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:

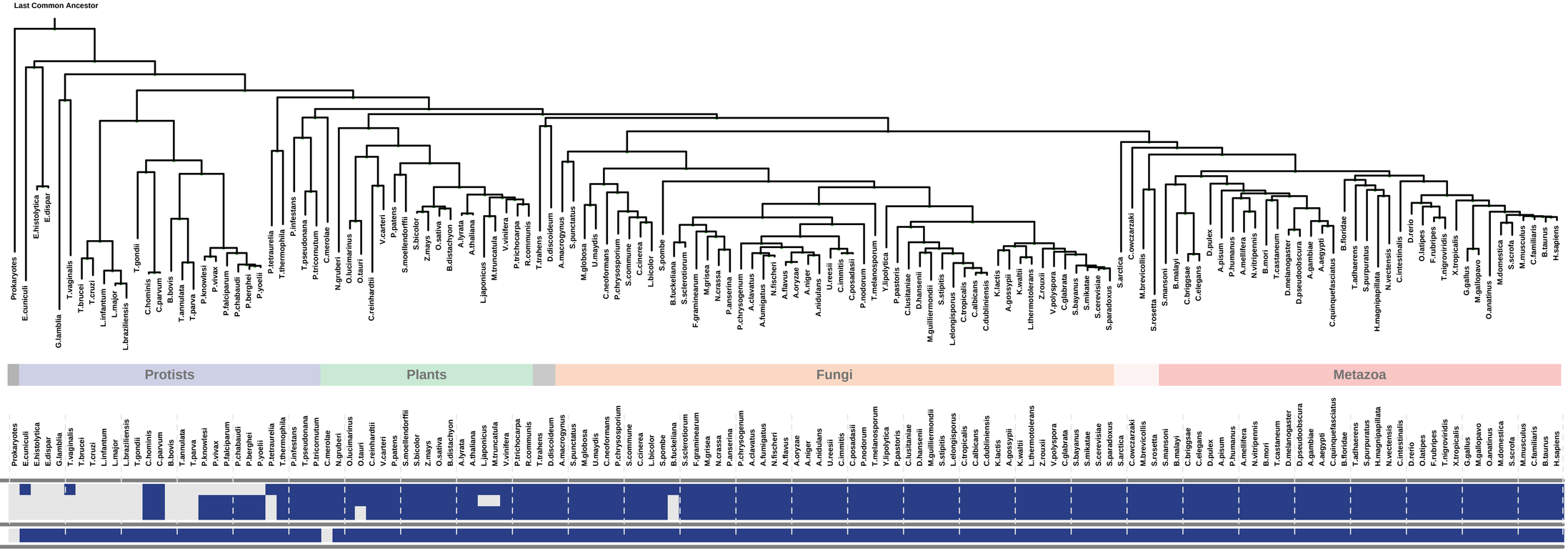
1) Overview of Evolutionarily Conserved Modules (ECMs)

- 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+

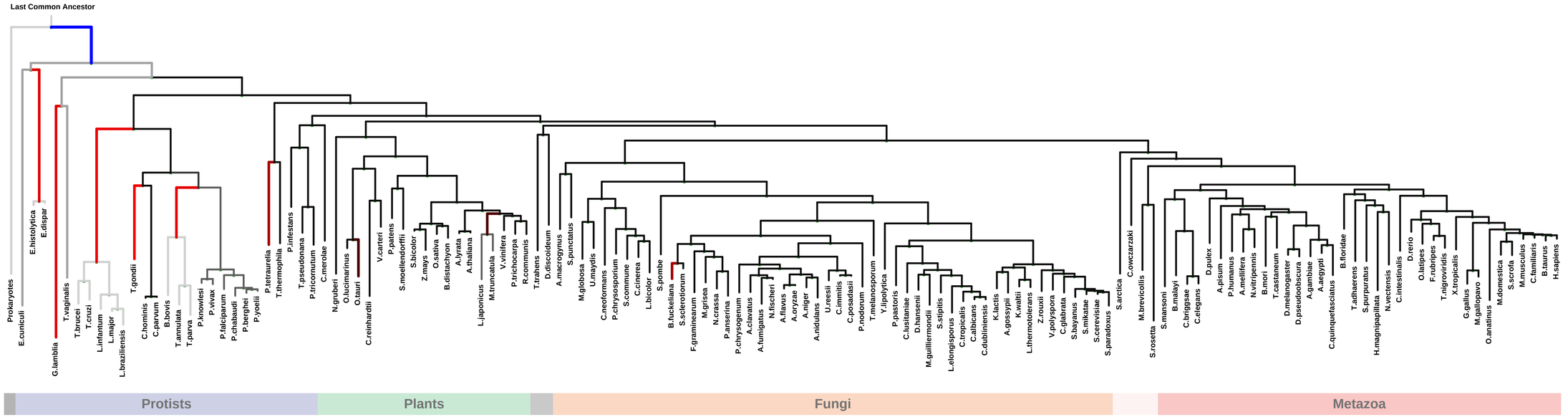
- Top panel shows the inferred evolutionary history on the predefined species tree. Branch color shows the gain event (blue) and loss events (red color, with brighter color indicating higher confidence in loss). Branches before the gain or after a loss are shown in gray.
- Bottom panel shows the input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

