

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

Dataset:

Num of genes in input gene set: 6
Total number of genes: 20834
Prediction LLR threshold: 0

The CLIME PDF output two sections:

1) Overview of Evolutionarily Conserved Modules (ECMs)

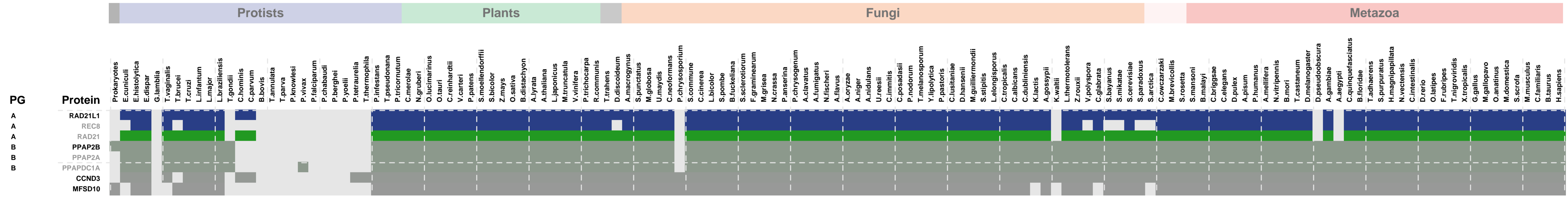
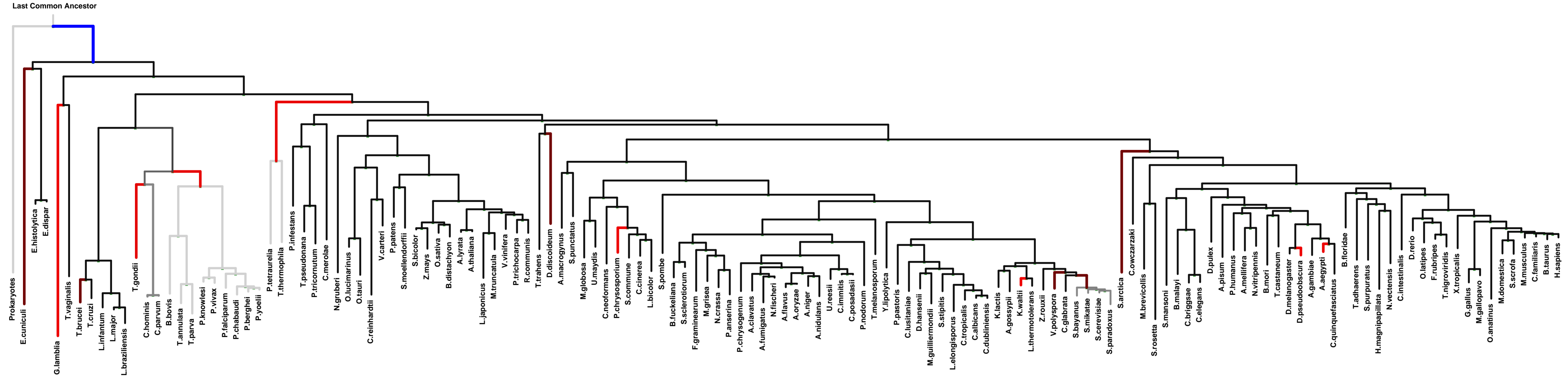
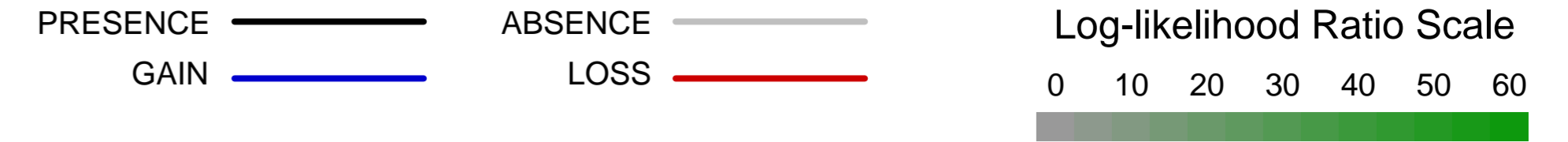
- Top panel shows the predefined species tree.
- Bottom panel shows the partition of input genes into Evolutionary Conserved Modules (ECMs), ordered by ECM strength (shown at right), and separated by horizontal lines.
- Each row show one gene, where the phylogenetic profile indicates presence (blue)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

