Controlling the False Discovery Rate (FDR) by Benjamini & Hochberg (1995)

Metabolomics file example

Table 1: P-values for correlation of FPG with all metabolites

	Metabolite	Pearson p-value	BH adjusted	BY adjusted	Bonferroni adjusted
1	mt1_11	0.000000	0.000000	0.000000	0.000000
2	mt1_1	0.000000	0.000000	0.000000	0.000000
3	mt1_3	0.000000	0.000000	0.000000	0.000000
4	mt1_12	0.000000	0.000000	0.000000	0.000000
5	mt1_5	0.000000	0.000000	0.000001	0.000002
6	mt2_8	0.000004	0.000034	0.000153	0.000203
7	mt2_14	0.000005	0.000037	0.000166	0.000256
8	mt1_2	0.000011	0.000072	0.000326	0.000578
9	mt2_11	0.000031	0.000162	0.000733	0.001562
10	mt2_3	0.000032	0.000162	0.000733	0.001622
11	mt1_6	0.000059	0.000275	0.001241	0.003020
12	mt1_15	0.000072	0.000304	0.001376	0.003653
13	mt3_12	0.000861	0.003379	0.015268	0.043924
14	mt3_17	0.000939	0.003422	0.015462	0.047903
15	mt3_13	0.001079	0.003667	0.016571	0.055008
16	mt1_8	0.001189	0.003791	0.017132	0.060661
17	mt2_17	0.001750	0.005250	0.023722	0.089243
18	mt3_1	0.002578	0.007303	0.033002	0.131457
19	mt1_10	0.004976	0.013356	0.060353	0.253764
20	mt3_5	0.009092	0.023186	0.104772	0.463716
21	mt3_9	0.010284	0.024976	0.112860	0.524486
22	mt1_14	0.012210	0.028306	0.127910	0.622735
23	mt3_11	0.017276	0.038307	0.173103	0.881066
24	mt1_13	0.023946	0.050885	0.229941	1.000000
25	mt3_3	0.026400	0.053856	0.243366	1.000000
26	mt2_7	0.033859	0.064637	0.292082	1.000000
27	mt3_8	0.034220	0.064637	0.292082	1.000000
28	mt2_10	0.037838	0.068919	0.311431	1.000000
29	mt3_10	0.070151	0.123368	0.557479	1.000000
30	mt3_14	0.079296	0.127774	0.577389	1.000000
31	mt3_15	0.079851	0.127774	0.577389	1.000000
32	mt2_16	0.080172	0.127774	0.577389	1.000000
33	mt2_9	0.137087	0.211862	0.957363	1.000000
34	mt3_4	0.149261	0.223892	1.000000	1.000000
35	mt2_15	0.158254	0.230598	1.000000	1.000000
36	mt2_4	0.200899	0.279576	1.000000	1.000000
37	mt2_13	0.202830	0.279576	1.000000	1.000000
38	mt3_6	0.214043	0.287268	1.000000	1.000000
39	mt3_7	0.262222	0.342905	1.000000	1.000000
40	mt1_9	0.315838	0.399346	1.000000	1.000000
41	mt2_5	0.321043	0.399346	1.000000	1.000000
42	mt2_12	0.350702	0.425852	1.000000	1.000000
43	mt3_16	0.378852	0.449336	1.000000	1.000000
44	mt2_18	0.444526	0.506379	1.000000	1.000000
45	mt2_6	0.446805	0.506379	1.000000	1.000000
46	mt1_7	0.523121	0.576927	1.000000	1.000000

	Metabolite	Pearson p-value	BH adjusted	BY adjusted	Bonferroni adjusted
47	mt3_18	0.531678	0.576927	1.000000	1.000000
48	mt2_2	0.603439	0.641154	1.000000	1.000000
49	mt2_1	0.638213	0.664263	1.000000	1.000000
50	mt3_2	0.705987	0.720106	1.000000	1.000000
51	mt1_4	0.917991	0.917991	1.000000	1.000000