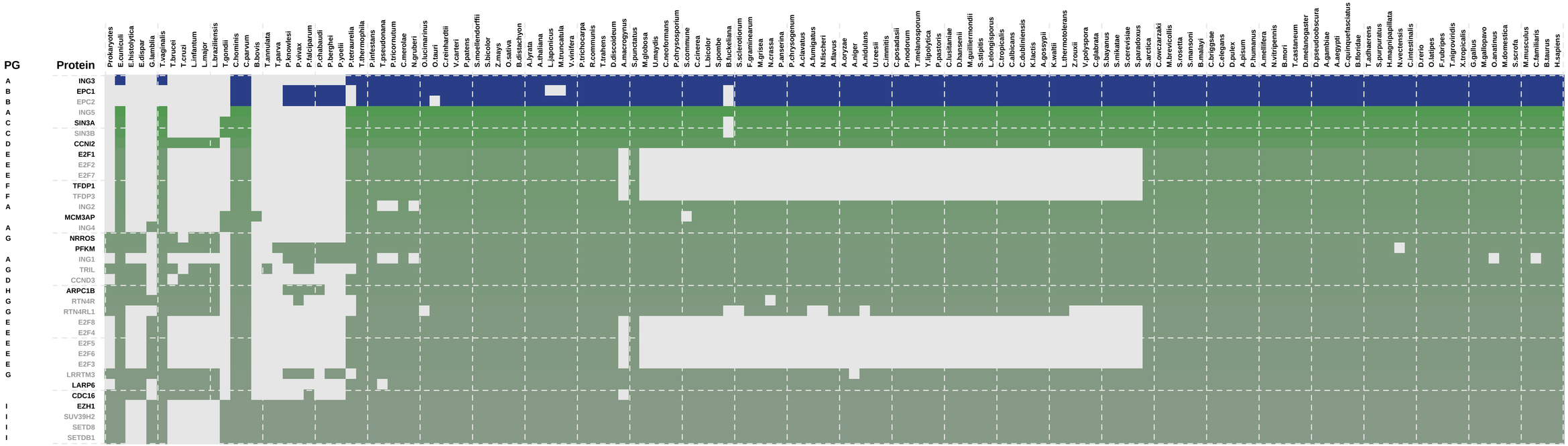
Overview of Evolutionarily Conserved Modules (ECMs)



