

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

Dataset:

Num of genes in input gene set: 8

Total number of genes: 20834

Prediction LLR threshold: 0

The CLIME PDF output two sections:

1) Overview of Evolutionarily Conserved Modules (ECMs)

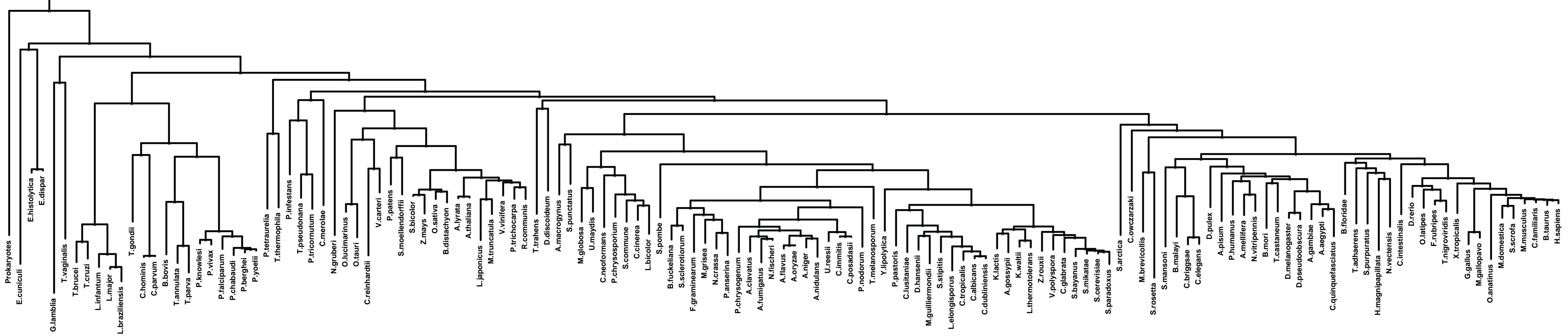
- Top panel shows the predefined species tree.
- Bottom panel shows the partition of input genes into Evolutionary Conserved Modules (ECMs), ordered by ECM strength (shown at right), and separated by horizontal lines.
- Each row show one gene, where the phylogenetic profile indicates presence (blue)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

