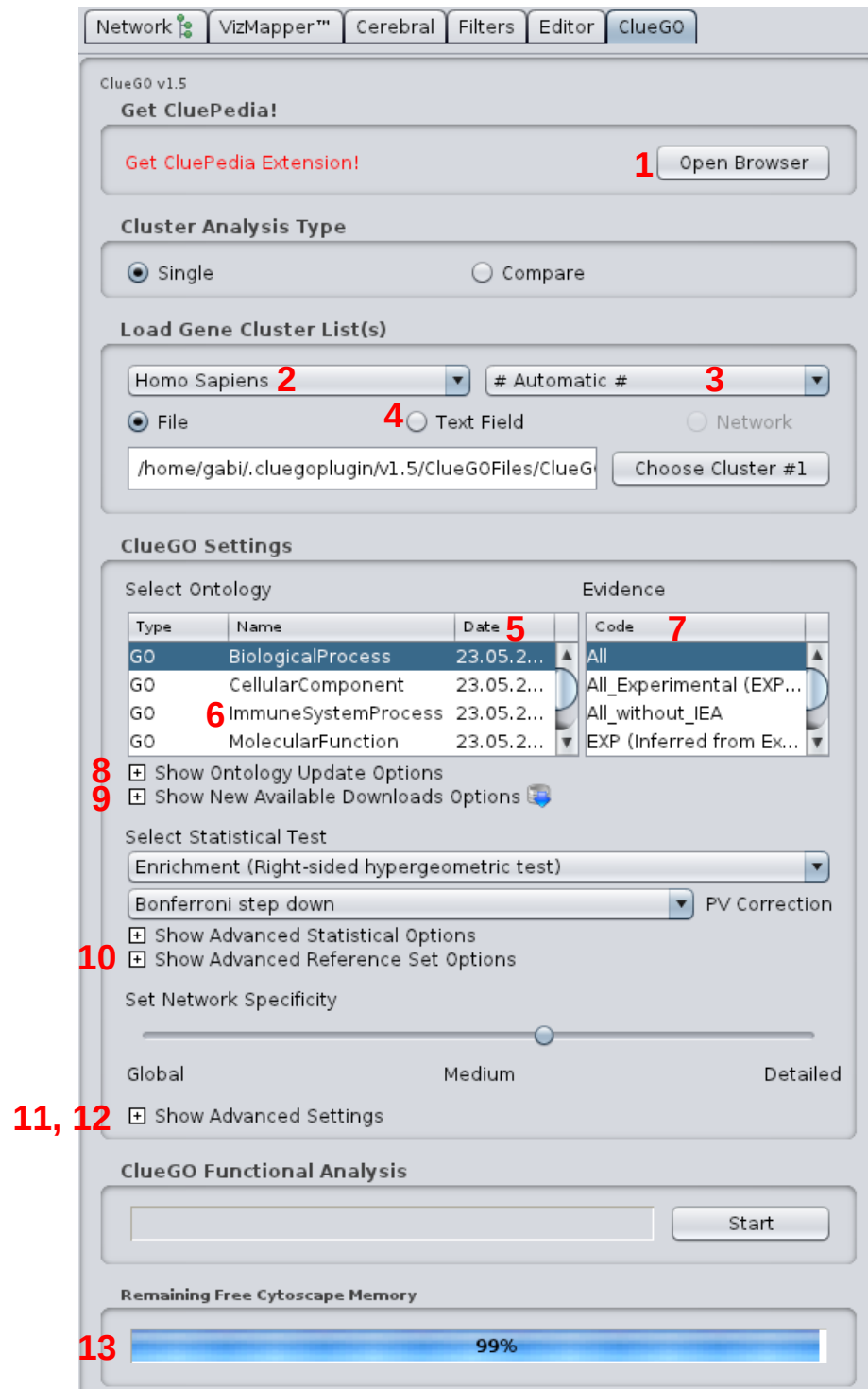


ClueGO v.1.5

new features



1. Get CluePedia plugin

2. New organisms were added

3. Automatic identification of ids

4. Import of ids from text field

5. Ontologies were updated

6. Ontologies can be created from a term of interest

7. All experimental evidence codes can be selected

8. Automatic update of Reactome and of IDs

9. Automatic download of data sets

10. New options for the reference used to calculate stats

11. Refinement of the percentage based term selection

12. Show only significant terms feature

13. Memory bar showing the free Cytoscape memory

8 ☐ Show Ontology Update Options
Update Ontology / KEGG Annotation Files

☒ GO ☐ KEGG ☐ REACTOME ☐ Annotation
ClueGO Update

9 ☐ Show New Available Downloads Options
Download New Example/Additional Files

☒ Example data sets ☐ Additional files
ClueGO Repository Download

Select Statistical Test

Enrichment (Right-sided hypergeometric test)

Bonferroni step down PV Correction

10 ☒ Show Advanced Statistical Options

☐ Show Advanced Reference Set Options
Reference Set Options

☒ Selected Ontologies Reference Set
☐ Predefined IDs Reference Set
☐ Custom Reference Set

Set Network Specificity

Global Medium Detailed

☐ Show Advanced Settings

GO Term Restriction (GO Tree Levels)

3 Min Level 8 Max Level

GO Term Restriction (#/% Genes)

Cluster #1

2 Min #Genes 4.11 % Genes **11**

GO Term Restriction (Significant Only)

12 ☒ Show only Terms with pVal >= 0.05

8. Automatic update of Reactome and Identifier's Annotation (NCBI)

9. Automatic download of example data sets (can be used for CluePedia as well) and of additional files (new annotation files, new identifier lists)

New files are available for download

10. New options for the reference used to calculate stats (Standard: Selected Ontologies).

a) Predefined IDs Reference Set

Reference Set Options

☐ Selected Ontologies Reference Set
☒ Predefined IDs Reference Set
Affymetrix_GeneChipHT_HG-U133plus_2_ID
☐ Custom Reference Set

