

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

Dataset:

Num of genes in input gene set: 3
Total number of genes: 20834
Prediction LLR threshold: 0

The CLIME PDF output two sections:

1) Overview of Evolutionarily Conserved Modules (ECMs)

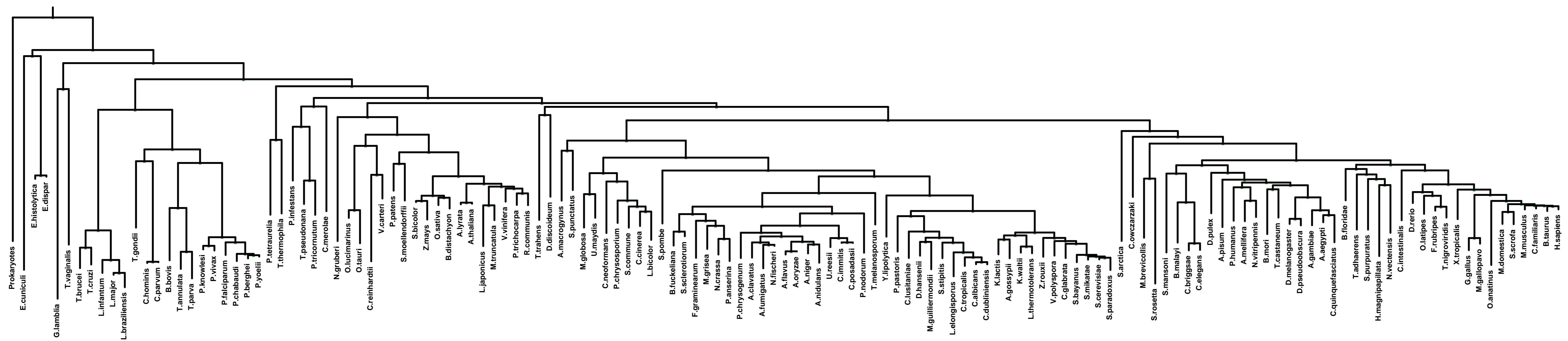
- Top panel shows the predefined species tree.
- Bottom panel shows the partition of input genes into Evolutionary Conserved Modules (ECMs), ordered by ECM strength (shown at right), and separated by horizontal lines.
- Each row show one gene, where the phylogenetic profile indicates presence (blue)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

