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Supplementary methods

MS and MS/MS settings for lipidomic analysis. The applied platform affords broad screening of multiple lipid classes from total lipid extracts within a single sample run. The column, which was kept at 50°C, was an Acquity UPLC BEH C18 10 x 50 mm with 1.7 μm particles. The binary solvent system (flow rate 0.2 ml/min) included A, water (1% 1 M NH4Ac, 0.1% HCOOH), and B, LC/MS grade (Rathburn) acetonitrile/isopropanol (5:2, 1% 1 M NH4Ac, 0.1% HCOOH). The total run time including column re-equilibration was 18 min. Mass spectrometry was carried out on Q-Tof Premier (Waters) run in ESI^+ mode. The data were collected over the mass range of m/z 300–1200 with scan duration of 0.2 s. The source temperature was set at 120°C, and nitrogen was used as desolvation gas (800 l/h) at 250°C. The voltages of the sampling cone and capillary were 39 V and 3.2 kV, respectively. Reserpine (50 μg/l) was used as the lock spray reference compound (5 μl/min; 10 s-scan frequency). The obtained raw centroid-data was converted into netCDF file format using Dbridge software from MassLynx (Waters, Inc.). The converted data was processed using MZmine software version 0.60 (1, 2). The lipids were quantified based on class-specific internal standards (3).

Tandem mass spectrometry (MS/MS analysis) in negative ion mode (ESI^-) was used to identify the fatty acyl chains in phospholipid, PC(34:1). The collision energy has been either at 15 eV or 30 eV. The mass range starts from m/z 100. The other conditions are as in the methods described above.

Supplementary References

1. Katajamaa, M., J. Miettinen, and M. Oresic. 2006. MZmine: toolbox for processing and visualization of mass spectrometry based molecular profile data. *Bioinformatics*: **22**: 634.

2. Katajamaa, M., and M. Oresic. 2005. Processing methods for differential analysis of LC/MS profile data. *BMC Bioinformatics* **6**: 179.

3. Laaksonen, R., M. Katajamaa, H. Paiva, M. Sysi-Aho, L. Saarinen, P. Junni, D. Lutjohann, J. Smet, R. Van Coster, T. Seppanen-Laakso, T. Lehtimaki, J. Soini, and M. Oresic. 2006. A systems biology strategy reveals biological pathways and plasma biomarker candidates for potentially toxic statin-induced changes in muscle. *PLoS ONE* **1**: e97.

Table S1. Regression coefficients and VIP scores (> 2) for top ranked metabolites from PLS/DA analysis of serum from CONV-R compared with GF mice after a 4 h fast.

Metabolite Name	Regression coefficient	VIP Scores
Campesterol	-0.01333	4.71966
N-Acetyl Glycine	0.01326	4.66826
3-Hydroxyphenylpropionic acid	-0.01293	4.44039
Fumaric acid	-0.01251	4.15351
Cholest-5-ene	0.01222	3.96698
L-Ornithine	0.01221	3.96154
Malic acid	-0.01217	3.93633
Maltose	-0.01209	3.88332
Glucopyranose	-0.01202	3.83384
Glucuronic acid	-0.01179	3.69115
L-Proline	-0.01164	3.59567
Rhamnose	-0.01133	3.40603
Urea	0.01122	3.34312
Palmitic acid	0.01108	3.26106
Dopamine	-0.01086	3.12937
2-Hydroxybutyric acid	0.01085	3.12645
Cholesterol	0.01078	3.08790
Dodecanamide	0.01050	2.92707
TAMP	-0.01027	2.80278
Tyramine	-0.01024	2.78710
Pyruvic acid	-0.00996	2.63485
Valine	0.00990	2.60474
L-Tryptophan	0.00962	2.45712
Benzenepropanoic acid	-0.00929	2.29408
Citric acid	-0.00919	2.24202
Ribose	0.00915	2.22393
2-Propanamine	-0.00911	2.20263
Hexadecanenitrile	-0.00905	2.17511
Linoleic acid	0.00894	2.12067
Limonene	0.00889	2.09876
Dodecanamide	-0.00879	2.04956
Furanone	0.00874	2.02955
Hypoxantine	-0.00871	2.01665
Glycine	0.00868	2.00176

Table S2. Fold change values ± SEM of serum metabolites that are significantly regulated (p < 0.05; two-tailed t-test) in CONV-R compared with GF mice after a 4 h fast.

Metabolite Name	Fold change (CONV-R/GF)		p-value
Limonene	0.38	± 0.11	0.0469
Valine	0.55	± 0.12	0.0210
L-Ornithine	0.57	± 0.02	0.0008
Cholest-5-ene	0.59	± 0.05	0.0008
2-Hydroxybutyric acid	0.63	± 0.06	0.0078
Cholesterol	0.65	± 0.08	0.0085
L-Tryptophan	0.67	± 0.05	0.0269
Palmitic acid	0.69	± 0.07	0.0059
Urea	0.72	± 0.05	0.0049
Ribose	0.74	± 0.04	0.0388
Dodecanamide	0.80	± 0.04	0.0117
Linoleic acid	0.80	± 0.06	0.0454
Rhamnose	1.26	± 0.05	0.0042
Citric acid	1.27	± 0.08	0.0378
Hexadecanenitrile	1.29	± 0.10	0.0418
L-Proline	1.30	± 0.03	0.0026
Pyruvic acid	1.34	± 0.10	0.0200
Tyramine	1.40	± 0.06	0.0152
Benzenepropanoic acid	1.60	± 0.18	0.0349
Fumaric acid	1.60	± 0.07	0.0004
Dopamine	1.64	± 0.12	0.0078
Malic acid	1.80	± 0.08	0.0009
TAMP	1.90	± 0.27	0.0148
Campesterol	1.98	± 0.08	0.0000
Glucose	2.32	± 0.24	0.0013
Glucuronic Acid	2.58	± 0.34	0.0020
Maltose	2.59	± 0.17	0.0011
(2,4,6-Trimethylphenoxy)-2-Propanamine	3.26	± 0.83	0.0401
3-Hydroxyphenylpropionic acid	52.62	± 7.20	0.0001

False Discovery Rate q-value < 0.30

Table S3. Regression coefficients and VIP scores (> 2) for top ranked lipid molecular species from PLS/DA analysis of serum from CONV-R compared with GF mice after a 4 h fast.

LipidName	Regression coefficient	VIP Scores
PC(38:6)	-0.0079	4.6947
PC(38:6)	-0.0078	4.5754
PC(34:1)	-0.0078	4.5298
PA/PG(38:4)	-0.0078	4.5248
PS(36:0)	-0.0078	4.5055
SM(d18:1/22:0)	-0.0077	4.4714
LysoPC(20:0)	0.0077	4.4176
PC(34:3)	-0.0076	4.3198
PC(32:1)	-0.0074	4.0516
PC(38:7)	-0.0073	3.9759
PC(38:7e)	-0.0072	3.8374
TG(50:0)	0.0070	3.7061
SM(d18:1/22:0)	-0.0070	3.7037
ChoE(22:4)	-0.0070	3.6252
ChoE(22:6)	-0.0069	3.5439
PC(38:3)	-0.0068	3.4461
PC(34:3)	-0.0068	3.4247
PE(38:6)	-0.0067	3.3957
SM(d18:1/23:0)	-0.0067	3.3405
PC(34:1)	-0.0067	3.3286
PA/PG(38:4)	-0.0066	3.2417
PC(42:10)	-0.0065	3.1551
PC(38:6)	-0.0065	3.1312
SM(d18:1/16:1)	-0.0064	3.0806
PA/PG(36:2)	0.0064	3.0185
PC(36:5)	0.0063	3.0037
TG(52:1)	0.0063	2.9167
PC(42:9)	-0.0062	2.8650
TG(48:0)	0.0061	2.7490
PC(42:9)	-0.0061	2.7459
PC(36:2)	0.0060	2.7149
LysoPC(18:3)	-0.0060	2.7011
PC(38:3)	-0.0059	2.6216
PC(38:7)	0.0059	2.6160
SM(d18:1/24:1)	-0.0059	2.6078
PC(40:7)	-0.0059	2.5817
PC(38:3)	-0.0059	2.5708
PC(40:6)	-0.0059	2.5545
TG(54:5)	0.0058	2.5392
LysoPC(22:6)	-0.0058	2.5213
TG(54:5)	0.0058	2.5036
TG(54:6)	0.0056	2.3105
PC(38:7)	-0.0055	2.2657
TG(48:4)	0.0055	2.2525
PC(36:4)	-0.0055	2.2471
LysoPC(16:1)	-0.0055	2.2207

