9.08E-09	2.12E-06	0.103
Sum PCae	272	0.137	0.026	2.18E-07	5.07E-05	0.095
Sum SM	346	0.109	0.027	7.30E-05	1.70E-02	0.045
Sum NEFA	99	0.011	0.005	3.51E-02	1.00E+00	0.042

CHOP 8 years - HDL

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	350	-0.040	0.012	7.03E-04	1.34E-01	0.033
Arg	350	-0.059	0.054	2.78E-01	1.00E+00	0.003
Asn	350	0.112	0.089	2.09E-01	1.00E+00	0.005
Asp	350	0.022	0.278	9.37E-01	1.00E+00	0.000
Cit	350	0.460	0.120	1.58E-04	2.99E-02	0.040
Gln	349	-0.004	0.006	4.47E-01	1.00E+00	0.002
Glu	350	0.002	0.009	8.40E-01	1.00E+00	0.000
Gly	350	-0.039	0.019	4.15E-02	1.00E+00	0.012
His	350	0.005	0.035	8.91E-01	1.00E+00	0.000
Ile	350	0.035	0.085	6.77E-01	1.00E+00	0.000
Leu	350	0.068	0.048	1.59E-01	1.00E+00	0.006
Lys	350	0.015	0.055	7.83E-01	1.00E+00	0.000
Met	350	0.200	0.199	3.15E-01	1.00E+00	0.003
Orn	350	0.035	0.058	5.45E-01	1.00E+00	0.001
Phe	349	0.151	0.095	1.13E-01	1.00E+00	0.007
Pro	350	-0.010	0.022	6.53E-01	1.00E+00	0.001
Ser	349	-0.017	0.029	5.59E-01	1.00E+00	0.001
Thr	350	-0.046	0.037	2.12E-01	1.00E+00	0.004
Trp	350	0.042	0.089	6.37E-01	1.00E+00	0.001
Tyr	349	-0.003	0.069	9.70E-01	1.00E+00	0.000
Val	350	0.037	0.023	1.10E-01	1.00E+00	0.007
H1	350	0.000	0.001	9.82E-01	1.00E+00	0.000
Carn	350	-0.031	0.042	4.52E-01	1.00E+00	0.002
Carn C2	350	0.316	0.329	3.36E-01	1.00E+00	0.003
Carn C3	347	5.952	2.697	2.80E-02	1.00E+00	0.014
Carn C3:1	285	78.338	41.847	6.22E-02	1.00E+00	0.012
Carn C4:0:OH	237	14.366	11.268	2.04E-01	1.00E+00	0.007
Carn C5	350	2162.176	596.724	3.34E-04	6.35E-02	0.036
Carn C5:0:OH	350	42.168	10.740	1.04E-04	1.98E-02	0.042
Carn C6	350	17.710	17.485	3.12E-01	1.00E+00	0.003
Carn C6:1	350	-23.586	22.692	2.99E-01	1.00E+00	0.003
Carn C8	350	4.906	4.970	3.24E-01	1.00E+00	0.003
Carn C8:1	350	-42.871	12.449	6.44E-04	1.22E-01	0.033
Carn C9	350	37.344	46.769	4.25E-01	1.00E+00	0.002
Carn C10	350	6.301	2.915	3.13E-02	1.00E+00	0.013

Carn C10:1	349	7.745	4.844	1.11E-01	1.00E+00	0.007
Carn C10:2	350	-119.701	34.620	6.13E-04	1.16E-01	0.033
Carn C12	350	10.043	7.502	1.82E-01	1.00E+00	0.005
Carn C12:1	350	2.627	3.142	4.04E-01	1.00E+00	0.002
Carn C14	350	99.050	31.216	1.64E-03	3.12E-01	0.028
Carn C14:1	349	6.460	5.169	2.12E-01	1.00E+00	0.004
Carn C14:2	350	52.429	23.919	2.91E-02	1.00E+00	0.014
Carn C14:2:OH	348	-33.794	74.430	6.50E-01	1.00E+00	0.001
Carn C15	350	267.085	172.141	1.22E-01	1.00E+00	0.007
Carn C16	350	98.386	38.372	1.08E-02	1.00E+00	0.019
Carn C16:0:OH	287	612.637	474.102	1.97E-01	1.00E+00	0.006
Carn C16:1	350	53.520	33.284	1.09E-01	1.00E+00	0.007
Carn C16:2	350	180.601	86.176	3.68E-02	1.00E+00	0.012
Carn C16:2:OH	301	723.695	165.353	1.67E-05	3.17E-03	0.060
Carn C18	350	236.211	84.410	5.42E-03	1.00E+00	0.022
Carn C18:1	350	46.934	25.376	6.52E-02	1.00E+00	0.010
Carn C18:1:OH	350	2.006	115.836	9.86E-01	1.00E+00	0.000
Carn C18:2	348	125.195	41.257	2.59E-03	4.93E-01	0.026
Carn C18:2:OH	230	416.685	285.629	1.46E-01	1.00E+00	0.009
Carn C20	344	-221.924	166.132	1.82E-01	1.00E+00	0.005
Carn C20:1	349	-17974.584	11767.427	1.28E-01	1.00E+00	0.007
Carn C20:3	350	452.259	449.097	3.15E-01	1.00E+00	0.003
Carn C20:4	301	129.221	5868.868	9.82E-01	1.00E+00	0.000
Carn C22	220	20527.982	5535.082	2.65E-04	5.03E-02	0.060
Carn C22:5	251	-128.094	883.075	8.85E-01	1.00E+00	0.000
Carn C22:6	183	-501.936	640.830	4.35E-01	1.00E+00	0.003
LPC C16	350	0.012	0.019	5.23E-01	1.00E+00	0.001
LPC C16:1	350	0.054	0.685	9.37E-01	1.00E+00	0.000
LPC C17	287	0.239	1.094	8.28E-01	1.00E+00	0.000
LPC C18	350	0.065	0.052	2.14E-01	1.00E+00	0.004
LPC C18:1	350	0.267	0.121	2.82E-02	1.00E+00	0.014
LPC C18:2	350	0.307	0.064	2.73E-06	5.20E-04	0.061
LPC C18:3	219	-0.814	3.643	8.23E-01	1.00E+00	0.000
LPC C18:6	178	-14.968	5.514	7.31E-03	1.00E+00	0.040
LPC C20:3	283	2.292	0.994	2.18E-02	1.00E+00	0.019
LPC C20:4	350	1.280	0.335	1.58E-04	2.99E-02	0.040
LPC C20:5	166	-2.729	3.614	4.51E-01	1.00E+00	0.003