Last Common Ancestor

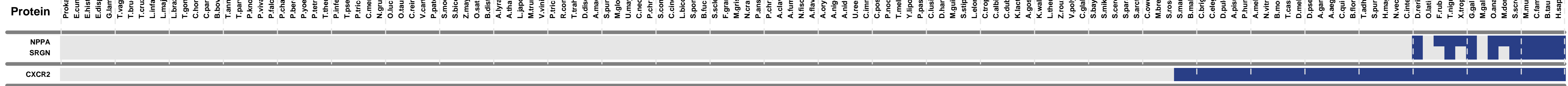


Protists

Plants

Fungi

Metazoa

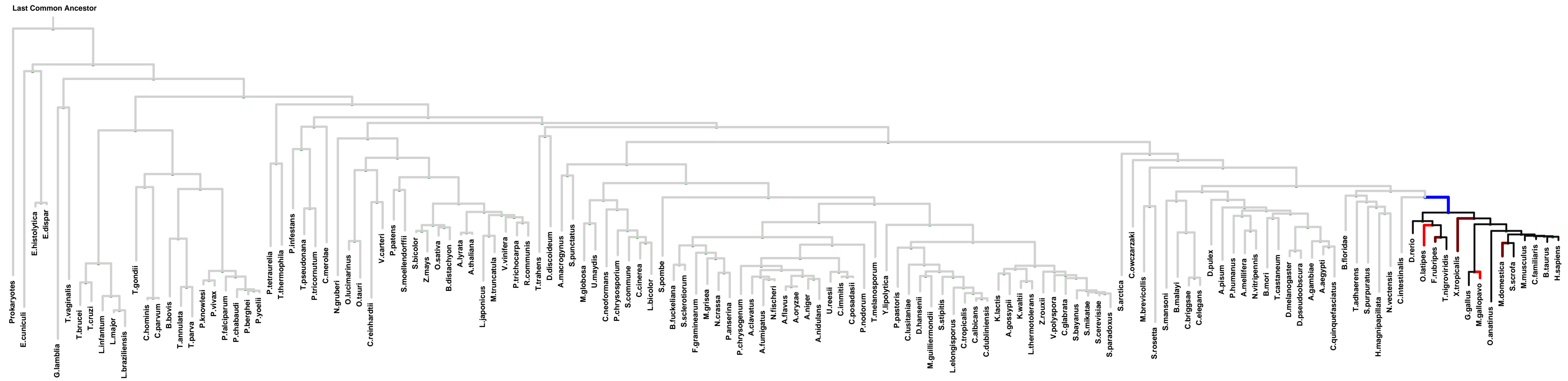


Strength

1.1

ECM 1, Gene set "mast cell granule", Page 1

Num of ECM Genes: 2. Num of Predicted Genes: 59. ECM Strength: 1.1

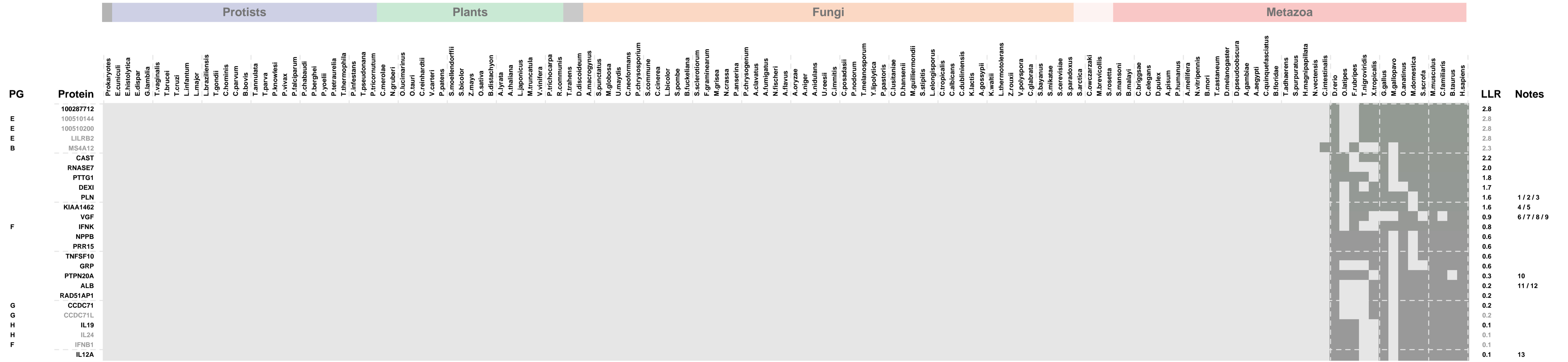
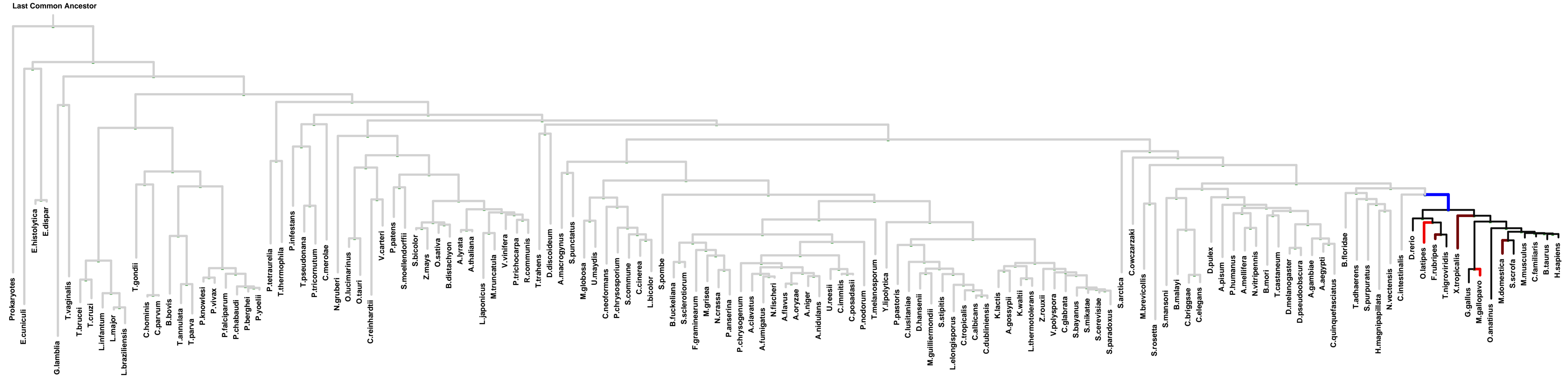


PG	Protein	Protists	Plants	Fungi	Metazoa	LLR	Notes
	NPPA						1
	SRGN						1 / 2 / 3
	LOC646543						
A	LOC100129626					18.3	
A	TOMM5					15.7	
A	100510530					15.7	4
B	MS4A18					13.4	
B	MS4A18					13.4	
B	BRICD5					13.4	
B	FOXP1					13.4	
B	RAET1E					13.4	
B	SGOL2					13.4	5
C	C2orf71					10.2	6 / 7 / 8
C	GKN2					7.4	9
C	C1orf168					6.8	
C	C1orf174					6.8	
C	SFTPC					5.7	10 / 11
C	BAALC					5.6	
C	LOC100128160					5.0	
C	CENPW					5.0	6 / 7 / 12 / 13
C	AKAP7					4.8	14 / 15 / 16 / 17
C	APOF					4.6	18 / 19
C	HMGN3					4.4	20
C	NMS					4.3	
C	PLEKHS1					4.2	
C	SNAPC5					4.2	
C	C1orf210					3.7	
C	C17orf72					3.4	
C	CEP68					2.8	
C	FXDY1					2.8	
C	RIPPLY3					2.8	21
C	FCER1G					2.8	
D	TMSB15A					2.8	22 / 23
D	TMSB15B					2.8	
E	LILRA1					2.8	