PC(36:4)	-0.0054	2.1759
PC(38:4)	-0.0054	2.1476
PC(36:4)	0.0053	2.1167
TG(54:4)	0.0053	2.1093
PC(42:6)	-0.0053	2.1062
PC(42:8)	-0.0053	2.0995
TG(54:7)	0.0053	2.0827
PC(42:7)	-0.0052	2.0331
LysoPC(18:3)	-0.0052	2.0235
ChoE(16:1)	-0.0052	2.0197
PE(40:6)	-0.0052	2.0022

Table S4. Absolute concentrations ± SEM of the significantly altered lipid molecular species (µmol/ml) in serum from CONV-R, CONV-D, and GF mice after a 4 h fast

Lipid Name	GF	CONV-R	CONV-D
ChoE(16:0)	0.0029 ± 0.0002	0.0034 ± 0.0001	0.0020 ± 0.0003[e]
ChoE(18:1)	0.0123 ± 0.0014	0.0161 ± 0.0019	0.0086 ± 0.0014[d]
ChoE(22:4)	0.0020 ± 0.0002	0.0037 ± 0.0004[b]	0.0032 ± 0.0004[b]
ChoE(22:6)	0.0458 ± 0.0038	0.0722 ± 0.0046[b]	0.0430 ± 0.0054[e]
PA/PG(36:2)	0.0019 ± 0.0001	0.0014 ± 0.0001	0.0014 ± 0.0002[a]
PA/PG(36:2)	0.0011 ± 0.0001	0.0009 ± 0.0001	0.0007 ± 0.0001[a]
PA/PG(36:4)	0.0017 ± 0.0001	0.0019 ± 0.0001	0.0013 ± 0.0001[d]
PA/PG(38:4)	0.0008 ± 0.0000	0.0010 ± 0.0000[a]	0.0008 ± 0.0001
PA/PG(38:4)	0.0075 ± 0.0001	0.0101 ± 0.0004[c]	0.0063 ± 0.0009[f]
PC(32:1)	0.0036 ± 0.0002	0.0052 ± 0.0003[b]	0.0037 ± 0.0004[b]
PC(32:2)	0.0016 ± 0.0001	0.0020 ± 0.0001	0.0013 ± 0.0002[d]
PC(34:1)	0.0184 ± 0.0010	0.0261 ± 0.0019[a]	0.0227 ± 0.0026
PC(34:1)	0.1486 ± 0.0036	0.2232 ± 0.0128[b]	0.1721 ± 0.0171[e]
PC(34:3)	0.0129 ± 0.0005	0.0185 ± 0.0009[b]	0.0128 ± 0.0015[e]
PC(34:3)	0.0016 ± 0.0001	0.0023 ± 0.0002[b]	0.0016 ± 0.0002[e]
PC(36:0)	0.0017 ± 0.0001	0.0015 ± 0.0001	0.0014 ± 0.0001[a]
PC(36:2)	0.6085 ± 0.0194	0.4926 ± 0.0336[a]	0.4812 ± 0.0425[a]
PC(36:3)	0.1126 ± 0.0054	0.1227 ± 0.0070	0.0951 ± 0.0083[d]
PC(36:4)	0.0871 ± 0.0052	0.0653 ± 0.0066	0.0553 ± 0.0087[b]
PC(36:5)	0.0298 ± 0.0011	0.0285 ± 0.0022[a]	0.0223 ± 0.0026[a]
PC(36:5)	0.0028 ± 0.0001	0.0021 ± 0.0002	0.0019 ± 0.0002[b]
PC(38:2)	0.0142 ± 0.0006	0.0135 ± 0.0010	0.0105 ± 0.0009[b]
PC(38:3)	0.0014 ± 0.0000	0.0017 ± 0.0001[a]	0.0013 ± 0.0001[e]
PC(38:3)	0.0470 ± 0.0015	0.0606 ± 0.0051[b]	0.0410 ± 0.0038[e]
PC(38:3)	0.0014 ± 0.0000	0.0017 ± 0.0001[b]	0.0013 ± 0.0001[d]
PC(38:4)	0.0015 ± 0.0000	0.0019 ± 0.0002[a]	0.0014 ± 0.0001[d]
PC(38:4)	0.0087 ± 0.0003	0.0106 ± 0.0009	0.0079 ± 0.0008[d]
PC(38:6)	0.1828 ± 0.0060	0.2651 ± 0.0113[b]	0.1950 ± 0.0198[e]
PC(38:6)	0.0205 ± 0.0009	0.0313 ± 0.0011[c]	0.0223 ± 0.0023[f]
PC(38:7)	0.0100 ± 0.0007	0.0079 ± 0.0012[a]	0.0060± 0.0010
PC(38:7)	0.0010 ± 0.0000	0.0014 ± 0.0002[a]	0.0010 ± 0.0001[a,e]
PC(38:7)	0.0018 ± 0.0001	0.0012 ± 0.0001	0.0012 ± 0.0001[b]
PC(38:7)	0.0014 ± 0.0001	0.0019 ± 0.0001[c]	0.0012 ± 0.0001[f]
PC(40:4)	0.0035 ± 0.0002	0.0034 ± 0.0002	0.0025 ± 0.0002[b,e]
PC(40:3)	0.0011 ± 0.0001	0.0013 ± 0.0001	0.0010 ± 0.0001[d]
PC(40:5)	0.0020 ± 0.0001	0.0019 ± 0.0001	0.0015 ± 0.0002[a]
PC(40:6)	0.0913 ± 0.0031	0.1149 ± 0.0086[b]	0.0829 ± 0.0074[e]
PC(40:7)	0.0037 ± 0.0009	0.0065± 0.0005	0.0026 ± 0.0006[d]
PC(40:8)	0.0046 ± 0.0001	0.0053± 0.0004	0.0040 ± 0.0003[d]
PC(40:9)	0.0017 ± 0.0001	0.0015 ± 0.0001	0.0012 ± 0.0001[a]
PC(42:10)	0.0023 ± 0.0001	0.0030 ± 0.0001[a]	0.0022± 0.0002[d]
PC(42:6)	0.0028 ± 0.0001	0.0036 ± 0.0003[b]	0.0024 ± 0.0002[e]
PC(42:7)	0.0017 ± 0.0001	0.0021 ± 0.0001	0.0014 ± 0.0001[e]
PC(42:8)	0.0007 ± 0.0000	0.0009 ± 0.0001	0.0006 ± 0.0001[d]
PC(42:9)	0.0004 ± 0.0000	0.0005 ± 0.0000[b]	0.0003 ± 0.0000[e]
PC(42:9)	0.0112 ± 0.0005	0.0140 ± 0.0006[b]	0.0095 ± 0.0010[e]
PE(36:3)	0.0067 ± 0.0004	0.0072 ± 0.0004	0.0085 ± 0.0003[a]