LPC C22:5	152	2.809	4.540	5.37E-01	1.00E+00	0.003
LPC C22:6	250	1.644	1.439	2.54E-01	1.00E+00	0.005
PCaa C30:5	180	-570.257	408.203	1.64E-01	1.00E+00	0.011
PCaa C32	350	1.144	0.222	4.39E-07	8.34E-05	0.071
PCaa C32:1	287	0.226	0.150	1.32E-01	1.00E+00	0.008
PCaa C34:1	350	0.044	0.015	3.29E-03	6.25E-01	0.025
PCaa C34:2	284	0.058	0.009	2.83E-09	5.37E-07	0.116
PCaa C34:3	350	0.246	0.158	1.19E-01	1.00E+00	0.007
PCaa C34:4	301	1.982	1.275	1.21E-01	1.00E+00	0.008
PCaa C36:2	350	0.072	0.010	7.37E-13	1.40E-10	0.136
PCaa C36:3	350	0.175	0.029	3.70E-09	7.02E-07	0.095
PCaa C36:4	284	0.063	0.023	6.34E-03	1.00E+00	0.026
PCaa C36:5	281	0.034	0.161	8.35E-01	1.00E+00	0.000
PCaa C38	164	3.048	0.711	3.14E-05	5.97E-03	0.103
PCaa C38:3	162	0.133	0.104	2.02E-01	1.00E+00	0.010
PCaa C38:4	183	0.107	0.036	3.22E-03	6.12E-01	0.047
PCaa C38:5	238	0.442	0.095	5.87E-06	1.11E-03	0.084
PCaa C38:6	350	0.006	0.038	8.80E-01	1.00E+00	0.000
PCaa C40:4	154	3.389	1.009	9.90E-04	1.88E-01	0.070
PCaa C40:5	171	1.459	0.358	6.96E-05	1.32E-02	0.089
PCaa C40:6	349	-0.064	0.096	5.04E-01	1.00E+00	0.001

PCaa C44:12	172	7.422	3.763	5.02E-02	1.00E+00	0.022
PCae C34:1	350	1.434	0.255	3.72E-08	7.07E-06	0.083
PCae C34:2	283	1.330	0.197	7.78E-11	1.48E-08	0.141
PCae C34:3	350	1.847	0.213	1.60E-16	3.03E-14	0.178
PCae C36:1	235	0.582	0.151	1.54E-04	2.92E-02	0.059
PCae C36:2	153	0.985	0.297	1.16E-03	2.20E-01	0.067
PCae C36:3	350	1.639	0.238	2.47E-11	4.69E-09	0.121
PCae C36:4	283	0.575	0.127	8.76E-06	1.66E-03	0.068
PCae C36:5	350	1.091	0.195	4.77E-08	9.06E-06	0.083
PCae C38	182	0.268	1.018	7.92E-01	1.00E+00	0.000
PCae C38:3	182	0.352	0.220	1.11E-01	1.00E+00	0.014
PCae C38:4	172	1.627	0.336	2.92E-06	5.55E-04	0.122
PCae C38:5	287	0.414	0.148	5.35E-03	1.00E+00	0.027
PCae C38:6	238	1.755	0.373	4.37E-06	8.31E-04	0.086
PCae C40	164	0.000	0.425	1.00E+00	1.00E+00	0.000
PCae C40:4	171	1.595	0.731	3.06E-02	1.00E+00	0.027
PCae C40:6	171	2.504	0.847	3.55E-03	6.75E-01	0.049
SM C21:2	178	3.456	18.502	8.52E-01	1.00E+00	0.000
SM C31:1	181	1.921	14.016	8.91E-01	1.00E+00	0.000
SM C32:1	350	2.557	0.346	1.05E-12	1.99E-10	0.135

SM C32:2	170	9.631	4.214	2.35E-02	1.00E+00	0.030
SM C33:1	350	2.198	0.496	1.25E-05	2.38E-03	0.053
SM C34:1	350	0.230	0.033	2.10E-11	4.00E-09	0.121
SM C34:2	350	1.317	0.227	1.45E-08	2.75E-06	0.088
SM C35:1	301	4.043	0.934	2.04E-05	3.88E-03	0.059
SM C36:1	350	0.588	0.131	1.04E-05	1.98E-03	0.054
SM C36:2	220	1.339	0.412	1.34E-03	2.54E-01	0.046
SM C36:3	282	2.595	2.575	3.14E-01	1.00E+00	0.004
SM C41:1	238	1.153	0.273	3.43E-05	6.51E-03	0.070
SM C41:2	237	1.987	0.336	1.13E-08	2.15E-06	0.129
SM C42:1	185	0.559	0.165	8.37E-04	1.59E-01	0.058
SM C42:2	172	0.112	0.093	2.30E-01	1.00E+00	0.008
NEFA 10:0	335	1.365	0.321	2.69E-05	5.10E-03	0.052
NEFA 11:0	262	-26.008	9.748	8.11E-03	1.00E+00	0.027
NEFA 12:0	334	0.708	0.452	1.18E-01	1.00E+00	0.007
NEFA 12:1	219	26.212	11.720	2.63E-02	1.00E+00	0.023

NEFA 14:0	335	0.230	0.099	2.15E-02	1.00E+00	0.016
NEFA 14:1	334	1.202	0.535	2.54E-02	1.00E+00	0.015
NEFA 15:0	335	1.277	0.464	6.31E-03	1.00E+00	0.022
NEFA 15:1	212	20.921	7.554	6.12E-03	1.00E+00	0.035
NEFA 16:0	335	0.027	0.013	3.42E-02	1.00E+00	0.013
NEFA 16:1	335	0.060	0.057	2.91E-01	1.00E+00	0.003
NEFA 16:2	335	4.408	3.818	2.49E-01	1.00E+00	0.004
NEFA 17:0	335	1.638	0.461	4.36E-04	8.28E-02	0.037
NEFA 17:1	335	1.426	0.785	7.01E-02	1.00E+00	0.010
NEFA 18:0	280	0.053	0.031	9.00E-02	1.00E+00	0.010
NEFA 18:1	335	0.015	0.010	1.21E-01	1.00E+00	0.007
NEFA 18:2	333	0.061	0.032	5.60E-02	1.00E+00	0.011
NEFA 18:3	335	-0.050	0.133	7.07E-01	1.00E+00	0.000
NEFA 18:4	333	-3.453	8.648	6.90E-01	1.00E+00	0.000
NEFA 19:0	280	9.200	5.265	8.17E-02	1.00E+00	0.011
NEFA 19:1	335	1.900	1.649	2.50E-01	1.00E+00	0.004
NEFA 20:0	335	7.441	2.289	1.27E-03	2.41E-01	0.031
NEFA 20:1	335	0.450	0.564	4.26E-01	1.00E+00	0.002
NEFA 20:2	334	1.287	0.965	1.83E-01	1.00E+00	0.005
NEFA 20:3	335	0.722	0.586	2.19E-01	1.00E+00	0.005
NEFA 20:4	335	0.147	0.154	3.42E-01	1.00E+00	0.003
NEFA 20:5	333	0.469	1.557	7.64E-01	1.00E+00	0.000
NEFA 22:0	285	35.690	8.217	1.96E-05	3.73E-03	0.063
NEFA 22:1	334	2.664	7.099	7.08E-01	1.00E+00	0.000
NEFA 22:2	280	9.517	33.383	7.76E-01	1.00E+00	0.000
NEFA 22:3	230	-20.078	30.157	5.06E-01	1.00E+00	0.002
NEFA 22:4	334	2.688	1.925	1.64E-01	1.00E+00	0.006
NEFA 22:5	335	1.637	1.022	1.10E-01	1.00E+00	0.008
NEFA 22:6	335	0.471	0.464	3.10E-01	1.00E+00	0.003
NEFA 24:0	335	34.194	7.968	2.34E-05	4.44E-03	0.053
NEFA 24:1	335	3.702	6.826	5.88E-01	1.00E+00	0.001
NEFA 24:3	146	340.919	179.021	5.89E-02	1.00E+00	0.024
NEFA 24:4	218	100.184	48.327	3.94E-02	1.00E+00	0.020
NEFA 24:5	165	-10.022	47.090	8.32E-01	1.00E+00	0.000
NEFA 24:6	220	-81.486	30.159	7.44E-03	1.00E+00	0.033
NEFA 26:0	285	134.544	52.950	1.16E-02	1.00E+00	0.022
NEFA 26:1	335	-42.115	11.913	4.65E-04	8.84E-02	0.036
NEFA 26:2	286	7.792	16.070	6.28E-01	1.00E+00	0.001
NEFA 26:3	334	78.033	26.937	4.02E-03	7.64E-01	0.025
NEFA 26:4	164	-275.424	138.879	4.91E-02	1.00E+00	0.024
NEFA 26:5	180	-0.156	152.792	9.99E-01	1.00E+00	0.000

