

바이오컴퓨팅 Assignment #5 Ontology

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1. The number of terms: How many terms does the BP ontology have? How many terms does the MF ontology have?

BP: 28484 MF: 11166

2. The root ID: What is the GO ID of the root term of the BP ontology? What is the GO ID of the root term of the MF ontology?

BP: GO:0008150, MF: GO:0003674

3. Find the errors such that relationships exist between BP and MF. How many relationships exist between any BP term and any MF term?

812 errors

4. Find the cases such that two or more different types of relationships exist between two terms. Which pairs of terms have such cases?

(GO:0000741, GO:0006997)

(GO:0019817, GO:0007031)

(GO:0031903, GO:0042579)

(GO:0106037, GO:0045179)

5. The number of leaf terms: How many leaf nodes does the BP ontology have? How many leaf nodes does the MF ontology have?

BP : 13711, MF : 9153

6. The term depth distribution: Suppose the term depth is defined as the shortest path length from the root to the term. Show the histogram of term depth distribution of the BP and MF ontologies, respectively (in Excel).

Path length	MF	BP
1	24	30
2	190	437
3	909	2284
4	2057	5018
5	5016	7001
6	1969	6701
7	765	4378
8	197	1858
9	38	561
10	0	173
11	0	42

