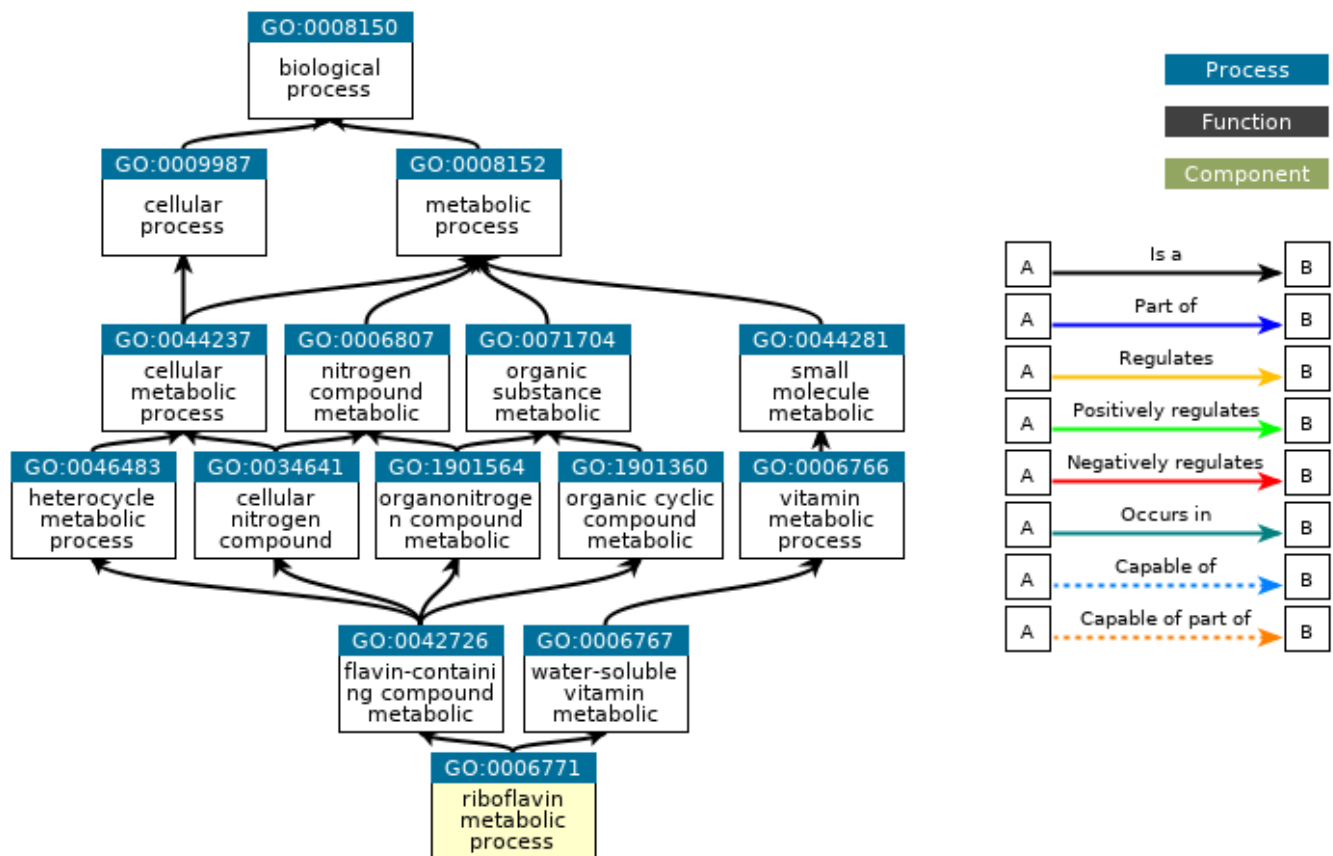


# Supplementary Material for GO-Compass: Visual Navigation of Multiple Lists of GO terms

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QuickGO - <https://www.ebi.ac.uk/QuickGO>