3-Methyl-2-oxovalerate	344	-0.024	0.171	8.89E-01	1.00E+00	0.000
4-Methyl-2-oxovalerate	344	0.014	0.100	8.92E-01	1.00E+00	0.000
Acetoacetate	243	0.028	0.008	3.46E-04	6.58E-02	0.052
Alpha-aminoadipate	158	-3.464	2.669	1.96E-01	1.00E+00	0.010
Alpha-ketobutyrate	330	0.142	0.036	8.75E-05	1.66E-02	0.046
Citrate	293	0.008	0.032	7.98E-01	1.00E+00	0.000
Isocitrate	294	0.944	0.162	1.57E-08	2.98E-06	0.104
Lactate	342	-0.002	0.001	1.64E-01	1.00E+00	0.006
Malate	342	0.512	0.207	1.38E-02	1.00E+00	0.018
Alpha-ketoglutarate	344	-0.116	0.141	4.10E-01	1.00E+00	0.002
Pyruvate	222	0.027	0.013	3.59E-02	1.00E+00	0.020
Succininate	344	0.283	0.189	1.35E-01	1.00E+00	0.007
Taurine	294	0.099	0.031	1.67E-03	3.17E-01	0.033
Sum AA	347	-0.004	0.003	2.80E-01	1.00E+00	0.003
Sum Carn	346	-0.019	0.042	6.44E-01	1.00E+00	0.001
Sum LPC	53	0.020	0.021	3.37E-01	1.00E+00	0.017
Sum PCaa	49	0.039	0.008	2.24E-05	4.25E-03	0.309
Sum PCae	50	0.236	0.063	5.13E-04	9.74E-02	0.228
Sum SM	54	0.252	0.080	2.61E-03	4.97E-01	0.158
Sum NEFA	213	0.004	0.005	4.36E-01	1.00E+00	0.003

GINI-LISA 10 years - HDL

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	250	-0.005	0.007	4.37E-01	1.00E+00	0.002
Arg	250	-0.004	0.032	8.95E-01	1.00E+00	0.000
Asn	250	0.079	0.057	1.68E-01	1.00E+00	0.007
Asp	249	-0.125	0.060	3.69E-02	1.00E+00	0.017
Cit	250	0.207	0.074	5.90E-03	1.00E+00	0.030
Gln	221	-0.005	0.006	4.28E-01	1.00E+00	0.003
Glu	250	-0.004	0.012	7.20E-01	1.00E+00	0.001
Gly	250	-0.003	0.011	7.95E-01	1.00E+00	0.000
His	250	0.036	0.031	2.44E-01	1.00E+00	0.005
Ile	250	-0.004	0.047	9.24E-01	1.00E+00	0.000
Leu	250	0.006	0.025	8.23E-01	1.00E+00	0.000
Lys	250	-0.012	0.018	5.01E-01	1.00E+00	0.002
Met	250	0.068	0.137	6.23E-01	1.00E+00	0.001
Orn	250	0.006	0.023	8.14E-01	1.00E+00	0.000
Phe	250	-0.020	0.041	6.23E-01	1.00E+00	0.001
Pro	250	-0.012	0.011	2.54E-01	1.00E+00	0.005
Ser	250	-0.036	0.022	1.08E-01	1.00E+00	0.010
Thr	250	0.008	0.022	7.02E-01	1.00E+00	0.001
Trp	250	0.027	0.055	6.19E-01	1.00E+00	0.001
Tyr	250	-0.018	0.042	6.71E-01	1.00E+00	0.001
Val	250	0.003	0.013	8.00E-01	1.00E+00	0.000
H1	252	0.001	0.001	1.02E-01	1.00E+00	0.010
Carn	191	-0.102	0.129	4.31E-01	1.00E+00	0.003
Carn C2	195	0.308	0.378	4.15E-01	1.00E+00	0.003
Carn C3	207	5.932	8.553	4.89E-01	1.00E+00	0.002
Carn C4	163	-12.267	9.998	2.22E-01	1.00E+00	0.009
Carn C5	153	6.298	22.852	7.83E-01	1.00E+00	0.000
Carn C6	251	34.917	16.539	3.58E-02	1.00E+00	0.017
Carn C8	252	5.219	2.229	2.00E-02	1.00E+00	0.021
Carn C8:1	251	7.618	10.504	4.69E-01	1.00E+00	0.002
Carn C9	230	39.297	26.767	1.43E-01	1.00E+00	0.009
Carn C10	251	4.331	1.731	1.30E-02	1.00E+00	0.024

Carn C10:1	252	9.068	2.798	1.36E-03	3.29E-01	0.039
Carn C10:2	153	7.665	17.911	6.69E-01	1.00E+00	0.001
Carn C12	251	6.962	3.974	8.10E-02	1.00E+00	0.012
Carn C12:1	223	2.587	1.870	1.68E-01	1.00E+00	0.008
Carn C14	162	47.059	32.035	1.44E-01	1.00E+00	0.013
Carn C14:1	251	8.824	6.124	1.51E-01	1.00E+00	0.008
Carn C14:2	163	40.608	25.289	1.10E-01	1.00E+00	0.015
Carn C16	230	36.712	25.539	1.52E-01	1.00E+00	0.009
Carn C16:1	200	59.134	41.224	1.53E-01	1.00E+00	0.010
Carn C18	189	4.138	30.277	8.91E-01	1.00E+00	0.000
Carn C18:1	252	13.533	15.700	3.90E-01	1.00E+00	0.003
Carn C18:2	178	63.423	37.845	9.56E-02	1.00E+00	0.015
LPC C14	252	-0.717	0.745	3.37E-01	1.00E+00	0.004
LPC C15	234	-1.268	1.859	4.96E-01	1.00E+00	0.002
LPC C16	252	-0.015	0.027	5.89E-01	1.00E+00	0.001
LPC C16:1	252	-1.143	0.828	1.69E-01	1.00E+00	0.007
LPC C17	252	-0.569	1.165	6.26E-01	1.00E+00	0.001
LPC C17:1	234	0.632	5.589	9.10E-01	1.00E+00	0.000
LPC C18	252	0.006	0.080	9.42E-01	1.00E+00	0.000
LPC C18:1	252	0.356	0.153	2.11E-02	1.00E+00	0.021
LPC C18:2	252	0.350	0.079	1.49E-05	3.63E-03	0.071
LPC C18:3	234	5.058	2.841	7.63E-02	1.00E+00	0.013
LPC C18:6	152	4.291	7.122	5.48E-01	1.00E+00	0.002
LPC C20:2	135	22.655	6.508	6.79E-04	1.65E-01	0.084
LPC C20:3	252	1.345	1.057	2.04E-01	1.00E+00	0.006
LPC C20:4	252	0.608	0.379	1.10E-01	1.00E+00	0.010
LPC C20:5	249	2.423	3.470	4.86E-01	1.00E+00	0.002

