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:

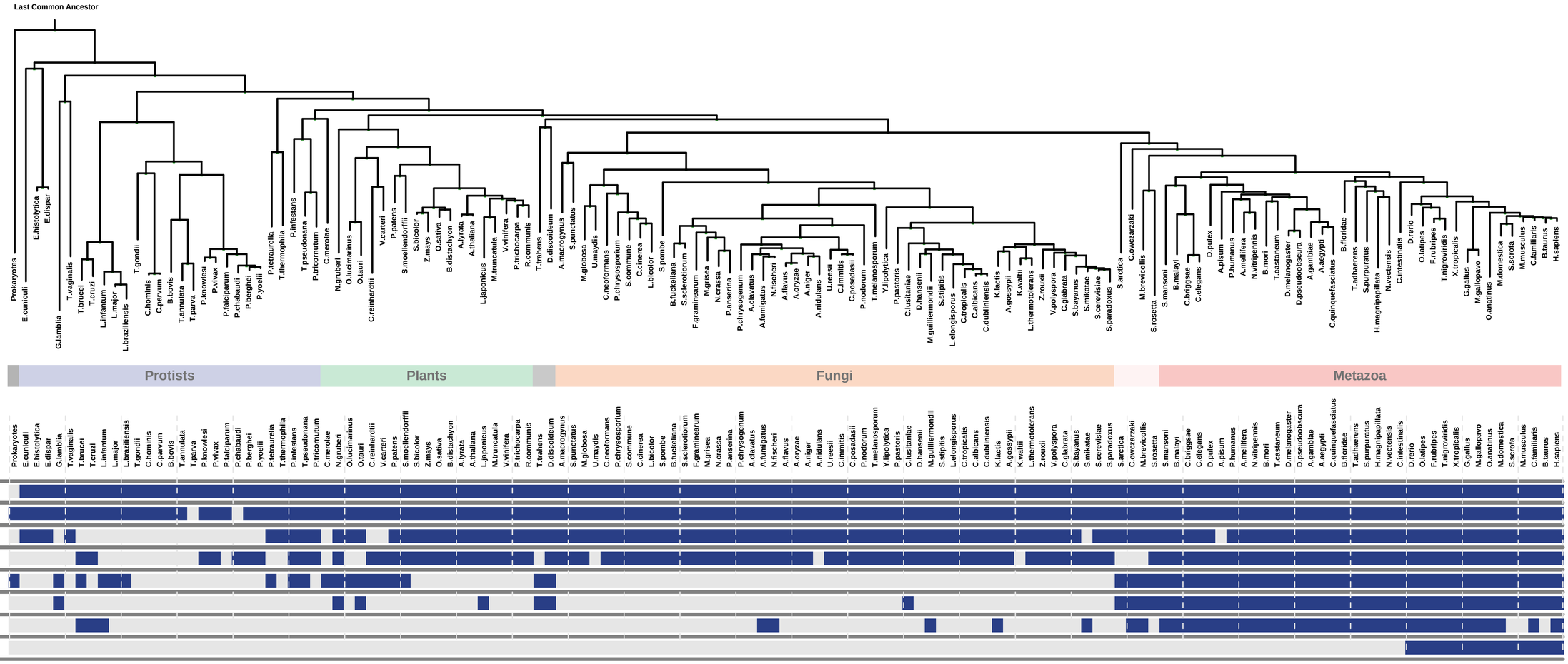
1) Overview of Evolutionarily Conserved Modules (ECMs)

