Output results of CLIME (CLustering by Inferred Models of Evolution)

Dataset:

Num of genes in input gene set: 4
Total number of genes: 20834
Prediction LLR threshold: 0

The CLIME PDF output two sections:

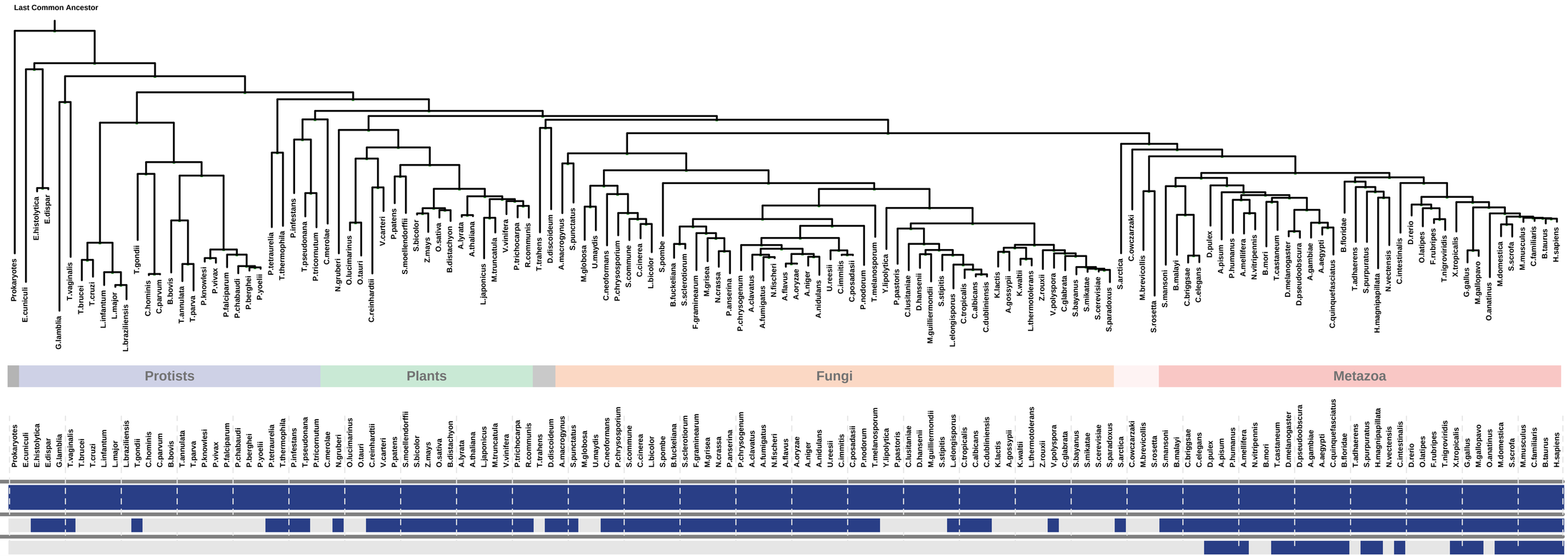
1) Overview of Evolutionarily Conserved Modules (ECMs)

- Top panel shows the predefined species tree.
- Bottom panel shows the partition of input genes into Evolutionary Conserved Modules (ECMs), ordered by ECM strength (shown at right), and separated by horizontal lines.
- Each row show one gene, where the phylogenetic profile indicates presence (blue) or absence (gray) of homologs in each species (column).
- Gene symbols are shown at left. Gray color indicates that the gene is a paralog to a higher scoring gene within the same ECM (based on BLASTP E < 1e-3).