LPC C22:5	187	6.313	4.326	1.46E-01	1.00E+00	0.011
LPC C22:6	234	1.983	1.218	1.05E-01	1.00E+00	0.011
PCaa C30	252	0.848	0.543	1.20E-01	1.00E+00	0.009
PCaa C30:2	178	0.360	3.276	9.13E-01	1.00E+00	0.000
PCaa C30:3	173	-1.940	9.806	8.43E-01	1.00E+00	0.000
PCaa C30:4	126	0.685	17.070	9.68E-01	1.00E+00	0.000
PCaa C32	252	0.803	0.237	8.16E-04	1.98E-01	0.043
PCaa C32:1	252	0.014	0.127	9.11E-01	1.00E+00	0.000
PCaa C32:2	252	0.646	0.575	2.62E-01	1.00E+00	0.005
PCaa C32:3	197	0.667	3.891	8.64E-01	1.00E+00	0.000
PCaa C34:1	252	0.040	0.016	1.19E-02	1.00E+00	0.025
PCaa C34:2	252	0.040	0.009	1.23E-05	2.99E-03	0.072
PCaa C34:3	252	0.098	0.153	5.24E-01	1.00E+00	0.002
PCaa C34:4	252	-0.091	1.033	9.30E-01	1.00E+00	0.000
PCaa C34:5	167	11.582	9.130	2.06E-01	1.00E+00	0.010
PCaa C36	192	-0.956	0.401	1.82E-02	1.00E+00	0.028
PCaa C36:1	252	0.158	0.059	7.33E-03	1.00E+00	0.028
PCaa C36:2	252	0.045	0.012	3.36E-04	8.17E-02	0.049
PCaa C36:3	252	0.058	0.025	2.08E-02	1.00E+00	0.021
PCaa C36:4	252	0.056	0.019	3.99E-03	9.71E-01	0.032
PCaa C36:5	251	0.143	0.138	3.00E-01	1.00E+00	0.004
PCaa C36:6	231	-1.971	1.625	2.26E-01	1.00E+00	0.006
PCaa C38	252	0.353	0.640	5.81E-01	1.00E+00	0.001
PCaa C38:2	117	-0.370	0.556	5.07E-01	1.00E+00	0.004
PCaa C38:3	252	0.009	0.056	8.70E-01	1.00E+00	0.000
PCaa C38:4	252	0.052	0.026	4.41E-02	1.00E+00	0.016
PCaa C38:5	252	0.106	0.056	6.11E-02	1.00E+00	0.014
PCaa C38:6	252	0.070	0.036	5.36E-02	1.00E+00	0.015
PCaa C40	184	-2.976	1.788	9.79E-02	1.00E+00	0.014
PCaa C40:1	200	-1.590	1.221	1.94E-01	1.00E+00	0.008
PCaa C40:3	139	-3.543	1.104	1.66E-03	4.04E-01	0.068
PCaa C40:4	252	-0.042	0.537	9.37E-01	1.00E+00	0.000
PCaa C40:5	252	0.279	0.210	1.84E-01	1.00E+00	0.007
PCaa C40:6	252	0.084	0.089	3.44E-01	1.00E+00	0.004
PCaa C42	238	-0.541	2.453	8.26E-01	1.00E+00	0.000
PCaa C42:1	124	-10.018	4.139	1.70E-02	1.00E+00	0.044

PCaa C42:4	122	-10.745	3.200	1.06E-03	2.57E-01	0.085
PCaa C42:5	161	-1.463	3.778	6.99E-01	1.00E+00	0.001
PCaa C42:6	138	0.573	2.022	7.77E-01	1.00E+00	0.001
PCaa C43:6	249	4.889	2.030	1.68E-02	1.00E+00	0.023
PCaa C44:12	222	7.655	2.635	4.05E-03	9.83E-01	0.036
PCae C32	252	2.759	0.865	1.61E-03	3.91E-01	0.039
PCae C32:1	252	3.675	0.795	6.10E-06	1.48E-03	0.078
PCae C32:2	217	6.811	2.271	3.03E-03	7.37E-01	0.040
PCae C34	231	0.822	1.639	6.16E-01	1.00E+00	0.001
PCae C34:1	252	1.192	0.319	2.32E-04	5.65E-02	0.052
PCae C34:2	252	1.132	0.234	2.29E-06	5.56E-04	0.084
PCae C34:3	252	1.798	0.251	8.43E-12	2.05E-09	0.169
PCae C34:4	144	14.226	8.202	8.50E-02	1.00E+00	0.020
PCae C36	182	2.157	3.036	4.78E-01	1.00E+00	0.003
PCae C36:1	252	-0.171	0.210	4.15E-01	1.00E+00	0.003
PCae C36:2	252	0.592	0.189	1.96E-03	4.76E-01	0.037
PCae C36:3	252	1.309	0.310	3.41E-05	8.28E-03	0.066
PCae C36:4	252	0.489	0.134	3.10E-04	7.53E-02	0.050
PCae C36:5	252	0.832	0.194	2.53E-05	6.15E-03	0.068
PCae C36:6	129	5.651	4.488	2.10E-01	1.00E+00	0.011
PCae C38	251	-0.819	0.730	2.63E-01	1.00E+00	0.005
PCae C38:2	252	-0.748	0.339	2.81E-02	1.00E+00	0.019
PCae C38:3	252	-0.525	0.235	2.64E-02	1.00E+00	0.019
PCae C38:4	252	0.507	0.184	6.23E-03	1.00E+00	0.029
PCae C38:5	252	0.496	0.154	1.42E-03	3.46E-01	0.039
PCae C38:6	252	1.104	0.304	3.38E-04	8.22E-02	0.049
PCae C40	223	0.244	0.241	3.13E-01	1.00E+00	0.005
PCae C40:1	234	-1.142	0.827	1.69E-01	1.00E+00	0.008
PCae C40:2	171	-1.026	0.765	1.82E-01	1.00E+00	0.010
PCae C40:3	189	-1.435	0.407	5.36E-04	1.30E-01	0.061
PCae C40:4	223	-0.192	0.617	7.56E-01	1.00E+00	0.000
PCae C40:5	252	0.108	0.445	8.09E-01	1.00E+00	0.000
PCae C40:6	252	1.439	0.540	8.18E-03	1.00E+00	0.027
PCae C42	194	-2.972	2.148	1.68E-01	1.00E+00	0.010
PCae C42:1	172	-5.130	1.132	1.10E-05	2.68E-03	0.107
PCae C42:2	205	0.672	1.737	6.99E-01	1.00E+00	0.001
PCae C42:3	212	-1.017	1.143	3.75E-01	1.00E+00	0.004
PCae C42:4	190	2.957	2.138	1.68E-01	1.00E+00	0.010
PCae C42:5	232	0.648	0.872	4.58E-01	1.00E+00	0.002
PCae C42:6	252	1.975	1.534	1.99E-01	1.00E+00	0.006
SM C30:1	210	5.433	4.271	2.05E-01	1.00E+00	0.008
SM C31:1	125	12.681	10.471	2.28E-01	1.00E+00	0.012
SM C32:1	252	1.008	0.307	1.16E-03	2.82E-01	0.040