- 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+

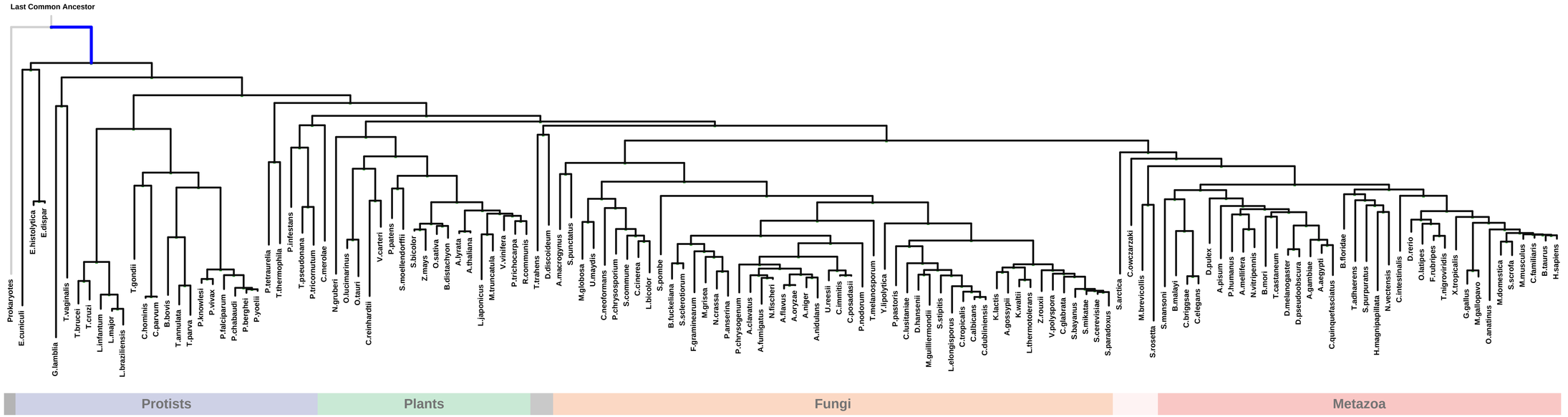
- Top panel shows the inferred evolutionary history on the predefined species tree. Branch color shows the gain event (blue) and loss events (red color, with brighter color indicating higher confidence in loss). Branches before the gain or after a loss are shown in gray.
- Bottom panel shows the input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



ECM 1, Gene set "hemidesmosome", Page 1

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

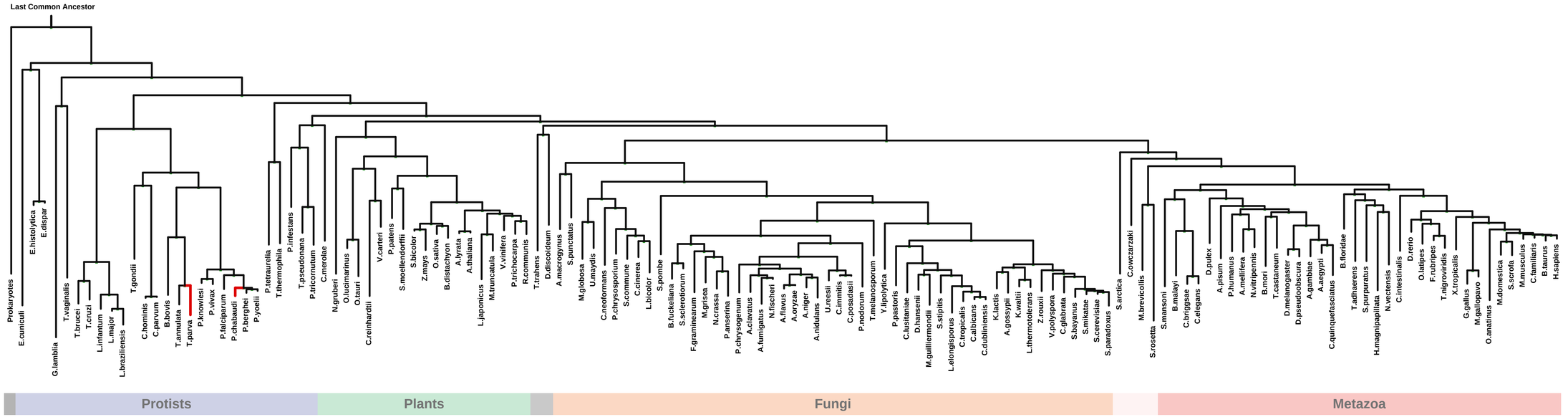


PG	Protein	LLR	Notes
	ACTR3		1 / 2 / 3 / 4 / 5 / 6 / 7

1: actin cytoskeleton || 2: actin filament || 3: Arp2/3 protein complex || 4: excitatory synapse || 5: hemidesmosome || 6: lamellipodium || 7: podosome