2) Details of each ECM and its expansion ECM+

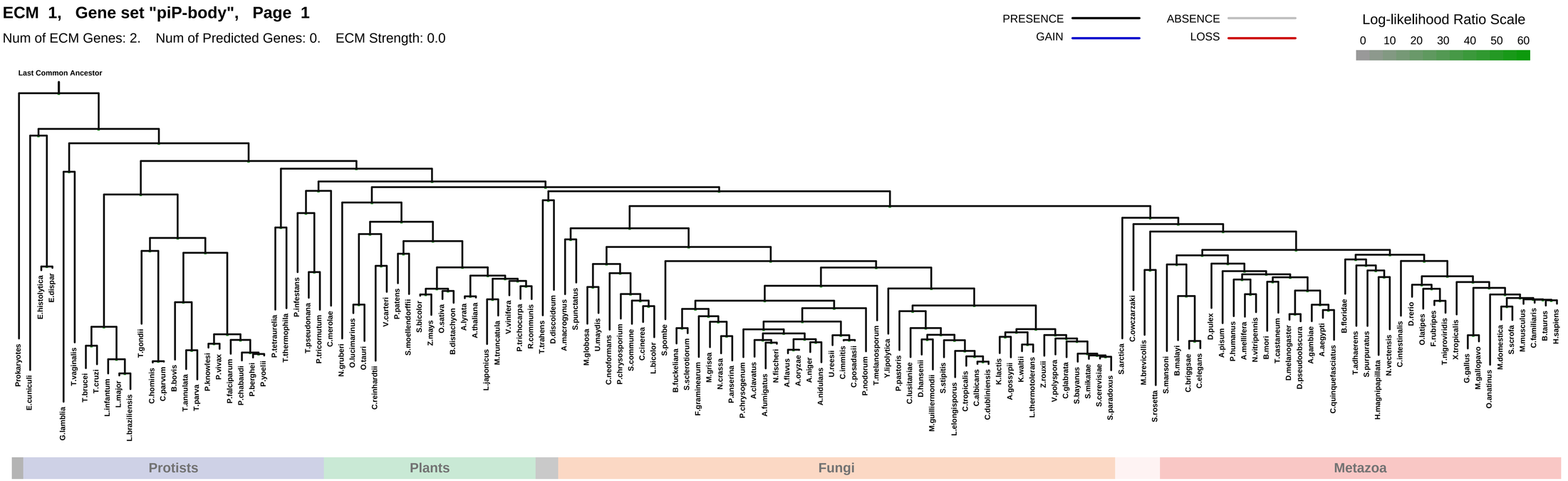
- Top panel shows the inferred evolutionary history on the predefined species tree. Branch color shows the gain event (blue) and loss events (red color, with brighter color indicating higher confidence in loss). Branches before the gain or after a loss are shown in gray.
- Bottom panel shows the input genes that are within the ECM (blue/white rows) as well as all genes in the expanded ECM+ (green/gray rows). The ECM+ includes genes likely to have arisen under the inferred model of evolution relative to a background model, and scored using a log likelihood ratio (LLR).
- PG indicates "paralog group" and are labeled alphabetically (i.e., A, B). The first gene within each paralog group is shown in black color. All other genes sharing sequence similarity (BLAST E < 1e-3) are assigned to the same PG label and displayed in gray.

Overview of Evolutionarily Conserved Modules (ECMs)