SM C32:2	252	4.365	2.937	1.39E-01	1.00E+00	0.009
SM C33:1	252	1.365	0.481	4.95E-03	1.00E+00	0.030
SM C33:2	184	14.660	11.594	2.08E-01	1.00E+00	0.008
SM C33:3	181	71.980	19.795	3.62E-04	8.81E-02	0.065
SM C34:1	252	0.101	0.032	1.83E-03	4.44E-01	0.037
SM C34:2	252	0.697	0.217	1.48E-03	3.61E-01	0.038
SM C35	168	5.303	4.447	2.35E-01	1.00E+00	0.008
SM C35:1	252	1.961	0.973	4.48E-02	1.00E+00	0.016
SM C35:2	203	16.286	5.824	5.68E-03	1.00E+00	0.036
SM C36:1	252	0.263	0.154	8.86E-02	1.00E+00	0.011
SM C36:2	252	0.572	0.281	4.31E-02	1.00E+00	0.016
SM C36:3	252	9.207	3.343	6.32E-03	1.00E+00	0.029
SM C37:1	128	1.088	1.416	4.44E-01	1.00E+00	0.004
SM C37:3	171	18.661	5.717	1.33E-03	3.23E-01	0.056
SM C38:1	195	0.251	0.085	3.60E-03	8.74E-01	0.042
SM C38:2	252	0.555	0.173	1.56E-03	3.79E-01	0.038
SM C38:3	151	5.149	5.564	3.56E-01	1.00E+00	0.006
SM C39:1	252	0.947	0.424	2.62E-02	1.00E+00	0.019
SM C39:2	152	2.687	1.578	9.07E-02	1.00E+00	0.018
SM C39:5	123	0.601	5.362	9.11E-01	1.00E+00	0.000
SM C40:2	252	0.321	0.096	9.37E-04	2.28E-01	0.042
SM C40:4	240	3.185	1.307	1.56E-02	1.00E+00	0.024
SM C40:5	216	4.206	2.958	1.57E-01	1.00E+00	0.009
SM C41:1	252	0.603	0.233	1.01E-02	1.00E+00	0.026
SM C41:2	252	1.297	0.320	6.90E-05	1.68E-02	0.060
SM C42:1	252	0.404	0.142	4.66E-03	1.00E+00	0.031
SM C42:2	252	0.213	0.079	7.38E-03	1.00E+00	0.028
SM C42:3	234	0.288	0.126	2.34E-02	1.00E+00	0.021
SM C42:4	216	0.555	0.349	1.14E-01	1.00E+00	0.011
SM C42:6	240	1.520	0.859	7.79E-02	1.00E+00	0.013
SM C43	144	1.200	4.292	7.80E-01	1.00E+00	0.001
SM C43:1	248	4.404	1.882	2.01E-02	1.00E+00	0.021
SM C43:2	252	1.985	1.102	7.27E-02	1.00E+00	0.013
SM C44:6	210	0.906	1.618	5.76E-01	1.00E+00	0.001
NEFA 10:0	240	1.948	0.751	1.00E-02	1.00E+00	0.027
NEFA 12:0	208	0.102	0.117	3.88E-01	1.00E+00	0.003
NEFA 12:1	151	1.496	1.029	1.48E-01	1.00E+00	0.013

NEFA 13:0	98	-2.098	2.436	3.91E-01	1.00E+00	0.007
NEFA 13:1	193	19.641	10.572	6.47E-02	1.00E+00	0.017
NEFA 14:0	251	0.058	0.105	5.81E-01	1.00E+00	0.001
NEFA 14:1	251	-0.298	0.628	6.35E-01	1.00E+00	0.001
NEFA 14:2	114	0.048	0.148	7.47E-01	1.00E+00	0.001
NEFA 16:0	252	0.014	0.017	4.19E-01	1.00E+00	0.003
NEFA 16:1	223	0.039	0.050	4.33E-01	1.00E+00	0.003
NEFA 16:2	225	2.694	2.845	3.45E-01	1.00E+00	0.004
NEFA 17:0	235	0.079	0.548	8.86E-01	1.00E+00	0.000
NEFA 17:1	223	0.406	0.813	6.18E-01	1.00E+00	0.001
NEFA 17:2	153	7.436	16.471	6.52E-01	1.00E+00	0.001
NEFA 18:0	164	-0.066	0.041	1.11E-01	1.00E+00	0.015
NEFA 18:1	252	0.014	0.012	2.57E-01	1.00E+00	0.005
NEFA 18:2	252	0.044	0.034	1.93E-01	1.00E+00	0.007
NEFA 18:3	252	0.167	0.104	1.10E-01	1.00E+00	0.010
NEFA 18:4	230	5.034	6.454	4.36E-01	1.00E+00	0.003
NEFA 19:0	236	7.974	4.378	6.98E-02	1.00E+00	0.013
NEFA 19:1	239	0.576	1.481	6.98E-01	1.00E+00	0.001
NEFA 20:0	132	-1.129	3.316	7.34E-01	1.00E+00	0.001
NEFA 20:1	252	0.584	0.568	3.05E-01	1.00E+00	0.004
NEFA 20:2	203	3.028	0.883	7.35E-04	1.79E-01	0.054
NEFA 20:3	230	0.495	0.717	4.91E-01	1.00E+00	0.002
NEFA 20:4	223	0.273	0.362	4.53E-01	1.00E+00	0.002
NEFA 20:5	188	0.149	1.278	9.07E-01	1.00E+00	0.000
NEFA 22:0	93	-0.698	6.393	9.13E-01	1.00E+00	0.000
NEFA 22:1	249	3.613	3.842	3.48E-01	1.00E+00	0.003
NEFA 22:2	138	40.888	24.271	9.44E-02	1.00E+00	0.020
NEFA 22:3	224	12.850	16.904	4.48E-01	1.00E+00	0.002
NEFA 22:4	224	0.026	1.937	9.89E-01	1.00E+00	0.000
NEFA 22:5	252	0.876	1.045	4.03E-01	1.00E+00	0.003
NEFA 22:6	252	0.431	0.445	3.33E-01	1.00E+00	0.004
NEFA 24:0	207	18.979	7.380	1.08E-02	1.00E+00	0.030
NEFA 24:1	217	4.529	5.773	4.34E-01	1.00E+00	0.003
NEFA 24:2	165	37.092	45.308	4.14E-01	1.00E+00	0.004
NEFA 24:3	155	295.896	137.335	3.28E-02	1.00E+00	0.028
NEFA 24:4	223	28.066	37.744	4.58E-01	1.00E+00	0.002
NEFA 24:5	232	23.410	25.240	3.55E-01	1.00E+00	0.004
NEFA 24:6	193	33.888	37.765	3.71E-01	1.00E+00	0.004
NEFA 26:0	163	-2.584	29.599	9.31E-01	1.00E+00	0.000
NEFA 26:1	206	26.942	27.475	3.28E-01	1.00E+00	0.005
NEFA 26:2	196	-75.339	38.854	5.40E-02	1.00E+00	0.019
NEFA 26:3	170	52.391	42.204	2.16E-01	1.00E+00	0.009
NEFA 26:4	207	-69.164	143.805	6.31E-01	1.00E+00	0.001
NEFA 26:5	195	-71.096	201.025	7.24E-01	1.00E+00	0.001

