

Supplementary Table S1. Marker metabolites identified by NMR in follicular fluids of healthy (N = 10) and breast cancer women (N = 16). The average integrals of the NMR bin regions \pm standard deviations are reported.

Metabolite	δ (ppm)	Healthy	Oncological	VIP	p-Value
Asparagine	2.88	256.7 \pm 259.9	66.9 \pm 75.9 ↓	4.0	0.01
Aspartate	3.80	329.9 \pm 138.9	237.7 \pm 69.7 ↓	2.6	0.03
Cholesterol	0.88	122.1 \pm 34.9	87.2 \pm 30.5 ↓	1.7	0.01
Choline	3.16	259.6 \pm 225.3	101.9 \pm 128.6 ↓	3.6	0.03
Creatine	3.92	240.6 \pm 61.3	272.8 \pm 53.0 ↑	1.5	-
Glutamine	2.48	46.9 \pm 13.2	35.2 \pm 13.7 ↓	1.0	0.04
Glycerol	3.76	313.8 \pm 82.4	354.4 \pm 84.9 ↑	1.6	-
-glucose	3.72	283.1 \pm 54.5	354.4 \pm 84.9 ↑	2.5	0.03
-glucose	3.84	212.8 \pm 59.1	268.6 \pm 54.6 ↑	2.2	0.02
-glucose	4.64	56.9 \pm 26.2	239.4 \pm 187.4 ↑	4.1	0.006
Lactate	1.36	643.8 \pm 122.7	486.7 \pm 188.5 ↓	2.9	-
Lipid	2.76	61.9 \pm 71.9	23.2 \pm 8.3 ↓	1.7	0.04
Lipid	1.28	165.0 \pm 136.8	77.5 \pm 22.8 ↓	2.7	0.01
Lysine	1.44	50.6 \pm 31.5	26.5 \pm 8.3 ↓	1.5	0.007
Proline	2.04	154.2 \pm 33.3	178.4 \pm 60.3 ↑	1.3	-
TMAO	3.32	48.4 \pm 4.5	38.2 \pm 9.1 ↓	1.0	0.003

VIP = variable importance in the projection; TMAO = Trimethylamine-N-oxide, - not significant