PE(36:5e)	0.0059 ± 0.0005	0.0064 ± 0.0005	0.0083 ± 0.0006[a]
PE(38:6)	0.0114 ± 0.0011	0.0212 ± 0.0025[b]	0.0143 ± 0.0009[f]
PS(36:0)	0.0015 ± 0.0000	0.0024 ± 0.0002[c]	0.0017 ± 0.0001[f]
LysoPC(18:0)	0.0086 ± 0.0003	0.0072 ± 0.0006	0.0062 ± 0.0006[b]
LysoPC(18:2e)	0.0042 ± 0.0003	0.0036 ± 0.0002	0.0030 ± 0.0003[a]
LysoPC(20:0)	0.0067 ± 0.0002	0.0051 ± 0.0002[c]	0.0043 ± 0.0005[c]
LysoPC(20:3e)	0.0220 ± 0.0016	0.0175 ± 0.0013	0.0144 ± 0.0015[b]
LysoPE(22:0)	0.0041 ± 0.0002	0.0035 ± 0.0005	0.0028 ± 0.0003[a]
SM(d18:1/22:0)	0.0011 ± 0.0000	0.0018 ± 0.0002[b]	0.0013 ± 0.0001[e]
SM(d18:1/22:0)	0.0076 ± 0.0002	0.0118 ± 0.0007[c]	0.0085 ± 0.0006[f]
SM(d18:1/23:0)	0.0019 ± 0.0000	0.0023 ± 0.0001[b]	0.0018 ± 0.0001[e]
TG(46:1)	0.0025 ± 0.0003	0.0014 ± 0.0002[a]	0.0014 ± 0.0001[a]
TG(48:0)	0.0099 ± 0.0009	0.0060 ± 0.0006[b]	0.0067 ± 0.0007[b]
TG(48:1)	0.0144 ± 0.0021	0.0086 ± 0.0014	0.0065 ± 0.0013[a]
TG(48:2)	0.0179 ± 0.0023	0.0130 ± 0.0017	0.0097 ± 0.0018[a]
TG(50:0)	0.0048 ± 0.0004	0.0025 ± 0.0002[c]	0.0028 ± 0.0004[c]
TG(50:1)	0.0642 ± 0.0092	0.0400 ± 0.0049	0.0322 ± 0.0054[a]
TG(50:5)	0.0040 ± 0.0005	0.0027 ± 0.0004	0.0023 ± 0.0002[a]
TG(52:1)	0.0226 ± 0.0023	0.0118 ± 0.0015[b]	0.0109 ± 0.0019[b]
TG(54:2)	0.0240 ± 0.0029	0.0150 ± 0.0015	0.0129 ± 0.0019[b]
TG(54:4)	0.4401 ± 0.0527	0.2543 ± 0.0313[b]	0.2373 ± 0.0403[b]
TG(54:5)	0.0416 ± 0.0051	0.0213 ± 0.0024[b]	0.0215 ± 0.0021[b]
TG(54:5)	0.5405 ± 0.0640	0.2725 ± 0.0422[b]	0.2722 ± 0.0343[b]
TG(54:6)	0.2543 ± 0.0404	0.1066 ± 0.0132[b]	0.1013 ± 0.0117[b]
TG(54:7)	0.0598 ± 0.0072	0.0502 ± 0.0066[a]	0.0334 ± 0.0041[a]
TG(54:7)	0.0348 ± 0.0048	0.0183 ± 0.0028	0.0164 ± 0.0014[b]
TG(56:4)	0.0280 ± 0.0043	0.0195 ± 0.0027	0.0142 ± 0.0020[a]
TG(56:5)	0.0305 ± 0.0037	0.0212 ± 0.0024	0.0193 ± 0.0022[a]
TG(56:9)	0.0261 ± 0.0027	0.0281 ± 0.0041	0.0162 ± 0.0018[d]
TG(58:10)	0.0434 ± 0.0048	0.0393 ± 0.0048	0.0271 ± 0.0028[a]

[a] p - Value < 0.05 vs GF
[b] p - Value < 0.01 vs GF
[c] p - Value < 0.001 vs GF
[d] p - Value < 0.05 CONV-R vs CONV-D
[e] p - Value < 0.01 CONV-R vs CONV-D
[f] p - Value < 0.001 CONV-R vs CONV-D
q – Value < 0.20

Table S5. Regression coefficients and VIP scores (> 2) for top ranked lipid molecular species from PLS/DA analysis of white adipose tissue from CONV-R compared with GF mice after a 4h fast

Lipid Name	Regression coefficient	VIP Scores
TG(58:9)	-0.0208	5.7926
TG(56:8)	-0.0208	5.7503
TG(56:7)	-0.0206	5.6641
TG(58:10)	-0.0200	5.3600
TG(58:8)	-0.0197	5.2000
TG(56:8)	-0.0182	4.4125
TG(56:9)	-0.0180	4.3147
TG(58:8)	-0.0165	3.6327
TG(56:7)	-0.0162	3.5127
TG(53:5)	0.0162	3.5029
TG(56:7)	-0.0161	3.4710
TG(56:6)	-0.0155	3.2076
TG(48:0)	-0.0155	3.2031
PC(36:2)	0.0149	2.9472
TG(45:1)	0.0135	2.4297
TG(50:2)	-0.0132	2.3297

Table S6. Absolute concentrations ± SEM of the significantly altered lipid molecular species (µmol/g) in white adipose tissue from CONV-R and GF mice after a 4h fast.

Lipid Name	GF	CONV-R	p-value
PC(36:2)	0.1833 ± 0.0150	0.1227 ± 0.0146	0.0219
TG(45:1)	0.9120 ± 0.0436	0.6400 ± 0.1438	0.0419
TG(48:0)	1.8188 ± 0.1542	2.6612 ± 0.2950	0.0156
TG(50:2)	34.8757 ± 3.1091	46.7047 ± 4.5207	0.0473
TG(53:5)	0.1394 ± 0.0123	0.0819 ± 0.0121	0.0103
TG(56:6)	0.2882 ± 0.0373	0.4776 ± 0.0609	0.0155
TG(56:7)	0.2093 ± 0.0198	0.3646 ± 0.0147	0.0002
TG(56:7)	0.3190 ± 0.0443	0.5688 ± 0.0767	0.0101
TG(56:7)	0.3271 ± 0.0435	0.5713 ± 0.0763	0.0108
TG(56:8)	0.2322 ± 0.0277	0.5045 ± 0.0449	0.0001
TG(56:8)	0.2245 ± 0.0303	0.4454 ± 0.0563	0.0025
TG(56:9)	0.0710 ± 0.0052	0.1268 ± 0.0183	0.0029
TG(58:10)	0.0369 ± 0.0047	0.0861 ± 0.0108	0.0004
TG(58:8)	0.0808 ± 0.0103	0.1653 ± 0.0157	0.0005
TG(58:8)	0.0801 ± 0.0117	0.1472 ± 0.0196	0.0085
TG(58:9)	0.1201 ± 0.0135	0.2576 ± 0.0231	0.0001

q – Value < 0.40

Table S7. Regression coefficients and VIP scores (> 2) for top ranked lipid molecular species from PLS/DA analysis of livers from CONV-R compared with GF mice after a 4 h fast

LipidName	Regression coefficient	VIP Scores
TG(56:6)	-0.003650	4.057269
TG(50:1)	-0.003526	3.787626
TG(62:12)	-0.003504	3.739842
TG(56:7)	-0.003426	3.575722
TG(58:9)	-0.003405	3.531735
TG(56:2)	-0.003342	3.402796
TG(50:3)	-0.003335	3.388653
TG(58:4)	-0.003324	3.365047
TG(58:7)	-0.003306	3.329741
TG(56:3)	-0.003303	3.324215
TG(53:2)	-0.003297	3.312113
TG(54:7)	-0.003295	3.306421
TG(56:2)	-0.003256	3.229391
TG(60:11)	-0.003248	3.213960
TG(51:2)	-0.003236	3.188878
TG(54:1)	-0.003231	3.180070
TG(58:3)	-0.003230	3.178869
TG(60:12)	-0.003208	3.134931
TG(60:11)	-0.003196	3.111664
TG(50:2)	-0.003195	3.109680
TG(52:5)	-0.003178	3.076230
PC(32:1)	-0.003168	3.056970
TG(56:5)	-0.003137	2.997715
TG(54:5)	-0.003128	2.979506
TG(62:8)	-0.003119	2.964155
TG(54:2)	-0.003107	2.939926
PE(46:9e)	-0.003098	2.923530
TG(60:10)	-0.003093	2.914151
TG(60:6)	-0.003075	2.880559
TG(52:1)	-0.003063	2.857108
TG(51:1)	-0.003053	2.838312
TG(55:3)	-0.003038	2.811982
TG(51:3)	-0.003036	2.806846
TG(56:4)	-0.003035	2.806361
TG(62:13)	-0.003028	2.792418
TG(56:4)	-0.003024	2.785789
TG(54:8)	-0.003021	2.780300
TG(52:2)	-0.002993	2.728376
TG(56:9)	-0.002981	2.706544
TG(62:12)	-0.002977	2.700076
TG(54:6)	-0.002967	2.681043
PA/PG(38:3)	-0.002965	2.677760
PE(38:7)	-0.002952	2.655027
TG(55:7)	-0.002944	2.640651
TG(52:5)	-0.002931	2.617553
TG(58:8)	-0.002916	2.589769