NEFA 26:6	134	1.008	83.365	9.90E-01	1.00E+00	0.000
Pyruvate	252	0.032	0.012	7.35E-03	1.00E+00	0.028
Lactate	252	-0.001	0.001	6.73E-02	1.00E+00	0.013
Acetoacetate	248	0.109	0.065	9.13E-02	1.00E+00	0.011
Alpha-ketobutyrate	233	-0.013	0.201	9.48E-01	1.00E+00	0.000
Fumarate	252	2.033	2.089	3.31E-01	1.00E+00	0.004
3-Methyl-2-oxobutanoate	252	0.730	0.219	9.73E-04	2.36E-01	0.042
Succininate	252	-0.899	0.302	3.18E-03	7.72E-01	0.034
Methylmalonate	252	-9.229	3.336	6.10E-03	1.00E+00	0.029
Taurine	252	0.032	0.028	2.64E-01	1.00E+00	0.005
3-Methyl-2-oxovalerate	252	0.602	0.205	3.69E-03	8.98E-01	0.032
4-Methyl-2-oxovalerate	252	0.381	0.122	1.94E-03	4.72E-01	0.037
Malate	252	-0.025	1.170	9.83E-01	1.00E+00	0.000
Alpha-ketoglutarate	251	1.060	0.531	4.70E-02	1.00E+00	0.015
Alpha-aminoadipate	252	-22.987	6.714	7.23E-04	1.76E-01	0.044
Isocitrate	239	5.162	3.927	1.90E-01	1.00E+00	0.007
Citrate	252	0.120	0.088	1.72E-01	1.00E+00	0.007
Sum AA	220	-0.001	0.001	3.31E-01	1.00E+00	0.004
Sum Carn	133	0.034	0.121	7.79E-01	1.00E+00	0.001
Sum LPC	231	0.020	0.016	1.97E-01	1.00E+00	0.007
Sum PCaa	251	0.008	0.002	7.89E-04	1.92E-01	0.043
Sum PCae	222	0.064	0.020	1.62E-03	3.95E-01	0.043
Sum SM	252	0.084	0.029	4.27E-03	1.00E+00	0.031
Sum NEFA	81	0.013	0.007	8.44E-02	1.00E+00	0.035

Ulm 8 years - ApoAI

Metabolite	N	Estimate	Std..Error	P	P.adjusted	PartialRsquared
Ala	397	0.000	0.000	8.11E-01	1.00E+00	0.000
Arg	396	-0.001	0.000	1.07E-01	1.00E+00	0.007
Asn	359	-0.002	0.001	2.58E-02	1.00E+00	0.014
Asp	360	-0.003	0.002	1.41E-01	1.00E+00	0.006
Cit	398	0.002	0.001	1.59E-01	1.00E+00	0.005
Gln	397	0.000	0.000	1.61E-01	1.00E+00	0.005
Glu	398	-0.001	0.001	2.45E-01	1.00E+00	0.003
Gly	396	0.000	0.000	3.70E-01	1.00E+00	0.002
His	398	0.000	0.000	6.64E-01	1.00E+00	0.000
Ile	357	0.001	0.001	4.71E-01	1.00E+00	0.001
Leu	398	0.000	0.000	3.02E-01	1.00E+00	0.003
Lys	397	0.000	0.000	4.18E-01	1.00E+00	0.002
Met	398	-0.003	0.002	1.06E-01	1.00E+00	0.007
Orn	397	0.000	0.001	8.39E-01	1.00E+00	0.000
Phe	398	-0.001	0.001	1.76E-01	1.00E+00	0.005
Pro	394	0.000	0.000	2.74E-01	1.00E+00	0.003
Ser	397	0.000	0.000	8.57E-01	1.00E+00	0.000
Thr	398	-0.001	0.000	1.65E-01	1.00E+00	0.005
Trp	397	0.001	0.001	3.67E-01	1.00E+00	0.002
Tyr	397	-0.001	0.001	3.96E-01	1.00E+00	0.002
Val	398	0.000	0.000	3.73E-01	1.00E+00	0.002
Hpro	396	0.002	0.001	5.56E-02	1.00E+00	0.009
H1	396	0.000	0.000	8.61E-01	1.00E+00	0.000
Carn	397	0.000	0.001	8.61E-01	1.00E+00	0.000
Carn C2	397	0.009	0.004	1.21E-02	1.00E+00	0.016
Carn C3	398	0.033	0.069	6.34E-01	1.00E+00	0.001
Carn C4	398	0.084	0.117	4.72E-01	1.00E+00	0.001
Carn C5	391	0.526	0.185	4.67E-03	9.47E-01	0.020
Carn C8:1	393	0.173	0.065	7.95E-03	1.00E+00	0.018