b) Custom Reference Set

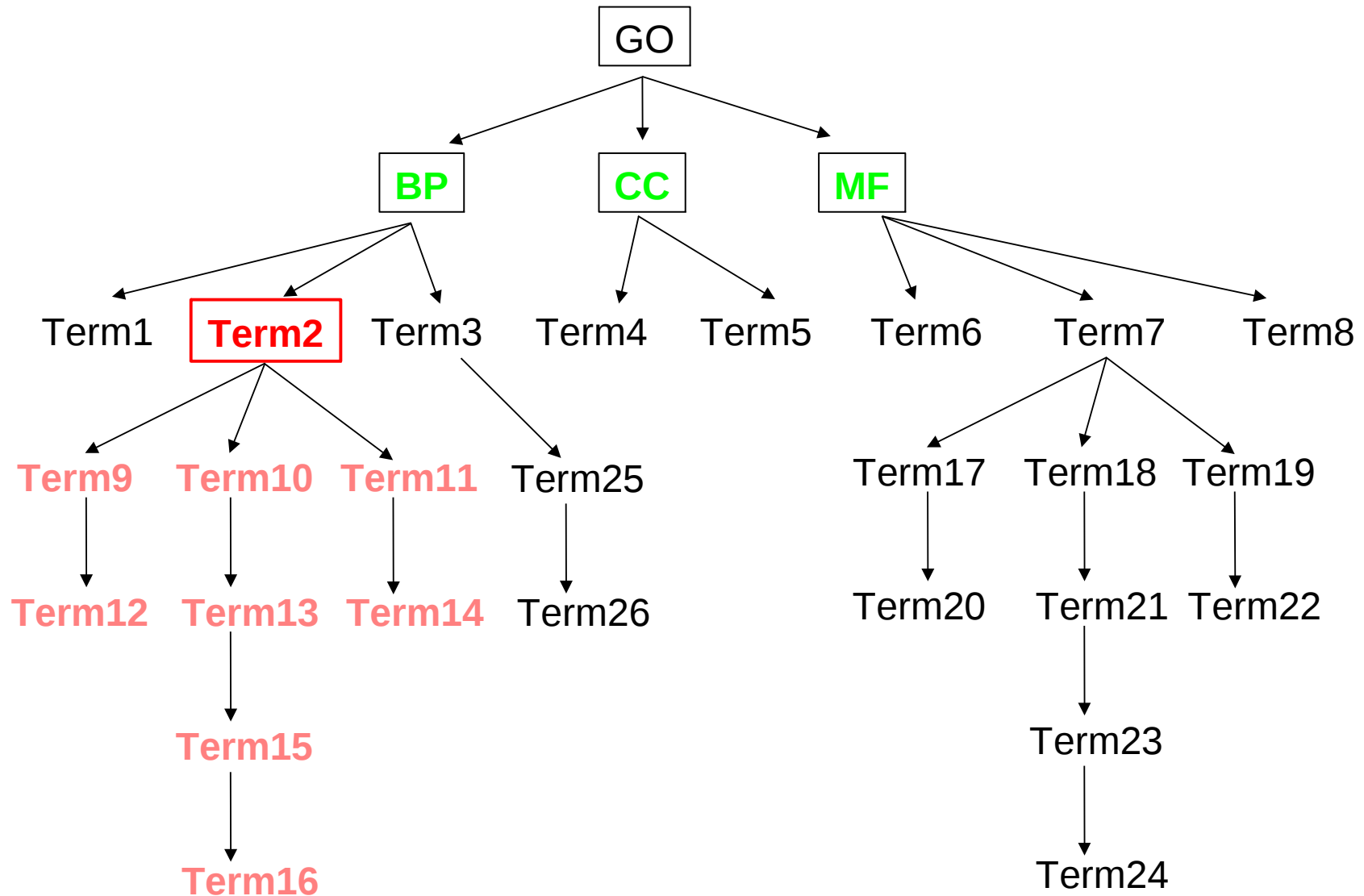
Reference Set Options

☐ Selected Ontologies Reference Set
☐ Predefined IDs Reference Set
☒ Custom Reference Set

11. Refinement of percentage based term selection

12. Show only significant terms on the network matching the set threshold.

6. Ontologies created from a term of interest

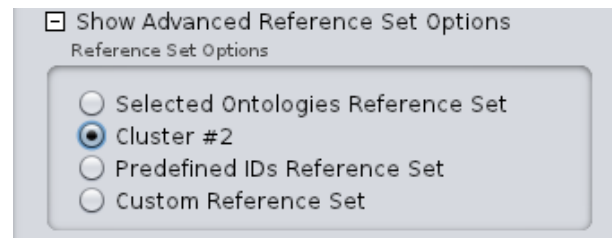


GO has three parts: Biological Process (**BP**), Cellular Component (**CC**) and Molecular Function (**MF**).

In ClueGO, the user can create a custom ontology, by specifying in the .properties file the GO id and the name of the term of interest (e.g. GO:0002376|ImmuneSystemProcess). This term will be the root of the new ontology. All the children terms will be included. The ontology is created after updating ClueGO ontologies.

10. New options for the reference used to calculate stats (Standard: Selected Ontologies).

The enrichment compares the annotated genes from the list of interest to a reference set. By default, the reference set is the ontology/ontologies used. Other available options are predefined IDs lists (e.g. Affymetrix HG-133plus) or a custom list that can be uploaded by the user. More, in the case of a list1 and list2 comparison analysis, the user can choose to calculate the significance of annotations found for list1 as compared to the second list. The reference set selection influences the enrichment result. Importantly, only functions/terms with at least one gene found in the ontology and in the reference set used will be kept in the initial selection.



☐ Show Advanced Reference Set Options

Reference Set Options

- ☐ Selected Ontologies Reference Set
- ☒ Cluster #2
- ☐ Predefined IDs Reference Set
- ☐ Custom Reference Set