

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

Dataset:

Num of genes in input gene set: 6
Total number of genes: 20834
Prediction LLR threshold: 0

The CLIME PDF output two sections:

1) Overview of Evolutionarily Conserved Modules (ECMs)

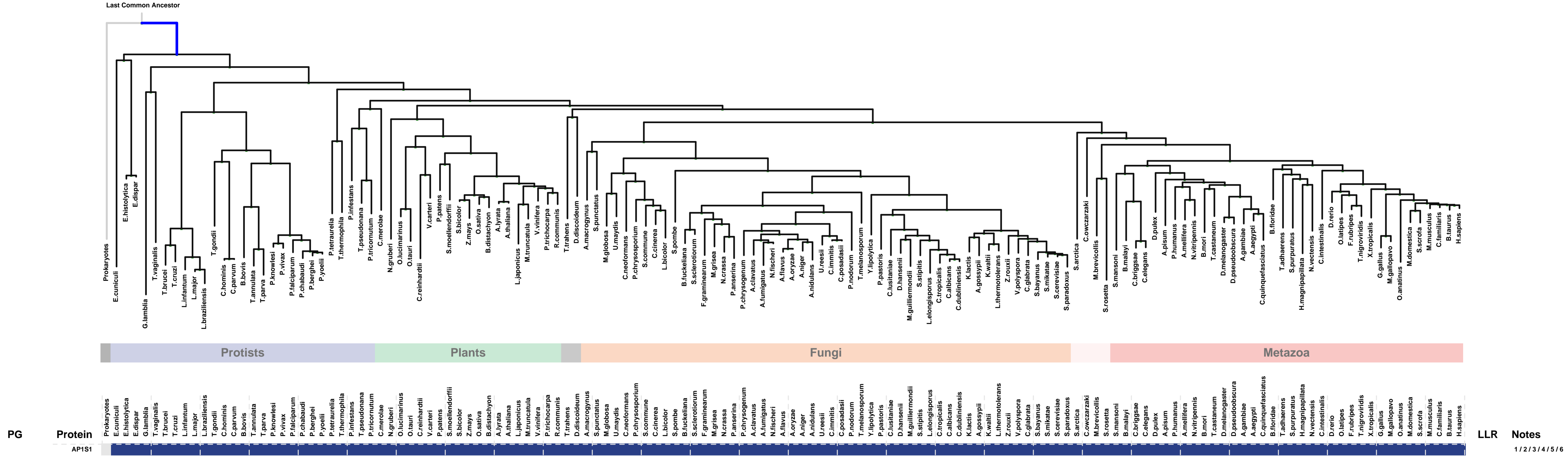
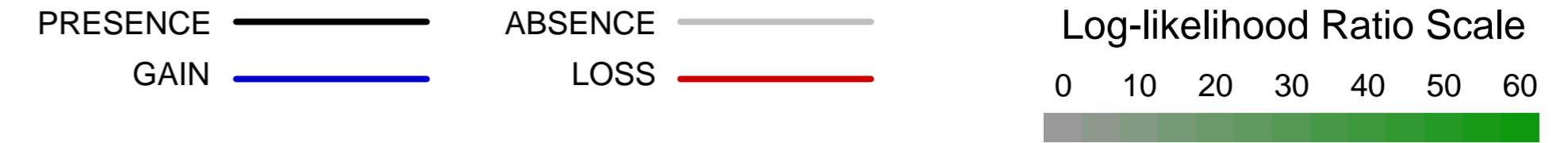
- Top panel shows the predefined species tree.
- Bottom panel shows the partition of input genes into Evolutionary Conserved Modules (ECMs), ordered by ECM strength (shown at right), and separated by horizontal lines.
- Each row show one gene, where the phylogenetic profile indicates presence (blue) 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.