Carn C10:1	396	0.057	0.065	3.80E-01	1.00E+00	0.002
Carn C12:1	398	0.126	0.063	4.57E-02	1.00E+00	0.010
Carn C14:1	397	0.244	0.088	5.70E-03	1.00E+00	0.019
Carn C16	396	0.699	0.227	2.28E-03	4.62E-01	0.023
Carn C18	394	1.351	0.489	6.05E-03	1.00E+00	0.019
Carn C18:1	398	0.561	0.189	3.10E-03	6.30E-01	0.022
LPC C14	398	0.016	0.021	4.29E-01	1.00E+00	0.002
LPC C15	398	0.049	0.049	3.15E-01	1.00E+00	0.003
LPC C15:1	398	0.832	0.409	4.24E-02	1.00E+00	0.010
LPC C16	398	0.001	0.001	1.55E-01	1.00E+00	0.005
LPC C16:1	397	0.018	0.020	3.64E-01	1.00E+00	0.002
LPC C17	398	0.061	0.037	1.04E-01	1.00E+00	0.007
LPC C17:1	398	0.309	0.131	1.90E-02	1.00E+00	0.014
LPC C18	398	0.005	0.002	2.55E-02	1.00E+00	0.013
LPC C18:1	398	0.009	0.003	1.62E-03	3.29E-01	0.025
LPC C18:2	398	0.005	0.001	3.25E-04	6.60E-02	0.032
LPC C18:3	397	0.132	0.052	1.13E-02	1.00E+00	0.016
LPC C18:6	398	0.131	0.139	3.46E-01	1.00E+00	0.002
LPC C20	398	0.254	0.140	6.99E-02	1.00E+00	0.008
LPC C20:1	398	0.253	0.124	4.17E-02	1.00E+00	0.010
LPC C20:2	398	0.334	0.115	3.94E-03	7.99E-01	0.021
LPC C20:3	396	0.048	0.022	3.14E-02	1.00E+00	0.012
LPC C20:4	396	0.029	0.009	2.41E-03	4.89E-01	0.023
LPC C20:5	396	0.222	0.062	3.77E-04	7.65E-02	0.032
LPC C22:4	398	0.219	0.082	8.16E-03	1.00E+00	0.018

LPC C22:5	398	0.166	0.044	1.75E-04	3.55E-02	0.035
LPC C22:6	397	0.055	0.027	4.18E-02	1.00E+00	0.010
PCaa C18	398	0.257	0.222	2.47E-01	1.00E+00	0.003
PCaa C18:1	398	0.335	0.264	2.04E-01	1.00E+00	0.004
PCaa C30	398	0.014	0.006	2.18E-02	1.00E+00	0.013
PCaa C30:2	398	0.060	0.021	4.65E-03	9.44E-01	0.020
PCaa C32	398	0.003	0.001	4.22E-02	1.00E+00	0.010
PCaa C32:1	398	0.003	0.002	2.19E-02	1.00E+00	0.013
PCaa C32:2	398	0.012	0.006	4.27E-02	1.00E+00	0.010
PCaa C32:3	398	0.236	0.056	3.46E-05	7.02E-03	0.042
PCaa C34	396	0.007	0.004	7.44E-02	1.00E+00	0.008
PCaa C34:1	397	0.001	0.000	2.49E-07	5.05E-05	0.065
PCaa C34:2	397	0.001	0.000	3.66E-13	7.43E-11	0.126
PCaa C34:3	398	0.010	0.002	4.15E-06	8.43E-04	0.052
PCaa C34:4	398	0.031	0.013	1.47E-02	1.00E+00	0.015
PCaa C34:5	398	0.432	0.096	8.61E-06	1.75E-03	0.049
PCaa C34:6	384	0.903	0.207	1.65E-05	3.35E-03	0.048
PCaa C36	397	0.047	0.010	3.07E-06	6.23E-04	0.054
PCaa C36:1	398	0.002	0.001	2.89E-05	5.87E-03	0.043
PCaa C36:2	397	0.002	0.000	9.22E-21	1.87E-18	0.198
PCaa C36:3	398	0.004	0.000	2.17E-16	4.40E-14	0.157
PCaa C36:4	398	0.002	0.000	9.77E-14	1.98E-11	0.131
PCaa C36:5	398	0.008	0.002	4.46E-07	9.05E-05	0.063
PCaa C36:6	398	0.120	0.039	1.97E-03	4.00E-01	0.024
PCaa C38	398	0.093	0.014	4.90E-11	9.94E-09	0.104
PCaa C38:1	394	0.035	0.013	7.57E-03	1.00E+00	0.018
PCaa C38:2	398	0.025	0.006	1.06E-05	2.15E-03	0.048
PCaa C38:3	397	0.005	0.001	6.74E-05	1.37E-02	0.040
PCaa C38:4	398	0.002	0.000	3.31E-08	6.73E-06	0.075
PCaa C38:5	398	0.004	0.001	7.73E-08	1.57E-05	0.071
PCaa C38:6	398	0.003	0.001	1.88E-05	3.82E-03	0.045
PCaa C40	397	0.338	0.069	1.36E-06	2.77E-04	0.058
PCaa C40:1	391	0.552	0.131	3.37E-05	6.83E-03	0.043
PCaa C40:2	394	0.421	0.117	3.52E-04	7.15E-02	0.032
PCaa C40:3	390	0.231	0.069	9.10E-04	1.85E-01	0.028
PCaa C40:4	398	0.029	0.008	1.92E-04	3.90E-02	0.035
PCaa C40:5	397	0.017	0.003	2.04E-06	4.14E-04	0.056
PCaa C40:6	398	0.007	0.002	1.91E-04	3.87E-02	0.035
PCaa C42	398	0.288	0.061	3.84E-06	7.80E-04	0.053
PCaa C42:1	396	0.520	0.125	3.94E-05	7.99E-03	0.042
PCaa C42:2	392	1.162	0.203	2.01E-08	4.07E-06	0.078

PCaa C42:4	396	0.393	0.139	5.05E-03	1.00E+00	0.020
PCaa C42:5	395	0.335	0.086	1.10E-04	2.24E-02	0.037
PCaa C42:6	398	0.228	0.073	2.00E-03	4.06E-01	0.024
PCaa C43:6	398	0.136	0.028	1.50E-06	3.04E-04	0.057
PCae C30	398	0.244	0.063	1.31E-04	2.66E-02	0.036
PCae C32	395	0.047	0.010	4.06E-06	8.23E-04	0.053
PCae C32:1	398	0.082	0.013	7.32E-10	1.49E-07	0.092
PCae C32:2	398	0.480	0.071	5.37E-11	1.09E-08	0.103
PCae C34	396	0.042	0.014	2.45E-03	4.96E-01	0.023
PCae C34:1	398	0.022	0.004	4.61E-08	9.35E-06	0.073
PCae C34:2	398	0.023	0.003	6.29E-15	1.28E-12	0.143
PCae C34:3	398	0.030	0.003	1.24E-18	2.52E-16	0.179
PCae C34:4	398	0.639	0.091	8.38E-12	1.70E-09	0.112
PCae C36	397	0.148	0.034	1.31E-05	2.67E-03	0.047
PCae C36:1	398	0.037	0.007	7.32E-07	1.49E-04	0.060
PCae C36:2	398	0.029	0.003	1.18E-15	2.39E-13	0.150
PCae C36:3	398	0.049	0.005	3.04E-21	6.17E-19	0.203
PCae C36:4	397	0.013	0.002	2.82E-11	5.72E-09	0.107
PCae C36:5	398	0.022	0.003	1.25E-14	2.54E-12	0.140
PCae C36:6	393	0.257	0.041	1.57E-09	3.19E-07	0.089
PCae C38	397	0.094	0.018	5.12E-07	1.04E-04	0.062
PCae C38:2	397	0.099	0.016	3.88E-09	7.88E-07	0.084
PCae C38:3	398	0.057	0.009	7.90E-10	1.60E-07	0.091
PCae C38:4	396	0.014	0.002	1.96E-09	3.97E-07	0.088
PCae C38:5	397	0.012	0.002	2.69E-11	5.46E-09	0.107
PCae C38:6	398	0.028	0.004	1.88E-12	3.81E-10	0.118
PCae C40	398	0.028	0.008	3.41E-04	6.92E-02	0.032
PCae C40:1	393	0.076	0.017	1.39E-05	2.83E-03	0.047
PCae C40:2	398	0.180	0.047	1.23E-04	2.49E-02	0.037
PCae C40:3	397	0.285	0.045	7.78E-10	1.58E-07	0.092
PCae C40:4	398	0.085	0.015	1.49E-08	3.02E-06	0.078
PCae C40:5	398	0.079	0.011	6.19E-13	1.26E-10	0.123
PCae C40:6	398	0.067	0.010	1.71E-11	3.48E-09	0.108
PCae C42	398	0.220	0.090	1.49E-02	1.00E+00	0.015
PCae C42:1	396	0.093	0.049	5.94E-02	1.00E+00	0.009
PCae C42:2	398	0.194	0.050	1.25E-04	2.54E-02	0.037
PCae C42:3	397	0.273	0.047	1.68E-08	3.41E-06	0.078
PCae C42:4	398	0.193	0.033	1.11E-08	2.26E-06	0.079
PCae C42:5	398	0.106	0.019	4.46E-08	9.05E-06	0.073
PCae C42:6	398	0.170	0.029	7.39E-09	1.50E-06	0.081

