

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:

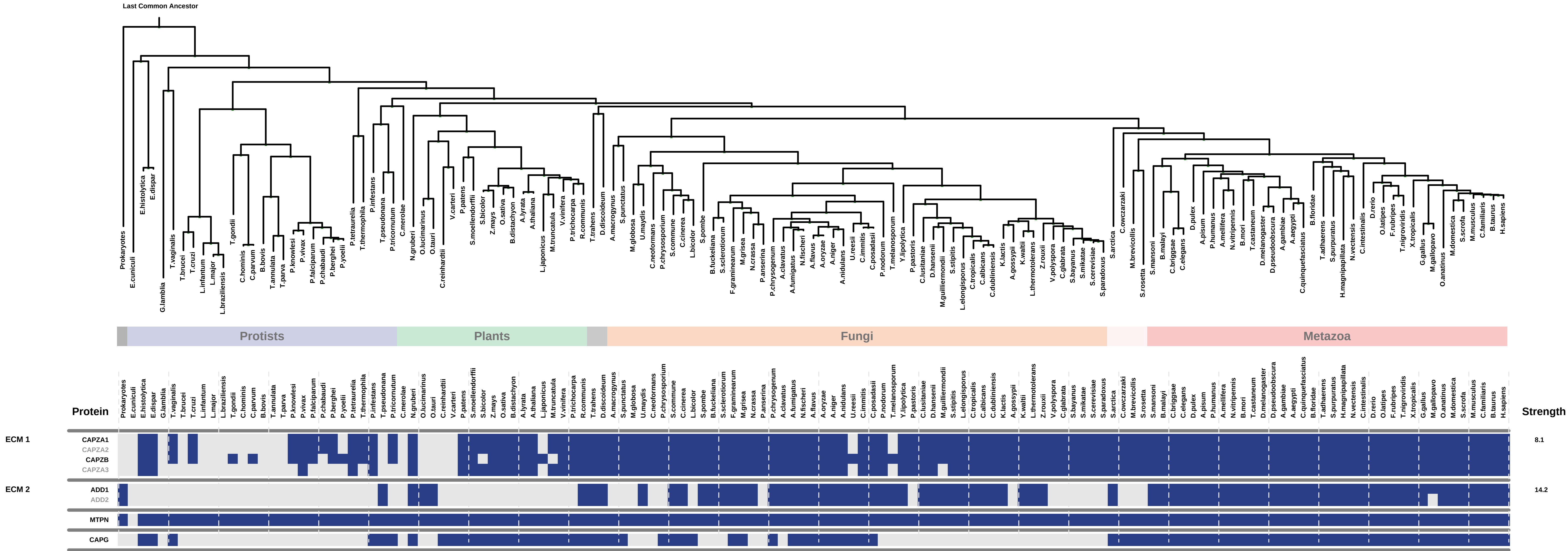
1) Overview of Evolutionarily Conserved Modules (ECMs)

- 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 $E < 1e-3$).