Last Common Ancestor

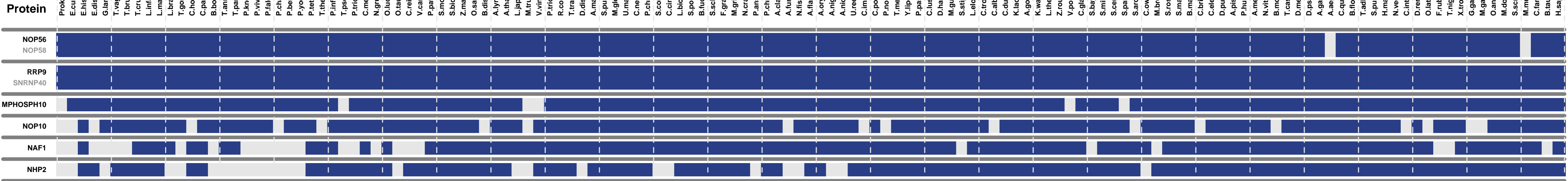


Protists

Plants

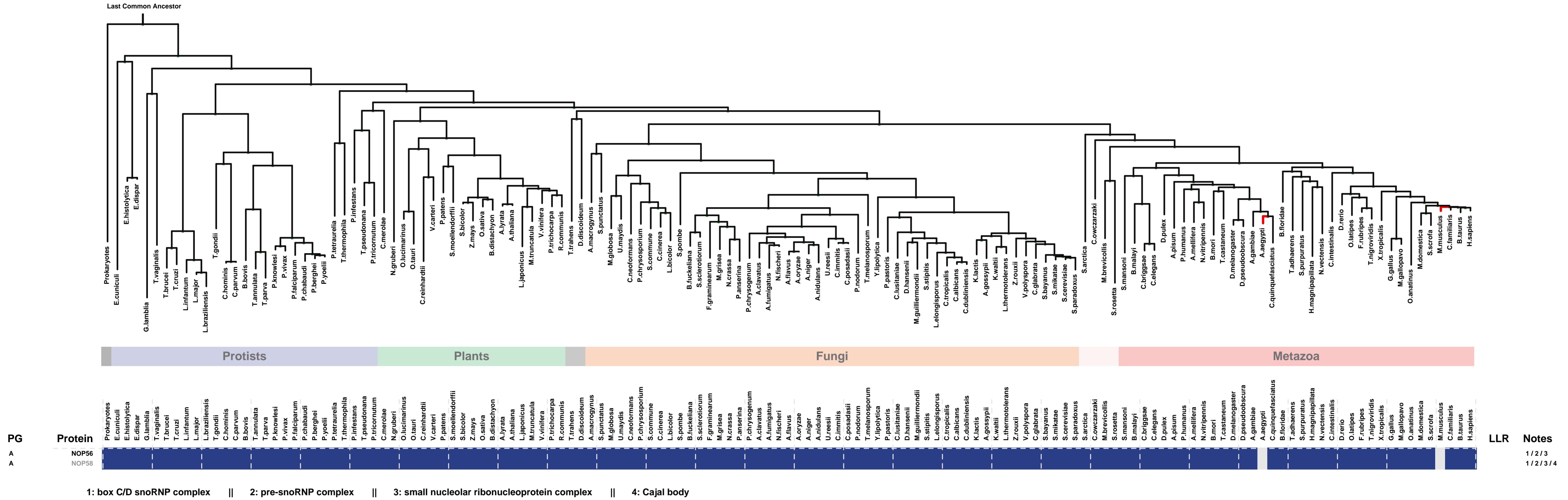
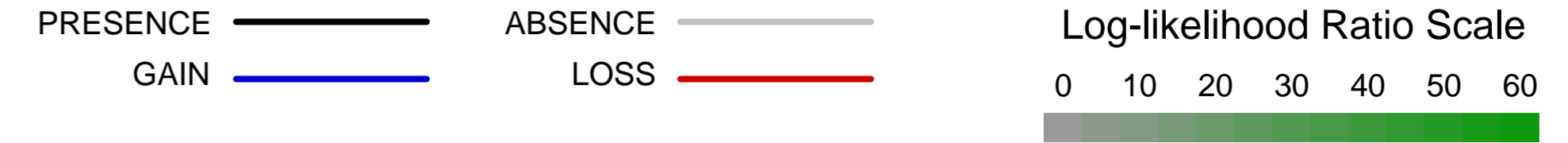
Fungi

Metazoa



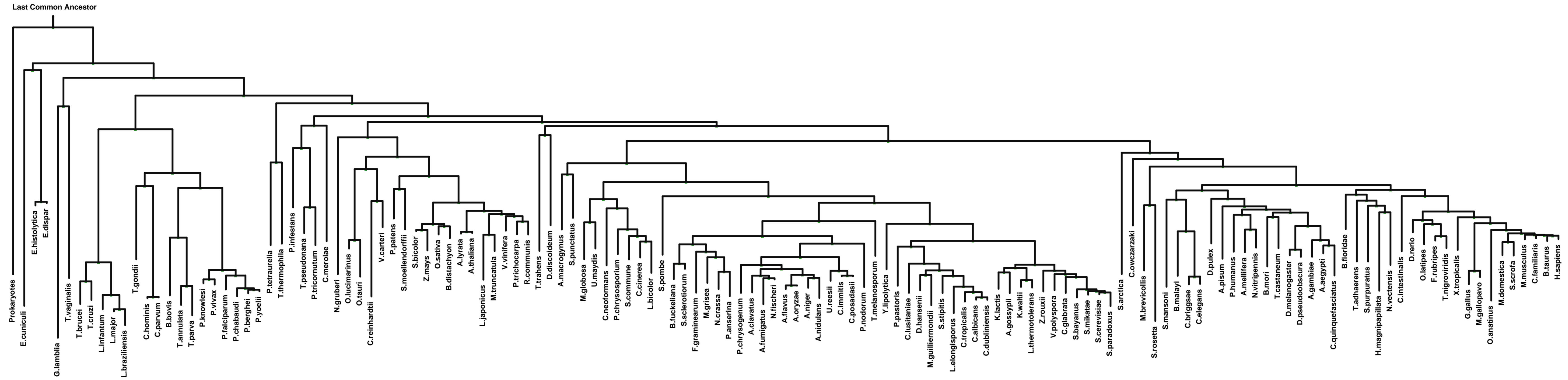
ECM 1, Gene set "small nucleolar ribonucleoprotein complex", Page 1