SM C32:2	322	0.327	0.067	1.84E-06	3.74E-04	0.069
SM C35	397	0.053	0.029	7.03E-02	1.00E+00	0.008
SM C35:1	398	0.016	0.008	3.51E-02	1.00E+00	0.011
SM C36	397	0.017	0.010	9.34E-02	1.00E+00	0.007
SM C36:1	398	0.004	0.001	2.55E-03	5.17E-01	0.023
SM C36:2	398	0.007	0.002	1.93E-03	3.92E-01	0.024
SM C37:1	397	0.051	0.014	2.18E-04	4.42E-02	0.034
SM C38:1	398	0.004	0.001	1.25E-06	2.53E-04	0.058
SM C38:2	398	0.006	0.001	4.68E-05	9.50E-03	0.041
SM C38:3	398	0.103	0.034	2.62E-03	5.31E-01	0.023
SM C39:1	398	0.035	0.007	1.44E-07	2.92E-05	0.068
SM C39:2	396	0.092	0.020	8.23E-06	1.67E-03	0.049
SM C39:5	398	0.146	0.034	2.07E-05	4.21E-03	0.045
SM C40:1	395	0.002	0.001	2.93E-02	1.00E+00	0.012
SM C40:2	398	0.009	0.001	1.69E-10	3.43E-08	0.098
SM C40:3	395	0.013	0.003	1.54E-05	3.13E-03	0.047
SM C40:4	398	0.013	0.004	3.34E-04	6.79E-02	0.032
SM C41:1	398	0.016	0.003	4.51E-06	9.16E-04	0.052
SM C41:2	398	0.032	0.005	8.34E-10	1.69E-07	0.091
SM C41:3	390	0.075	0.023	1.25E-03	2.53E-01	0.027
SM C42:1	397	0.006	0.002	1.48E-03	3.00E-01	0.025
SM C42:2	398	0.003	0.001	6.48E-05	1.32E-02	0.040
SM C42:3	398	0.010	0.002	3.19E-07	6.47E-05	0.064
SM C42:4	397	0.027	0.005	2.30E-07	4.66E-05	0.066
SM C42:6	398	0.034	0.011	2.09E-03	4.24E-01	0.024
SM C43	396	0.184	0.050	2.53E-04	5.14E-02	0.034
SM C43:1	398	0.065	0.021	2.00E-03	4.05E-01	0.024
SM C43:2	398	0.041	0.014	2.65E-03	5.38E-01	0.023
SM C43:3	396	0.166	0.057	3.84E-03	7.80E-01	0.021
SM C44:2	394	0.196	0.073	7.49E-03	1.00E+00	0.018
SM C44:6	396	0.070	0.023	2.48E-03	5.03E-01	0.023
NEFA 10:0	320	0.021	0.011	6.14E-02	1.00E+00	0.011
NEFA 12:0	394	0.002	0.002	3.49E-01	1.00E+00	0.002
NEFA 12:1	391	0.025	0.010	1.43E-02	1.00E+00	0.015

NEFA 14:0	397	0.002	0.001	1.25E-01	1.00E+00	0.006
NEFA 14:1	395	0.013	0.008	1.05E-01	1.00E+00	0.007
NEFA 15:0	390	0.007	0.006	2.68E-01	1.00E+00	0.003
NEFA 15:1	331	0.072	0.090	4.23E-01	1.00E+00	0.002
NEFA 16:0	397	0.000	0.000	9.89E-02	1.00E+00	0.007
NEFA 16:1	396	0.001	0.001	1.10E-01	1.00E+00	0.006
NEFA 16:2	394	0.140	0.067	3.78E-02	1.00E+00	0.011
NEFA 17:0	395	0.008	0.007	2.53E-01	1.00E+00	0.003
NEFA 17:1	395	0.018	0.010	6.59E-02	1.00E+00	0.009
NEFA 18:0	394	0.001	0.000	6.09E-02	1.00E+00	0.009
NEFA 18:1	398	0.000	0.000	6.37E-02	1.00E+00	0.009
NEFA 18:2	397	0.001	0.000	2.45E-01	1.00E+00	0.003
NEFA 18:3	397	0.007	0.003	2.88E-02	1.00E+00	0.012
NEFA 19:1	398	0.049	0.021	2.18E-02	1.00E+00	0.013
NEFA 20:0	356	-0.003	0.038	9.40E-01	1.00E+00	0.000
NEFA 20:2	347	0.001	0.017	9.42E-01	1.00E+00	0.000
NEFA 20:3	281	0.019	0.022	3.80E-01	1.00E+00	0.003
NEFA 20:4	398	0.016	0.008	4.87E-02	1.00E+00	0.010
NEFA 20:5	383	0.108	0.051	3.58E-02	1.00E+00	0.012
NEFA 22:4	398	0.102	0.040	1.17E-02	1.00E+00	0.016
NEFA 22:5	398	0.055	0.021	8.00E-03	1.00E+00	0.018
NEFA 22:6	398	0.022	0.012	5.83E-02	1.00E+00	0.009
NEFA 24:0	395	0.138	0.134	3.04E-01	1.00E+00	0.003
NEFA 24:2	351	0.395	0.561	4.82E-01	1.00E+00	0.001
NEFA 24:4	392	0.175	0.656	7.90E-01	1.00E+00	0.000
NEFA 24:5	397	0.788	0.614	2.00E-01	1.00E+00	0.004
NEFA 26:1	398	0.508	0.233	2.97E-02	1.00E+00	0.012