ECM 1, Gene set "meiotic cohesin complex", Page 1

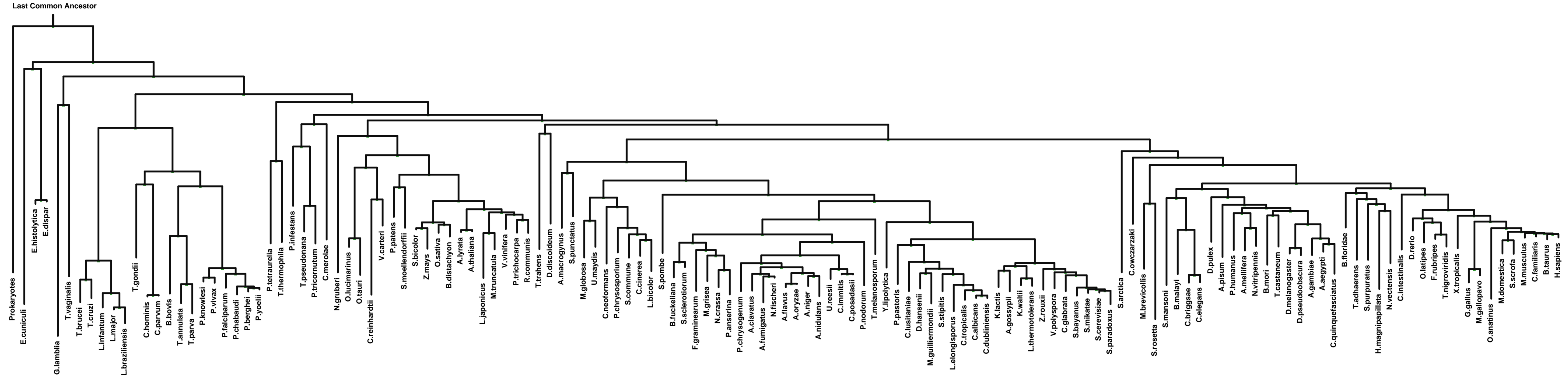
Num of ECM Genes: 2. Num of Predicted Genes: 6. ECM Strength: 2.1



1: chromosome || 2: meiotic cohesin complex || 3: nuclear chromosome || 4: condensed nuclear chromosome, centromeric region || 5: lateral element || 6: male germ cell nucleus || 7: chromosome, centromeric region || 8: cohesin complex ||
9: adherens junction || 10: cyclin-dependent protein kinase holoenzyme complex