1: mast cell granule || 2: platelet alpha granule lumen || 3: zymogen granule || 4: mitochondrial outer membrane translocase complex || 5: MHC class I protein complex || 6: chromosome, centromeric region || 7: condensed chromosome kinetochore || 8: mitotic cohesin complex || 9: photoreceptor outer segment || 10: lamellar body || 11: multivesicular body || 12: kinetochore || 13: nuclear matrix || 14: exocytic vesicle || 15: lateral plasma membrane || 16: sarcoplasmic reticulum || 17: T-tubule || 18: high-density lipoprotein particle || 19: low-density lipoprotein particle || 20: chromatin || 21: chloride channel complex || 22: external side of plasma membrane || 23: Fc-epsilon receptor I complex

ECM 1, Gene set "mast cell granule", Page 2

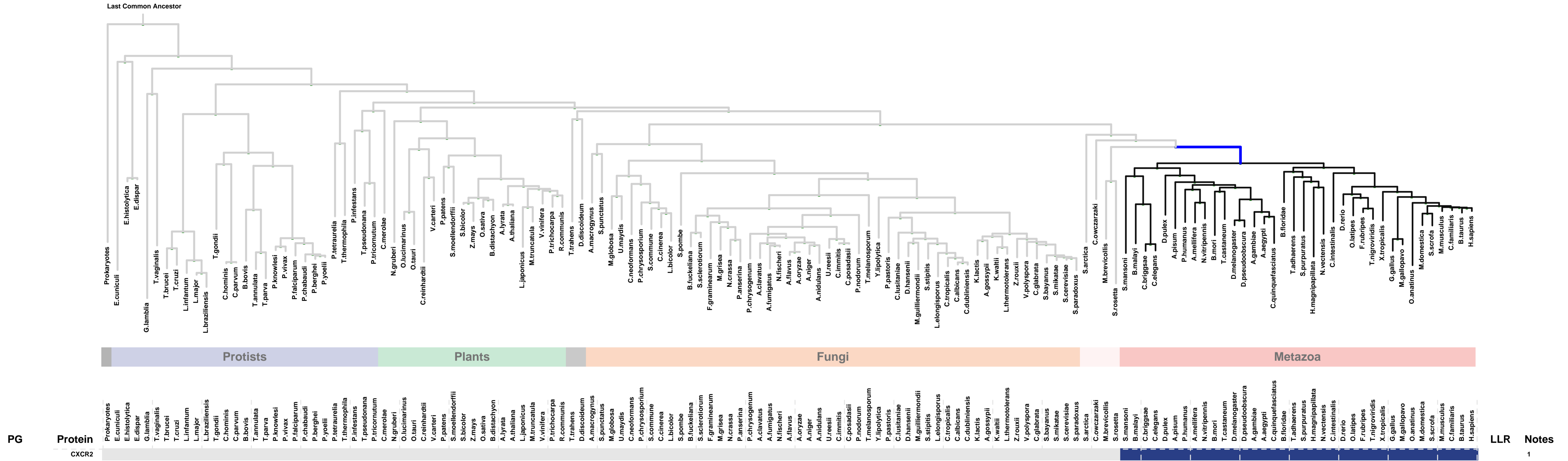
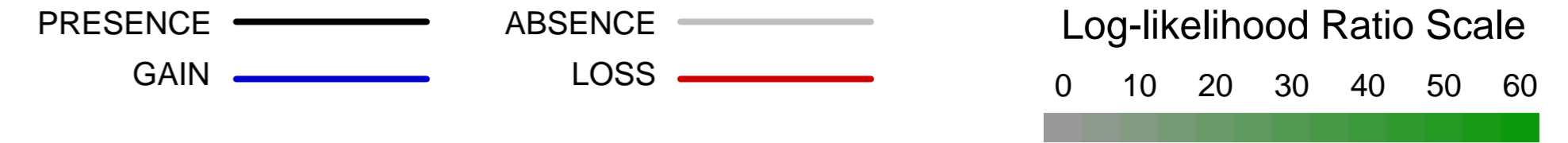
Num of ECM Genes: 2. Num of Predicted Genes: 59. ECM Strength: 1.1



1: mitochondrial membrane || 2: sarcoplasmic reticulum || 3: vesicle || 4: adherens junction || 5: cell-cell junction || 6: cytoplasmic vesicle || 7: neuron projection || 8: secretory granule membrane || 9: transport vesicle || 10: microtubule organizing center || 11: basement membrane || 12: platelet alpha granule lumen || 13: interleukin-12 complex

ECM 2, Gene set "mast cell granule", Page 1

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



1: mast cell granule

LLR Notes