## Genes gained in Tardigrada MF TreeMap

| peptide receptor activity              | guanylate cyclase activity   | toxin activity                           | G protein–coupled peptide receptor activity      | ubiquitin binding  |              | signaling<br>receptor binding            |  | enzyme inhibitor activity  |                                   | tivity   | protein phosphatase<br>regulator activity             |  |
|--|--|--|--|--|--------------|--|--|--|-----------------------------------|--|---|--|
| structural constituent of tooth enamel | toxin activity  heme transmembrane transporter activity                  | structural constituent<br>of egg chorion | G protein–coupled receptor activity              | identica <mark>'signaling rece</mark><br>protein binding b |              | <b>itor bindin</b><br>nding              | <b>g</b> aminin binding                  | protein<br>phosphatase<br><mark>phosphatas</mark><br>inhibitor<br>activity |                                   | protein serine/threonine<br>kinase inhibitor activity<br>se inhibitor activity |   |  |
|  |  | cytoskeletal<br>anchor activity          | RNA-directed 5'-3'<br>RNA polymerase<br>activity |  |              |  |  |  | phosphatase<br>inhibitor activity |  |   |  |
| carbohydrate binding                   | glycosaminoglycan<br>binding   | mRNA 3'–UTR binding                      | galactoside binding                              | fibronectin binding  | methylated r |  | nethylation-dependent<br>protein binding | phosphatase<br>regulator activity  |                                   | protein serine/threonine<br>phosphatase inhibitor activity                     |   |  |
|  |  |  |  |  |              | signaling receptor<br>activator activity |  | endopeptidase<br>inhibitor activity  |                                   | endopeptidase<br>regulator activity  |   |  |
|  | carbohydrate binding   |  |  | growth factor activity                                     |              |  | activator activity                       |  |                                   |  |   |  |
| immunoglobulin binding                 | translation<br>repressor activity,<br>mRNA regulatory<br>element binding | IgG binding                              | histamine binding                                | receptor ligand activi                                     |              |  | :y                                       |  | endopeptidas<br>peptidase         |  | e inhibitor activity endopeptidase inhibitor activity |  |
|  |  | peptidoglycan binding                    | oxygen sensor<br>activity                        | receptor ligand activity                                   |              |  |  | signaling receptor regulator activity                                      |                                   |  | peptidase<br>regulator activity                       |  |