



**Codes for pathways (<http://www.ncbi.nlm.nih.gov/cgi-bin/COG/palox?sys=all>):**

- |                        |                        |                            |                     |                     |
|------------------------|------------------------|----------------------------|---------------------|---------------------|
| 1. AMINOACYL-tRNA SYN. | 12. ENTNER-DOUD. PATH. | 23. LEUC. BIOS.            | 34. PROLINE BIOS.   | 45. TRANSL. FACTORS |
| 2. ARCHAEAL. H+-ATPase | 13. F0F1-TYPE ATP SYN. | 24. LIPID BIOS.            | 35. PUR. BIOS.      | 46. THIAM. BIOS.    |
| 3. ARG. BIOS.          | 14. FAD BIOS.          | 25. MENAQ. BIOS.           | 36. PUR. SALVAGE    | 47. THREON BIOS.    |
| 4. BASAL REPL.         | 15. FATTY ACID BIOS.   | 26. METH. BIOS.            | 37. PYRIDOX. BIOS.  | 48. THYMID. BIOS.   |
| 5. BASAL TF.           | 16. FLAGELLUM          | 27. M-S NA+/H+ ANTIPORTER  | 38. PYR. BIOS.      | 49. TRANSCR. REG.   |
| 6. BIOTIN BIOS.        | 17. GLUCONEOGENESIS    | 28. NA+ TRANSPORTING NADH  | 39. PYR. SALVAGE    | 50. TRYPT. BIOS.    |
| 7. COBAL BIOS.         | 18. GLYCOLYSIS         | 29. NAD. BIOS.             | 40. PYRUVATE DEC.   | 51. UBIQ. BIOS.     |
| 8. COENZYME BIOS.      | 19. GLYOXYLATE BYPASS  | 30. NADH SUBUNITS          | 41. RIBOFL_BIOS     | 52. VALINE BIOS.    |
| 9. DEOXYXYL PATHWAY    | 20. HEME BIOS.         | 31. PENTOSE PHOSPHATE      | 42. RIB. PROT. L.S. |                     |
| 10. DNA POLIII SUB     | 21. HIST. BIOS.        | 32. PHE- YR BIOS.          | 43. RIB. PROT. S.S. |                     |
| 11. DNA-DEP. RNA POL.  | 22. ISOL. BIOS.        | 33. PREPROTEIN TRANSLOCASE | 44. TCA CYCLE       |                     |

**Figure 5.** Correlations between the percent of correctly predicted pathway (X) and its information content (Y) for different methods.