ECM 2, Gene set "hemidesmosome", Page 1

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

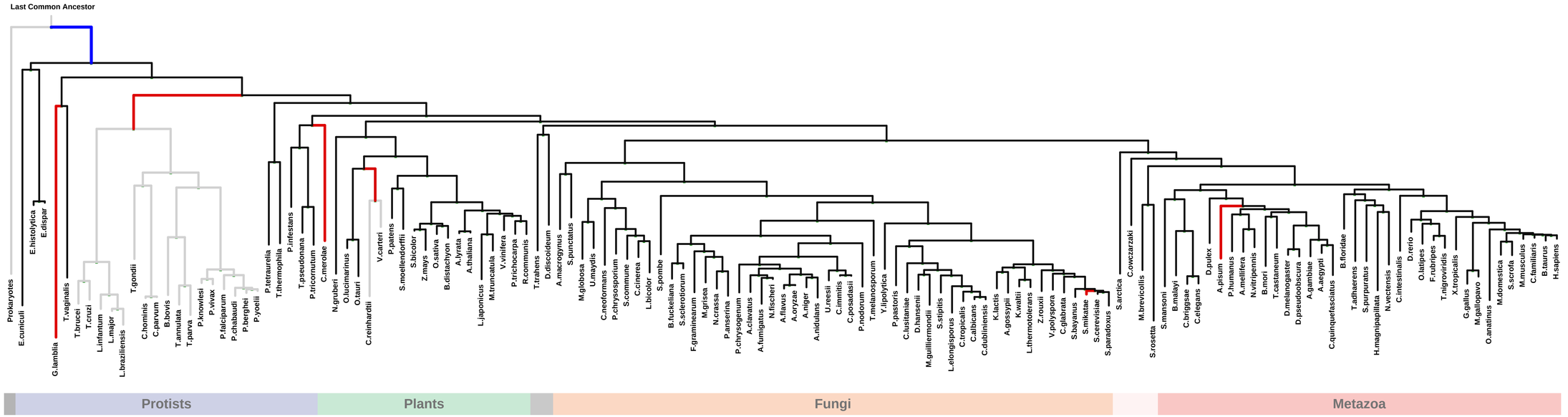


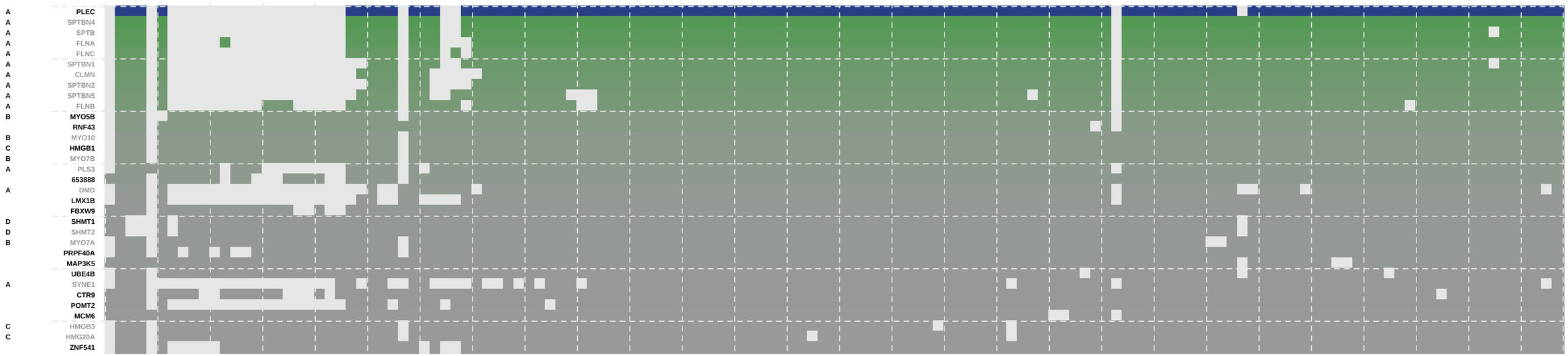
PG	Protein	LLR	Notes
	ERBB2IP		

1: basal plasma membrane || 2: basement membrane || 3: hemidesmosome || 4: nuclear membrane