TG(53:3)	-0.002909	2.577194
TG(60:9)	-0.002901	2.563514
TG(56:1)	-0.002892	2.547556
TG(55:6)	-0.002886	2.537457
TG(60:7)	-0.002876	2.518840
TG(57:7)	-0.002860	2.491226
TG(56:4)	-0.002828	2.435875
TG(58:10)	-0.002811	2.406848
ChoE(20:5)	0.002785	2.363230
TG(52:6)	-0.002782	2.357520
TG(56:5)	-0.002774	2.344442
TG(57:9)	-0.002773	2.343017
TG(60:8)	-0.002755	2.311277
GPE(40:4)	0.002749	2.301637
TG(57:6)	-0.002741	2.288619
TG(54:3)	-0.002731	2.271989
TG(58:7)	-0.002731	2.271225
TG(58:5)	-0.002727	2.264515
ChoE(18:2)	0.002726	2.263100
TG(58:2)	-0.002723	2.259425
TG(53:4)	-0.002706	2.229896
TG(62:14)	-0.002700	2.220147
TG(50:4)	-0.002693	2.208509
TG(58:11)	-0.002691	2.206352
TG(56:3)	-0.002670	2.172224
TG(58:10)	-0.002660	2.154509
TG(50:5)	-0.002655	2.146575
TG(49:3)	0.002647	2.134276
TG(55:2)	-0.002644	2.129675
TG(56:10)	-0.002643	2.128338
SM(d18:1/18:2)	-0.002638	2.120380
TG(58:11)	-0.002632	2.110870
PA/PG(38:3)	-0.002623	2.095720
TG(60:10)	-0.002620	2.091126
TG(58:5)	-0.002611	2.076741
TG(51:4)	-0.002601	2.060263
TG(60:8)	-0.002600	2.059324
TG(56:8)	-0.002589	2.041091
TG(60:4)	-0.002565	2.003809
PE(34:0)	-0.002563	2.000845

Table S8. Absolute concentrations ± SEM of the significantly altered lipid molecular species (µmol/g) in livers from CONV-R, CONV-D, and GF mice after a 4 h fast.

Lipid Name	GF	Conv-R	Conv-D
Cer(d18:1/22:0)	0.0668 ± 0.0096	0.1042 ± 0.0105[a]	0.1002 ± 0.0051[a]
ChoE(18:2)	0.0081 ± 0.0008	0.0051 ± 0.0003[a]	0.0059 ± 0.0005
ChoE(20:5)	0.0038 ± 0.0006	0.0013 ± 0.0002[b]	0.0020 ± 0.0002[b]
DAG(38:5)	0.0009 ± 0.0001	0.0006 ± 0.0001	0.0006 ± 0.0000[a]
GPA/GPGro(38:3)	0.0063 ± 0.0006	0.0094 ± 0.0007[b]	0.0080 ± 0.0004
GPA/GPGro(38:3)	0.0020 ± 0.0002	0.0027 ± 0.0002[a]	0.0024 ± 0.0001
GPCho(32:0e)	0.0051 ± 0.0005	0.0060 ± 0.0002	0.0068 ± 0.0004[a]
GPCho(32:1)	0.0186 ± 0.0020	0.0325 ± 0.0034[b]	0.0236 ± 0.0012
GPCho(38:4)	0.7878 ± 0.0807	0.5257 ± 0.0252[a]	0.6429 ± 0.0305
GPCho(40:7)	0.0056 ± 0.0009	0.0032 ± 0.0003	0.0030 ± 0.0002[a]
GPCho(40:7)	0.0044 ± 0.0007	0.0023 ± 0.0001[a]	0.0026 ± 0.0002
GPCho(40:9)	0.0033 ± 0.0003	0.0021 ± 0.0002[b]	0.0022 ± 0.0001[b]
GPEtn(36:2)	0.0174 ± 0.0018	0.0234 ± 0.0008[a]	0.0225 ± 0.0010
GPEtn(38:5)	0.1388 ± 0.0158	0.0895 ± 0.0039[a]	0.0998 ± 0.0044
GPEtn(38:7)	0.0185 ± 0.0021	0.0291 ± 0.0020[b]	0.0230 ± 0.0015
GPEtn(40:4)	0.1474 ± 0.0185	0.0743 ± 0.0036[b]	0.0925 ± 0.0043[b]
GPEtn(46:9e)	0.0062 ± 0.0005	0.0093 ± 0.0008[b]	0.0087 ± 0.0006[b]
MAG(16:1)	0.0033 ± 0.0006	0.0019 ± 0.0001	0.0018 ± 0.0001[a]
MAG(16:1)	0.0084 ± 0.0014	0.0047 ± 0.0002	0.0043 ± 0.0002[a]
SM(d18:1/18:2)	0.0027 ± 0.0002	0.0037 ± 0.0003[a]	0.0032 ± 0.0001
TG(46:0)	0.0057 ± 0.0011	0.0023 ± 0.0002[a]	0.0025 ± 0.0003[a]
TG(49:3)	0.0289 ± 0.0043	0.0128 ± 0.0011[b]	0.0163 ± 0.0013[b]
TG(50:1)	0.0636 ± 0.0075	0.1699 ± 0.0260[c]	0.1010 ± 0.0154[f]
TG(50:2)	0.1290 ± 0.0167	0.2800 ± 0.0443[b]	0.1702 ± 0.0205[e]
TG(50:3)	0.0814 ± 0.0111	0.1767 ± 0.0228[c]	0.1030 ± 0.0121[f]
TG(50:4)	0.0308 ± 0.0044	0.0581 ± 0.0108[a]	0.0360 ± 0.0050
TG(50:5)	0.0045 ± 0.0005	0.0082 ± 0.0017[a]	0.0048 ± 0.0007
TG(51:1)	0.0033 ± 0.0003	0.0071 ± 0.0014[b]	0.0042 ± 0.0005[e]
TG(51:2)	0.0143 ± 0.0015	0.0359 ± 0.0070[b]	0.0197 ± 0.0026[e]
TG(51:3)	0.0252 ± 0.0032	0.0539 ± 0.0098[b]	0.0330 ± 0.0040
TG(51:4)	0.0115 ± 0.0017	0.0224 ± 0.0048[a]	0.0149 ± 0.0021
TG(52:1)	0.0200 ± 0.0020	0.0525 ± 0.0122[b]	0.0297 ± 0.0035[e]
TG(52:2)	0.4596 ± 0.0677	0.9074 ± 0.1332[b]	0.6051 ± 0.0607
TG(52:5)	0.1179 ± 0.0159	0.2733 ± 0.0480[b]	0.1897 ± 0.0299
TG(52:5)	0.0266 ± 0.0075	0.0689 ± 0.0113[a]	0.0380 ± 0.0124
TG(52:6)	0.0130 ± 0.0017	0.0293 ± 0.0070[a]	0.0163 ± 0.0025
TG(52:7)	0.0030 ± 0.0003	0.0052 ± 0.0011[a]	0.0025 ± 0.0003[d]
TG(53:1)	0.0014 ± 0.0002	0.0024 ± 0.0005[a]	0.0014 ± 0.0002
TG(53:2)	0.0070 ± 0.0008	0.0193 ± 0.0038[c]	0.0100 ± 0.0013[f]
TG(53:3)	0.0180 ± 0.0023	0.0445 ± 0.0107[b]	0.0253 ± 0.0035
TG(53:4)	0.0162 ± 0.0022	0.0307 ± 0.0058[a]	0.0210 ± 0.0028
TG(54:1)	0.0061 ± 0.0006	0.0173 ± 0.0038[b]	0.0086 ± 0.0010[e]
TG(54:2)	0.0333 ± 0.0039	0.1049 ± 0.0265[b]	0.0458 ± 0.0055[e]
TG(54:3)	0.1439 ± 0.0179	0.2453 ± 0.0359[a]	0.1792 ± 0.0193
TG(54:5)	0.0635 ± 0.0073	0.1353 ± 0.0234[b]	0.0816 ± 0.0137
TG(54:6)	0.1006 ± 0.0128	0.2000 ± 0.0341[a]	0.1317 ± 0.0204