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



ECM 2, Gene set "small nucleolar ribonucleoprotein complex", Page 1

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



Protists

Plants

Fungi

Metazoa

PG

Protein



LLR

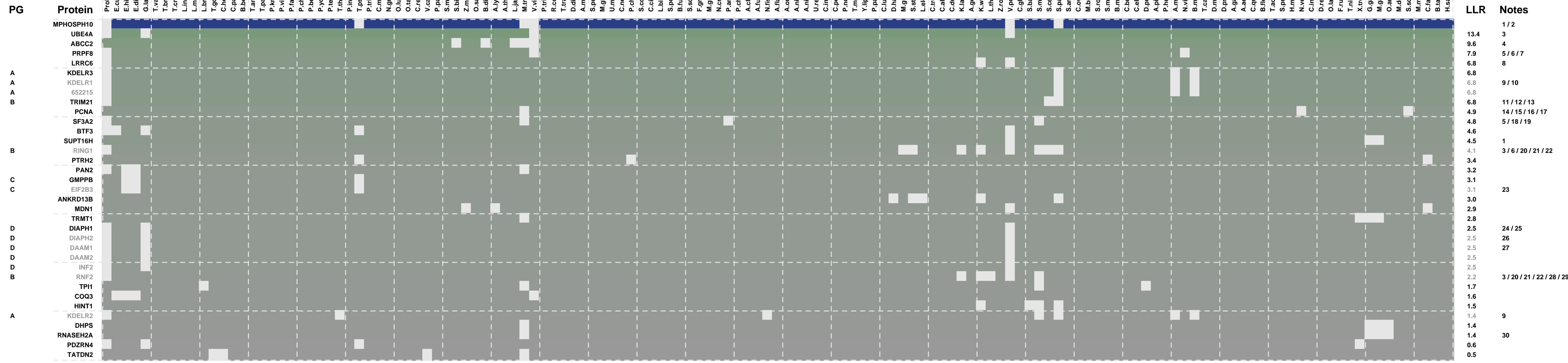
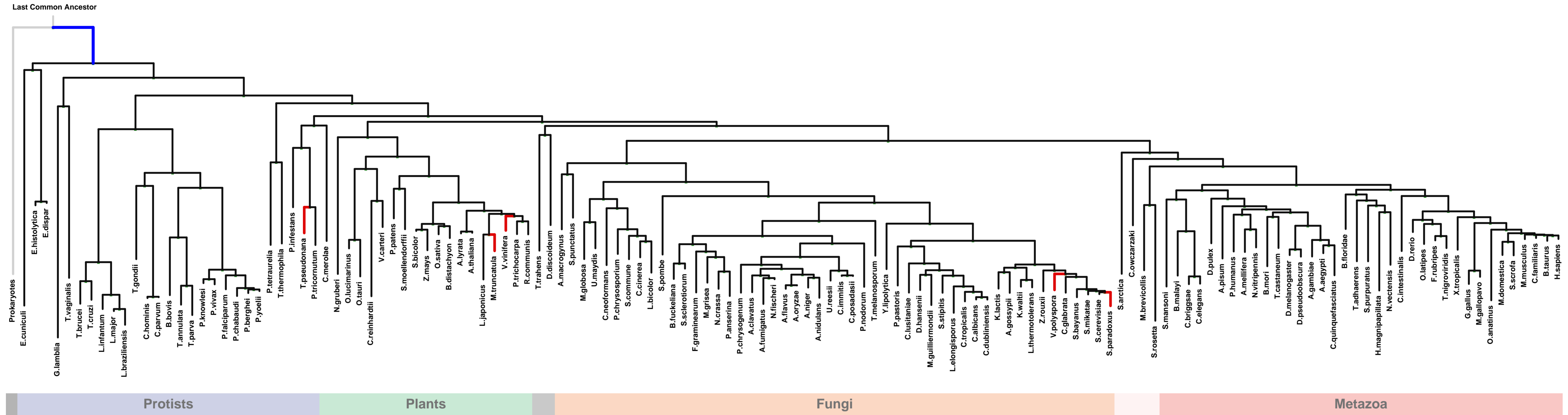
Notes

