

S3 Table. the detailed results from the pathway analysis

| Pathway | Matched Entities | Pathway Entities of Experiment Type | Raw <i>P</i> value |
|---|-------------------------|--|---------------------------|
| Hs_Selenium_Pathway_WP15_56489 | 8 | 105 | <0.001 |
| Hs_Sphingolipid_Metabolism_WP1923_46972 | 4 | 29 | <0.0007 |
| Hs_Transport_of_glucose_and_other_sugars,_bile_salts_and_organic_acids,_metal_ions_and_amine_compounds_WP1935_45063 | 3 | 29 | <0.02 |
| Hs_Glucose_Homeostasis_WP661_45308 | 3 | 21 | <0.004 |
| Hs_Drug_Induction_of_Bile_Acid_Pathway_WP2289_57150 | 3 | 9 | <0.01 |
| Hs_Metabolism_of_amino_acids_and_derivatives_WP1847_52373 | 4 | 135 | <0.005 |
| purine nucleotides degradation II (aerobic) | 3 | 19 | <0.0004 |
| Hs_Glucose_Homeostasis_WP661_34501 | 3 | 21 | <0.001 |
| Hs_Metabolism_of_nucleotides_WP1851_44898 | 3 | 81 | <0.01 |
| adenosine nucleotides degradation II | 3 | 13 | <0.003 |
| Hs_Glucose_Homeostasis_WP661_45308 | 3 | 21 | <0.004 |
| Hs_Phase_1_-_Functionalization_of_compounds_WP1879_42095 | 3 | 102 | <0.01 |
| Hs_Drug_Induction_of_Bile_Acid_Pathway_WP2289_57150 | 3 | 9 | <0.002 |
| Hs_Nucleotide_Metabolism_WP404_45328 | 3 | 17 | <0.01 |
| Hs_Transport_of_glucose_and_other_sugars,_bile_salts_and_organic_acids,_metal_ions_and_amine_compounds_WP1935_45063 | 3 | 29 | <0.02 |

Many pathways were tested at the same time, Raw *P* the original *P* value calculated from the enrichment analysis showing the *P* value of the changes in the pathway.