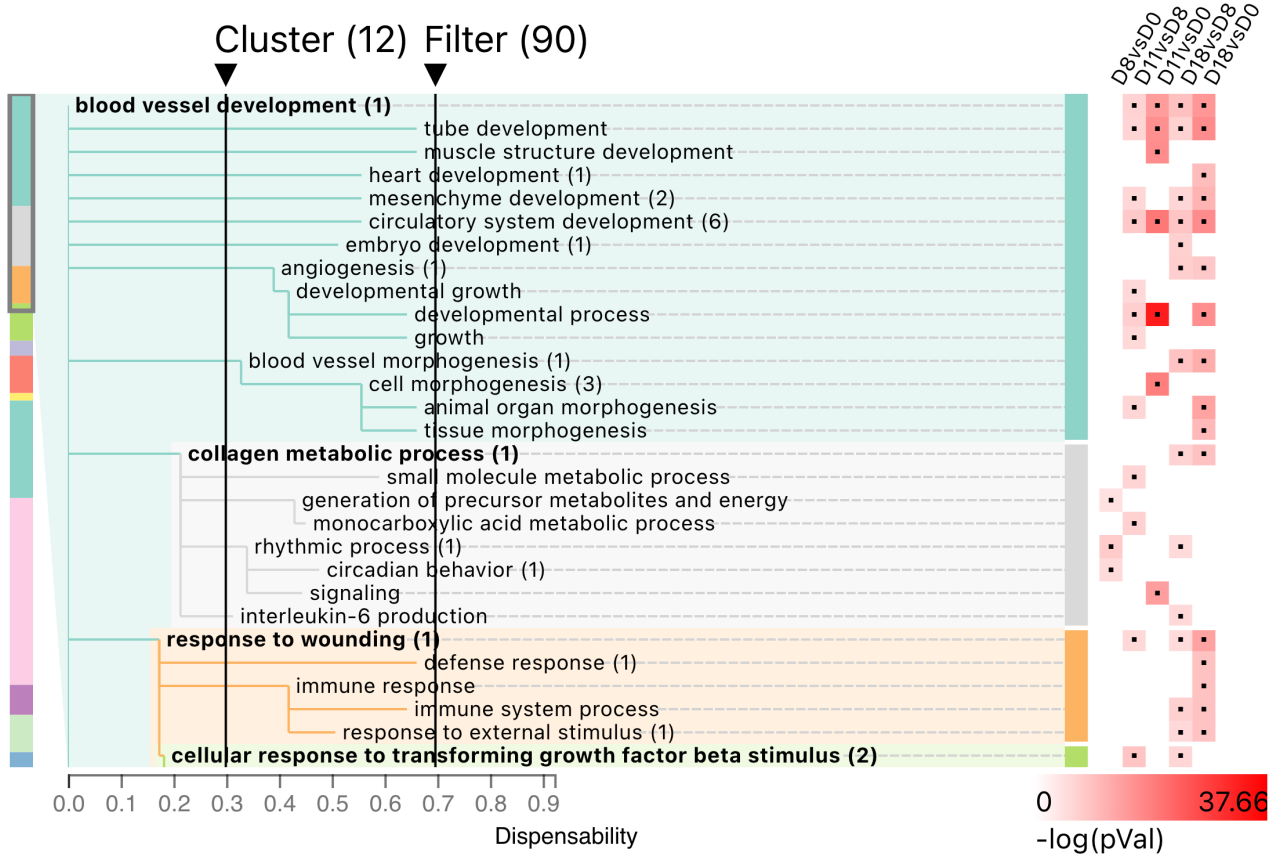
**Figure S1:** Example of GO term hierarchy for GO:0006771 created using QuickGO (<https://www.ebi.ac.uk/QuickGO/>)