1/2
2/3/4

1: small nuclear ribonucleoprotein complex || 2: small nucleolar ribonucleoprotein complex || 3: catalytic step 2 spliceosome || 4: U5 snRNP

ECM 3, Gene set "small nucleolar ribonucleoprotein complex", Page 1

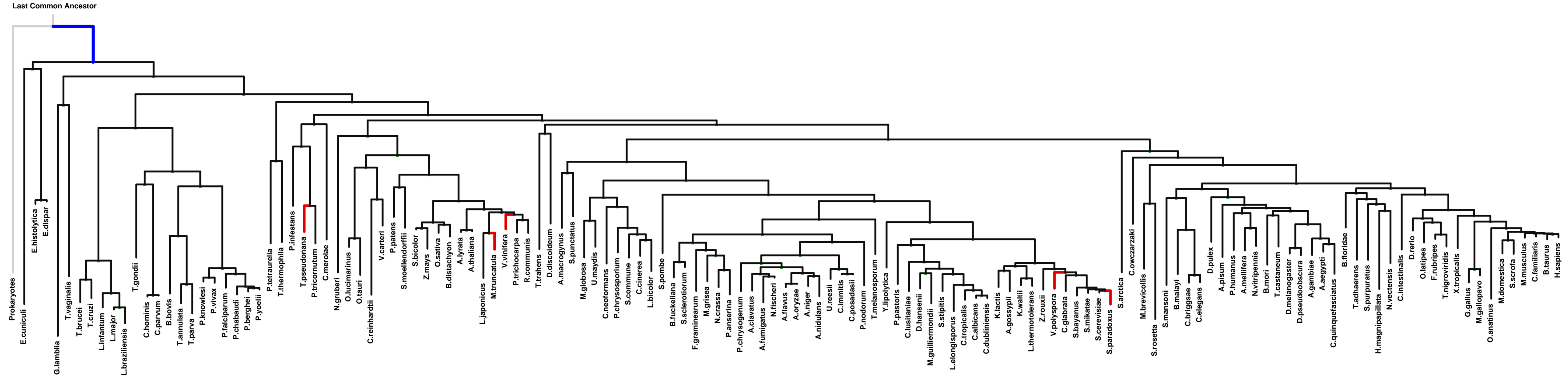
Num of ECM Genes: 1. Num of Predicted Genes: 36



1: chromosome || 2: small nucleolar ribonucleoprotein complex || 3: ubiquitin ligase complex || 4: intercellular canaliculus || 5: catalytic step 2 spliceosome || 6: nuclear speck || 7: U5 snRNP || 8: cilium || 9: cis-Golgi network || 10: endoplasmic reticulum-Golgi intermediate compartment || 11: cytoplasmic mRNA processing body || 12: ribonucleoprotein complex || 13: SCF ubiquitin ligase complex || 14: DNA replication factor C complex || 15: microtubule cytoskeleton || 16: nuclear replication fork || 17: PCNA-p21 complex || 18: small nuclear ribonucleoprotein complex || 19: spliceosomal complex || 20: PcG protein complex || 21: PRC1 complex || 22: sex chromatin || 23: eukaryotic translation initiation factor 2B complex ||