ECM 3, Gene set "hemidesmosome", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 32

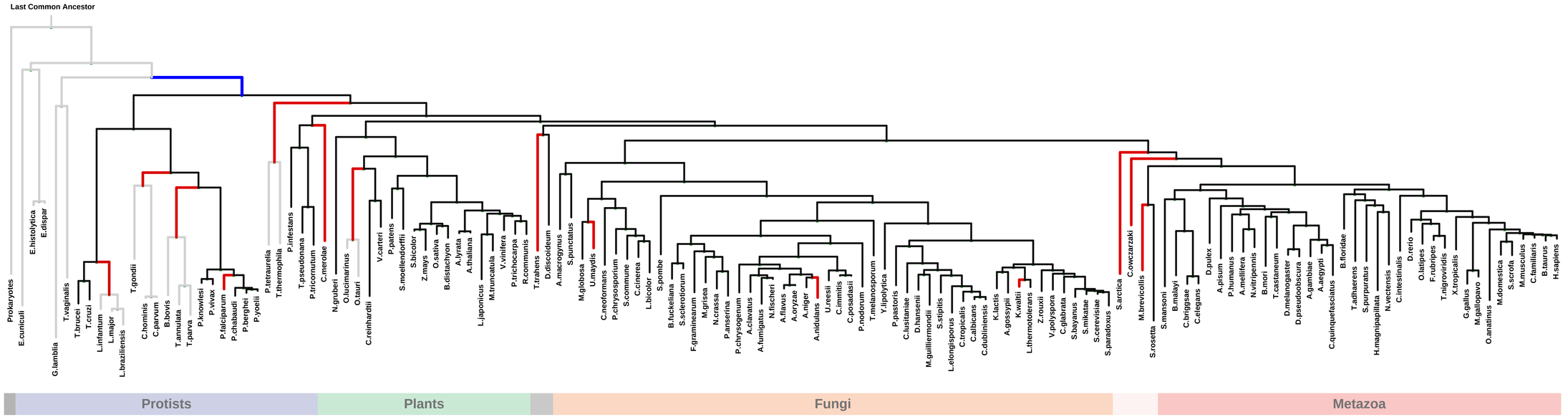


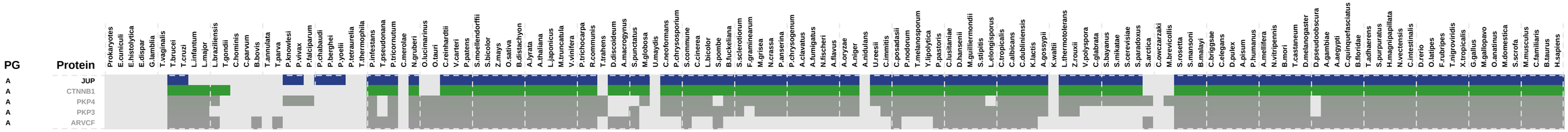


1: costamere || 2: focal adhesion || 3: hemidesmosome || 4: intermediate filament cytoskeleton || 5: sarcolemma || 6: sarcoplasm || 7: adherens junction || 8: axon hillock || 9: axon initial segment || 10: cell body fiber ||
11: node of Ranvier || 12: nuclear matrix || 13: PML body || 14: spectrin || 15: actin cytoskeleton || 16: intrinsic to internal side of plasma membrane || 17: spectrin-associated cytoskeleton || 18: cell cortex || 19: Myb complex ||
20: trans-Golgi network || 21: Z disc || 22: cuticular plate || 23: M band || 24: stress fiber || 25: cytoplasmic vesicle membrane || 26: dendritic spine || 27: myosin complex || 28: nuclear envelope || 29: filopodium membrane ||
30: filopodium tip || 31: lamellipodium || 32: neuron projection || 33: ruffle || 34: condensed chromosome || 35: transcriptional repressor complex || 36: cell-substrate junction || 37: dystrophin-associated glycoprotein complex ||
38: membrane raft || 39: neuron projection terminus || 40: postsynaptic membrane || 41: microtubule cytoskeleton || 42: mitochondrial intermembrane space || 43: mitochondrial nucleoid || 44: lysosomal membrane || 45: melanosome ||