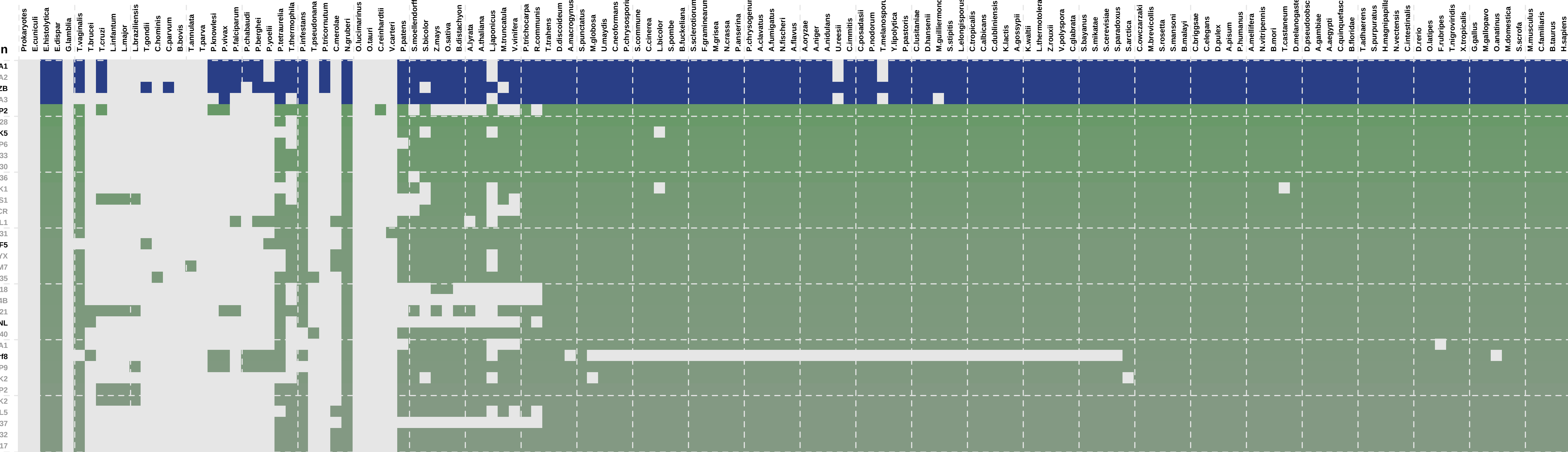
2) Details of each ECM and its expansion ECM+

- 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)