ECM 1, Gene set "AP-1 adaptor complex", Page 1

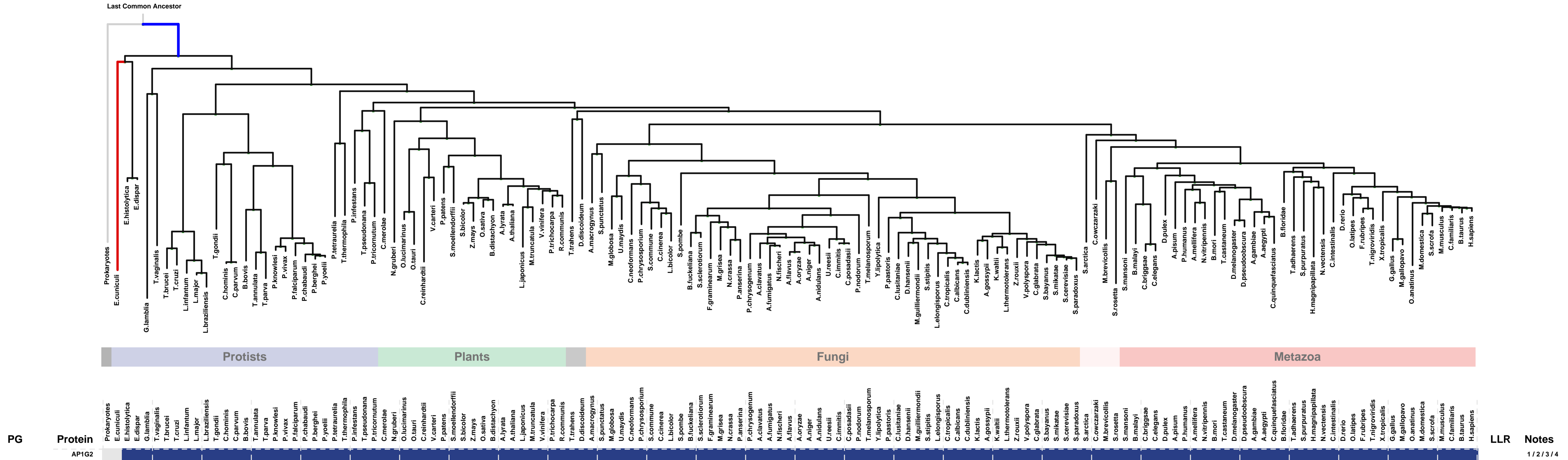
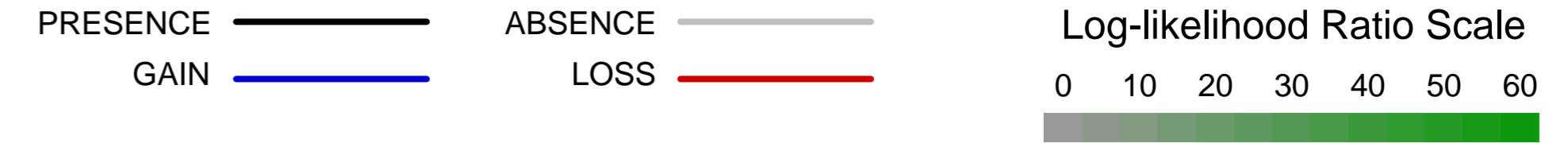
Num of ECM Genes: 1. Num of Predicted Genes: 0



1: AP-1 adaptor complex || 2: clathrin coat of trans-Golgi network vesicle || 3: coated pit || 4: cytoplasmic vesicle membrane || 5: lysosomal membrane || 6: trans-Golgi network membrane