TG(54:7)	0.0691 ± 0.0093	0.1831 ± 0.0340[b]	0.0965 ± 0.0161[e]
TG(54:7)	0.0266 ± 0.0035	0.0617 ± 0.0186[a]	0.0364 ± 0.0050
TG(54:8)	0.0142 ± 0.0018	0.0327 ± 0.0066[b]	0.0145 ± 0.0014[e]
TG(55:2)	0.0013 ± 0.0002	0.0025 ± 0.0005[a]	0.0014 ± 0.0002[d]
TG(55:3)	0.0026 ± 0.0003	0.0051 ± 0.0009[b]	0.0030 ± 0.0004[e]
TG(55:6)	0.0023 ± 0.0002	0.0044 ± 0.0008[b]	0.0025 ± 0.0002[e]
TG(55:7)	0.0057 ± 0.0007	0.0120 ± 0.0023[b]	0.0060 ± 0.0005[e]
TG(55:8)	0.0064 ± 0.0009	0.0119 ± 0.0028[a]	0.0061 ± 0.0005[d]
TG(56:1)	0.0012 ± 0.0001	0.0028 ± 0.0006[b]	0.0014 ± 0.0001[e]
TG(56:10)	0.0039 ± 0.0005	0.0079 ± 0.0018[a]	0.0037 ± 0.0004[d]
TG(56:2)	0.0037 ± 0.0004	0.0088 ± 0.0014[c]	0.0048 ± 0.0006[f]
TG(56:2)	0.0046 ± 0.0005	0.0125 ± 0.0025[c]	0.0060 ± 0.0007[f]
TG(56:3)	0.0137 ± 0.0016	0.0364 ± 0.0069[c]	0.0190 ± 0.0023[f]
TG(56:3)	0.0062 ± 0.0008	0.0104 ± 0.0015[a]	0.0072 ± 0.0008
TG(56:4)	0.0050 ± 0.0006	0.0109 ± 0.0021[b]	0.0070 ± 0.0009
TG(56:4)	0.0200 ± 0.0027	0.0403 ± 0.0064[b]	0.0264 ± 0.0034
TG(56:4)	0.0017 ± 0.0002	0.0032 ± 0.0006[a]	0.0022 ± 0.0002
TG(56:5)	0.0182 ± 0.0023	0.0396 ± 0.0068[b]	0.0273 ± 0.0035
TG(56:5)	0.0155 ± 0.0020	0.0250 ± 0.0025[a]	0.0176 ± 0.0019
TG(56:5)	0.0201 ± 0.0027	0.0325 ± 0.0044[a]	0.0236 ± 0.0025
TG(56:6)	0.0659 ± 0.0085	0.1961 ± 0.0281[c]	0.1090 ± 0.0150[f]
TG(56:7)	0.1044 ± 0.0141	0.2636 ± 0.0403[c]	0.1655 ± 0.0178[f]
TG(56:7)	0.2635 ± 0.0507	0.4702 ± 0.0657[a]	0.2729 ± 0.0254
TG(56:8)	0.4920 ± 0.0863	0.8782 ± 0.1237[a]	0.5430 ± 0.0444
TG(56:9)	0.0334 ± 0.0047	0.1040 ± 0.0280[b]	0.0389 ± 0.0036[e]
TG(57:6)	0.0012 ± 0.0001	0.0020 ± 0.0003[a]	0.0013 ± 0.0001[d]
TG(57:7)	0.0029 ± 0.0004	0.0054 ± 0.0009[b]	0.0031 ± 0.0003[e]
TG(57:9)	0.0028 ± 0.0004	0.0058 ± 0.0012[b]	0.0029 ± 0.0002[e]
TG(58:10)	0.0116 ± 0.0013	0.0226 ± 0.0045[b]	0.0138 ± 0.0010
TG(58:10)	0.0393 ± 0.0064	0.0901 ± 0.0229[a]	0.0453 ± 0.0032[d]
TG(58:11)	0.0050 ± 0.0006	0.0094 ± 0.0019[b]	0.0046 ± 0.0004[e]
TG(58:11)	0.0103 ± 0.0015	0.0228 ± 0.0058[a]	0.0114 ± 0.0009[d]
TG(58:2)	0.0010 ± 0.0001	0.0021 ± 0.0005[a]	0.0011 ± 0.0001[d]
TG(58:3)	0.0020 ± 0.0002	0.0044 ± 0.0007[b]	0.0024 ± 0.0003[d]
TG(58:3)	0.0011 ± 0.0002	0.0020 ± 0.0004[a]	0.0011 ± 0.0001[e]
TG(58:4)	0.0030 ± 0.0004	0.0068 ± 0.0010[b]	0.0039 ± 0.0005[d]
TG(58:5)	0.0030 ± 0.0004	0.0053 ± 0.0009[a]	0.0032 ± 0.0003[e]
TG(58:5)	0.0019 ± 0.0003	0.0036 ± 0.0008[a]	0.0021 ± 0.0003[d]
TG(58:6)	0.0056 ± 0.0008	0.0087 ± 0.0011[a]	0.0061 ± 0.0007
TG(58:7)	0.0073 ± 0.0008	0.0167 ± 0.0027[c]	0.0096 ± 0.0006[f]
TG(58:7)	0.0136 ± 0.0019	0.0228 ± 0.0027[a]	0.0152 ± 0.0014
TG(58:7)	0.0082 ± 0.0011	0.0130 ± 0.0017[a]	0.0085 ± 0.0008
TG(58:8)	0.0398 ± 0.0058	0.0880 ± 0.0178[b]	0.0466 ± 0.0034[e]
TG(58:9)	0.0727 ± 0.0109	0.1749 ± 0.0239[c]	0.1035 ± 0.0107[f]
TG(60:10)	0.0049 ± 0.0006	0.0101 ± 0.0018[b]	0.0055 ± 0.0005[e]
TG(60:10)	0.0066 ± 0.0008	0.0117 ± 0.0021[a]	0.0073 ± 0.0006
TG(60:11)	0.0102 ± 0.0013	0.0272 ± 0.0053[c]	0.0135 ± 0.0013[f]
TG(60:11)	0.0025 ± 0.0004	0.0071 ± 0.0015[b]	0.0029 ± 0.0008[e]
TG(60:12)	0.0122 ± 0.0019	0.0344 ± 0.0071[c]	0.0150 ± 0.0011[f]
TG(60:4)	0.0008 ± 0.0001	0.0012 ± 0.0002[a]	0.0008 ± 0.0001

