Supplementary Table S4. List of enriched pathways for the 1D-GC-Orbitrap-MS–based quantified metabolites. P-values and Impact scores of the pathways are provided.

Pathway Name	p-value	Impact
Aminoacyl-tRNA biosynthesis	1.84E-05	0.22536
Galactose metabolism	0.0040625	0.0444
Lysine biosynthesis	0.0093479	0.25313
Nitrogen metabolism	0.018613	6.70E-04
Alanine, aspartate and glutamate metabolism	0.024366	0.49858
Cysteine and methionine metabolism	0.059525	0.02486
Cyanoamino acid metabolism	0.065743	0
Glutathione metabolism	0.078225	0.01285
Taurine and hypotaurine metabolism	0.097326	0.36331
Caffeine metabolism	0.10579	0.21479
Phenylalanine metabolism	0.11568	0.07896
Glycine, serine and threonine metabolism	0.13348	0.13604
Starch and sucrose metabolism	0.14584	0.0765
Arginine and proline metabolism	0.14614	0.26445
Pantothenate and CoA biosynthesis	0.16006	0
Valine, leucine and isoleucine biosynthesis	0.16006	0.0265
D-Arginine and D-ornithine metabolism	0.19419	0
Glycolysis or Gluconeogenesis	0.19858	0
Propanoate metabolism	0.2381	0
Biotin metabolism	0.257	0
D-Glutamine and D-glutamate metabolism	0.257	0.1123
Valine, leucine and isoleucine degradation	0.28801	0.02232
Histidine metabolism	0.32777	5.10E-04
Nicotinate and nicotinamide metabolism	0.32777	0.0015
Primary bile acid biosynthesis	0.35724	0.06346
Lysine degradation	0.35724	0.16238
Fatty acid biosynthesis	0.37665	0
Sulfur metabolism	0.38543	0
Glyoxylate and dicarboxylate metabolism	0.38626	0.1322
Citrate cycle (TCA cycle)	0.41792	0.06327
Selenoamino acid metabolism	0.44872	0
Thiamine metabolism	0.47792	0.16952
Sphingolipid metabolism	0.49194	0
Phenylalanine, tyrosine and tryptophan biosynthesis	0.51888	0
beta-Alanine metabolism	0.53182	0
Pentose phosphate pathway	0.58023	0
Pyruvate metabolism	0.58023	0.13756
Methane metabolism	0.60255	0.01751
Drug metabolism - other enzymes	0.64375	0
Inositol phosphate metabolism	0.65338	0.13703
Butanoate metabolism	0.66274	0
Amino sugar and nucleotide sugar metabolism	0.68786	0
Ascorbate and aldarate metabolism	0.70597	0
Purine metabolism	0.71151	0.04408
Fructose and mannose metabolism	0.72924	0.02948
Metabolism of xenobiotics by cytochrome P450	0.83064	0
Tyrosine metabolism	0.87522	0.00455
Tryptophan metabolism	0.88522	0.10853
Steroid hormone biosynthesis	0.93443	0.00391
Porphyrin and chlorophyll metabolism	0.94303	0