ECM 1, Gene set "piP-body", Page 1

Num of ECM Genes: 2. Num of Predicted Genes: 0. ECM Strength: 0.0

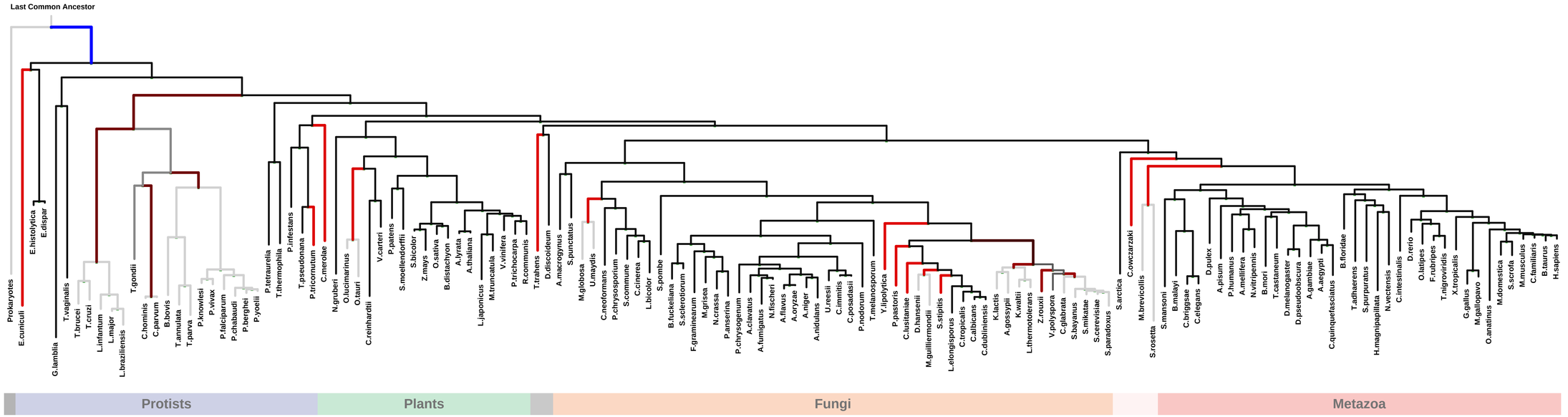


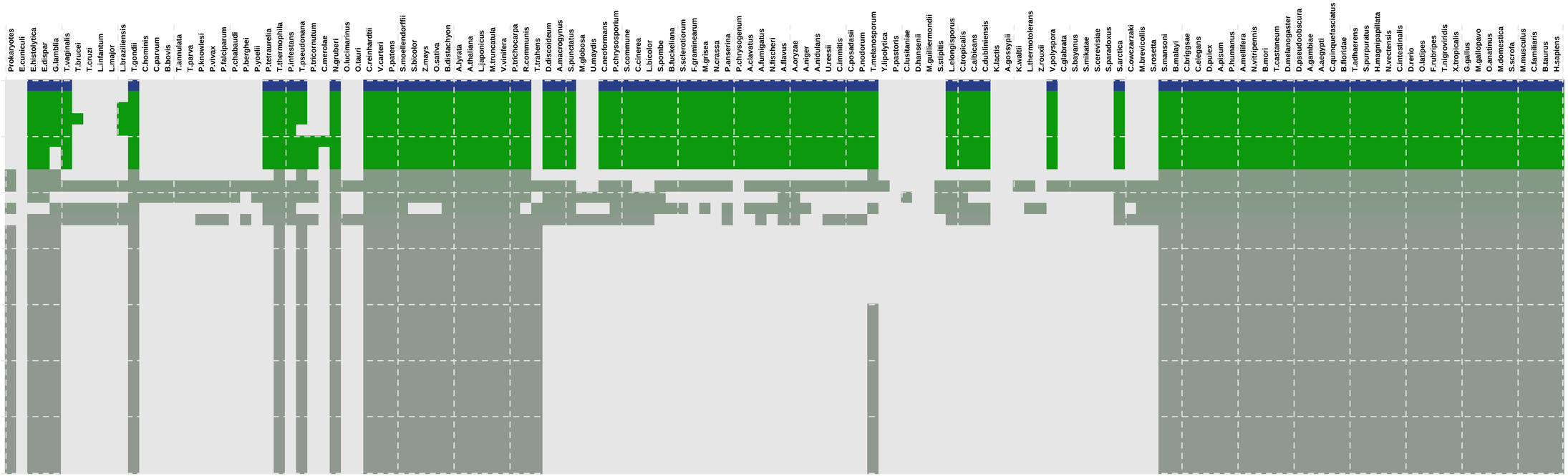
PG	Protein	LLR	Notes
DDX4			1 / 2 / 3
TDRD9			3

1: chromatoid body || 2: pi-body || 3: piP-body

ECM 2, Gene set "piP-body", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 47