ECM 3, Gene set "small nucleolar ribonucleoprotein complex", Page 2

Num of ECM Genes: 1. Num of Predicted Genes: 36

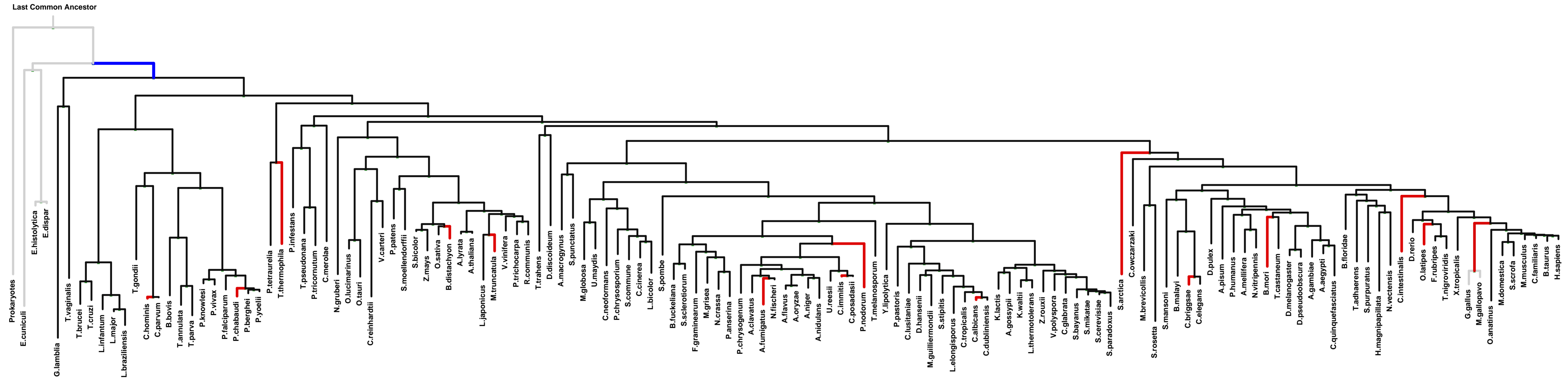


PG	Protein	Species	LLR	Notes
E	DNAH12	Prokaryotes	0.5	1/2
E	DNAH1	E. histolytica	0.5	1/2/3

