

**Association between circulating lipids and future weight gain in individuals  
with an at-risk mental state and in first-episode psychosis**

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**Supplementary Material**

**Supplementary Table 1:** Description of lipid clusters.

<b>Cluster</b>	<b>Summary composition</b>	<b>Representative lipids, examples</b>
LC1	Major PCs, TGs, Minor CEs	PC(34:3), PC(36:4), PC(40:4), PC(O-36:3), TG(18:0/18:0/18:0), TG(56:4)
LC2	Major PCs, Minor CEs	PC(36:4), PC(34:2), CE(18:1)
LC3	PCs only	PC(38:6), PC(40:6)
LC4	Cer only	Cer(d18:1/22:0)
LC5	LPCs only	LPC(16:1), LPC(20:3)
LC6	PCs and SMs	PC(16:0/16:0), PC(O-38:4), SM(d18:1/12:0)
LC7	PCs	PC(38:2), PC(38:3)
LC8	PCs	PC(38:3), PC(38:4)
LC9	PCs	PC(O-36:3), PC(O-36:4)
LC10	PEs only	PE(34:2), PE(38:6)
LC11	SMs	SM(d36:0), SM(d36:1)
LC12	SMs	SM(d38:1), SM(d38:2)
LC13	TGs	TG(14:0/16:0/18:1), TG(48:1)
LC14	TGs	TG(14:0/18:1/18:1), TG(47:2), TG(48:0)
LC15	TGs	TG(48:3), TG(53:4)
LC16	TGs	TG(16:0/18:0/18:1), TG(50:0)
LC17	TGs	TG(16:0/18:2/18:2), TG(18:1/18:2/18:2)
LC18	TGs	TG(18:1/18:1/16:0), TG(18:2/18:1/16:0)
LC19	TGs	TG(18:1/18:1/16:0), TG(18:1/18:1/18:1)
LC20	TGs	TG(50:3)
LC21	TGs	TG(52:3)
LC22	TGs	TG(54:2)

**Supplementary Table 2.** Correlation between baseline TGs and change in BMI (12-month follow-up vs. baseline) in FEP patients.

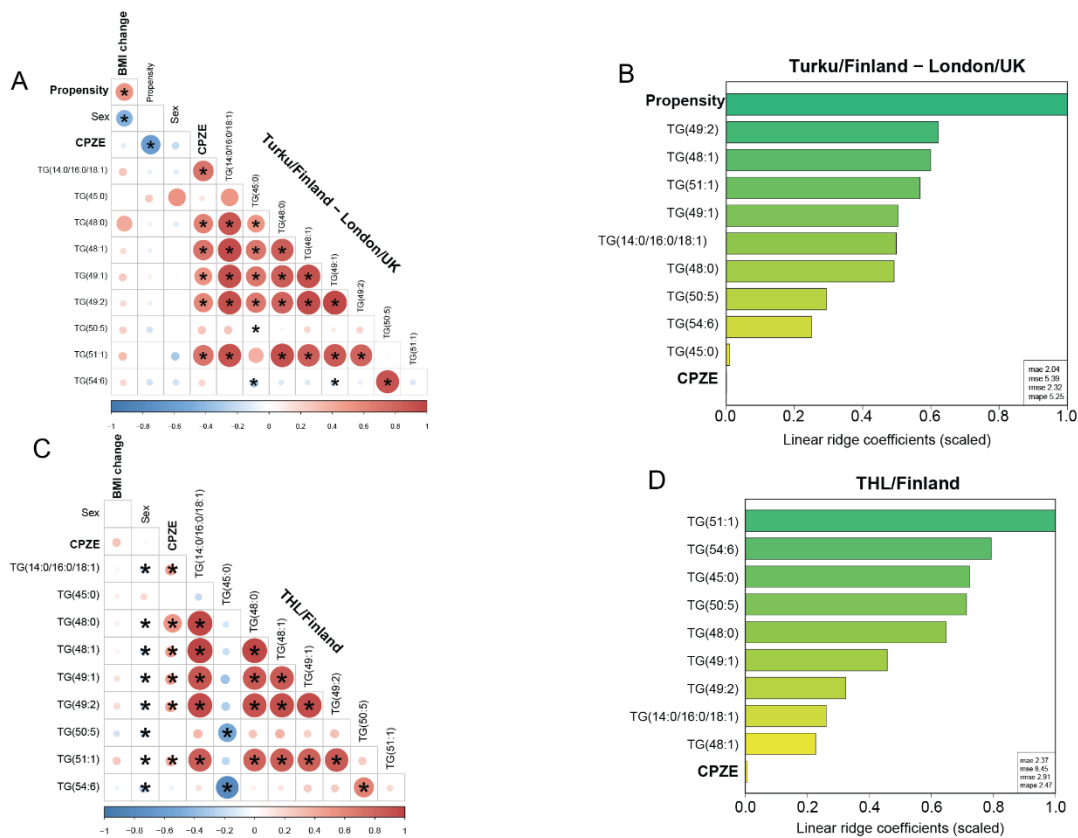
	<b>Lipid ID</b>	<b>p-values</b>
1	TG(48:0)	0.0191
2	TG(47:0)	0.021
3	TG(48:0)	0.0237
4	TG(47:1)	0.0245
5	TG(48:1)	0.0252
6	TG(48:1)	0.0252
7	TG(14:0/16:0/18:1)	0.0366
8	TG(16:0/16:0/16:0)	0.0419
9	TG(49:0)	0.043