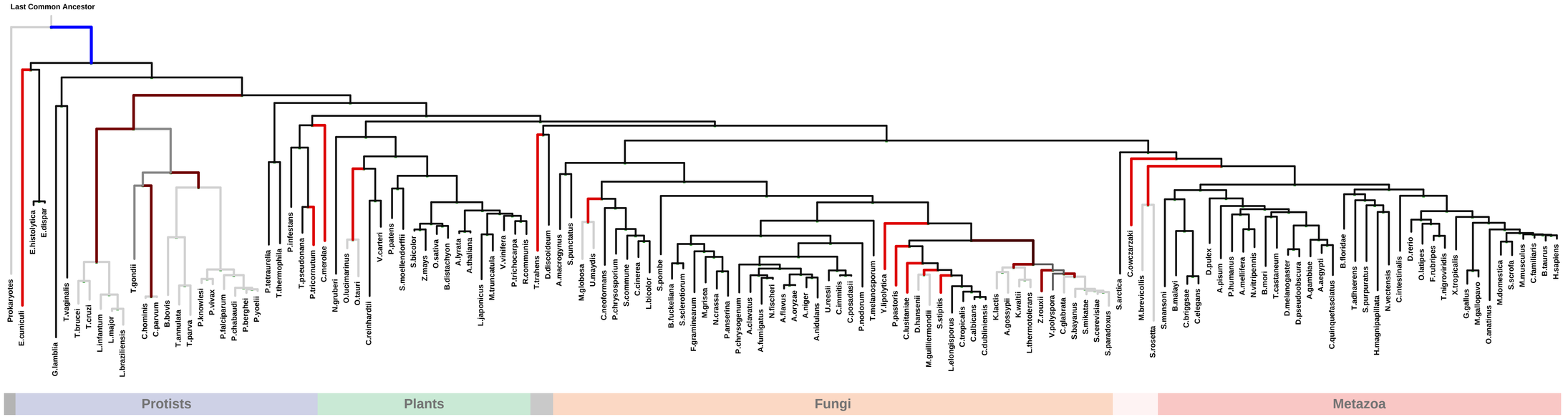


PG	Protein	LLR	Notes
A	PIWIL4		1 / 2
A	AGO2	89.3	3 / 4 / 5 / 6 / 7 / 8
A	PIWIL1	89.2	1 / 5 / 6 / 9
A	PIWIL3	86.9	
A	PIWIL2	79.3	1 / 6 / 9 / 10
A	AGO3	74.7	3 / 4
A	AGO4	74.2	3 / 4
A	AGO1	74.2	3 / 4 / 6 / 7
B	SERPINB13	9.0	
C	KLHL41	8.9	11 / 12
	GBP5	8.3	13
	IFT172	7.8	14
	LRRC34	5.3	
B	SERPINA7	4.4	
B	SERPINB11	4.4	
B	SERPINB12	4.4	
B	SERPINA12	4.4	
B	SERPINB2	4.4	
B	SERPINB5	4.4	
B	SERPINB7	4.4	
B	SERPINA10	4.4	
B	SERPINA9	4.4	
B	SERPINB1	4.4	
B	SERPINB10	4.4	
B	SERPINA11	4.4	
B	SERPINA1	4.4	15 / 16
B	SERPINA3	4.4	
B	SERPINA4	4.4	
B	SERPINB3	4.4	
B	SERPINB4	4.4	
B	SERPINA5	4.4	17 / 18 / 19 / 20
B	SERPINB6	4.4	
B	SERPINA6	4.4	
B	SERPINB9	4.4	
B	SERPINC1	4.4	

1: P granule || 2: piP-body || 3: cytoplasmic mRNA processing body || 4: micro-ribonucleoprotein complex || 5: mRNA cap binding complex || 6: polysome || 7: ribonucleoprotein complex || 8: RNA-induced silencing complex ||
9: chromatoid body || 10: pi-body || 11: pseudopodium || 12: ruffle || 13: cytoplasmic vesicle || 14: cilium || 15: platelet alpha granule lumen || 16: proteinaceous extracellular matrix || 17: acrosomal membrane || 18: external side of plasma membrane ||
19: platelet alpha granule || 20: platelet dense tubular network

