

Full Run 1- Age Regression

| Pathway Name | Match Status | p | -log(p) | Holm p | FDR | Impact |
|---|--------------|-----------|---------|-----------|-----------|---------|
| Porphyrin and chlorophyll metabolism | 8/27 | 2.1807E-7 | 15.338 | 1.5701E-5 | 1.5701E-5 | 0.29701 |
| Taurine and hypotaurine metabolism | 5/8 | 1.745E-6 | 13.259 | 1.2389E-4 | 6.2819E-5 | 0.99999 |
| Drug metabolism - other enzymes | 6/30 | 3.0013E-5 | 10.414 | 0.0021009 | 6.347E-4 | 0.14815 |
| Citrate cycle (TCA cycle) | 11/20 | 3.5261E-5 | 10.253 | 0.002433 | 6.347E-4 | 0.52411 |
| Butanoate metabolism | 12/22 | 4.5638E-5 | 9.9948 | 0.0031034 | 6.5719E-4 | 0.17392 |
| Glyoxylate and dicarboxylate metabolism | 10/18 | 7.582E-5 | 9.4872 | 0.0050799 | 9.0984E-4 | 0.58064 |
| Pyrimidine metabolism | 21/41 | 1.7284E-4 | 8.6631 | 0.011407 | 0.0015111 | 0.64309 |
| Pyruvate metabolism | 9/23 | 1.9779E-4 | 8.5283 | 0.012857 | 0.0015111 | 0.45792 |
| Sphingolipid metabolism | 6/21 | 2.0143E-4 | 8.5101 | 0.012891 | 0.0015111 | 0.43108 |
| D-Glutamine and D-glutamate metabolism | 5/5 | 2.0988E-4 | 8.469 | 0.013222 | 0.0015111 | 1.0 |
| Purine metabolism | 37/68 | 2.7107E-4 | 8.2131 | 0.016806 | 0.0017743 | 0.76648 |
| Alanine, aspartate and glutamate metabolism | 14/24 | 4.0487E-4 | 7.8119 | 0.024697 | 0.0022712 | 0.84598 |
| Primary bile acid biosynthesis | 28/46 | 4.1008E-4 | 7.7991 | 0.024697 | 0.0022712 | 0.33532 |
| Glutathione metabolism | 6/26 | 6.1633E-4 | 7.3917 | 0.036363 | 0.0031697 | 0.47328 |
| Nitrogen metabolism | 5/9 | 8.1624E-4 | 7.1108 | 0.047342 | 0.003918 | 0.0 |
| beta-Alanine metabolism | 8/17 | 0.0011935 | 6.7309 | 0.068027 | 0.0053706 | 0.79629 |
| Steroid hormone biosynthesis | 32/72 | 0.0014634 | 6.527 | 0.081948 | 0.0061977 | 0.30607 |
| Histidine metabolism | 9/15 | 0.0017148 | 6.3684 | 0.094315 | 0.0062754 | 0.46775 |
| Synthesis and degradation of ketone bodies | 2/5 | 0.0017504 | 6.3479 | 0.09452 | 0.0062754 | 0.6 |
| Tryptophan metabolism | 9/40 | 0.0018041 | 6.3177 | 0.095615 | 0.0062754 | 0.59635 |
| Arginine and proline metabolism | 20/44 | 0.0018303 | 6.3033 | 0.095615 | 0.0062754 | 0.50347 |
| Phenylalanine, tyrosine and tryptophan biosynthesis | 3/4 | 0.0019261 | 6.2523 | 0.098232 | 0.0063036 | 1.0 |
| Glycine, serine and threonine metabolism | 16/31 | 0.0024309 | 6.0195 | 0.12154 | 0.0076098 | 0.74853 |
| Glycerophospholipid metabolism | 11/30 | 0.0026672 | 5.9267 | 0.13069 | 0.0080017 | 0.67254 |
| Phenylalanine metabolism | 6/11 | 0.0027818 | 5.8847 | 0.13352 | 0.0080115 | 0.53704 |
| Glycolysis or Gluconeogenesis | 14/26 | 0.0034894 | 5.658 | 0.164 | 0.0096631 | 0.63724 |
| Metabolism of xenobiotics by cytochrome P450 | 3/39 | 0.0040465 | 5.5099 | 0.18614 | 0.010791 | 0.0 |
| Valine, leucine and isoleucine degradation | 11/38 | 0.0047414 | 5.3514 | 0.21336 | 0.011956 | 0.11705 |
| Tyrosine metabolism | 14/44 | 0.0048975 | 5.319 | 0.21549 | 0.011956 | 0.49607 |
| Ubiquinone and other terpenoid-quinone biosynthesis | 2/3 | 0.0049816 | 5.302 | 0.21549 | 0.011956 | 1.0 |
| Propanoate metabolism | 8/20 | 0.007094 | 4.9485 | 0.29795 | 0.016476 | 0.0 |
| Pantothenate and CoA biosynthesis | 10/15 | 0.0079674 | 4.8324 | 0.32667 | 0.017927 | 0.61225 |
| Aminoacyl-tRNA biosynthesis | 18/69 | 0.0099983 | 4.6053 | 0.39993 | 0.021814 | 0.12903 |
| Pentose and glucuronate interconversions | 13/16 | 0.010403 | 4.5657 | 0.40572 | 0.02203 | 0.86667 |
| Amino sugar and nucleotide sugar metabolism | 25/37 | 0.010742 | 4.5336 | 0.40821 | 0.022099 | 0.72244 |
| Terpenoid backbone biosynthesis | 1/15 | 0.012701 | 4.3661 | 0.46995 | 0.025403 | 0.18817 |
| Nicotinate and nicotinamide metabolism | 3/13 | 0.013673 | 4.2923 | 0.49223 | 0.026607 | 0.44643 |
| Cysteine and methionine metabolism | 10/27 | 0.01529 | 4.1806 | 0.53515 | 0.028971 | 0.3854 |
| Linoleic acid metabolism | 4/6 | 0.018287 | 4.0016 | 0.62176 | 0.033761 | 1.0 |
| Valine, leucine and isoleucine biosynthesis | 7/11 | 0.023354 | 3.757 | 0.77069 | 0.042038 | 0.99999 |