**Supplementary Table 3.** Correlation between baseline TGs and change in BMI (12-month follow-up vs. baseline) in CHR individuals.

	<b>Lipid ID</b>	<b>p-values</b>
1	TG(14:0/16:0/18:1)	0.0001
2	TG(14:0/18:1/18:1)	0.0001
3	TG(14:0/18:2/18:2)	0.001
4	TG(14:0/18:2/18:2)	0.0021
5	TG(16:0/16:0/16:0)	0.003
6	TG(16:0/18:0/18:1)	0.003
7	TG(16:0/18:2/18:2)	0.0037
8	TG(16:0/18:2/18:3)	0.0041
9	TG(16:0/18:2/22:6)	0.0041
10	TG(16:0/18:2/22:6)	0.0041
11	TG(16:0/22:5/18:1) or TG(20:4/18:1/18:1)	0.0041
12	TG(16:0/22:5/18:1) or TG(20:4/18:1/18:1)	0.0041
13	TG(18:0/18:0/18:0)	0.0067
14	TG(18:0/18:1/20:4)	0.0067
15	TG(18:0/18:1/20:4)	0.0073
16	TG(18:1/12:0/18:1) or TG(18:2/16:0/14:0)	0.0103
17	TG(18:1/18:1/16:0)	0.0103
18	TG(18:1/18:1/18:1)	0.0112
19	TG(18:1/18:1/22:6)	0.0165
20	TG(18:1/18:1/22:6)	0.0205
21	TG(18:1/18:2/18:2)	0.0205
22	TG(18:1/18:2/18:2)	0.0205
23	TG(18:2/18:1/16:0)	0.022
24	TG(18:2/18:1/18:1)	0.0235
25	TG(18:2/18:1/18:1)	0.0252
26	TG(18:2/18:2/18:2) or TG(18:3/18:2/18:1)	0.0252
27	TG(18:2/18:2/18:2) or TG(18:3/18:2/18:1)	0.0269
28	TG(18:2/18:2/18:2) or TG(18:3/18:2/18:1)	0.0413
29	TG(18:2/22:5/16:0)	0.0438
30	TG(18:2/22:5/16:0)	0.0438
31	TG(37:0)	0.0463
32	TG(45:0)	0.0463

**Supplementary Table 4.** Information on CPZ-equivalents medication type and 1-year follow-up diagnoses in samples from Turku/Finland

	CTR	FEP	CHR
Antipsychotic Baseline (Turku, Finland)			
Olanzapine (n)	N/A	5	4
Paliperidone (n)		2	N/a
Perphenazine (n)		2	N/a
Quetiapine (n)		1	2
Risperidone (n)		13	2
Follow up Antipsychotic CPZE ( $\pm$ SD) (n = 23 FEP, n = 3 CHR)	N/A	235.3 ( $\pm$ 197.4)	635 ( $\pm$ 60.6)
Antipsychotic Follow up (Turku, Finland)			
Olanzapine(n)	N/A	4	N/a
Olanzapine, Quetiapine		1	N/a
Risperidone, Olanzapine (n)		1	N/a
Aripiprazole, Olanzapine (n)		N/a	1
Olanzapine, Risperidone (n)		N/a	1
Paliperidone (n)		3	N/a
Perphenazine (n)		1	N/a
Quetiapine (n)		1	N/a
Risperidone (n)		5	N/a
Aripiprazole (n)		1	1
Clozapine(n)		1	N/a
1 year Follow up diagnosis			
Psychosis NOS		6	
Schizophrenia	N/A	6	N/A
Schizophreniform disorder		5	
Bipolar disorder		2	
Delusional disorder		2	
Schizoaffective disorder		2	



**Supplementary Figure 1.** Spearman rank regression coefficients showing the correlation between the effect of antipsychotic medication and nine selected baseline TG concentrations that were associated weight gain in FEP patients **A)** Turku/Finland, London/UK and **C)** THL/Finland. A regularized linear-ridge regression model to evaluate the effect of antipsychotic medication and nine selected baseline TG concentrations on the weight gain in FEP patients. The ridge coefficients from the regression model suggests that, the dose of antipsychotics medication is least contributing than the selected TGs towards the weight gain samples from **B)** Turku/Finland, London/UK and **D)** THL/Finland.