

**Supplementary Table II. Lipids in the liver regulated by the gut microbiota.** ChoE=cholesteryl ester, DG= diglyceride, LysoPC=Lysophosphatidylcholine, PC=phosphatidylcholines, PE= phosphatidylethanolamine, TG=triglyceride, Cer=ceramide and SM=sphingomyelin.

Name	FDR (p-value)	Fold change
<i>Lipids increased by the gut microbiota during lard diet</i>		
ChoE(16:0)	7.7E-03	2.64
ChoE(16:1)	1.0E-02	2.00
ChoE(18:1)	7.6E-03	1.57
ChoE(18:2)	2.7E-03	4.00
DG(46:8)	6.4E-03	1.61
LysoPC(20:0)	7.7E-04	2.43
PC(34:3)	8.1E-03	1.43
PC(38:2)	1.4E-03	1.89
PC(40:1)	2.4E-03	1.59
PC(40:3)	1.8E-03	2.40
PC(40:4)	5.4E-04	2.12
PC(42:2)	2.6E-03	1.62
PC(42:4)	2.4E-03	2.08
PC(42:5)	4.0E-03	1.85
PC(42:6)	4.4E-03	2.80
PC(42:9)	8.9E-03	1.71
PC(44:6)	7.8E-03	2.83
PC(44:7)	4.1E-03	2.50
PE(34:3)	1.0E-02	1.38
PE(36:2)	1.7E-03	1.77
PE(36:3)	8.7E-03	1.36
PE(38:2)	7.5E-03	3.16

PE(38:3)	2.7E-03	1.66
PE(40:1)	1.1E-02	1.39
TG(60:5)	5.5E-04	2.45
TG(60:5)	3.5E-03	2.92
TG(60:6)	1.1E-02	1.68
<b><i>Lipids reduced by the gut microbiota during lard diet</i></b>		
Cer(d18:1/16:0)	2.9E-02	-1.37
Cer(d18:1/18:0)	1.6E-02	-1.55
Cer(d18:1/20:0)	1.6E-02	-1.32
DG(36:4)	1.0E-02	-2.10
PC(32:0)	2.2E-02	-1.22
PC(38:5)	2.8E-02	-1.57
PC(38:7)	7.1E-04	-1.59
PE(16:0p/18:1)	1.0E-02	-1.45
PE(38:7e)	1.1E-02	-1.32
SM(d18:1/14:0)	1.5E-02	-1.23
SM(d18:1/16:0)	9.4E-03	-1.21
TG(50:0)	1.6E-02	-1.74
TG(51:1)	1.1E-02	-1.59
TG(54:5)	6.4E-03	-1.46
TG(54:6)	3.1E-02	-1.37
TG(56:6)	3.0E-02	-1.48
TG(56:7)	2.3E-02	-1.70
TG(60:11)	3.1E-02	-2.16
<b><i>Lipids increased by the gut microbiota during fish-oil diet</i></b>		
PC(32:3)	1.7E-02	1.22
PC(34:0e)	1.4E-02	1.41

PC(40:1)	1.8E-03	1.49
PC(40:2)	3.7E-03	1.59
PC(42:2)	5.6E-03	1.50
PC(42:4)	7.5E-03	1.39
PC(42:5)	8.5E-03	1.38
PC(42:6)	5.5E-03	1.24
PC(44:6)	1.1E-03	1.75
PC(44:7)	4.8E-04	1.71
PE(38:2)	9.7E-03	1.45
PE(40:4)	1.2E-03	1.23
PE(40:6e)	2.2E-02	1.35
PE(40:7e)	3.0E-03	1.30
<b><i>Lipids reduced by the gut microbiota during fish-oil diet</i></b>		
Cer(d18:1/18:0)	1.6E-03	-1.32
Cer(d18:1/19:0)	2.2E-05	-1.40
Cer(d18:1/20:0)	7.5E-06	-1.71
Cer(d18:1/22:1)	1.1E-03	-1.44
Cer(d18:1/23:1)	8.0E-04	-1.63
Cer(d18:1/24:1)	8.5E-04	-1.37
Cer(d18:2/24:1)	9.3E-06	-1.56
DG(36:4)	4.6E-05	-1.71
DG(38:4)	1.2E-03	-1.46
DG(40:6)	3.3E-03	-1.51
DG(40:6)	7.0E-03	-1.42
LysoPC(18:0)	3.6E-03	-1.30
PC(38:3)	2.7E-04	-1.39
PE(36:0)	5.5E-03	-1.21

SM(d17:1/22:0)	1.5E-03	-1.38
SM(d18:1/14:0)	4.3E-05	-1.45
SM(d18:1/20:0)	2.7E-03	-1.36
TG(48:1)	7.0E-03	-1.51
TG(49:1)	2.2E-03	-1.94
TG(49:2)	1.8E-03	-1.90
TG(50:4)	4.3E-03	-1.66
TG(51:1)	1.7E-03	-2.09
TG(51:2)	2.6E-03	-2.37
TG(51:3)	2.3E-03	-2.28
TG(51:4)	4.4E-03	-1.61
TG(52:5)	3.4E-03	-1.69
TG(53:4)	3.3E-03	-1.73
TG(54:5)	7.4E-04	-1.74
TG(54:5)	3.7E-03	-1.52
TG(54:6)	2.3E-03	-2.26
TG(54:7)	1.6E-03	-2.00
TG(56:5)	7.7E-04	-3.31
TG(56:6)	1.1E-03	-1.94
TG(56:7)	8.2E-04	-1.84
TG(56:7)	2.7E-03	-1.66
TG(56:8)	4.4E-03	-1.59
TG(56:9)	6.5E-03	-1.64
TG(57:6)	4.5E-04	-1.65
TG(57:9)	2.9E-03	-1.73
TG(58:10)	3.8E-03	-1.95
TG(58:11)	6.8E-03	-1.68

TG(58:8)	2.1E-03	-1.58
TG(58:9)	3.5E-03	-1.42
TG(60:11)	1.7E-03	-1.96