ECM 2, Gene set "meiotic cohesin complex", Page 1

Num of ECM Genes: 3. Num of Predicted Genes: 0. ECM Strength: 0.0



Protists

Plants

Fungi

Metazoa

PG

Protein

A
A
A



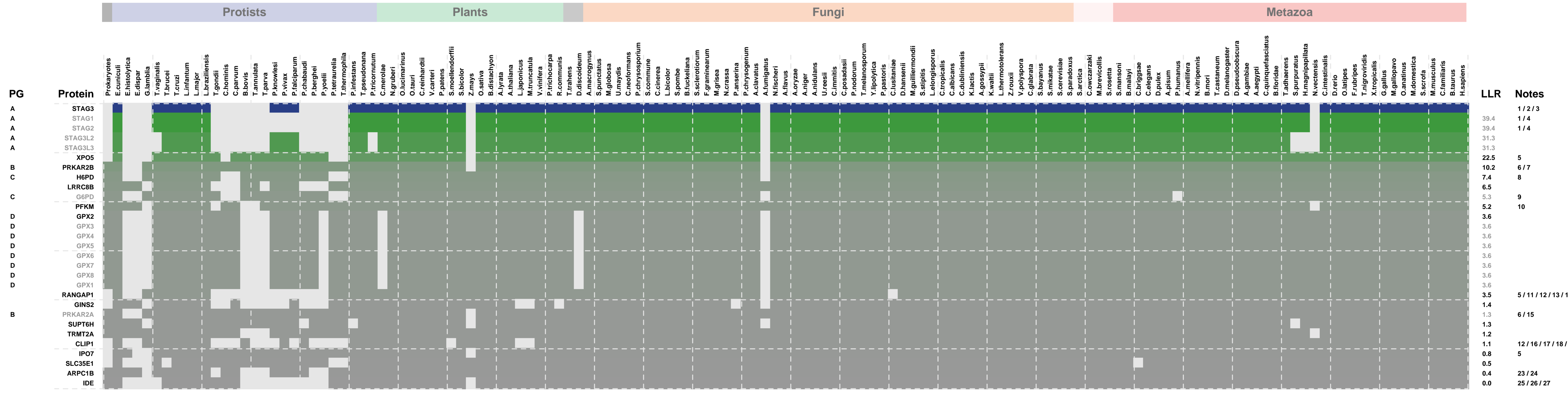
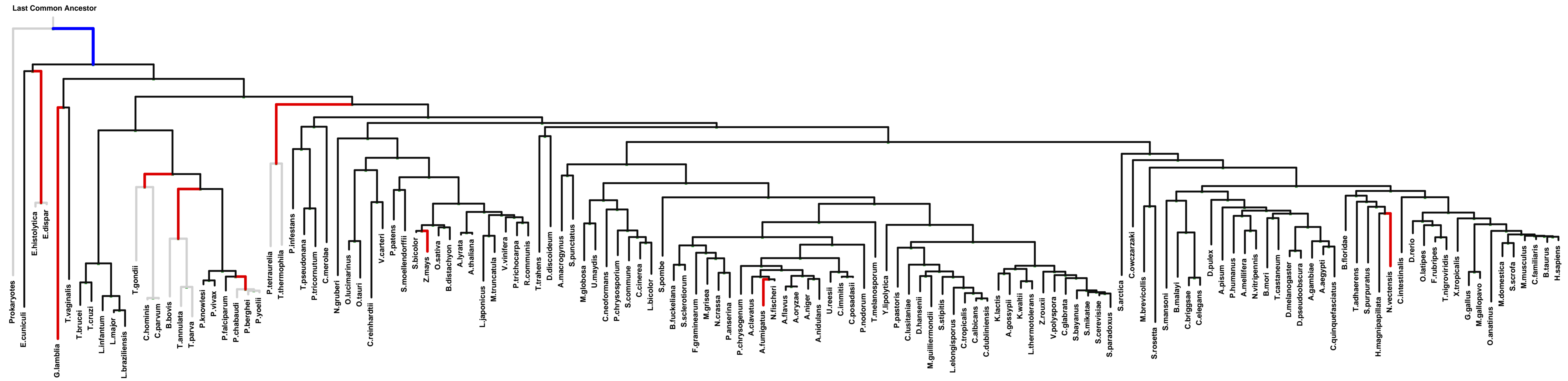
LLR Notes

1/2/3/4
4/5/6
4/5/6/7/8/9/10/11

- 1: condensed chromosome kinetochore ||
- 2: condensed nuclear chromosome ||
- 3: kinetochore ||
- 4: meiotic cohesin complex ||
- 5: chromosome, centromeric region ||
- 6: lateral element ||
- 7: basement membrane ||
- 8: chromatin ||
- 9: cohesin complex ||
- 10: nuclear matrix ||
- 11: spindle pole

ECM 3, Gene set "meiotic cohesin complex", Page 1

Num of ECM Genes: 1. Num of Predicted Genes: 28



1: chromosome, centromeric region || 2: meiotic cohesin complex || 3: synaptonemal complex || 4: chromatin || 5: nuclear pore || 6: cAMP-dependent protein kinase complex || 7: membrane raft || 8: endoplasmic reticulum lumen || 9: internal side of plasma membrane || 10: 6-phosphofructokinase complex || 11: condensed chromosome kinetochore || 12: kinetochore || 13: nuclear membrane || 14: spindle pole || 15: T-tubule || 16: cytoplasmic microtubule || 17: cytoplasmic vesicle membrane || 18: endosome || 19: intermediate filament || 20: microtubule cytoskeleton || 21: microtubule plus end || 22: ruffle || 23: actin cytoskeleton || 24: Arp2/3 protein complex || 25: cytosolic proteasome complex || 26: peroxisomal matrix || 27: peroxisome