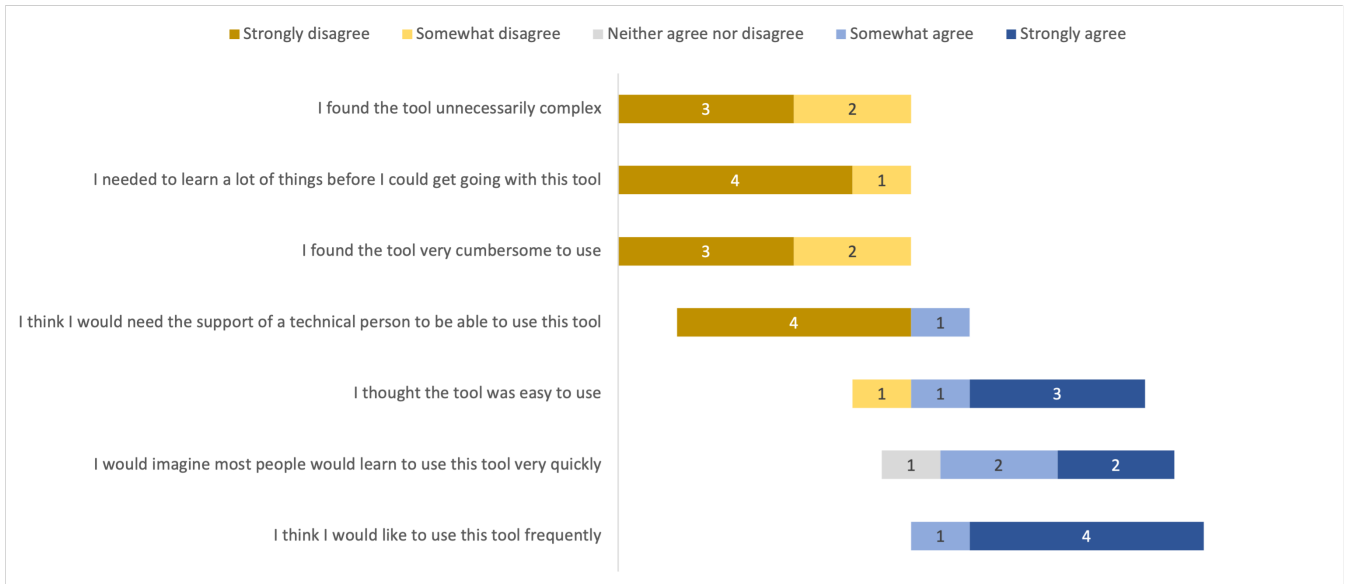
**Figure S2:** Original screenshot of the interface of GO-compass. It shows all visualization components as shown in Figure 1. For the view Overview List Comparison, only significant GO terms are used for the comparison, and hence a Venn diagram is shown.

termID	description	frequency	uniqueness	↑ dispensability	timepoint1	timepoint2	timepoint3	timepoint4	timepoint5	Genes
GO:0042773	ATP synthesis coupled electron transport	0.01	0.73	0	1.745*	0.407	0.007	1.452*	0	SCO4575,SCO4568,SCO4572,SCO4605
GO:0009236	cobalamin biosynthetic process	0.02	0.65	0.13	0	0.416	5.299*	0.637	0	SCO6971,SCO1847,SCO6093,SCO3283
GO:0009064	glutamine family amino acid metabolic process	0.05	0.53	0.25	0	0	0	2.771*	0	SCO2587,SCO1579,SCO1613,SCO1578
GO:0005975	carbohydrate metabolic process	0.35	0.69	0.41	1.745*	0	0	0	0	SCO2228,SCO7073,SCO0546,SCO6818
GO:1901566	organonitrogen compound biosynthetic process	0.52	0.63	0.41	0	0	0	1.826*	0	SCO6093,SCO3382,SCO1579,SCO4824

**Figure S3:** Screenshot of the table used in GO-compass to collect all visualized data. The columns show the ID of the GO term and its description. The next columns show the frequency, uniqueness, and dispensability for each term, as well as a detailed view of the p-values per list. The last column shows all genes present in the dataset related to the GO term.



**Figure S4:** Example of a visualization in GO-compass for a large tree that is bigger than the available space. The summary visualization on the left of the tree shows the current position and size of the visible section of the tree. The colors of the summary visualization encode the colors of the flat clusters.



**Figure S5:** Survey results for empirical case study. Overall, the visualization received positive feedback.

**Table S1:** Tasks for the empirical case study

- Task 1 Simplify the visualization/reduce the size of the tree.
- Task 2 Which lists are the most similar/least similar ones?
- Task 3 Which GO terms are the three most significant GO terms shared between the two most similar lists?
- Task 4 Summarize the biological processes happening at D11vsD0.
- Task 5 For the GO term *regulation of transmembrane transport* is the majority of the genes upregulated or downregulated in list D11vsD0? Which fraction of genes is expressed? Is the set of genes associated with this GO-term higher or lower than *regulation of biological quality*?