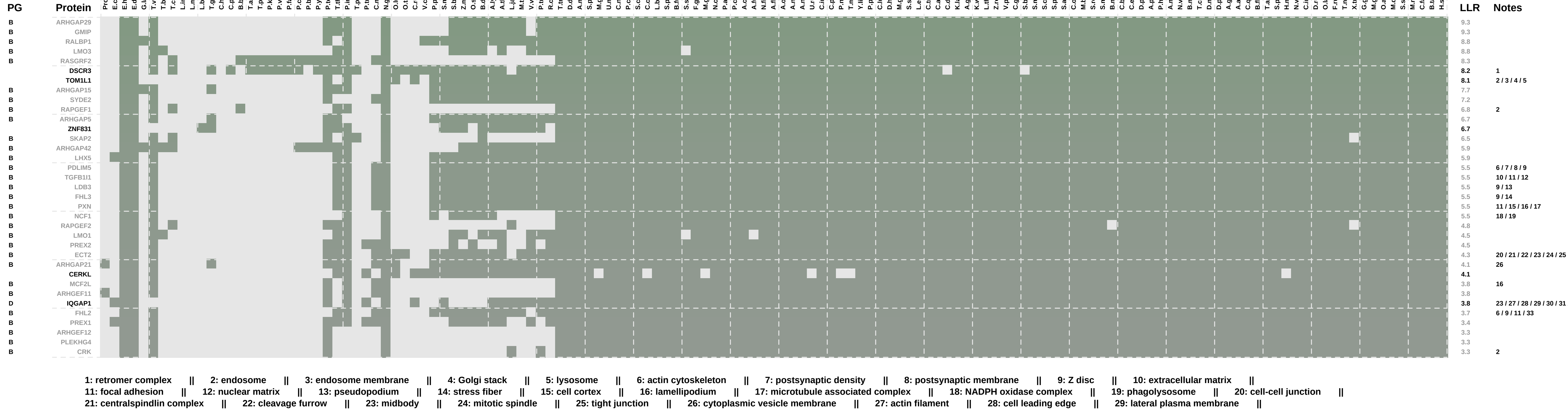


Num of ECM Genes: 4. Num of Predicted Genes: 112. ECM Strength: 8.1

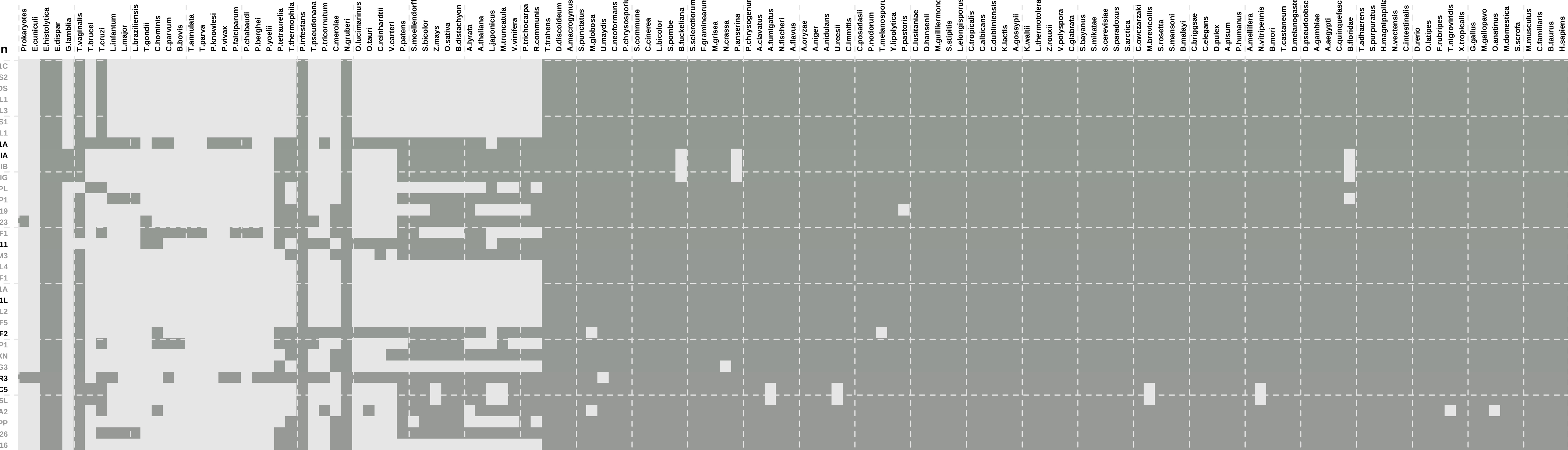


1: actin cytoskeleton || 2: F-actin capping protein complex || 3: WASH complex || 4: cortical cytoskeleton || 5: lamellipodium || 6: acrosomal vesicle || 7: neuron projection || 8: ruffle membrane || 9: synapse || 10: actin filament ||
11: cytoplasmic membrane-bounded vesicle || 12: cell-cell adherens junction || 13: cell-substrate adherens junction || 14: focal adhesion || 15: insulin receptor complex || 16: membrane raft || 17: stress fiber || 18: zonula adherens ||
19: ruffle || 20: cell cortex || 21: postsynaptic density || 22: endomembrane system || 23: phagocytic vesicle || 24: postsynaptic membrane || 25: vesicle membrane || 26: endosome membrane || 27: tight junction