ECM 4, Gene set "hemidesmosome", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 4

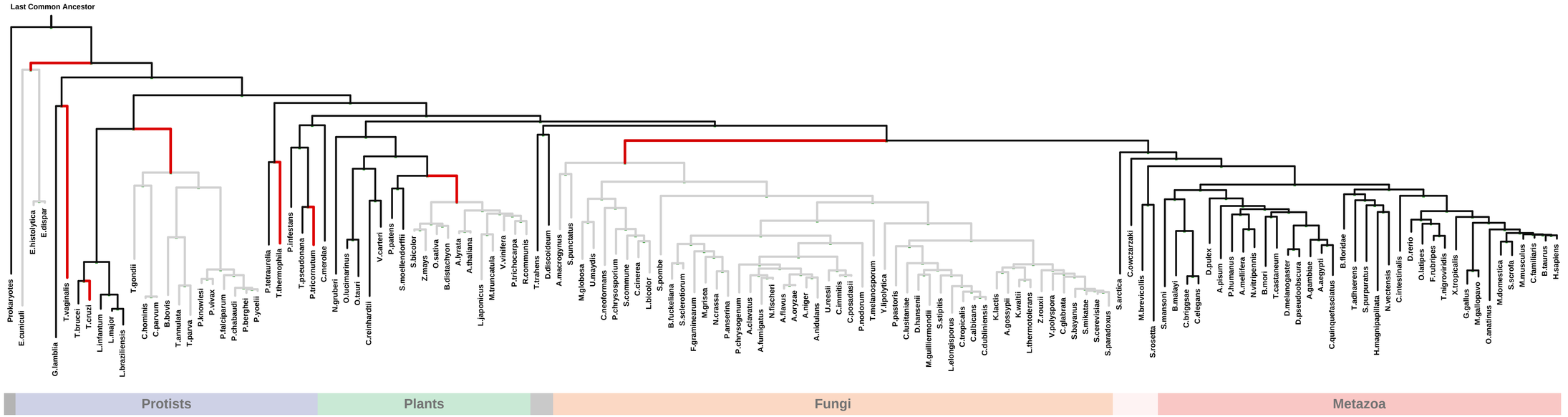


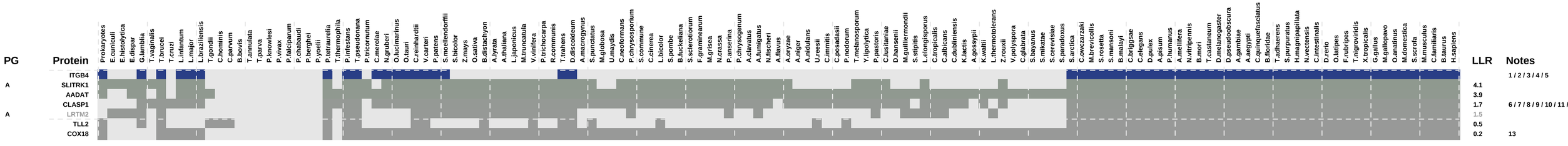


1: actin cytoskeleton || 2: apicolateral plasma membrane || 3: basolateral plasma membrane || 4: catenin complex || 5: cell-cell adherens junction || 6: cell-cell junction || 7: desmosome || 8: fascia adherens || 9: hemidesmosome ||
10: intercalated disc || 11: internal side of plasma membrane || 12: lateral plasma membrane || 13: protein-DNA complex || 14: Z disc || 15: zonula adherens || 16: adherens junction || 17: apical part of cell || 18: beta-catenin destruction complex ||
19: beta-catenin-TCF7L2 complex || 20: cell cortex || 21: cell periphery || 22: cell-substrate adherens junction || 23: dendritic shaft || 24: lamellipodium || 25: microvillus membrane || 26: Scrib-APC-beta-catenin complex || 27: spindle pole ||
28: synapse || 29: midbody || 30: mitotic spindle || 31: spindle midzone

