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

Dataset:

Num of genes in input gene set: 3
Total number of genes: 20834
Prediction LLR threshold: 0

The CLIME PDF output two sections:

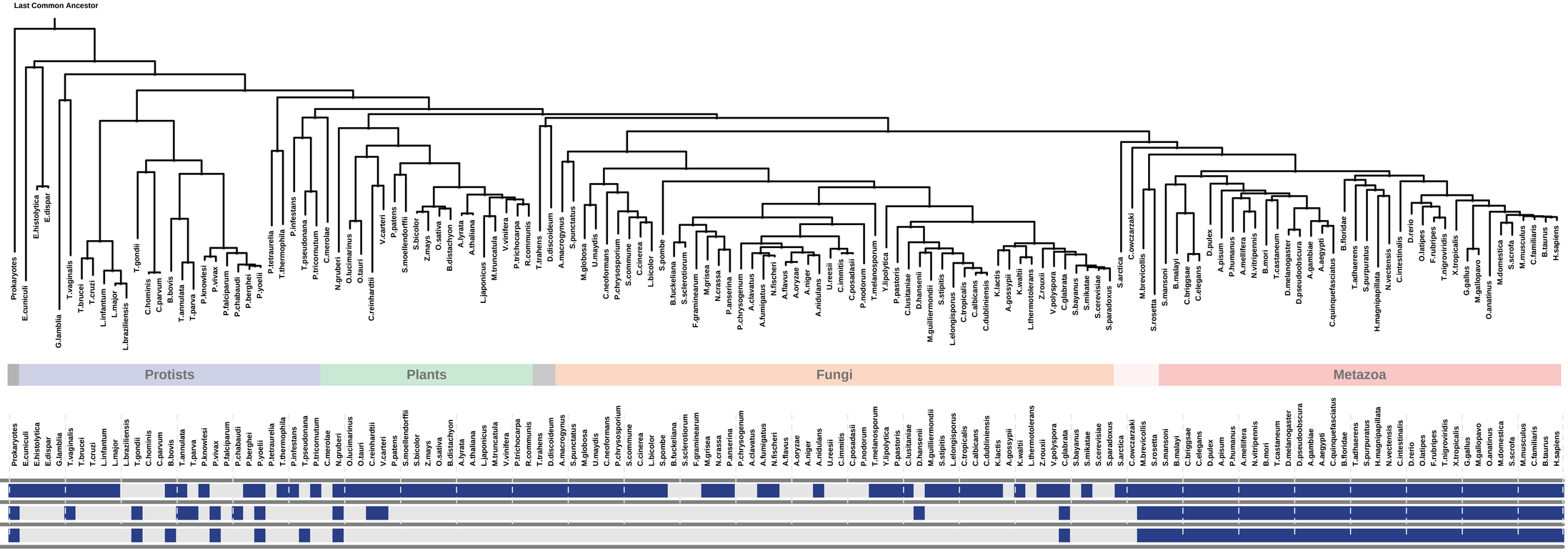
1) Overview of Evolutionarily Conserved Modules (ECMs)

- 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+

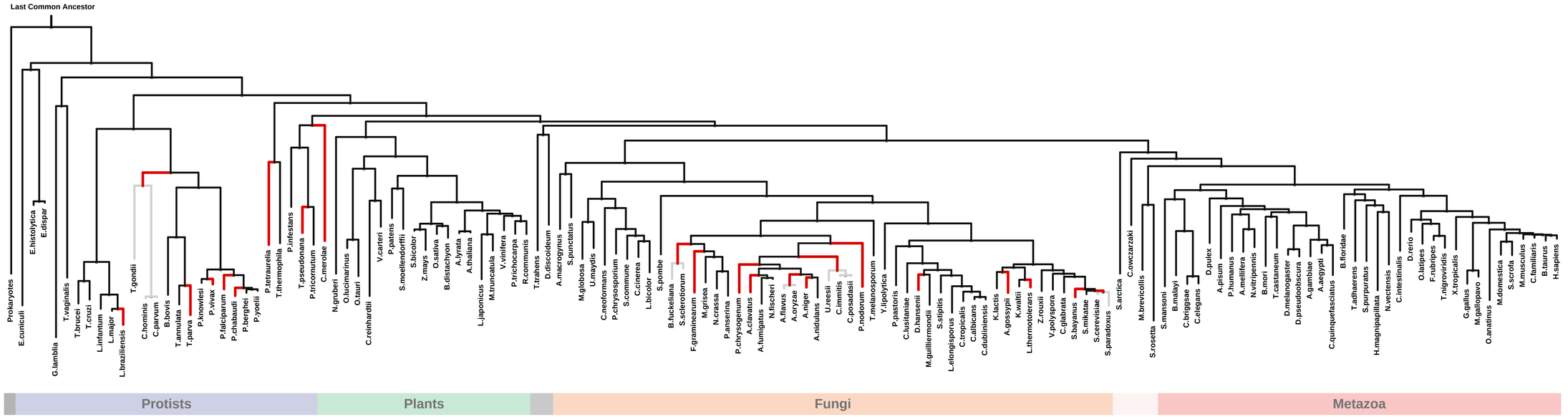
- Top panel shows the inferred evolutionary history on the predefined species tree. Branch color shows the gain event (blue) and loss events (red color, with brighter color indicating higher confidence in loss). Branches before the gain or after a loss are shown in gray.
- Bottom panel shows the input 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 "collagen type VI", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 0