ECM 2, Gene set "AP-1 adaptor complex", Page 1

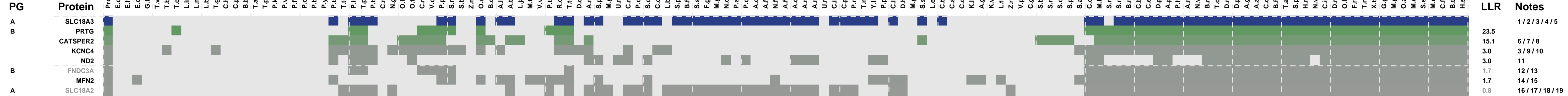
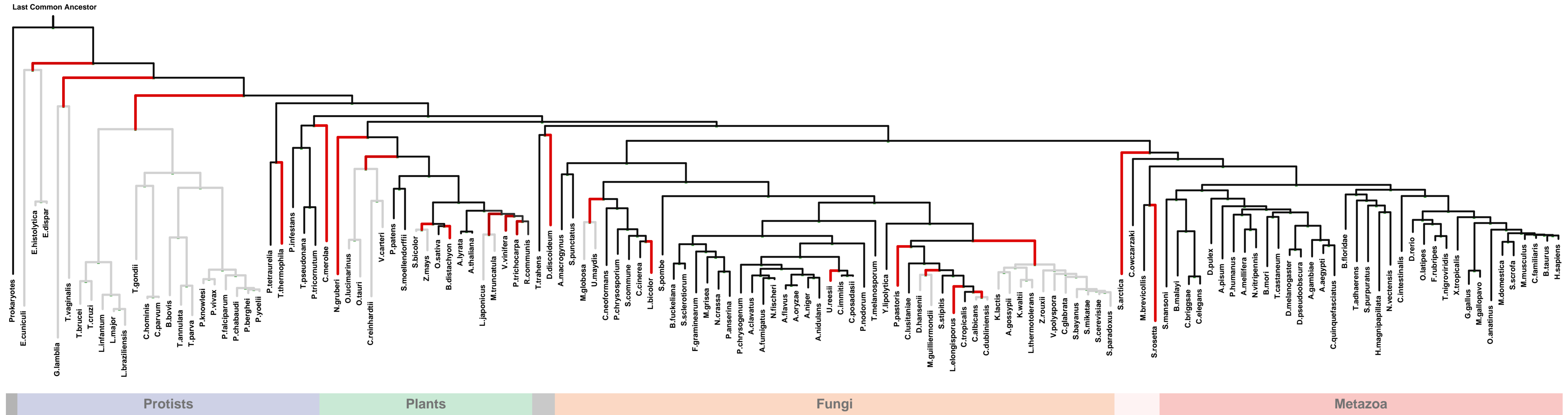
Num of ECM Genes: 1. Num of Predicted Genes: 0



1: AP-1 adaptor complex || 2: endosome membrane || 3: Golgi-associated vesicle || 4: transport vesicle

ECM 3, Gene set "AP-1 adaptor complex", Page 1

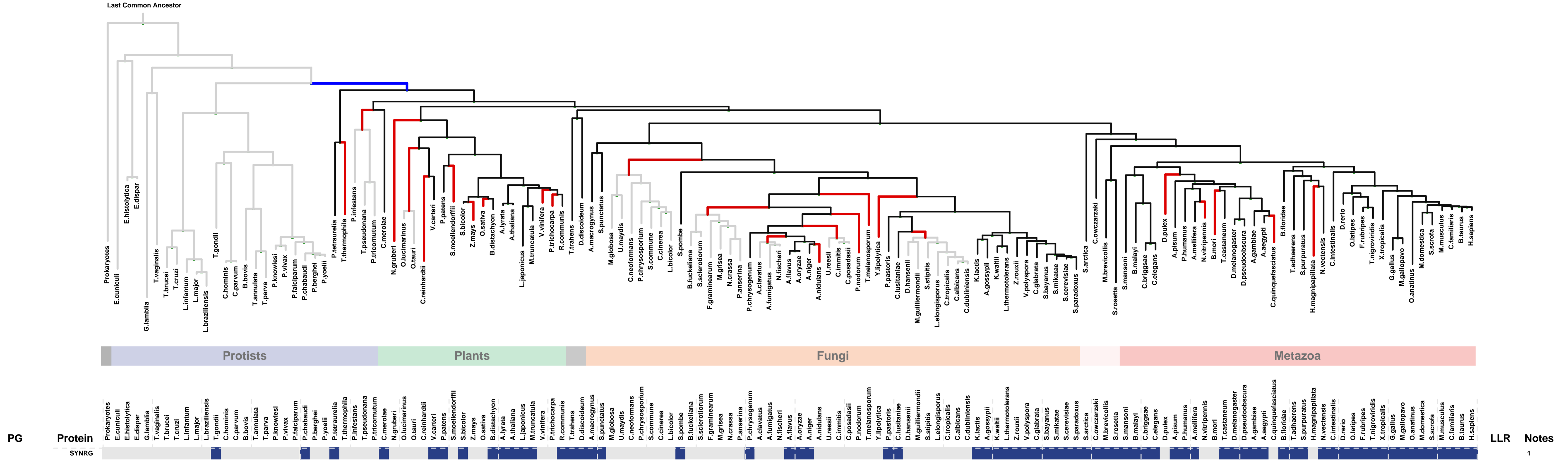
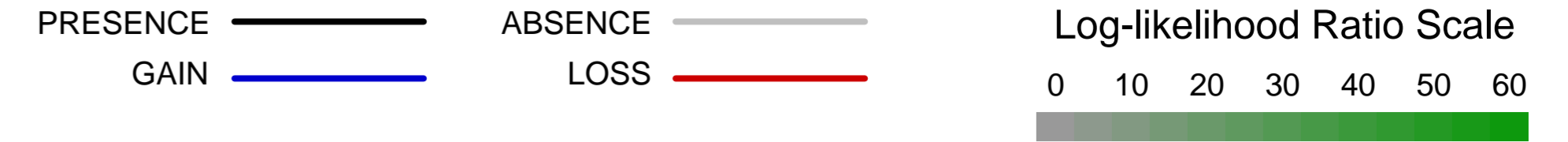
Num of ECM Genes: 1. Num of Predicted Genes: 7