TG(60:6)	0.0008 ± 0.0001	0.0012 ± 0.0001[b]	0.0008 ± 0.0001[e]
TG(60:7)	0.0016 ± 0.0002	0.0033 ± 0.0006[b]	0.0017 ± 0.0001[e]
TG(60:8)	0.0033 ± 0.0005	0.0060 ± 0.0008[b]	0.0034 ± 0.0003[e]
TG(60:8)	0.0029 ± 0.0004	0.0045 ± 0.0005[a]	0.0029 ± 0.0003[d]
TG(60:9)	0.0056 ± 0.0007	0.0102 ± 0.0014[b]	0.0063 ± 0.0004[e]
TG(62:10)	0.0010 ± 0.0001	0.0014 ± 0.0002[a]	0.0010 ± 0.0001
TG(62:12)	0.0014 ± 0.0002	0.0030 ± 0.0003[c]	0.0016 ± 0.0001f
TG(62:12)	0.0027 ± 0.0003	0.0055 ± 0.0010[b]	0.0028 ± 0.0002[e]
TG(62:13)	0.0059 ± 0.0008	0.0131 ± 0.0025[b]	0.0065 ± 0.0004[e]
TG(62:14)	0.0096 ± 0.0013	0.0184 ± 0.0036[b]	0.0094 ± 0.0006[e]
TG(62:8)	0.0007 ± 0.0001	0.0013 ± 0.0002[b]	0.0008 ± 0.0001[e]

[a] p - Value < 0.05 vs GF
[b] p - Value < 0.01 vs GF
[c] p - Value < 0.001 vs GF
[d] p - Value < 0.05 CONV-R vs CONV-D
[e] p - Value < 0.01 CONV-R vs CONV-D
[f] p - Value < 0.001 CONV-R vs CONV-D
q – Value < 0.20

Table S9. Absolute concentrations ± SEM of the significantly altered lipid molecular species (µmol/ml) in serum from CONV-R and GF mice 1 h after a lipid bolus

Lipid Name	GF	Conv-R	P-value
DG(44:7)	0.0171 ± 0.0004	0.0133 ± 0.0005	0.00009
LysoPC(16:0)	0.0151 ± 0.0005	0.0207 ± 0.0017	0.00277
LysoPC(16:0)	0.1892 ± 0.0105	0.2719 ± 0.0262	0.00579
LysoPC(18:1)	0.0286 ± 0.0019	0.0416 ± 0.0048	0.01321
LysoPC(18:2)	0.1204 ± 0.0071	0.1531 ± 0.0146	0.04554
LysoPC(18:2)	0.0180 ± 0.0008	0.0221 ± 0.0011	0.00888
LysoPC(18:3)	0.0237 ± 0.0023	0.0344 ± 0.0045	0.03734
LysoPC(20:4)	0.0044 ± 0.0002	0.0056 ± 0.0005	0.02733
LysoPC(20:4)	0.0041 ± 0.0003	0.0060 ± 0.0005	0.00420
LysoPC(20:4)	0.0299 ± 0.0018	0.0469 ± 0.0060	0.00718
LysoPC(20:3e)	0.0074 ± 0.0008	0.0129 ± 0.0016	0.00595
LysoPS(21:1)	0.0037 ± 0.0002	0.0065 ± 0.0009	0.00271
PC(32:0)	0.0218 ± 0.0009	0.0323 ± 0.0014	0.00003
PC(32:1)	0.0058 ± 0.0003	0.0087 ± 0.0005	0.00020
PC(32:2)	0.0028 ± 0.0001	0.0035 ± 0.0003	0.03041
PC(34:1)	0.1793 ± 0.0077	0.2189 ± 0.0139	0.01959
PC(34:3)	0.0036 ± 0.0001	0.0052 ± 0.0004	0.00143
PC(34:4)	0.0016 ± 0.0001	0.0023 ± 0.0003	0.04047
PC(36:2)	0.6479 ± 0.0251	0.5012 ± 0.0136	0.00119
PC(36:3)	0.0963 ± 0.0031	0.1310 ± 0.0056	0.00010
PC(36:4)	0.0276 ± 0.0017	0.0339 ± 0.0019	0.03184
PC(36:4)	0.1969 ± 0.0104	0.3366 ± 0.0227	0.00005
PC(38:3)	0.0331 ± 0.0009	0.0421 ± 0.0016	0.00028
PC(38:4)	0.0065 ± 0.0003	0.0103 ± 0.0003	0.00001
PC(38:5)	0.0969 ± 0.0040	0.0740 ± 0.0052	0.00457
PC(38:5)	0.0250 ± 0.0009	0.0373 ± 0.0025	0.00018
PC(38:6)	0.0211 ± 0.0010	0.0248 ± 0.0013	0.04772
PC(38:7)	0.0291 ± 0.0015	0.0467 ± 0.0029	0.00008
PC(40:7)	0.0223 ± 0.0005	0.0266 ± 0.0012	0.00229
PC(40:8)	0.0042 ± 0.0002	0.0060 ± 0.0007	0.00776
PC(42:10)	0.0036 ± 0.0002	0.0043 ± 0.0002	0.02710
PC(42:9)	0.0166 ± 0.0008	0.0133 ± 0.0008	0.02359
PC(36:4e)	0.0053 ± 0.0002	0.0071 ± 0.0004	0.00160
PC(36:5e)	0.0032 ± 0.0003	0.0048 ± 0.0006	0.02081
PC(38:5e)	0.0053 ± 0.0003	0.0066 ± 0.0002	0.00583
PE(36:0)	0.0136 ± 0.0017	0.0262 ± 0.0043	0.00861
PE(42:6)	0.0538 ± 0.0035	0.0712 ± 0.0075	0.03641
PE(38:7e)	0.0189 ± 0.0012	0.0279 ± 0.0032	0.01000
PE(42:10e)	0.0362 ± 0.0019	0.0513 ± 0.0043	0.00365
PE(46:12e)	0.0702 ± 0.0039	0.1025 ± 0.0151	0.02665
PS(43:8)	0.0307 ± 0.0017	0.0514 ± 0.0060	0.00194
PS(43:9)	0.0651 ± 0.0041	0.1181 ± 0.0146	0.00132
SM(d18:1/22:0)	0.0099 ± 0.0003	0.0066 ± 0.0005	0.00011
SM(d18:1/24:1)	0.0140 ± 0.0006	0.0165 ± 0.0011	0.04628
TG(46:0)	0.1195 ± 0.0130	0.1839 ± 0.0308	0.04800
TG(47:0)	0.0206 ± 0.0018	0.0346 ± 0.0064	0.02670
TG(48:0)	0.0863 ± 0.0095	0.1472 ± 0.0290	0.03542

TG(49:1)	0.0233 ± 0.0020	0.0346 ± 0.0051	0.03449
TG(52:6)	0.0280 ± 0.0023	0.0191 ± 0.0017	0.01695

q – Value < 0.30

Table S10. Absolute concentrations ± SEM of the significantly altered lipid molecular species (µmol/ml) in serum from CONV-R and GF mice 4 h after a lipid bolus