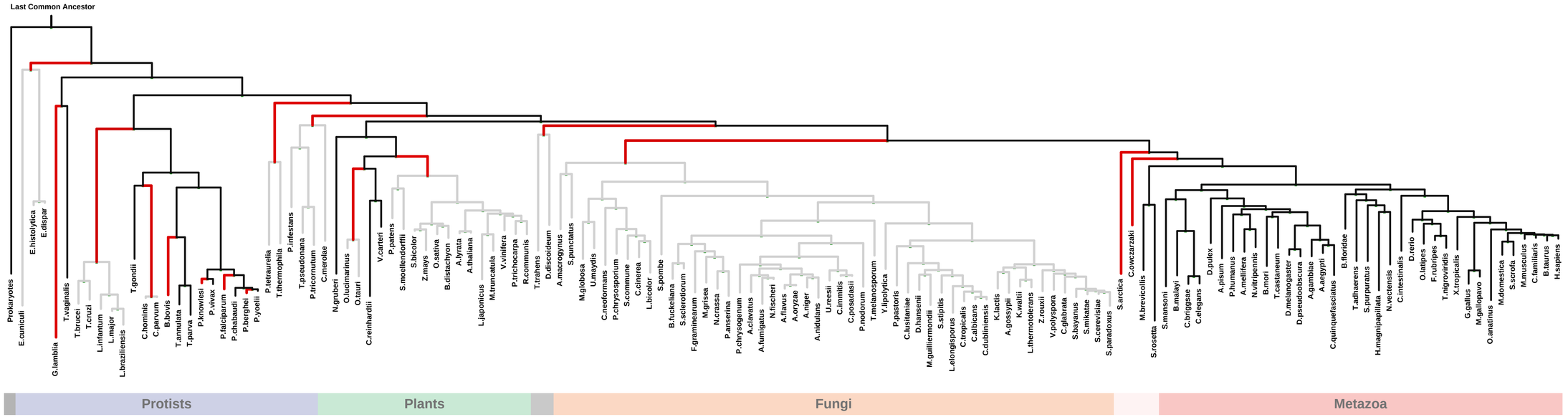


PG	Protein	LLR	Notes
	DCN		1 / 2 / 3 / 4

1: collagen type VI || 2: extracellular matrix || 3: Golgi lumen || 4: lysosomal lumen

ECM 2, Gene set "collagen type VI", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 72