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1: actin cytoskeleton

11: focal adhesion

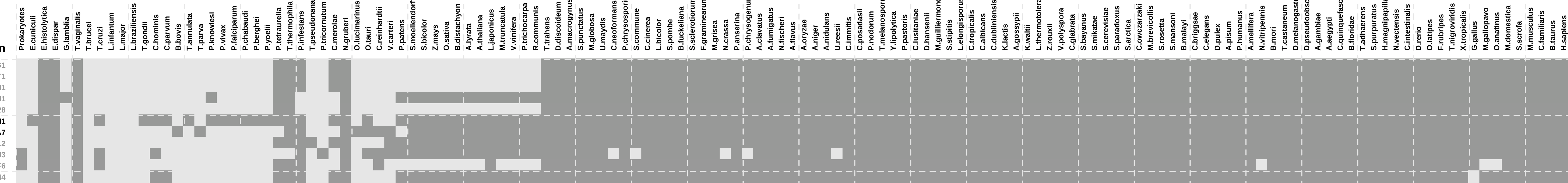
osome

14: endosome m

ane

16: ruffle

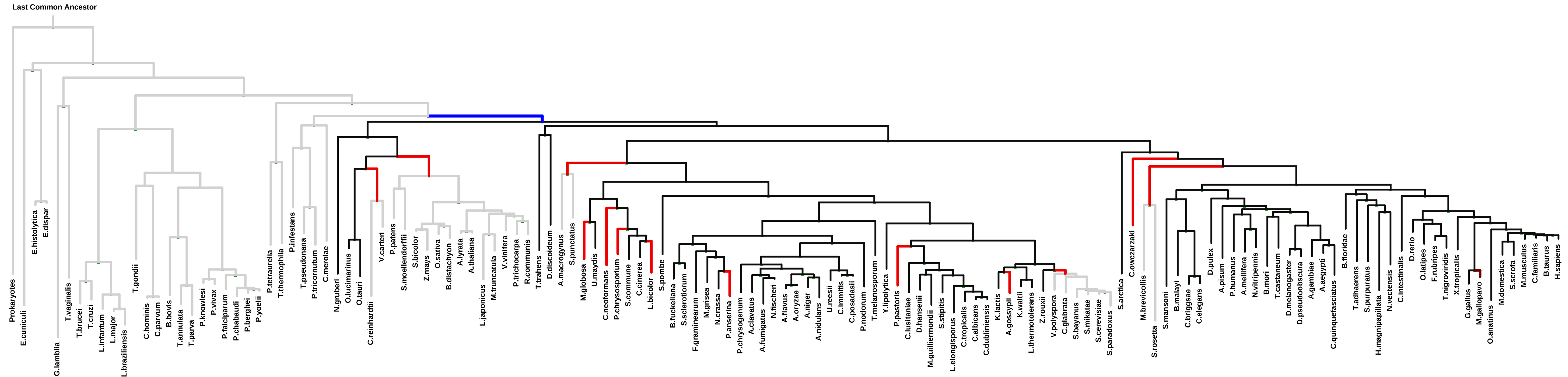
Num of ECM Genes: 4. Num of Predicted Genes: 112. ECM Strength: 8.1



1: cell-cell junction || 2: actin cytoskeleton || 3: dendritic spine || 4: terminal button || 5: microtubule cytoskeleton || 6: nuclear body || 7: nuclear matrix || 8: transcriptional repressor complex || 9: clathrin adaptor complex

ECM 2, Gene set "F-actin capping protein complex", Page 1

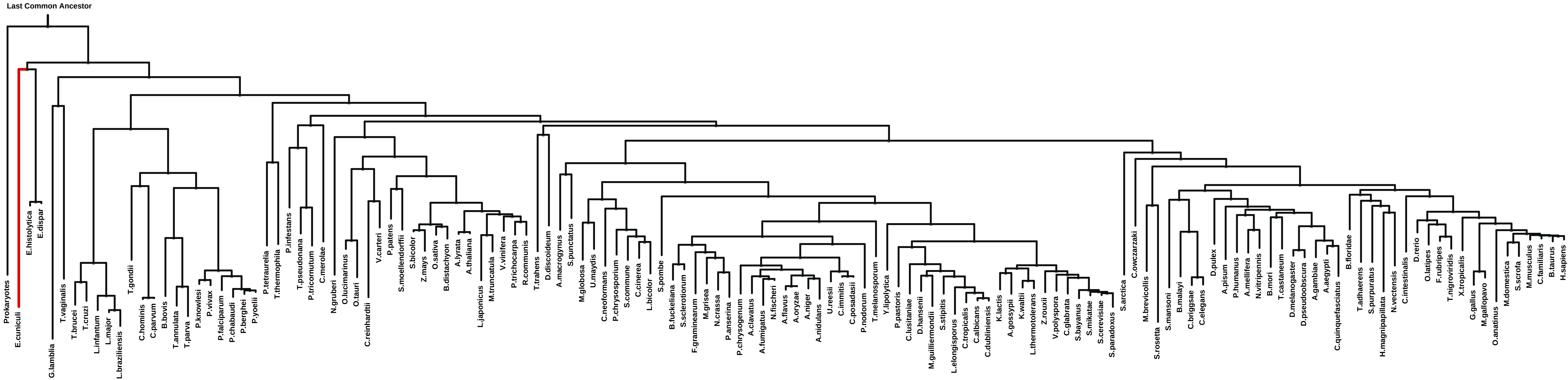
Num of ECM Genes: 2. Num of Predicted Genes: 2. ECM Strength: 14.2