1: cilium axoneme || 2: dynein complex || 3: axonemal dynein complex

ECM 4, Gene set "small nucleolar ribonucleoprotein complex", Page 1

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



Protists

Plants

Fungi

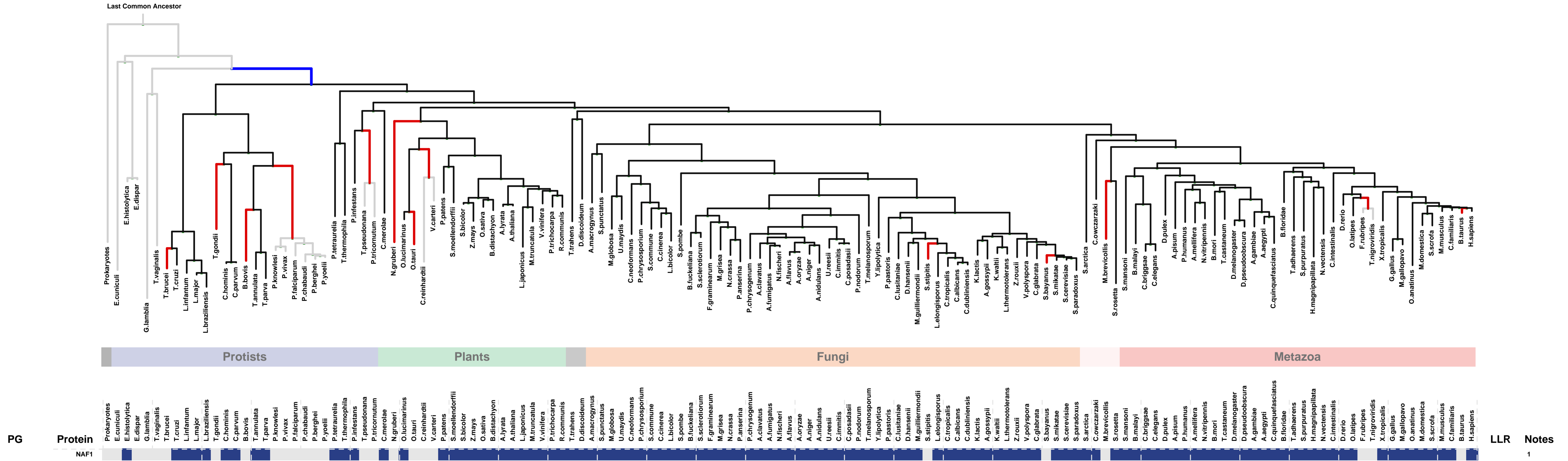
Metazoa

PG	Protein	LLR	Notes
A	NOP10	93.4	1: Cajal body 2: small nucleolar ribonucleoprotein complex
A	LOC100289143		

1: Cajal body || 2: small nucleolar ribonucleoprotein complex

ECM 5, Gene set "small nucleolar ribonucleoprotein complex", Page 1

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

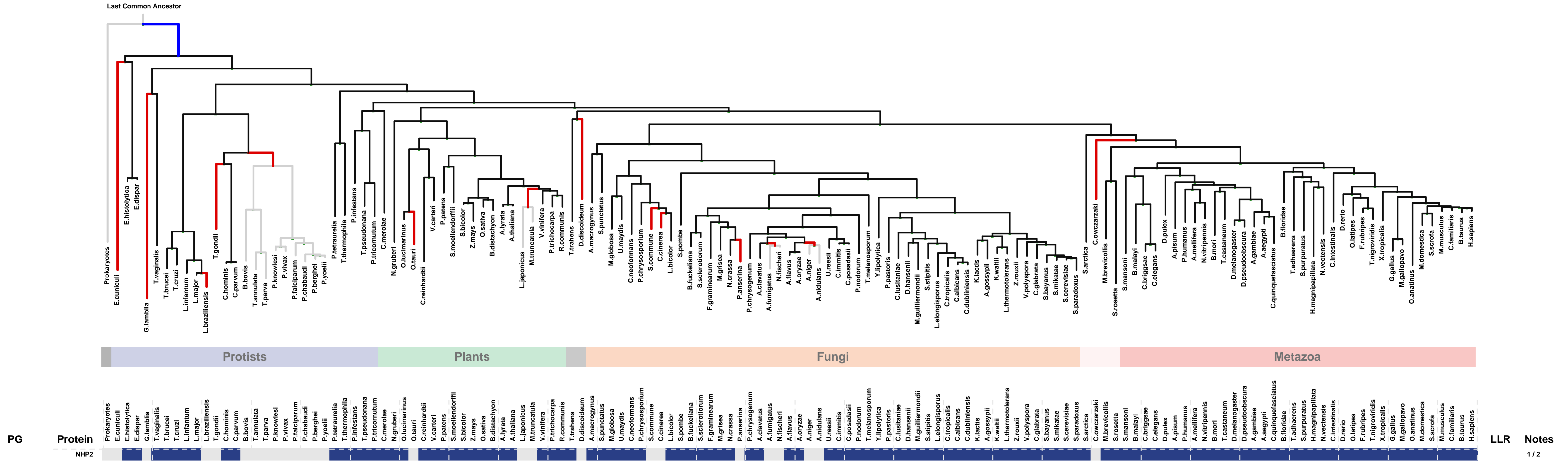


1: small nucleolar ribonucleoprotein complex

LLR Notes
1

ECM 6, Gene set "small nucleolar ribonucleoprotein complex", Page 1

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



1: Cajal body || 2: small nucleolar ribonucleoprotein complex