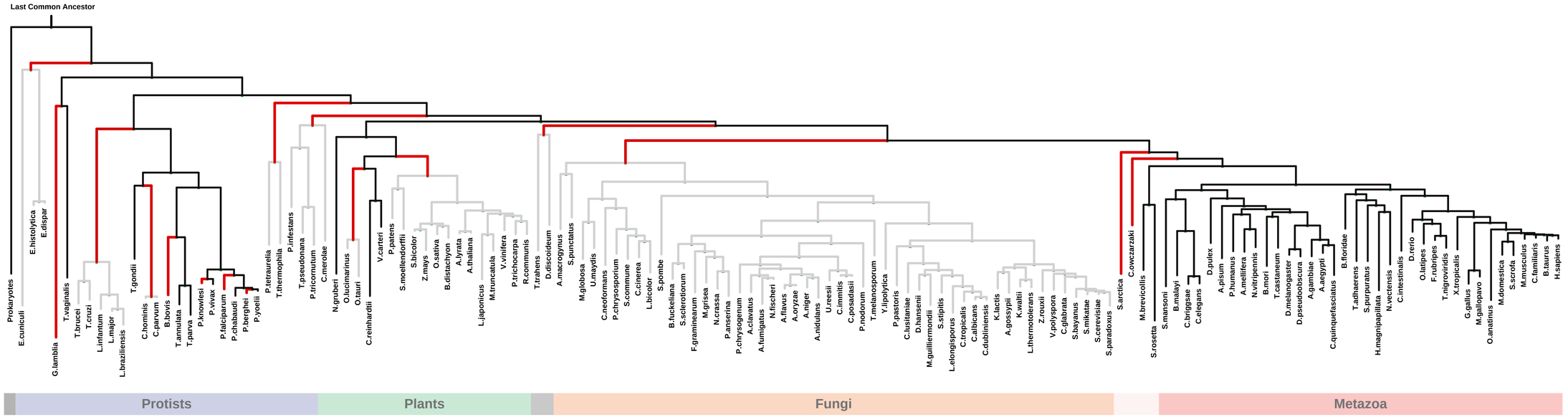


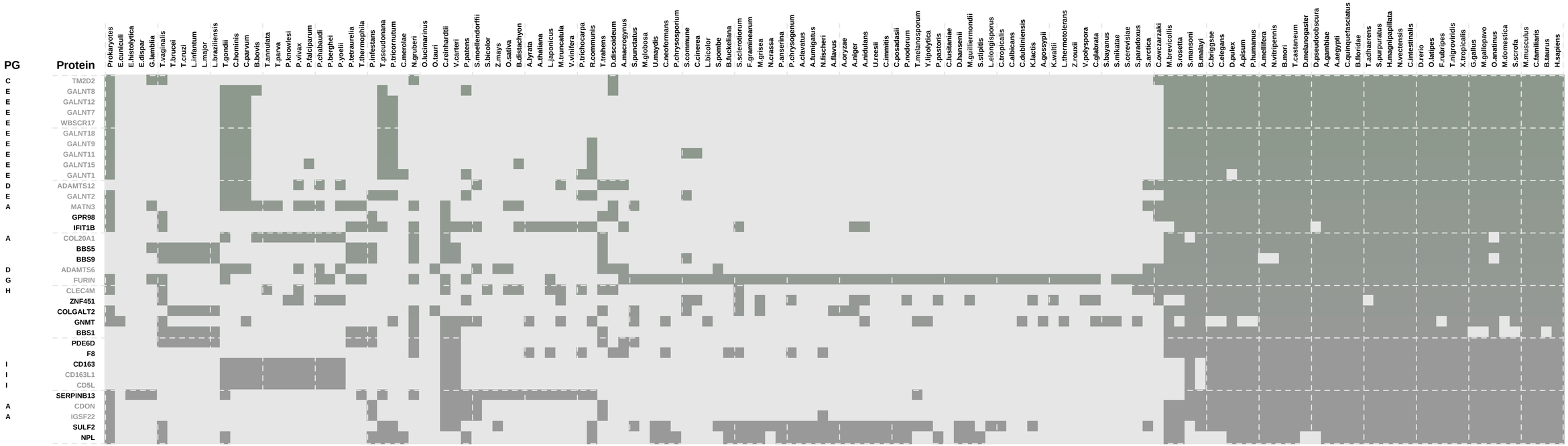
PG	Protein	LLR	Notes
A	COL6A3		1 / 2 / 3 / 4 / 5
A	COL21A1	51.9	2 / 3 / 6
A	COL7A1	48.8	2 / 3 / 7
A	COL14A1	39.4	2 / 3 / 6 / 8
A	ITGA10	33.6	9
A	COL6A5	33.0	3 / 6
	COL22A1	32.8	
A	COL6A6	31.4	3 / 6
A	VWA2	30.9	7
A	ITGAX	28.1	9 / 10
A	MATN1	28.0	8
A	ITGAD	24.3	9
A	ITGA1	21.8	9 / 10 / 11 / 12 / 13 / 14 / 1
B	SLC13A2	14.9	
B	SLC13A4	12.2	
	100510183	11.3	
C	TM2D1	10.7	
A	ITGA11	8.4	9
	CACNA2D2	8.3	16
D	THBS1	7.5	3 / 10 / 17 / 18 / 19 / 20
A	COL12A1	7.4	2 / 3
E	GALNT3	7.2	21
E	GALNT6	7.2	
E	GALNT16	6.8	
	TECPR2	6.7	
F	HS3ST4	6.3	
F	HS3ST6	6.3	
F	NDST2	6.3	
F	NDST3	6.3	
F	NDST4	6.3	
F	HS3ST2	6.3	
G	PCSK7	6.1	22
E	GALNT10	5.9	
	CES3	5.6	2
H	ACAN	5.1	3 / 8 / 23 / 24

