

# Enrichment/depletion GWAS, TWAS, SMR, and DE genes in WGCNA modules (FDR values, MHC region excluded)

|                                 | GWAS  | TWAS  | SMR  | DE      |  |
|---------------------------------|-------|-------|------|---------|--|
| Module grey (3909 genes)        | 0.053 | 1     | 0.62 | 5.6e-11 |  |
| Module turquoise (3313 genes)   | 0.25  | 0.032 | 0.55 | 2.5e-55 |  |
| Module blue (2511 genes)        | 0.51  | 0.58  | 0.98 | 1.2e-05 |  |
| Module brown (2245 genes)       | 0.053 | 0.74  | 0.62 | 1.3e-77 |  |
| Module yellow (1569 genes)      | 0.51  | 1     | 0.6  | 1.2e-09 |  |
| Module green (1563 genes)       | 0.19  | 1     | 0.62 | 3.3e-20 |  |
| Module red (1253 genes)         | 1     | 0.58  | 0.54 | 0.00012 |  |
| Module black (1014 genes)       | 0.43  | 0.1   | 0.88 | 5.7e-23 |  |
| Module pink (788 genes)         | 0.51  | 0.031 | 0.54 | 8.6e-46 |  |
| Module magenta (676 genes)      | 1     | 0.1   | 1    | 1.2e-07 |  |
| Module purple (475 genes)       | 0.95  | 0.1   | 0.54 | 1.2e-05 |  |
| Module greenyellow (438 genes)  | 1     | 1     | 0.78 | 0.14    |  |
| Module tan (408 genes)          | 0.62  | 0.58  | 0.54 | 1.1e-06 |  |
| Module salmon (397 genes)       | 0.62  | 0.25  | 0.78 | 0.025   |  |
| Module cyan (373 genes)         | 1     | 1     | 0.54 | 1.2e-05 |  |
| Module midnightblue (367 genes) | 0.32  | 0.58  | 0.7  | 0.0062  |  |
| Module lightcyan (338 genes)    | 0.3   | 1     | 1    | 6.2e-13 |  |
| Module grey60 (291 genes)       | 0.62  | 0.56  | 0.62 | 2.9e-09 |  |
| Module lightgreen (227 genes)   | 0.51  | 0.082 | 0.54 | 6.7e-05 |  |
| Module lightyellow (226 genes)  | 0.18  | 0.58  | 0.7  | 0.00098 |  |
| Module royalblue (214 genes)    | 1     | 1     | 0.54 | 0.45    |  |
| Module darkred (202 genes)      | 0.51  | 0.16  | 0.54 | 0.00053 |  |
|                                 | GWAS  | TWAS  | SMR  | DE      |  |

log2(enrichment ratio)

1

0

-1

-2

-3