

**Supplementary Table 2.** Difference of metabolites between men and women controls

Metabolites	MCS	FCS	Z value	p-value
2-Phenylglycine	1.81±1.60	0.75±0.60	-2.06	0.039
3-Hydroxyisovaleric acid	0.14±0.09	0.54±1.82	-2.04	0.042
D-2-Hydroxyglutaric acid	14.34±15.42	7.70±9.53	-2.01	0.044
Glyceric acid	174.41±298.02	61.69±71.39	-2.56	0.011
Glycine	8.68±13.40	2.77±2.01	-2.58	0.01
L-Alanine	4.34±6.70	1.39±1.00	-2.55	0.011
L-Alpha-aminobutyric acid	4.40±8.18	1.38±2.30	-2.48	0.013
L-Cystine	12.42±19.83	2.29±2.86	-1.76	0.078
L-Histidine	9.16±10.41	3.80±3.36	-3.08	0.002
L-Methionine	93.85±63.35	38.71±28.07	-3.65	<0.001
L-Serine	11.42±6.53	8.22±6.90	-2.06	0.039
Myristic acid	18.05±23.94	7.86±3.35	-2.01	0.044
Ornithine	7.36±21.93	0.34±1.13	-3.35	0.001
Putrescine	9.53±10.03	3.96±8.30	-2.81	0.005

Values are presented as mean±standard error of mean. MCS: man control set, FCS: woman control set.