Lipid Name	GF	Conv-R	P-value
LysoPC(16:0)	0.0189 ± 0.0013	0.0248 ± 0.0017	0.0160
LysoPC(20:3e)	0.0117 ± 0.0011	0.0168 ± 0.0017	0.0271
PC(32:0)	0.0252 ± 0.0008	0.0343 ± 0.0031	0.0080
PC(32:1)	0.0133 ± 0.0004	0.0168 ± 0.0012	0.0137
PC(36:3)	0.1065 ± 0.0037	0.1258 ± 0.0082	0.0379
PC(36:4)	0.1678 ± 0.0081	0.2229 ± 0.0101	0.0015
PC(38:3)	0.0290 ± 0.0020	0.0376 ± 0.0024	0.0202
PC(38:4)	0.0058 ± 0.0004	0.0078 ± 0.0007	0.0279
PC(38:5)	0.0190 ± 0.0006	0.0241 ± 0.0017	0.0101
PC(38:7)	0.0258 ± 0.0013	0.0344 ± 0.0021	0.0046
PC(40:6)	0.0807 ± 0.0045	0.0638 ± 0.0037	0.0209
PC(40:7)	0.0115 ± 0.0003	0.0143 ± 0.0012	0.0297
PC(40:8)	0.0027 ± 0.0001	0.0035 ± 0.0003	0.0192
PC(42:9)	0.0124 ± 0.0007	0.0094 ± 0.0004	0.0093
PC(36:4e)	0.0045 ± 0.0001	0.0062 ± 0.0004	0.0012
PC(36:5e)	0.0021 ± 0.0002	0.0038 ± 0.0007	0.0260
PE(36:0)	0.0246 ± 0.0020	0.0458 ± 0.0054	0.0019
PE(36:1)	0.0462 ± 0.0097	0.1243 ± 0.0318	0.0218
PE(36:1)	0.0702 ± 0.0057	0.1381 ± 0.0230	0.0073
PE(36:2)	0.0635 ± 0.0054	0.0851 ± 0.0083	0.0447
PE(40:4)	0.0183 ± 0.0021	0.0315 ± 0.0047	0.0170
PE(42:6)	0.0399 ± 0.0044	0.0707 ± 0.0123	0.0234
PE(44:11)	0.0337 ± 0.0077	0.0859 ± 0.0235	0.0362
PE(38:7e)	0.0162 ± 0.0014	0.0298 ± 0.0036	0.0025
PE(40:7e)	0.0118 ± 0.0013	0.0230 ± 0.0022	0.0010
PE(42:10e)	0.0362 ± 0.0043	0.0714 ± 0.0154	0.0284
PE(44:11e)	0.0600 ± 0.0076	0.1081 ± 0.0219	0.0393
PS(38:0)	0.0210 ± 0.0014	0.0338 ± 0.0054	0.0232
PS(38:1)	0.0182 ± 0.0018	0.0324 ± 0.0063	0.0321
PS(41:7)	0.1711 ± 0.0402	0.4492 ± 0.1271	0.0371
PS(43:8)	0.0338 ± 0.0037	0.0639 ± 0.0118	0.0184
PS(43:9)	0.0565 ± 0.0042	0.1121 ± 0.0191	0.0072
PS(45:9)	0.0415 ± 0.0038	0.0672 ± 0.0124	0.0446
PS(38:5e)	0.0796 ± 0.0103	0.1997 ± 0.0434	0.0102
PS(44:6e)	0.0322 ± 0.0027	0.0596 ± 0.0124	0.0293
SM(d18:1/16:0)	0.0153 ± 0.0006	0.0204 ± 0.0019	0.0143
SM(d18:1/18:3)	0.0040 ± 0.0002	0.0053 ± 0.0005	0.0170
SM(d18:1/22:0)	0.0065 ± 0.0004	0.0045 ± 0.0006	0.0169
SM(d18:1/24:1)	0.0082 ± 0.0005	0.0119 ± 0.0012	0.0085
TG(36:0)	0.0060 ± 0.0009	0.0126 ± 0.0030	0.0346
TG(38:0)	0.0102 ± 0.0016	0.0200 ± 0.0035	0.0167

q – Value < 0.30

SI Fig. 1.

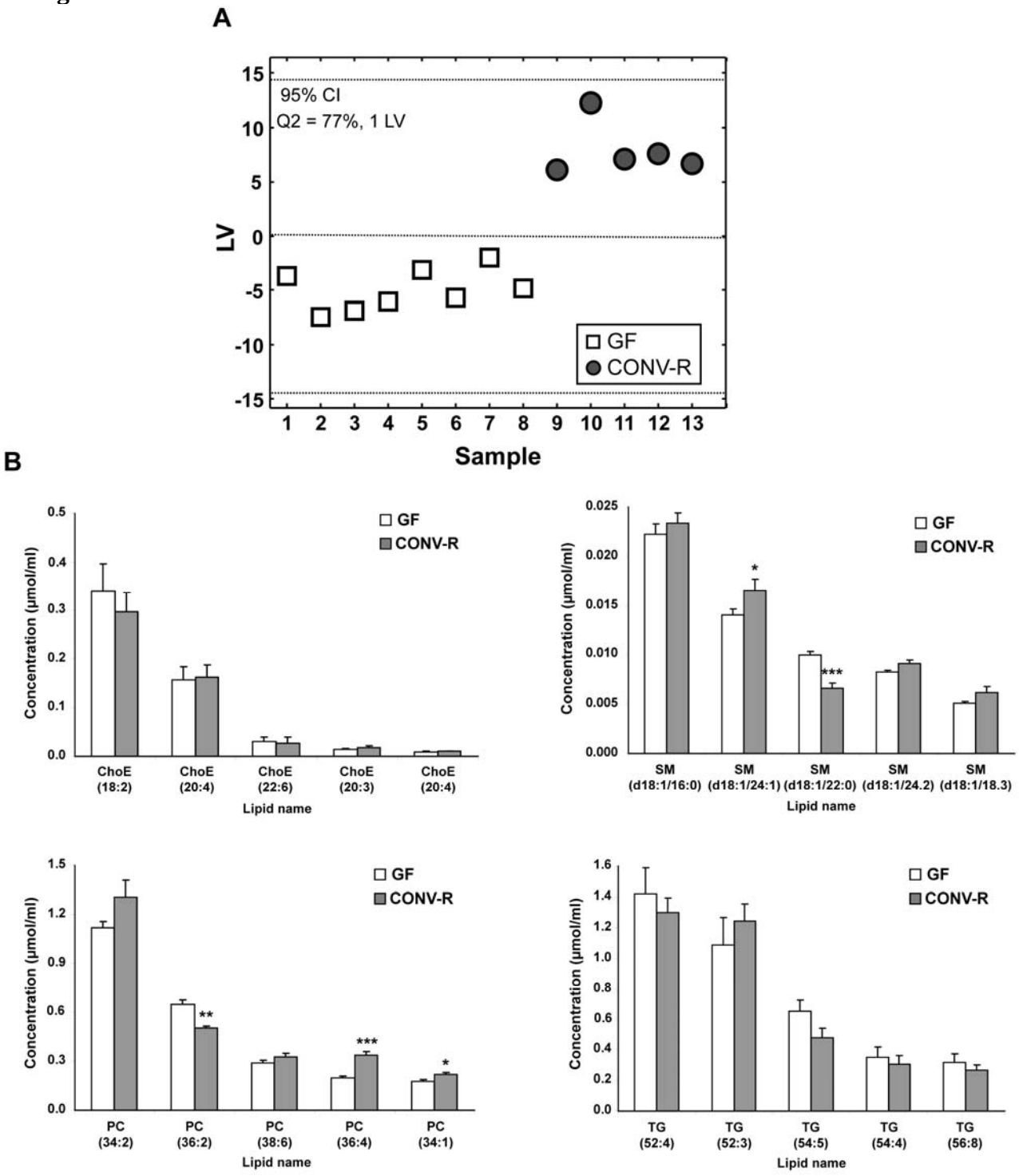

Figure S1. Lipidomic profiling of serum from CONV-R and GF mice 1 h after a lipid bolus. (A) Partial least squares discriminant analysis (PLS/DA) of serum 1 h after mice were gavaged with an intragastric bolus of heavy whipping cream (~36% triglycerides). Scores for latent variable LV1 and sample are depicted. (B) Absolute concentrations of the most abundant cholesteryl esters (ChoE), phosphatidylcholines (PC), sphingomyelins (SM), and triglycerides (TG) in serum of GF and CONV-R mice 1 h after administration of lipid bolus. Mean values ± SEM are plotted. *****, $p < 0.05$; ******, $p < 0.01$; and *******, $p < 0.001$ compared with GF.

SI Fig. 2.