ECM 1, Gene set "Piccolo NuA4 histone acetyltransferase complex", Page 1

Num of ECM Genes: 3. Num of Predicted Genes: 107. ECM Strength: 4.4

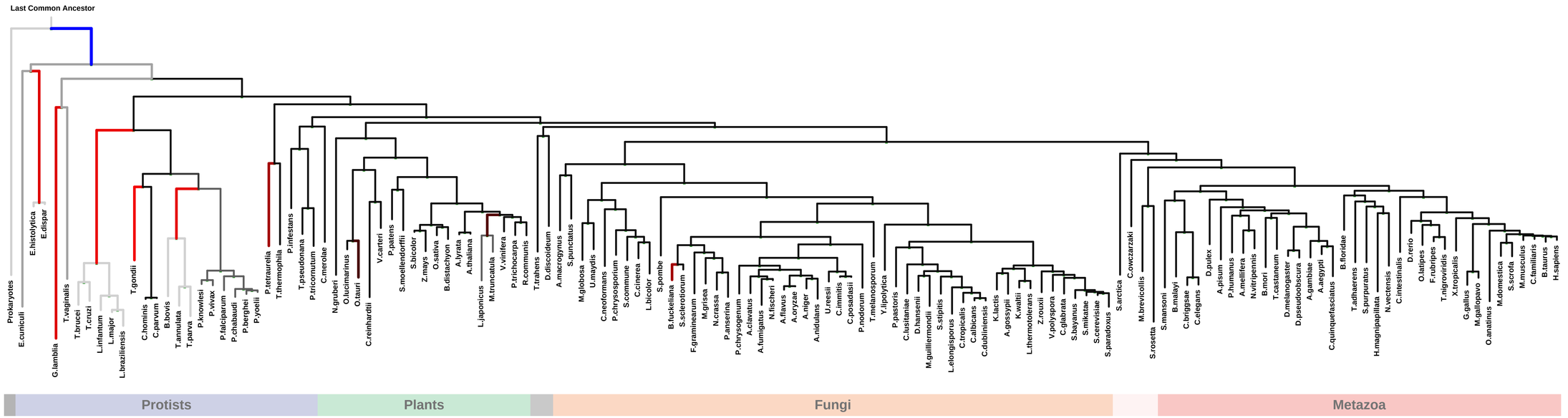


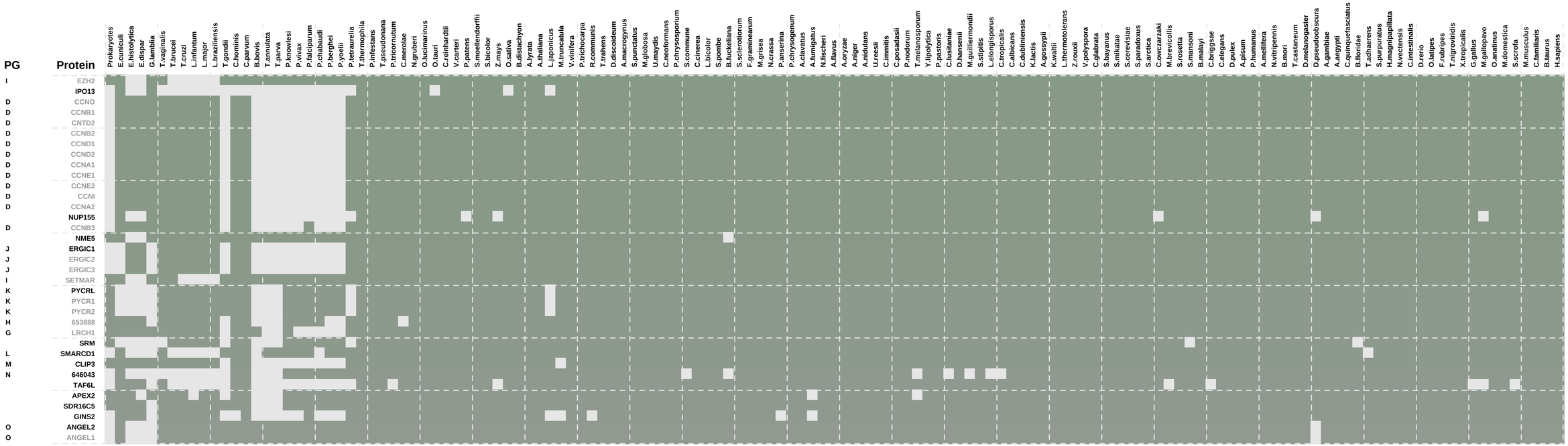


1: NuA4 histone acetyltransferase complex || 2: Piccolo NuA4 histone acetyltransferase complex || 3: nuclear membrane || 4: MOZ/MORF histone acetyltransferase complex || 5: kinetochore || 6: Sin3 complex || 7: transcriptional repressor complex ||
8: autosome || 9: X chromosome || 10: XY body || 11: Y chromosome || 12: Rb-E2F complex || 13: CCAAT-binding factor complex || 14: histone acetyltransferase complex || 15: 6-phosphofructokinase complex || 16: lipopolysaccharide receptor complex ||
17: cyclin-dependent protein kinase holoenzyme complex || 18: actin cytoskeleton || 19: Arp2/3 protein complex || 20: anchored to membrane || 21: anchored to plasma membrane || 22: external side of plasma membrane || 23: membrane raft ||