[illegible]

1: dendritic spine || 2: F-actin capping protein complex || 3: synapse || 4: cell cortex || 5: cell-cell junction || 6: condensed nuclear chromosome || 7: endoplasmic reticulum lumen || 8: lysosomal lumen || 9: lysosome

ECM 3, Gene set "F-actin capping protein complex", Page 1

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



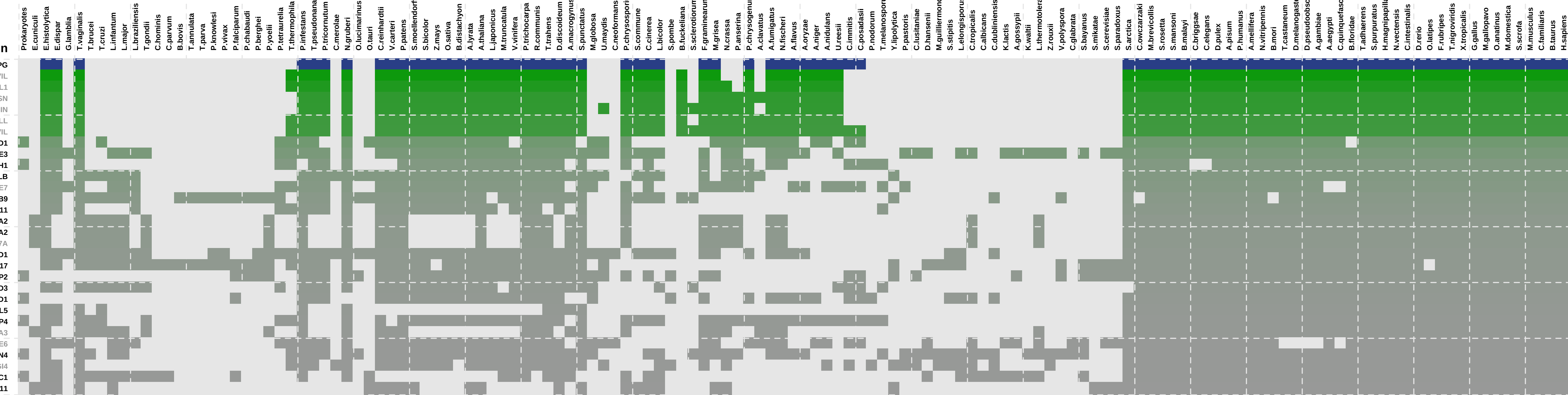
PG

Protein	Protists	Plants	Fungi	Metazoa
MTPN				

LLR Notes

1: axon || 2: F-actin capping protein complex

Num of ECM Genes: 1. Num of Predicted Genes: 29



1: F-actin capping protein complex || 2: melanosome || 3: nuclear membrane || 4: actin cytoskeleton || 5: costamere || 6: invadopodium || 7: podosome || 8: actin filament bundle || 9: filopodium || 10: filopodium tip || 11: lamellipodium || 12: microvillus || 13: ruffle || 14: cell cortex || 15: axon || 16: cell projection || 17: neuron projection || 18: lysosome || 19: basolateral plasma membrane || 20: nuclear pore || 21: extrinsic to membrane || 22: focal adhesion || 23: ruffle membrane || 24: ribonucleoprotein complex || 25: spindle microtubule || 26: dendrite || 27: basement membrane || 28: extracellular matrix || 29: laminin-1 complex || 30: laminin-10 complex || 31: laminin-11 complex || 32: chromosome