ECM 5, Gene set "hemidesmosome", Page 1

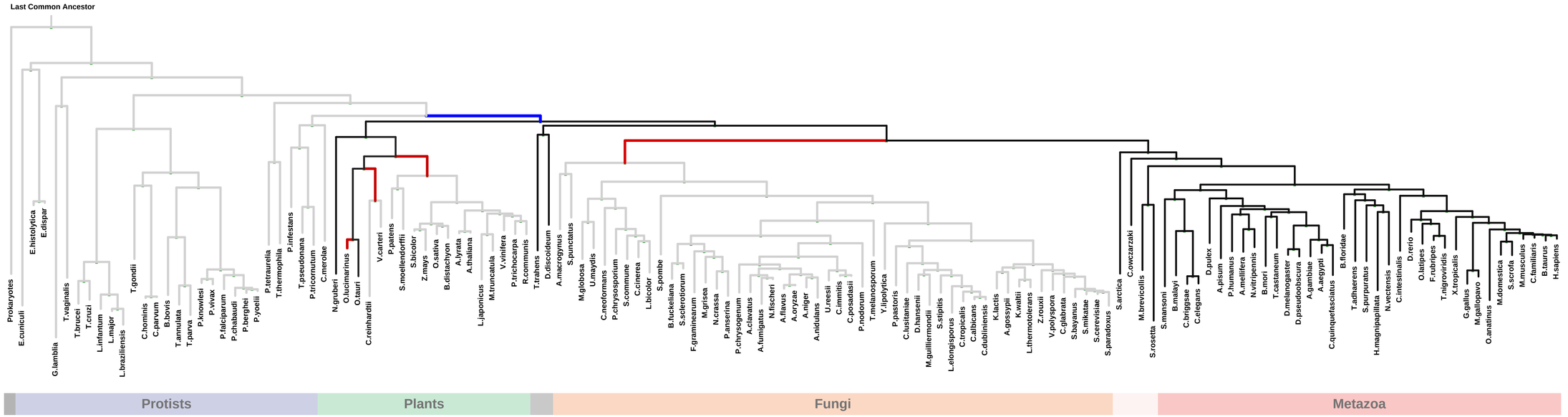
Num of ECM Genes: 1. Num of Predicted Genes: 6

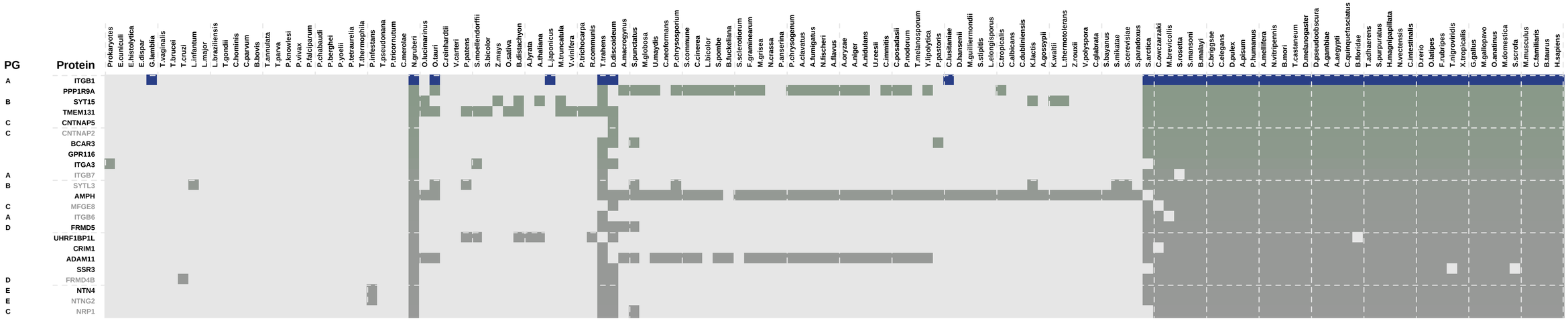




ECM 6, Gene set "hemidesmosome", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 22