ECM 1, Gene set "Piccolo NuA4 histone acetyltransferase complex", Page 2

Num of ECM Genes: 3. Num of Predicted Genes: 107. ECM Strength: 4.4



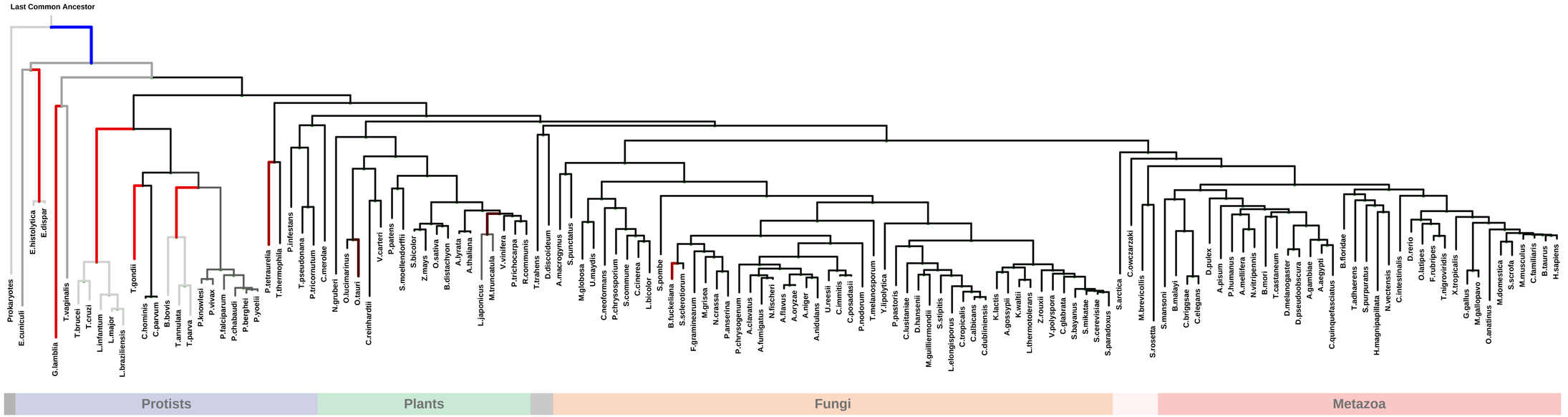


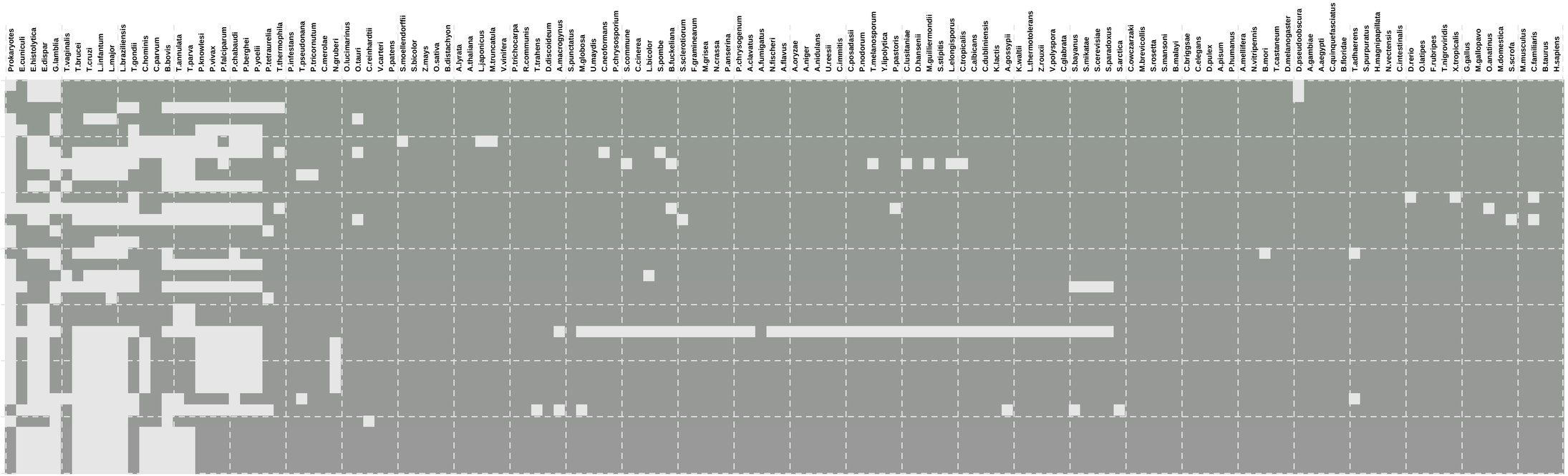
1: ESC/E(Z) complex || 2: pronucleus || 3: nuclear pore || 4: condensed nuclear chromosome outer kinetochore || 5: spindle pole || 6: microtubule cytoskeleton || 7: cyclin-dependent protein kinase holoenzyme complex || 8: chromatin ||
9: nuclear membrane || 10: female pronucleus || 11: male pronucleus || 12: nuclear envelope || 13: endoplasmic reticulum-Golgi intermediate compartment || 14: endoplasmic reticulum-Golgi intermediate compartment membrane || 15: chromosome ||
16: chromatin remodeling complex || 17: nBAF complex || 18: npBAF complex || 19: SWI/SNF complex || 20: early endosome membrane || 21: Golgi stack || 22: membrane raft || 23: recycling endosome membrane || 24: trans-Golgi network ||