ECM 2, Gene set "piP-body", Page 2

Num of ECM Genes: 1. Num of Predicted Genes: 47

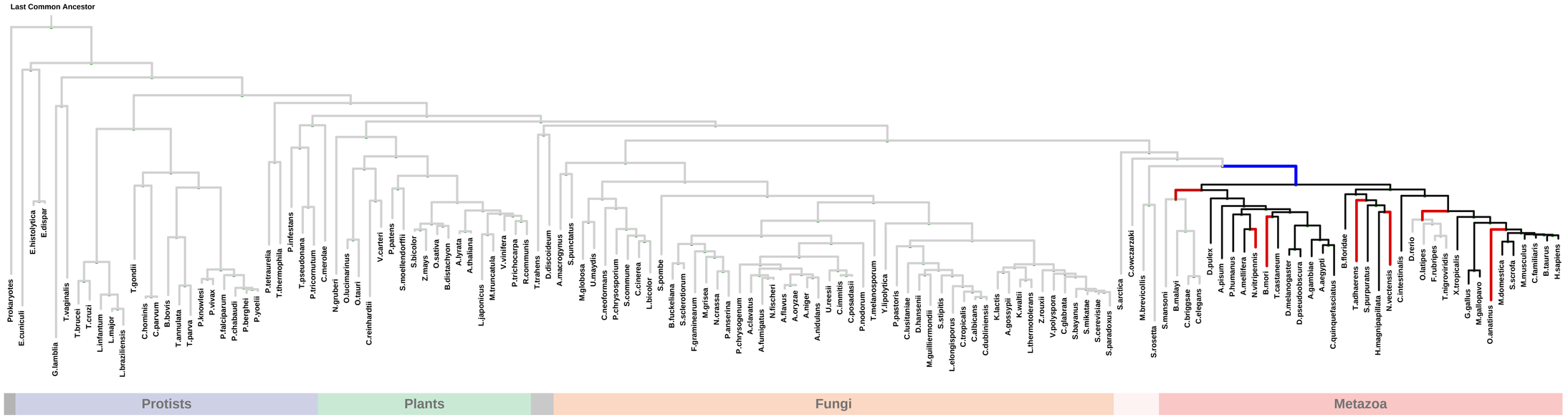


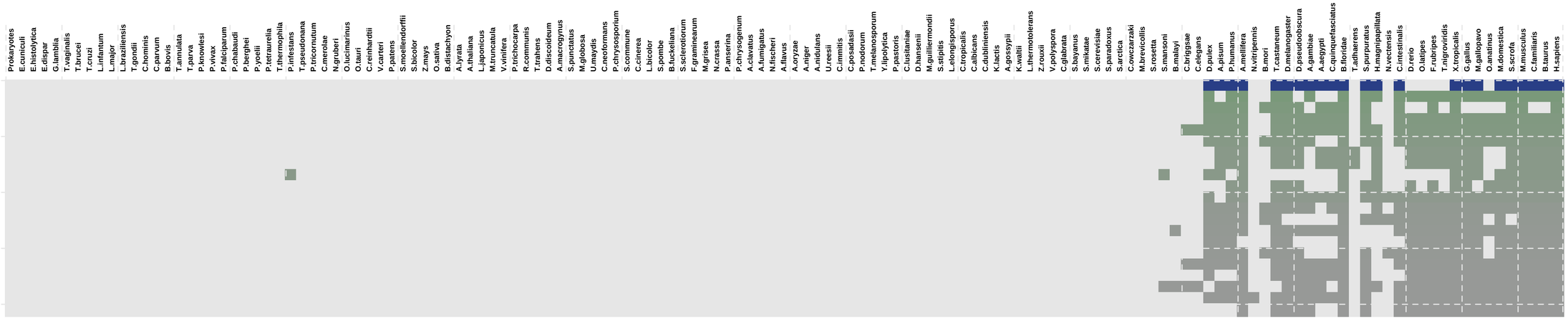
PG	Protein	LLR	Notes
B	SERPIND1	4.4	
B	SERPINE1	4.4	1 / 2
B	SERPINE2	4.4	1 / 3 / 4 / 5
B	SERPINE3	4.4	
B	SERPINF1	4.4	1 / 6
B	SERPINF2	4.4	2 / 7
B	SERPINI1	4.4	
B	SERPINI2	4.4	
B	100510292	4.4	
C	IPP	3.8	8
B	SERPINH1	1.3	9 / 10
B	SERPINB8	1.3	
B	SERPING1	1.3	2

1: extracellular matrix || 2: platelet alpha granule lumen || 3: extrinsic to external side of plasma membrane || 4: neuromuscular junction || 5: platelet alpha granule || 6: melanosome || 7: fibrinogen complex || 8: actin cytoskeleton || 9: endoplasmic reticulum lumen || 10: endoplasmic reticulum-Golgi intermediate compartment

ECM 3, Gene set "piP-body", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 20





1: autosome || 2: chromatin || 3: chromatin remodeling complex || 4: chromatoid body || 5: P granule || 6: piP-body || 7: XY body || 8: basement membrane || 9: platelet alpha granule lumen || 10: proteinaceous extracellular matrix || 11: secretory granule || 12: endoplasmic reticulum lumen || 13: microvillus || 14: chromosome || 15: mediator complex || 16: basolateral plasma membrane || 17: mitochondrial membrane || 18: aggresome || 19: late endosome membrane || 20: microtubule organizing center || 21: integral to mitochondrial membrane || 22: mitochondrial outer membrane || 23: peroxisome