Table 2: P-values for correlation of FPG with mt1 metabolites

	Metabolite	Pearson p-value	BH adjusted	BY adjusted	Bonferroni adjusted
1	mt1_11	0.000000	0.000000	0.000000	0.000000
2	mt1_1	0.000000	0.000000	0.000000	0.000000
3	mt1_3	0.000000	0.000000	0.000000	0.000000
4	mt1_12	0.000000	0.000000	0.000000	0.000000
5	mt1_5	0.000000	0.000000	0.000000	0.000000
6	mt1_2	0.000011	0.000028	0.000094	0.000170
7	mt1_6	0.000059	0.000127	0.000421	0.000888
8	mt1_15	0.000072	0.000134	0.000446	0.001074
9	mt1_8	0.001189	0.001982	0.006578	0.017841
10	mt1_10	0.004976	0.007464	0.024766	0.074636
11	mt1_14	0.012210	0.016651	0.055251	0.183157
12	mt1_13	0.023946	0.029933	0.099323	0.359190
13	mt1_9	0.315838	0.364429	1.000000	1.000000
14	mt1_7	0.523121	0.560487	1.000000	1.000000
15	mt1_4	0.917991	0.917991	1.000000	1.000000

Table 3: P-values for correlation of FPG with mt2 metabolites

	Metabolite	Pearson p-value	BH adjusted	BY adjusted	Bonferroni adjusted
1	mt2_8	0.000004	0.000045	0.000158	0.000072
2	mt2_14	0.000005	0.000045	0.000158	0.000091
3	mt2_11	0.000031	0.000143	0.000500	0.000551
4	mt2_3	0.000032	0.000143	0.000500	0.000573
5	mt2_17	0.001750	0.006299	0.022017	0.031497
6	mt2_7	0.033859	0.097297	0.340064	0.609469
7	mt2_10	0.037838	0.097297	0.340064	0.681080
8	mt2_16	0.080172	0.180387	0.630474	1.000000
9	mt2_9	0.137087	0.274174	0.958267	1.000000
10	mt2_15	0.158254	0.284856	0.995604	1.000000
11	mt2_4	0.200899	0.304245	1.000000	1.000000
12	mt2_13	0.202830	0.304245	1.000000	1.000000
13	mt2_5	0.321043	0.444521	1.000000	1.000000
14	mt2_12	0.350702	0.450902	1.000000	1.000000
15	mt2_18	0.444526	0.502655	1.000000	1.000000
16	mt2_6	0.446805	0.502655	1.000000	1.000000
17	mt2_2	0.603439	0.638213	1.000000	1.000000
18	mt2_1	0.638213	0.638213	1.000000	1.000000

Table 4: P-values for correlation of FPG with mt3 metabolites

	Metabolite	Pearson p-value	BH adjusted	BY adjusted	Bonferroni adjusted
1	mt3_12	0.000861	0.006472	0.022619	0.015503
2	mt3_17	0.000939	0.006472	0.022619	0.016907
3	mt3_13	0.001079	0.006472	0.022619	0.019415
4	mt3_1	0.002578	0.011599	0.040540	0.046397
5	mt3_5	0.009092	0.030852	0.107831	0.163664
6	mt3_9	0.010284	0.030852	0.107831	0.185113
7	mt3_11	0.017276	0.044424	0.155265	0.310965
8	mt3_3	0.026400	0.059400	0.207610	0.475201
9	mt3_8	0.034220	0.068439	0.239202	0.615951
10	mt3_10	0.070151	0.119776	0.418630	1.000000
11	mt3_14	0.079296	0.119776	0.418630	1.000000
12	mt3_15	0.079851	0.119776	0.418630	1.000000
13	mt3_4	0.149261	0.206670	0.722332	1.000000
14	mt3_6	0.214043	0.275198	0.961845	1.000000
15	mt3_7	0.262222	0.314666	1.000000	1.000000
16	mt3_16	0.378852	0.426208	1.000000	1.000000
17	mt3_18	0.531678	0.562953	1.000000	1.000000
18	mt3_2	0.705987	0.705987	1.000000	1.000000