ECM 1, Gene set "Piccolo NuA4 histone acetyltransferase complex", Page 3

Num of ECM Genes: 3. Num of Predicted Genes: 107. ECM Strength: 4.4

PRESENCE ABSENCE
GAIN LOSS
Log-likelihood Ratio Scale
0 10 20 30 40 50 60

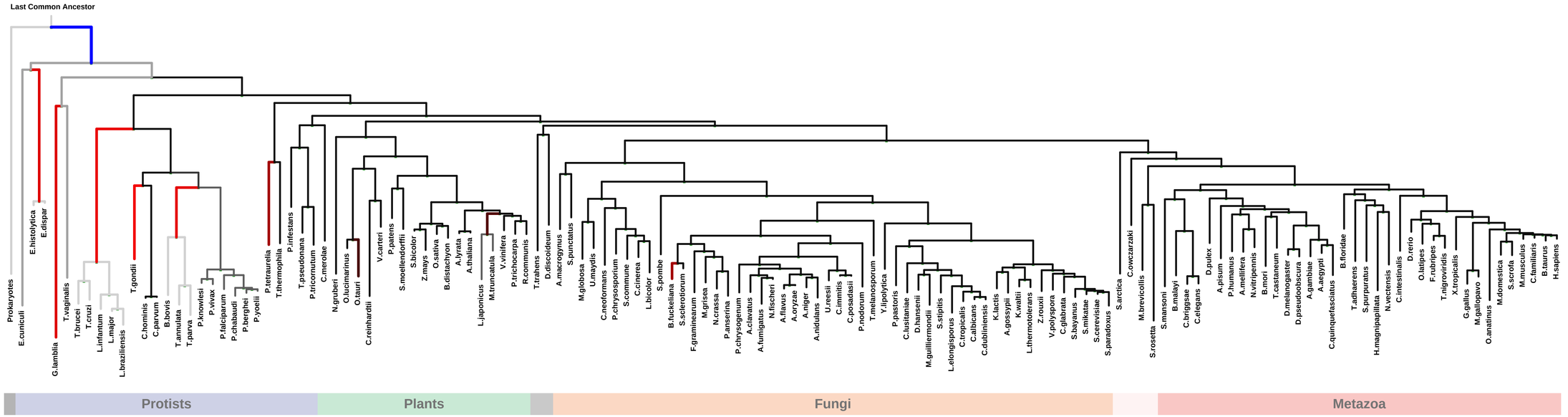


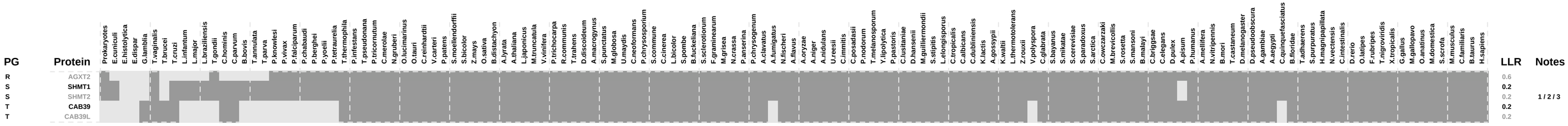


1: spindle || 2: lysosomal membrane || 3: spliceosomal complex || 4: Cdc73/Paf1 complex || 5: peroxisome || 6: mRNA cleavage and polyadenylation specificity factor complex || 7: microtubule associated complex || 8: nBAF complex ||
9: npBAF complex || 10: nuclear chromatin || 11: SWI/SNF complex || 12: Ada2/Gcn5/Ada3 transcription activator complex || 13: epsilon DNA polymerase complex || 14: histone methyltransferase complex || 15: nuclear matrix ||