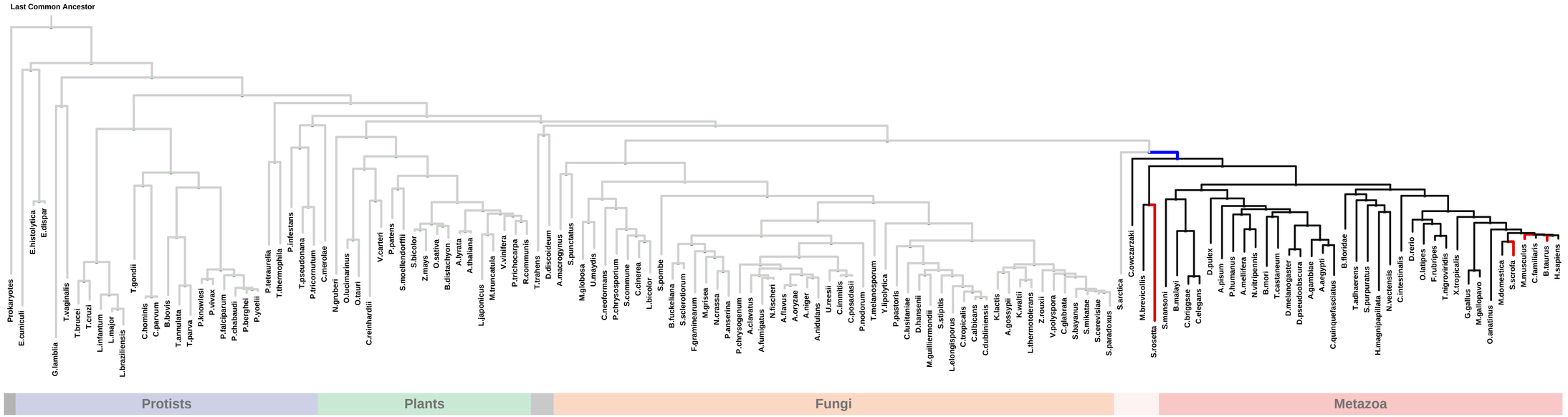




1: acrosomal vesicle || 2: alpha8-beta1 integrin complex || 3: alpha9-beta1 integrin complex || 4: basement membrane || 5: cleavage furrow || 6: external side of plasma membrane || 7: focal adhesion || 8: hemidesmosome ||
9: integrin complex || 10: intercalated disc || 11: melanosome || 12: membrane raft || 13: myelin sheath abaxonal region || 14: neuromuscular junction || 15: ruffle || 16: ruffle membrane || 17: sarcolemma || 18: neuron projection ||
19: synapse || 20: axolemma || 21: axon || 22: dendrite || 23: early endosome || 24: juxtaparanode region of axon || 25: perikaryon || 26: voltage-gated potassium channel complex || 27: basolateral plasma membrane ||
28: endomembrane system || 29: actin cytoskeleton || 30: axon terminus || 31: synaptic vesicle || 32: synaptic vesicle membrane || 33: extracellular matrix || 34: extrinsic to plasma membrane || 35: extrinsic to membrane ||
36: integral to endoplasmic reticulum membrane || 37: Sec61 translocon complex || 38: anchored to plasma membrane || 39: cytoplasmic vesicle || 40: growth cone || 41: neurofilament || 42: receptor complex || 43: semaphorin receptor complex

ECM 7, Gene set "hemidesmosome", Page 1

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



1: actin cytoskeleton || 2: axon || 3: axon part || 4: basal plasma membrane || 5: basement membrane || 6: cell cortex || 7: cell leading edge || 8: cytoplasmic membrane-bounded vesicle || 9: H zone || 10: hemidesmosome ||
11: intermediate filament || 12: intermediate filament cytoskeleton || 13: microtubule cytoskeleton || 14: microtubule plus end || 15: nuclear envelope || 16: Z disc

ECM 8, Gene set "hemidesmosome", Page 1

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

1: basement membrane || 2: cell-cell junction || 3: collagen || 4: endoplasmic reticulum lumen || 5: hemidesmosome