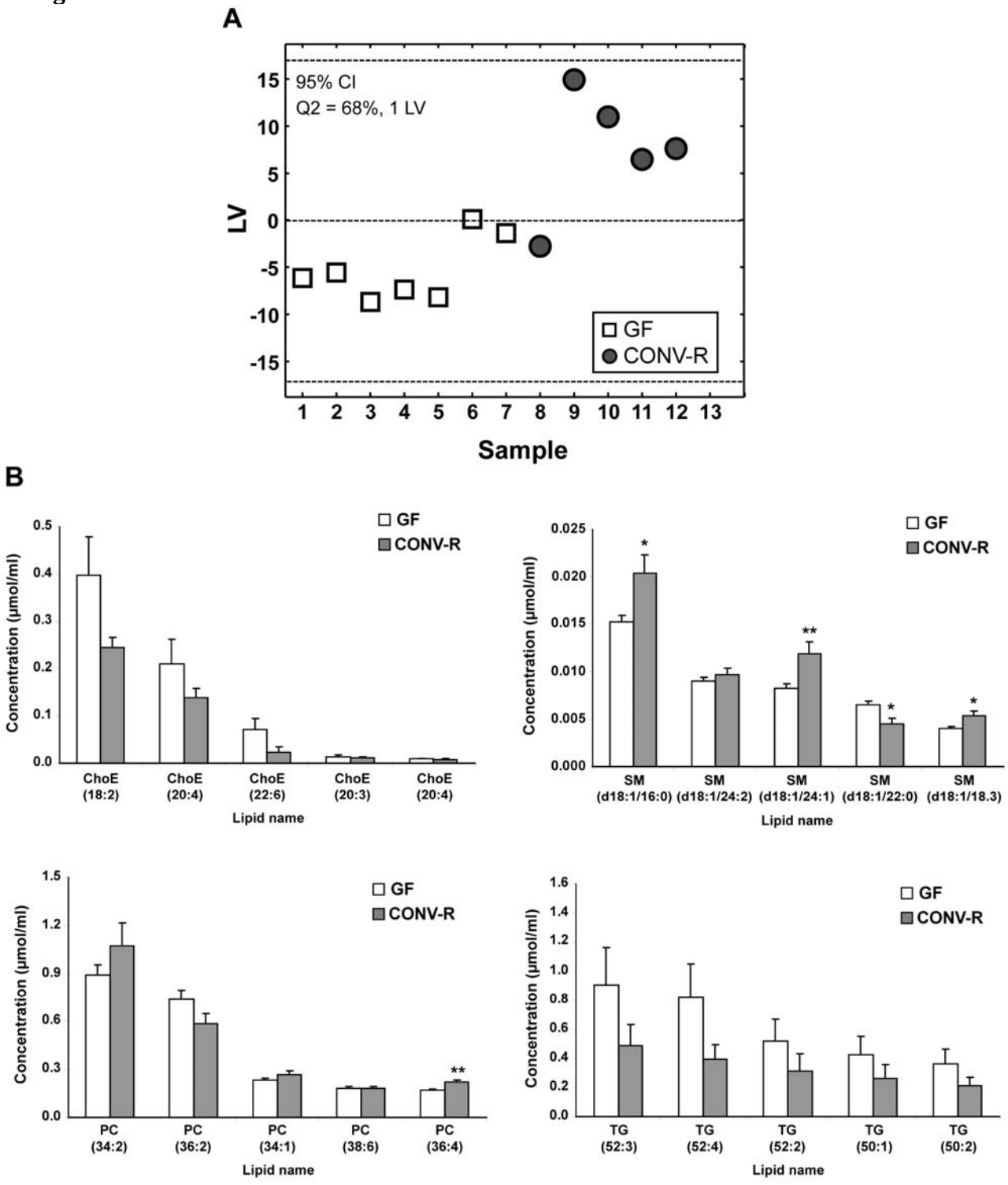

Figure S2. Lipidomic profiling of serum from CONV-R and GF mice 4 h after a lipid bolus. (A) Partial least squares discriminant analysis (PLS/DA) of serum 4 h after mice were gavaged with an intragastric bolus of heavy whipping cream (~36% triglycerides). Scores for latent variable LV1 and sample are depicted. (B) Absolute concentrations of the most abundant cholesteryl esters (ChoE), phosphatidylcholines (PC), sphingomyelins (SM), and triglycerides (TG) in serum of GF and CONV-R mice 1h after administration of lipid bolus. Mean values ± SEM are plotted. *****, $p < 0.05$ and ******, $p < 0.01$ compared with GF.

SI Fig. 3.

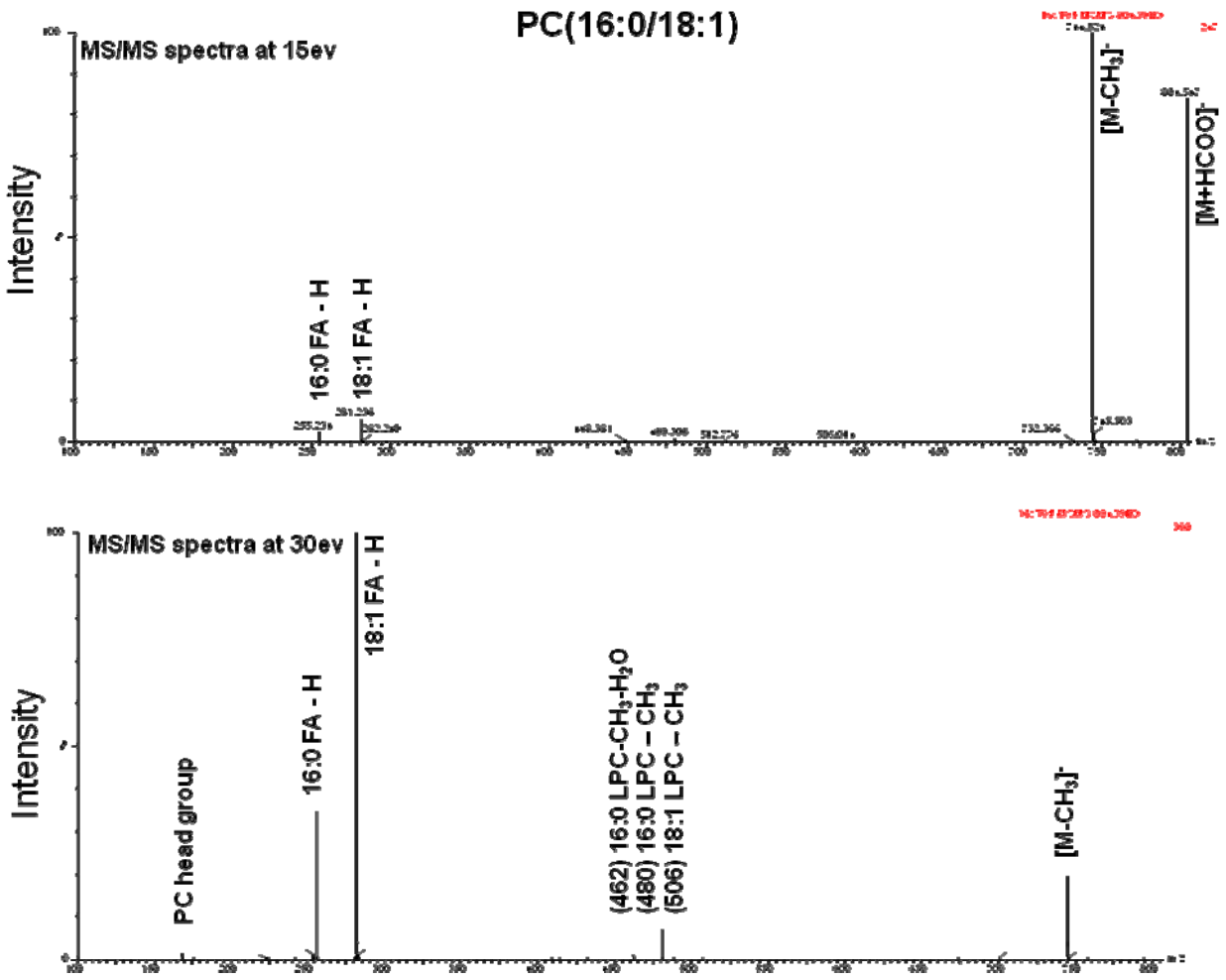

Figure S3. Identification of lipid sub-species by tandem mass spectrometry. MS/MS spectra of PC(34:1) at (A) 15 eV and at (B) 30 eV collision energy and the fatty acyl chains are identified as PC(16.0/18:1).