

## 10 Years of Pathway Analysis: Current Approaches and Outstanding Challenges - Supplementary Notes

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**Table S1. ORA pathway analysis tools.**

| Name                      | Scope of Analysis                | P-value                              | Correction for Multiple Hypotheses                   | Availability    |
|---------------------------|----------------------------------|--------------------------------------|--|-----------------|
| Onto-Express              | GO                               | Hypergeometric, binomial, chi-square | FDR, Bonferroni, Sidak, Holm                         | Web             |
| GenMAPP/<br>MAPPFinder    | GO, KEGG, MAPP                   | Percentage/z-score                   | None   | Standalone      |
| (High throughput) GoMiner | GO                               | Relative enrichment, Hypergeometric  | None   | Standalone, Web |
| FatiGO                    | GO, KEGG                         | Hypergeometric                       | None   | Web             |
| GOstat                    | GO                               | Chi-square                           | FDR  |                 |
| GOTree Machine            | GO                               | Hypergeometric                       | None   | Web             |
| FuncAssociate             | GO                               | Hypergeometric                       | Bootstrap  | Web             |
| GOToolBox                 | GO                               | Hypergeometric                       | Bonferroni, Holm, FDR, Hommel, Hochberg              |                 |
| GeneMerge                 | GO                               | Hypergeometric                       | Bonferroni   | Web             |
| GOEAST                    | GO                               | Hypergeometric, Chi-square           | Benjamini-Yekutieli                                  | Web             |
| ClueGO                    | GO, KEGG, BioCarta, User defined | Hypergeometric                       | Bonferroni, step-down, Bonferroni Benjamini-Hochberg | Standalone      |