16: ribonucleoprotein complex || 17: mitochondrial outer membrane || 18: chromosome, centromeric region || 19: M band || 20: protein phosphatase type 2A complex || 21: cytoplasmic membrane-bounded vesicle || 22: transcriptional repressor complex

ECM 1, Gene set "Piccolo NuA4 histone acetyltransferase complex", Page 4

Num of ECM Genes: 3. Num of Predicted Genes: 107. ECM Strength: 4.4

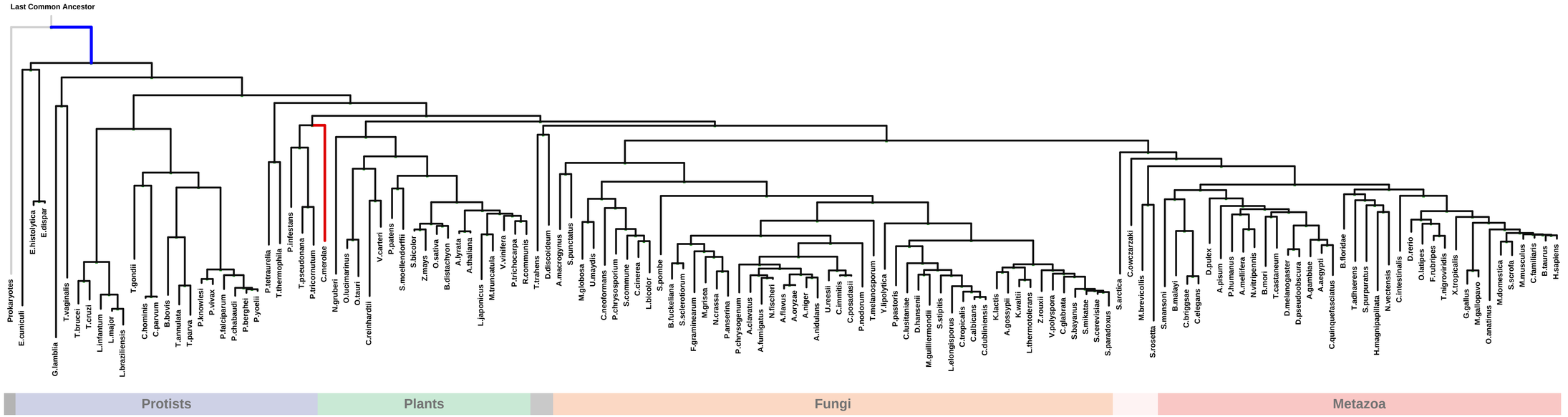


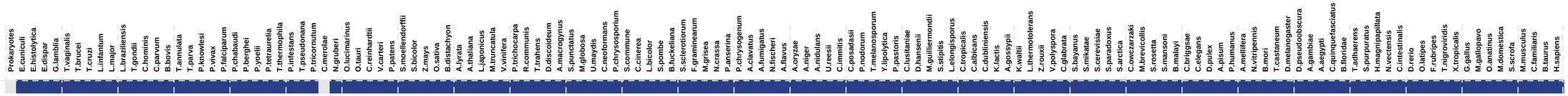


1: microtubule cytoskeleton || 2: mitochondrial intermembrane space || 3: mitochondrial nucleoid

ECM 2, Gene set "Piccolo NuA4 histone acetyltransferase complex", Page 1

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





1: NuA4 histone acetyltransferase complex || 2: Piccolo NuA4 histone acetyltransferase complex