1: AP-1 adaptor complex || 2: AP-2 adaptor complex || 3: axon terminus || 4: clathrin-sculpted acetylcholine transport vesicle membrane || 5: synaptic vesicle || 6: CatSper complex || 7: cilium || 8: flagellar membrane || 9: neuromuscular junction || 10: voltage-gated potassium channel complex || 11: mitochondrial respiratory chain complex I || 12: acrosomal vesicle || 13: vesicle membrane || 14: microtubule cytoskeleton || 15: mitochondrial outer membrane || 16: clathrin-sculpted monoamine transport vesicle membrane || 17: dense core granule || 18: synaptic vesicle membrane || 19: terminal button

ECM 4, Gene set "AP-1 adaptor complex", Page 1

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

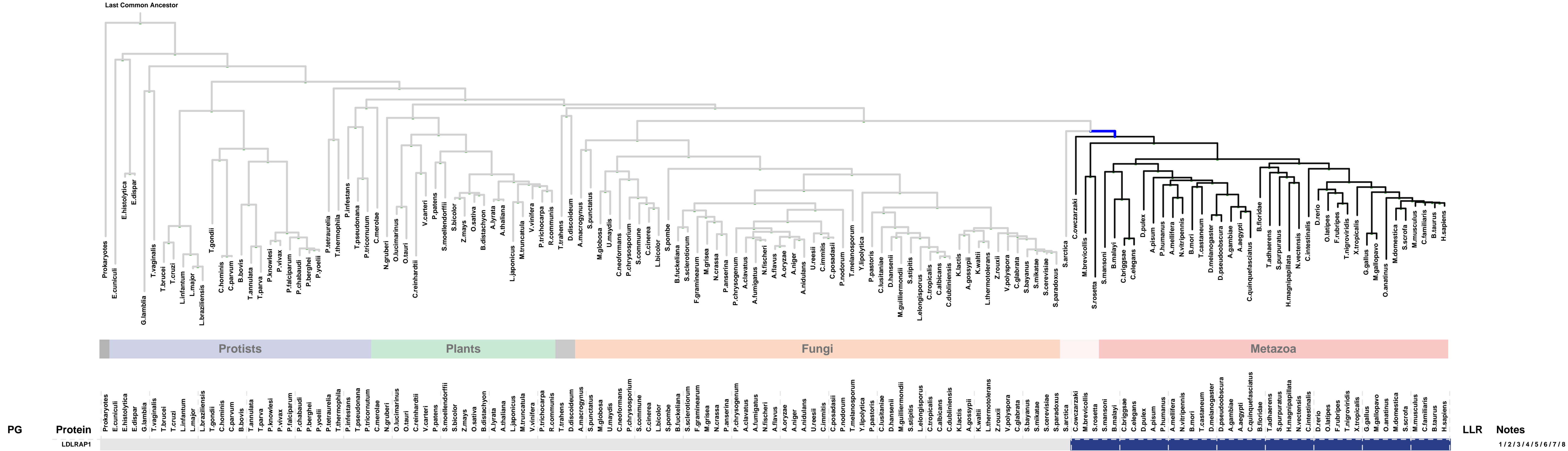


1: AP-1 adaptor complex

LLR Notes
1

ECM 5, Gene set "AP-1 adaptor complex", Page 1

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



PG

Protein

LDLRAP1

LLR

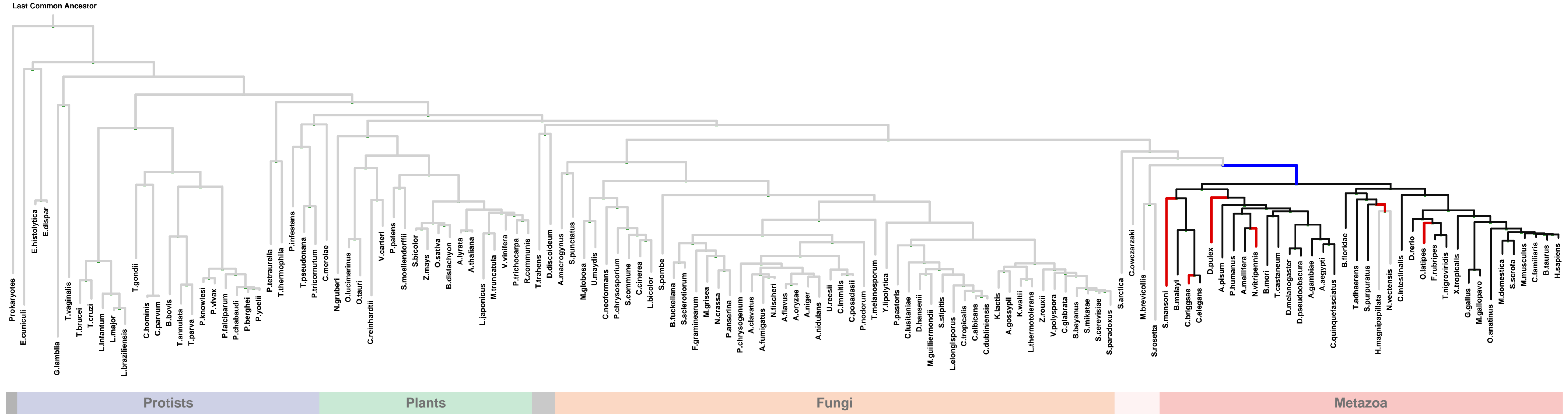
Notes

1: AP-1 adaptor complex || 2: AP-2 adaptor complex || 3: axon || 4: basal plasma membrane || 5: early endosome || 6: internal side of plasma membrane || 7: neurofilament || 8: recycling endosome

1/2/3/4/5/6/7/8

ECM 6, Gene set "AP-1 adaptor complex", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 14



PG	Protein	Prokaryotes	Protists	Plants	Fungi	Metazoa	LLR	Notes
A	AFTPH						15.4	1
	VWC2L						8.0	
	TMIE						6.3	
	LCOR						6.3	
	LCORL						3.6	
	EBI3						2.1	2
	CD80						2.0	3/4
	TMEM138						1.6	5
	CACFD1						1.3	
	HNF1B						0.6	
B	OR4S2						0.6	
	SH3BGR						0.2	6/7/8
	ITM2B						0.2	9/10
B	ITM2C						0.2	
	ITM2A						0.2	

1: AP-1 adaptor complex || 2: external side of plasma membrane || 3: cilium || 4: vacuolar membrane || 5: integral to synaptic vesicle membrane || 6: endosome membrane || 7: Golgi-associated vesicle membrane || 8: integral to organelle membrane || 9: lysosomal membrane || 10: lysosome