**Table S1: Overlap between ASD modules obtained using different networks.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Solution 1** | | | | **Solution 2** | | | | **Comparison** | | | |
| **network** | **module index** | **module size** | **GO terms** | **network name** | **module index** | **module size** | **GO terms** | **Jaccard genes** | **Overlap genes** | **Jaccard GO** | **Overlap GO** |
| PCNet | 3 | 12 | 45 | DIP | 1 | 7 | 7 | 0.1875 | 0.428571 | 0.1064 | 0.714286 |
| PCNet | 1 | 32 | 263 | STRING | 2 | 32 | 188 | 0.1852 | 0.3125 | 0.3035 | 0.558511 |
| STRING | 3 | 37 | 54 | DIP | 2 | 18 | 4 | 0.1458 | 0.388889 | 0.0741 | 1 |
| DIP | 2 | 18 | 4 | HuRI | 1 | 8 | 17 | 0.1304 | 0.375 | 0.1667 | 0.75 |
| STRING | 3 | 37 | 54 | HuRI | 1 | 8 | 17 | 0.125 | 0.625 | 0.0441 | 0.176471 |
| PCNet | 10 | 5 | 20 | DIP | 6 | 4 | 22 | 0.125 | 0.25 | 0.0244 | 0.05 |
| PCNet | 3 | 12 | 45 | STRING | 1 | 28 | 86 | 0.1111 | 0.333333 | 0.2843 | 0.644444 |
| PCNet | 8 | 12 | 1 | DIP | 2 | 18 | 4 | 0.1111 | 0.25 | 0.25 | 1 |
| PCNet | 8 | 12 | 1 | HuRI | 1 | 8 | 17 | 0.1111 | 0.25 | 0.0588 | 1 |
| STRING | 1 | 28 | 86 | DIP | 3 | 6 | 29 | 0.0968 | 0.5 | 0.1275 | 0.448276 |
| PCNet | 8 | 12 | 1 | STRING | 3 | 37 | 54 | 0.0889 | 0.333333 | 0.0185 | 1 |
| PCNet | 4 | 12 | 15 | STRING | 1 | 28 | 86 | 0.0811 | 0.25 | 0.0632 | 0.4 |
| PCNet | 3 | 12 | 45 | STRING | 4 | 15 | 62 | 0.08 | 0.166667 | 0.3896 | 0.666667 |
| PCNet | 7 | 7 | 118 | STRING | 6 | 7 | 12 | 0.0769 | 0.142857 | 0.0317 | 0.333333 |
| PCNet | 7 | 7 | 118 | HuRI | 1 | 8 | 17 | 0.0714 | 0.142857 | 0.0976 | 0.705882 |
| PCNet | 5 | 10 | 30 | DIP | 3 | 6 | 29 | 0.0667 | 0.166667 | 0.0727 | 0.137931 |
| STRING | 1 | 28 | 86 | DIP | 7 | 4 | 6 | 0.0667 | 0.5 | 0.011 | 0.166667 |
| PCNet | 5 | 10 | 30 | DIP | 1 | 7 | 7 | 0.0625 | 0.142857 | 0.1563 | 0.714286 |
| PCNet | 4 | 12 | 15 | DIP | 3 | 6 | 29 | 0.0588 | 0.166667 | 0.1282 | 0.333333 |
| PCNet | 3 | 12 | 45 | DIP | 3 | 6 | 29 | 0.0588 | 0.166667 | 0.0137 | 0.034483 |
| PCNet | 5 | 10 | 30 | STRING | 1 | 28 | 86 | 0.0556 | 0.2 | 0.0943 | 0.333333 |
| PCNet | 7 | 7 | 118 | STRING | 3 | 37 | 54 | 0.0476 | 0.285714 | 0.1391 | 0.388889 |
| PCNet | 7 | 7 | 118 | DIP | 2 | 18 | 4 | 0.0417 | 0.142857 | 0.0252 | 0.75 |
| PCNet | 9 | 5 | 9 | STRING | 1 | 28 | 86 | 0.0313 | 0.2 | 0.1047 | 1 |
| PCNet | 2 | 32 | 40 | DIP | 3 | 6 | 29 | 0.027 | 0.166667 | 0.2545 | 0.482759 |
| PCNet | 2 | 32 | 40 | STRING | 4 | 15 | 62 | 0.0217 | 0.066667 | 0.2143 | 0.45 |
| PCNet | 1 | 32 | 263 | STRING | 5 | 16 | 13 | 0.0213 | 0.0625 | 0.0073 | 0.153846 |
| PCNet | 2 | 32 | 40 | STRING | 1 | 28 | 86 | 0.0169 | 0.035714 | 0.2727 | 0.675 |

Total number of modules per network: PCNet 15; STRING 9; DIP 7; HuRI 1

The table shows only pairs of modules in which each module is larger than three, and the modules overlap in both enriched GO terms and genes.

An extended table can be generated from the Jupyter Notebook in this folder

Legend:

Jaccard genes: Jaccard similarity score for genes in the two modules:

Overlap genes: Fraction of overlapping genes in the smaller module:

Jaccard GO: Jaccard similarity score for enriched GO terms in the two modules:

Overlap GO: Fraction of overlapping enriched GO in the module with the fewer terms: