

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:

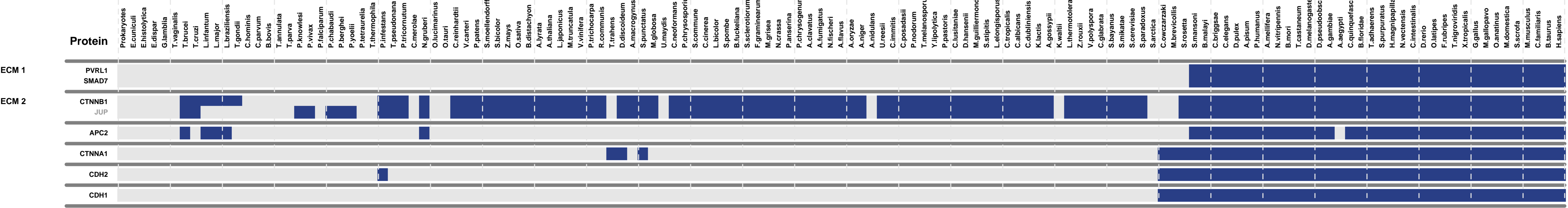
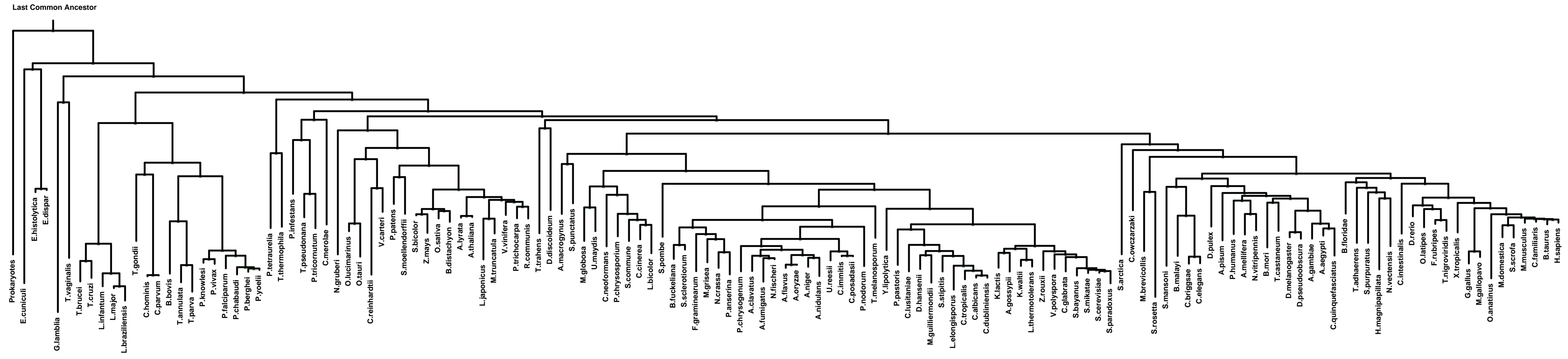
1) Overview of Evolutionarily Conserved Modules (ECMs)

- 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+

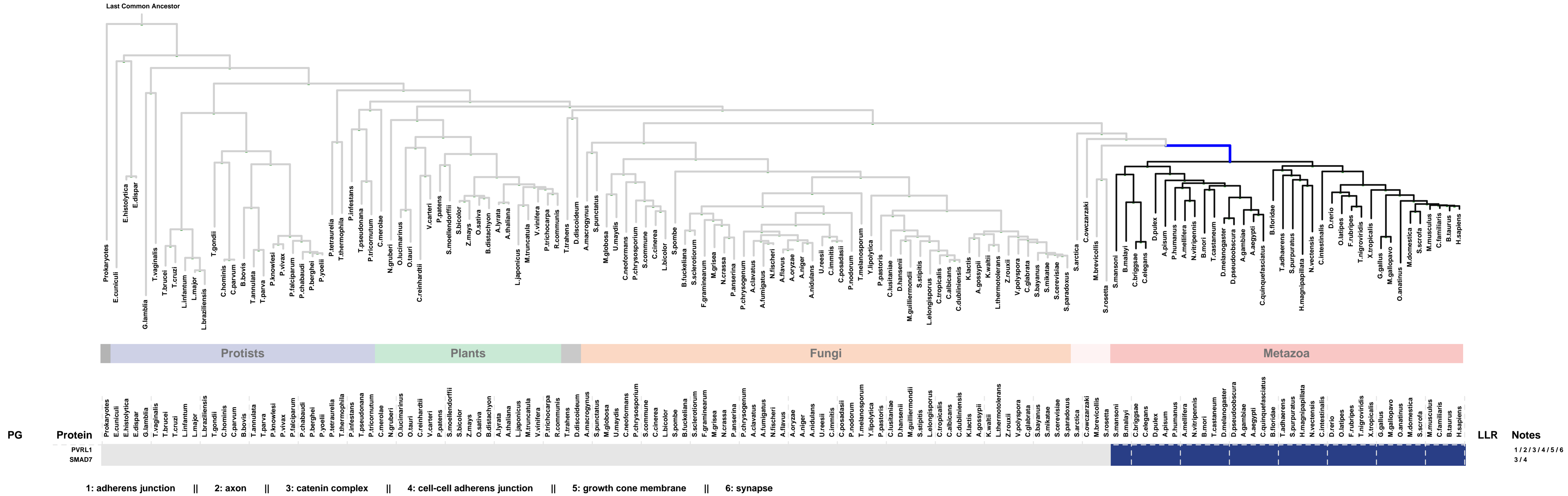
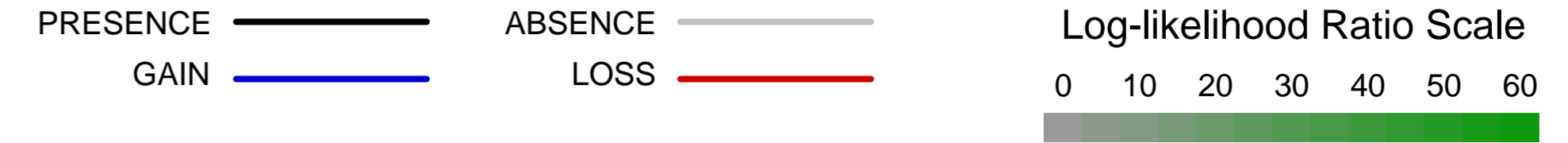
- Top panel shows the inferred evolutionary history on the predefined species tree. Branch color shows the gain event (blue) and loss events (red color, with brighter color indicating higher confidence in loss). Branches before the gain or after a loss are shown in gray.
- Bottom panel shows the input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



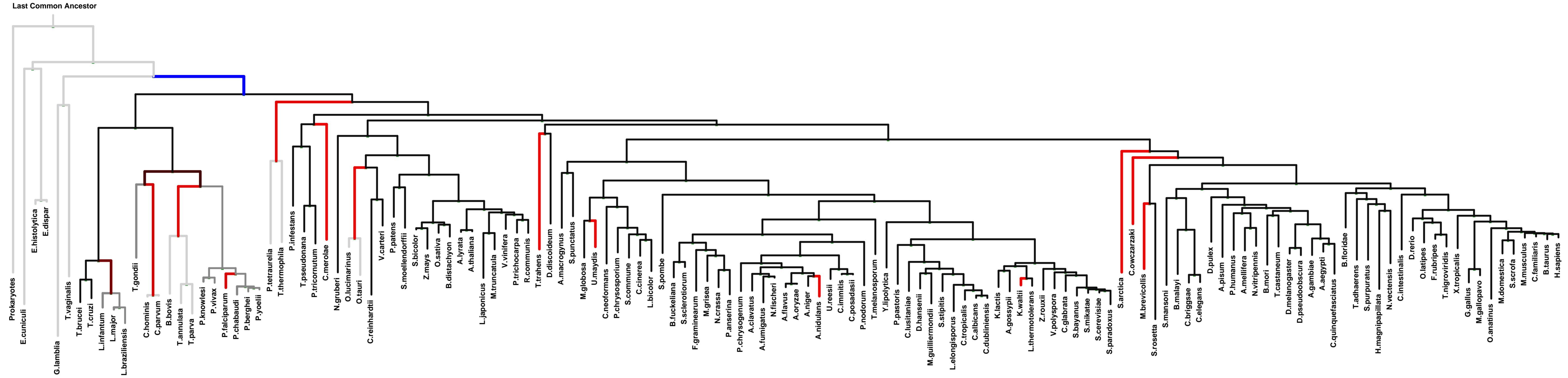
ECM 1, Gene set "catenin complex", Page 1

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



ECM 2, Gene set "catenin complex", Page 1

Num of ECM Genes: 2. Num of Predicted Genes: 3. ECM Strength: 4.2

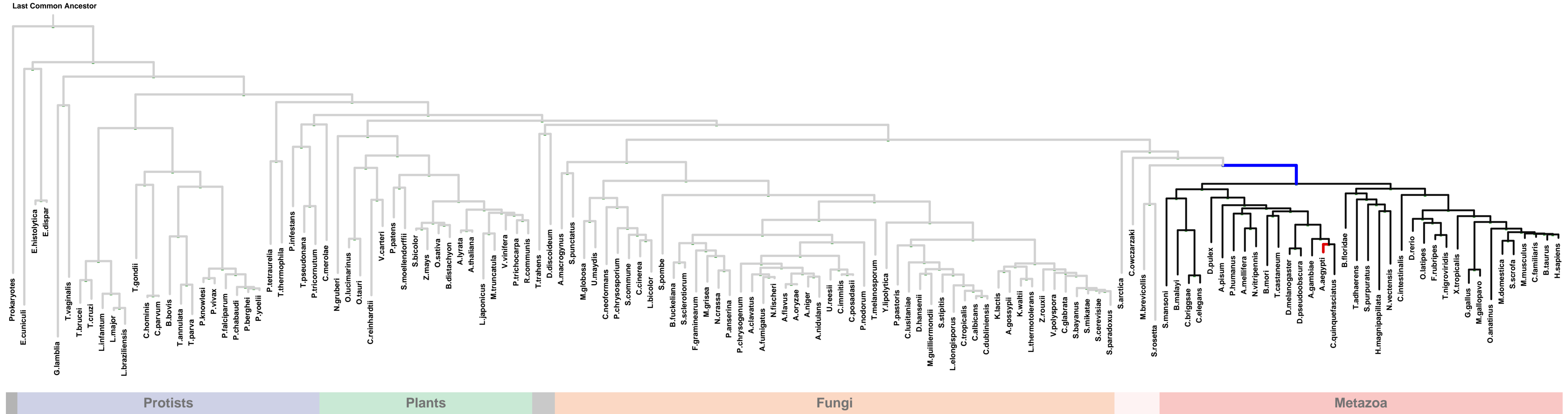
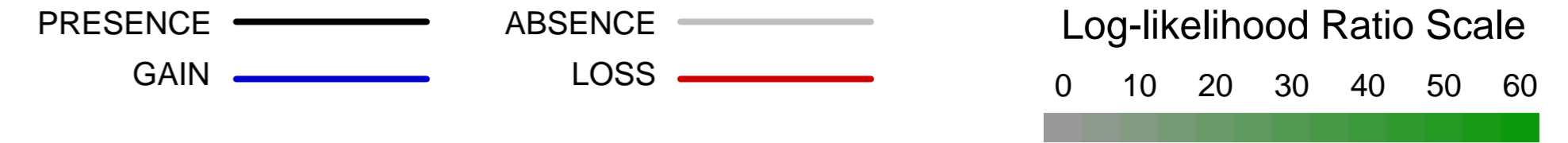


PG	Protein	Prokaryotes	Protists	Plants	Fungi	Metazoa	LLR	Notes
A	CTNNB1							1/2/3/4/5/6/7/8/9/10/11/12/13/14/15
A	JUP							3/6/9/10/13/14/15
A	CTNND2						11.5	1/29/30
A	PKP3						4.1	10/13
A	ARVCF						2.8	

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

ECM 3, Gene set "catenin complex", Page 1

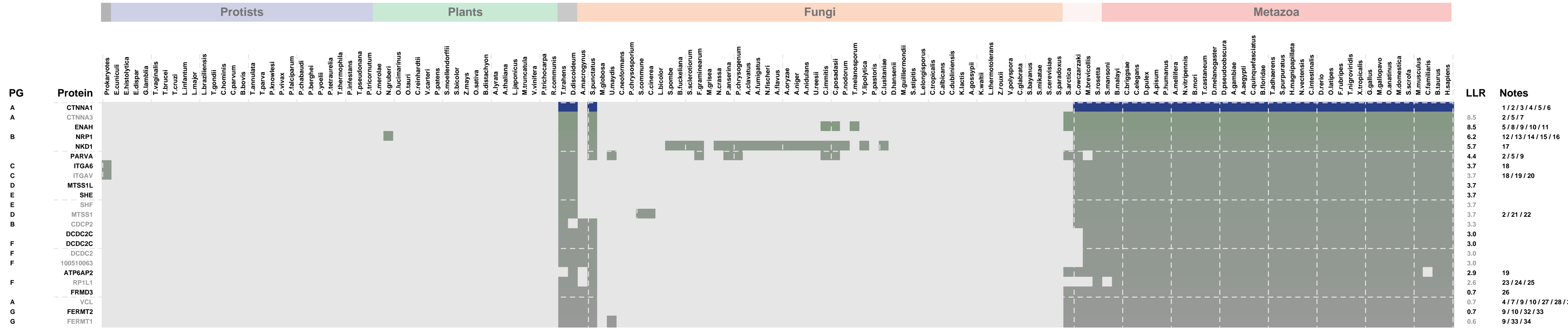
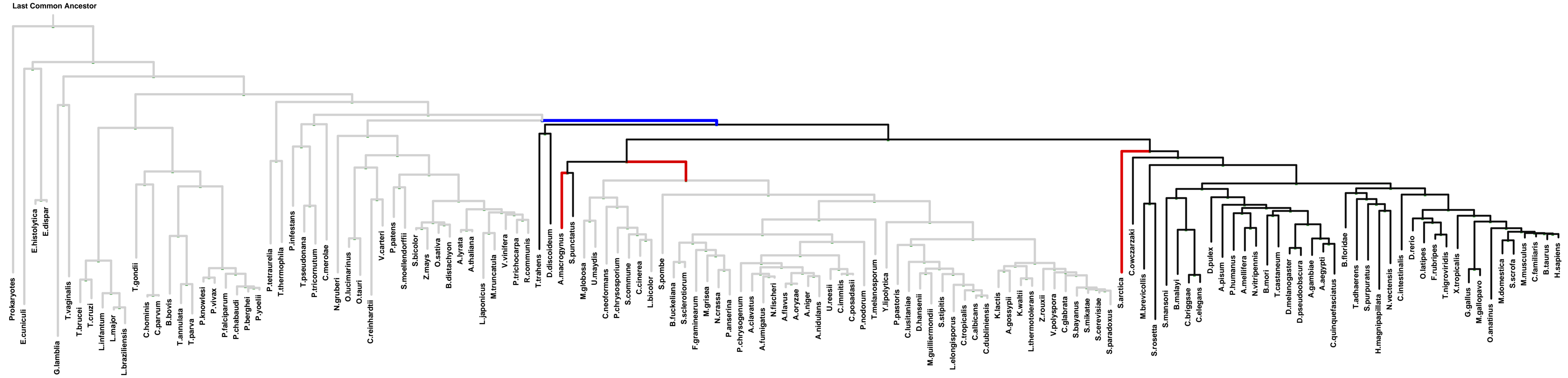
Num of ECM Genes: 1. Num of Predicted Genes: 6



- 1: actin filament || 2: catenin complex || 3: cytoplasmic microtubule || 4: lamellipodium membrane || 5: basal lamina || 6: collagen type IV || 7: endoplasmic reticulum lumen || 8: neuromuscular junction || 9: nuclear euchromatin ||
- 10: nuclear speck || 11: NuRD complex

ECM 4, Gene set "catenin complex", Page 1

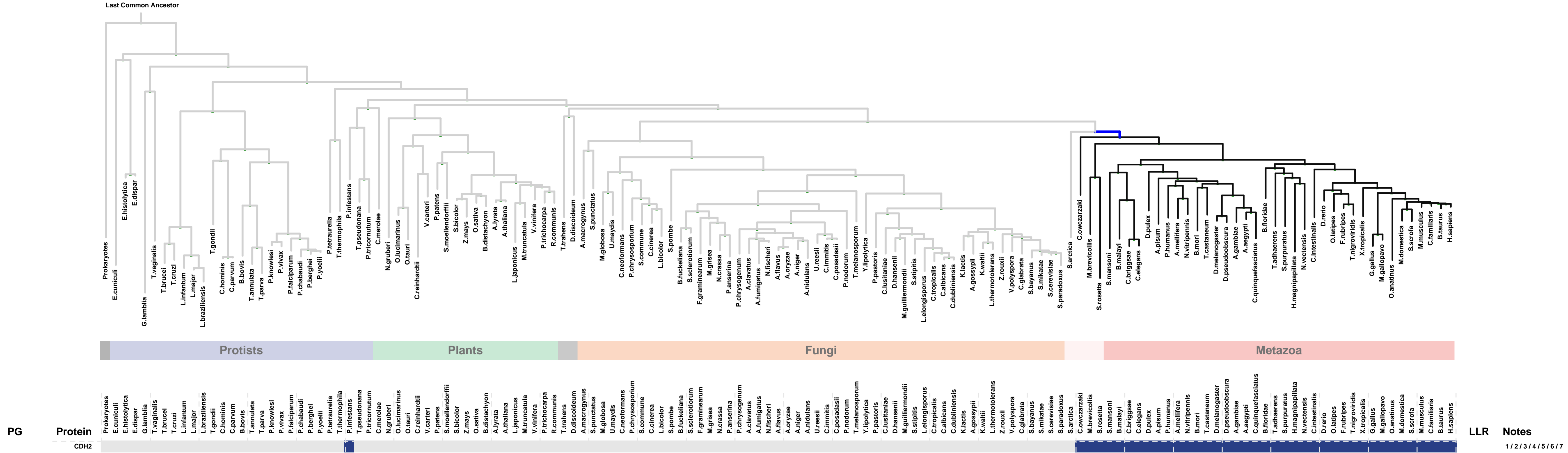
Num of ECM Genes: 1. Num of Predicted Genes: 22



1: acrosomal vesicle || 2: actin cytoskeleton || 3: catenin complex || 4: cell-cell junction || 5: lamellipodium || 6: zonula adherens || 7: fascia adherens || 8: filopodium || 9: focal adhesion || 10: stress fiber || 11: synapse ||
 12: cytoplasmic vesicle || 13: growth cone || 14: neurofilament || 15: receptor complex || 16: semaphorin receptor complex || 17: protein phosphatase type 2A complex || 18: integrin complex || 19: external side of plasma membrane ||
 20: phagocytic vesicle || 21: endocytic vesicle || 22: ruffle || 23: cilium axoneme || 24: photoreceptor connecting cilium || 25: photoreceptor outer segment || 26: extrinsic to membrane || 27: actin filament || 28: adherens junction ||
 29: cell-cell adherens junction || 30: cell-substrate junction || 31: costamere || 32: cell cortex || 33: filamentous actin || 34: ruffle membrane

ECM 5, Gene set "catenin complex", Page 1

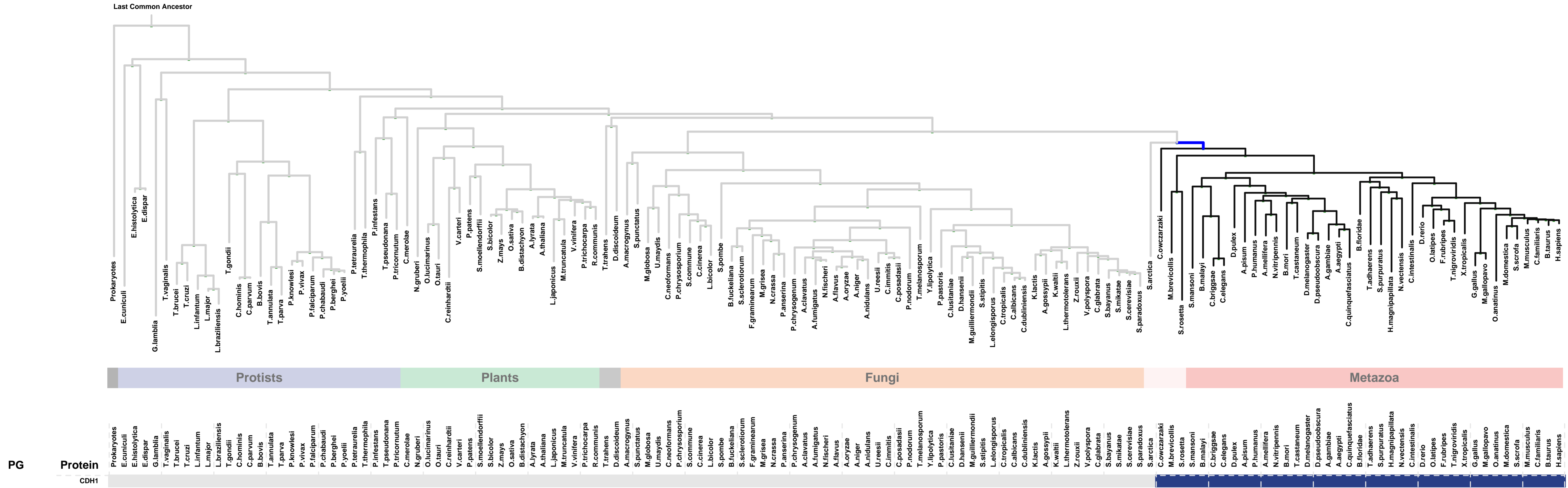
Num of ECM Genes: 1. Num of Predicted Genes: 0



1: catenin complex || 2: cell-cell adherens junction || 3: cell-cell junction || 4: fascia adherens || 5: intercalated disc || 6: lamellipodium || 7: synapse part

ECM 6, Gene set "catenin complex", Page 1

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



1: actin cytoskeleton || 2: aggresome || 3: apical junction complex || 4: apical part of cell || 5: basolateral plasma membrane || 6: catenin complex || 7: cell-cell adherens junction || 8: endosome || 9: focal adhesion ||
 10: internal side of plasma membrane || 11: lateral loop || 12: lateral plasma membrane || 13: node of Ranvier || 14: Schmidt-Lanterman incisure || 15: trans-Golgi network