SUPPLEMENTARY MATERIAL

Evaluating metabolite-based biomarkers for early diagnosis of pancreatic cancer: a systematic review

Table S1. Result from Pathway Analysis.

	Total	Expected	Hits	Raw p	-log10(p)	Holm adjust	FDR	Impact
Aminoacyl-tRNA biosynthesis	48	1,6413	14	1,02E-10	9,9915	8,566E-06	8,566E-06	0
Arginine biosynthesis	14	0,4787	6	2,93E-06	5,5338	0,0002428	0,0001229	0,48223
Alanine, aspartate and glutamate metabolism	28	0,9574	7	2,49E-05	4,6041	0,0020404	0,0006967	0,3133
Arginine and proline metabolism	38	1,2994	7	0,0002035	3,6915	0,01648	0,0042726	0,34441
Citrate cycle (TCA cycle)	20	0,6839	5	0,0004055	3.392	0,032441	0,0068127	0,19798
Glyoxylate and dicarboxylate metabolism	32	1,0942	6	0,0005486	3,2607	0,04334	0,0076805	0,10582
Glycine, serine and threonine metabolism	33	1,1284	6	0,000653	3,1851	0,050937	0,0078365	0,24577
Glycerophospholipid metabolism	36	1.231	6	0,001061	2,9743	0,081697	0,011141	0,21938
Valine, leucine and isoleucine biosynthesis	8	0,2736	3	0,0018738	2,7273	0,14241	0,017489	0
Sphingolipid metabolism	21	0,7181	4	0,0047373	2,3245	0,3553	0,039793	0,28804
Pyruvate metabolism	22	0,7523	4	0,0056448	2,2484	0,41771	0,043046	0,23794
Phenylalanine, tyrosine and tryptophan biosynthesis	4	0,1368	2	0,0065884	2,1812	0,48095	0,043046	1
Propanoate metabolism	23	0,7865	4	0,0066618	2,1764	0,48095	0,043046	0,04061

Glycolysis / Gluconeogenesis	26	0,889	4	0,010423	1.982	0,74007	0,060147	0,10065
Linoleic acid metabolism	5	0,171	2	0,010741	1.969	0,75184	0,060147	1
Tyrosine metabolism	42	1,4361	5	0,012547	1,9015	0,86576	0,063038	0,30581
Butanoate metabolism	15	0,5129	3	0,012843	1,8913	0,87332	0,063038	0
Glutathione metabolism	28	0,9574	4	0,013571	1,8674	0,90926	0,063038	0,11548
Histidine metabolism	16	0,5471	3	0,015429	1,8117	1	0,063038	0,22131
Nitrogen metabolism	6	0,2052	2	0,01576	1,8025	1	0,063038	0
D-Glutamine and D-glutamate metabolism	6	0,2052	2	0,01576	1,8025	1	0,063038	0,5
Phenylalanine metabolism	10	0,3419	2	0,043311	1,3634	1	0,16537	0,35714
Porphyrin and chlorophyll metabolism	30	1,0258	3	0,080023	1,0968	1	0,29226	0,02955
Cysteine and methionine metabolism	33	1,1284	3	0,10018	0,99921	1	0,35064	0,11254
Biosynthesis of unsaturated fatty acids	36	1.231	3	0,12218	0,91301	1	0,41051	0
Synthesis and degradation of ketone bodies	5	0,171	1	0,15986	0,79626	1	0,50496	0
Tryptophan metabolism	41	1,4019	3	0,16231	0,78966	1	0,50496	0,32556
Ascorbate and aldarate metabolism	8	0,2736	1	0,24344	0,6136	1	0,73033	0
Ubiquinone and other terpenoid-quinone biosynthesis	9	0,3077	1	0,26945	0,56953	1	0,78046	0
Biotin metabolism	10	0,3419	1	0,29457	0,53081	1	0,8248	0
alpha-Linolenic acid metabolism	13	0,4445	1	0,36497	0,43774	1	0,98895	0
Pyrimidine metabolism	39	1,3335	2	0,3884	0,41072	1	1	0,01584
Primary bile acid biosynthesis	46	1,5729	2	0,47222	0,32585	1	1	0,01735
Pantothenate and CoA biosynthesis	19	0,6497	1	0,48572	0,31362	1	1	0

Selenocompound metabolism	20	0,6839	1	0,50352	0,29798	1	1	0
Ether lipid metabolism	20	0,6839	1	0,50352	0,29798	1	1	0
beta-Alanine metabolism	21	0,7181	1	0,52072	0,2834	1	1	0
Lysine degradation	25	0,8548	1	0,58386	0,23369	1	1	0
Galactose metabolism	27	0,9232	1	0,61229	0,21304	1	1	0
Phosphatidylinositol signaling system	28	0,9574	1	0,62578	0,20358	1	1	0,03736
Inositol phosphate metabolism	30	1,0258	1	0,6514	0,18615	1	1	0,12939
Purine metabolism	65	2,2226	2	0,66223	0,17899	1	1	0,0054
Arachidonic acid metabolism	36	1.231	1	0,71836	0,14366	1	1	0
Fatty acid elongation	39	1,3335	1	0,74693	0,12672	1	1	0
Fatty acid degradation	39	1,3335	1	0,74693	0,12672	1	1	0
Valine, leucine and isoleucine degradation	40	1,3677	1	0,75581	0,12159	1	1	0
Fatty acid biosynthesis	47	1,6071	1	0,80994	0,091547	1	1	0,01473

The statistical p values from enrichment analysis are further adjusted for multiple testings. In particular, the Total is the total number of compounds in the pathway; the Hits is the actually matched number from the user uploaded data; the Raw p is the original p value calculated from the enrichment analysis; the Holm p is the p value adjusted by Holm-Bonferroni method; the FDR p is the p value adjusted using False Discovery Rate; the Impact is the pathway impact value calculated from pathway topology analysis.