1: collagen type VI || 2: endoplasmic reticulum lumen || 3: extracellular matrix || 4: sarcolemma || 5: transport vesicle || 6: collagen || 7: basement membrane || 8: proteinaceous extracellular matrix || 9: integrin complex ||
10: external side of plasma membrane || 11: acrosomal vesicle || 12: basal part of cell || 13: membrane raft || 14: neuron projection || 15: perikaryon || 16: voltage-gated calcium channel complex || 17: fibrinogen complex ||
18: platelet alpha granule || 19: platelet alpha granule lumen || 20: secretory granule || 21: Golgi cisterna membrane || 22: integral to Golgi membrane || 23: Golgi lumen || 24: lysosomal lumen

ECM 2, Gene set "collagen type VI", Page 2

Num of ECM Genes: 1. Num of Predicted Genes: 72

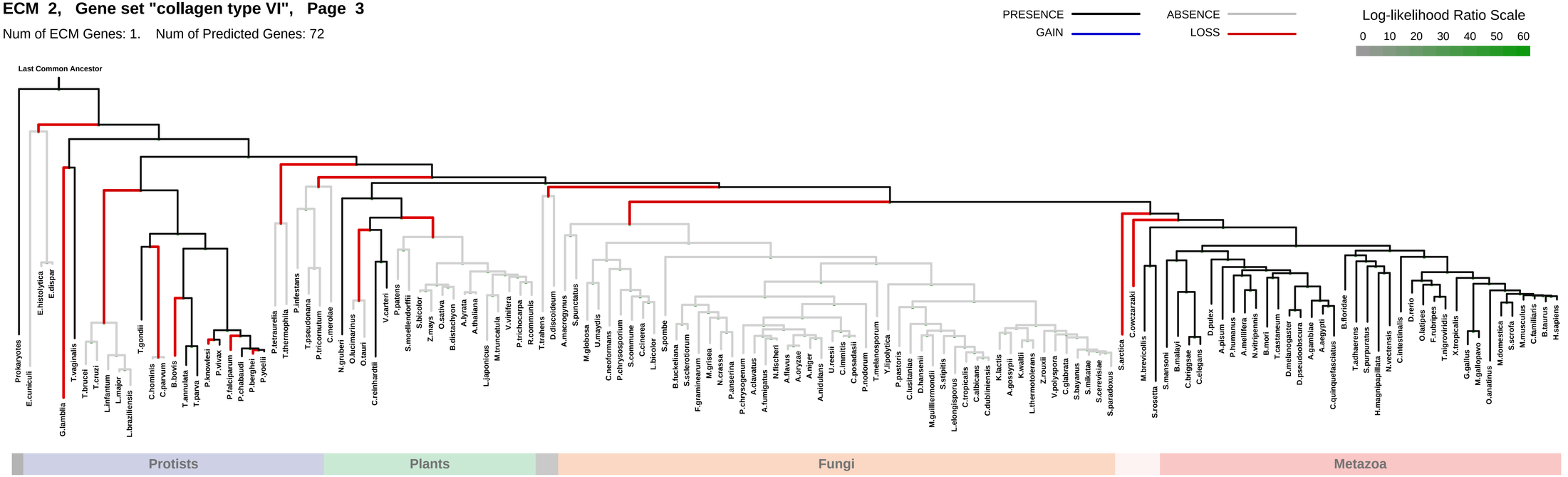




1: transport vesicle || 2: Golgi cisterna membrane || 3: proteinaceous extracellular matrix || 4: Golgi stack || 5: integral to Golgi membrane || 6: stereocilia ankle link complex || 7: collagen || 8: endoplasmic reticulum lumen || 9: extracellular matrix || 10: BBSome || 11: cilium membrane || 12: microtubule basal body || 13: microtubule organizing center || 14: Golgi cisterna || 15: Golgi lumen || 16: membrane raft || 17: trans-Golgi network || 18: trans-Golgi network transport vesicle || 19: platelet alpha granule lumen

ECM 2, Gene set "collagen type VI", Page 3

Num of ECM Genes: 1. Num of Predicted Genes: 72



PG	Protein	LLR	Notes
F	HS3ST3B1	0.1	
F	HS3ST3A1	0.1	
E	GALNT5	0.0	

ECM 3, Gene set "collagen type VI", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 0