

# Espècies de laboratori: coneixem molt de molt poc?

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Residència D'investigadors (Csic-Generalitat De Catalunya); 27 Abril 2015

# Organismes top model

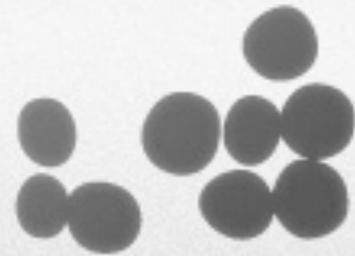
## Bacteri

*Escherichia coli*



## Llevat

Llevat *Aromyces cerevisiae*



## Planta

*Arabidopsis thaliana*



## Cuc

*Caenorhabditis elegans*



## Mosca

*Drosophila melanogaster*



## Peix

*Danio rerio*



## Ratolí

*Mus musculus*



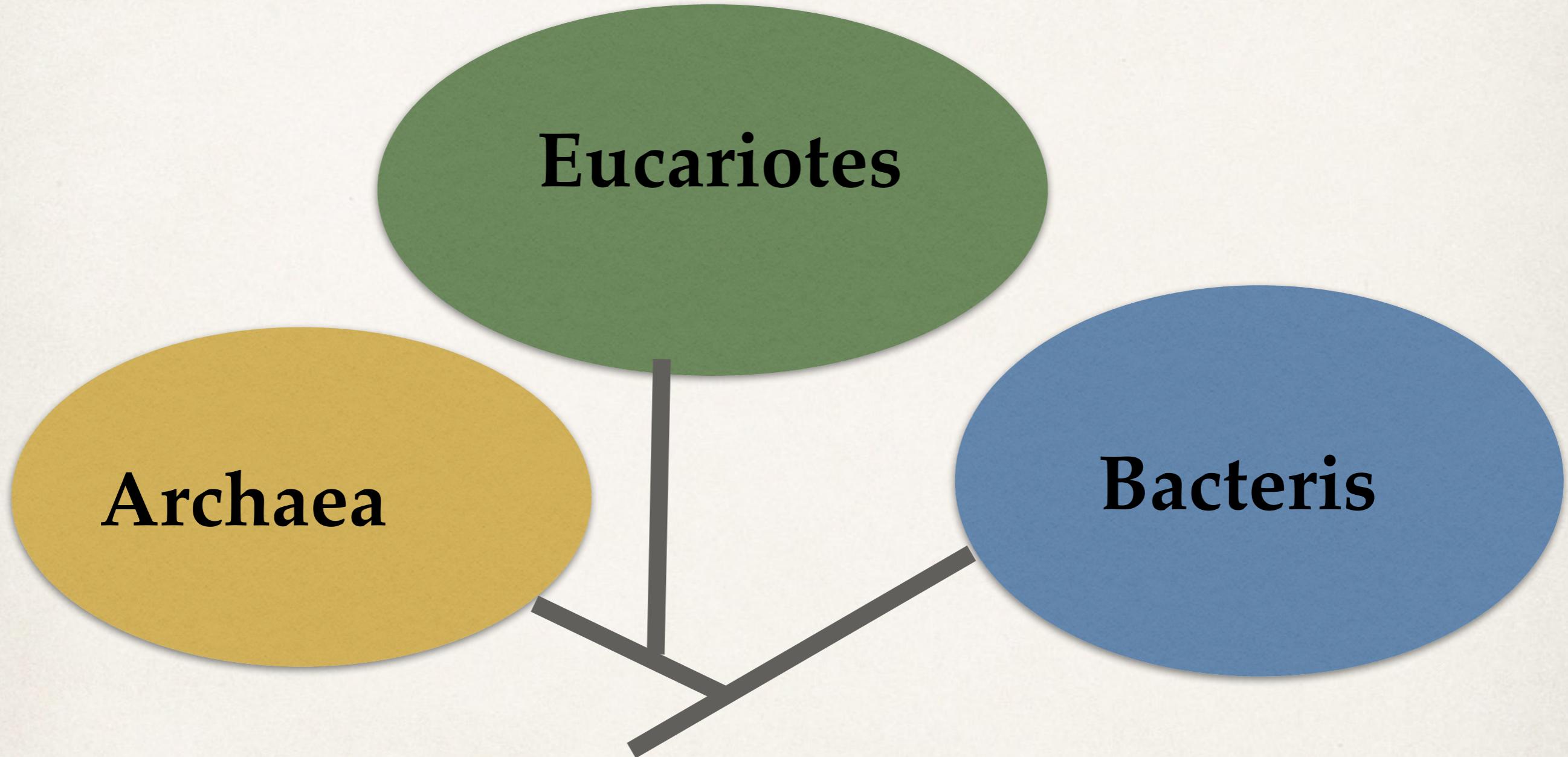
-molt ben estudiats

-fàcils de mantenir al laboratori

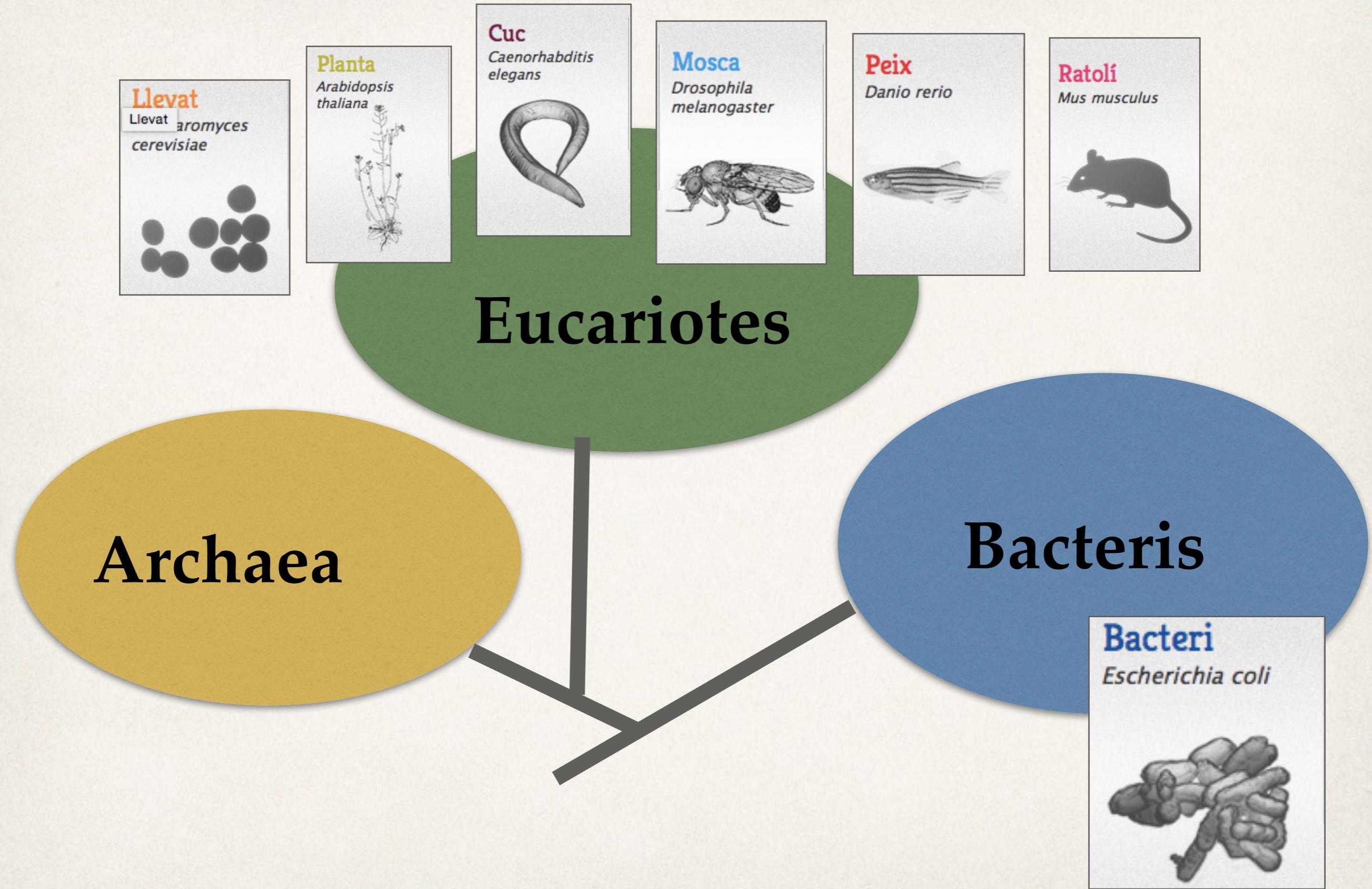
-avantatges experimentals (a nivell genòmic i genètic/experimental)

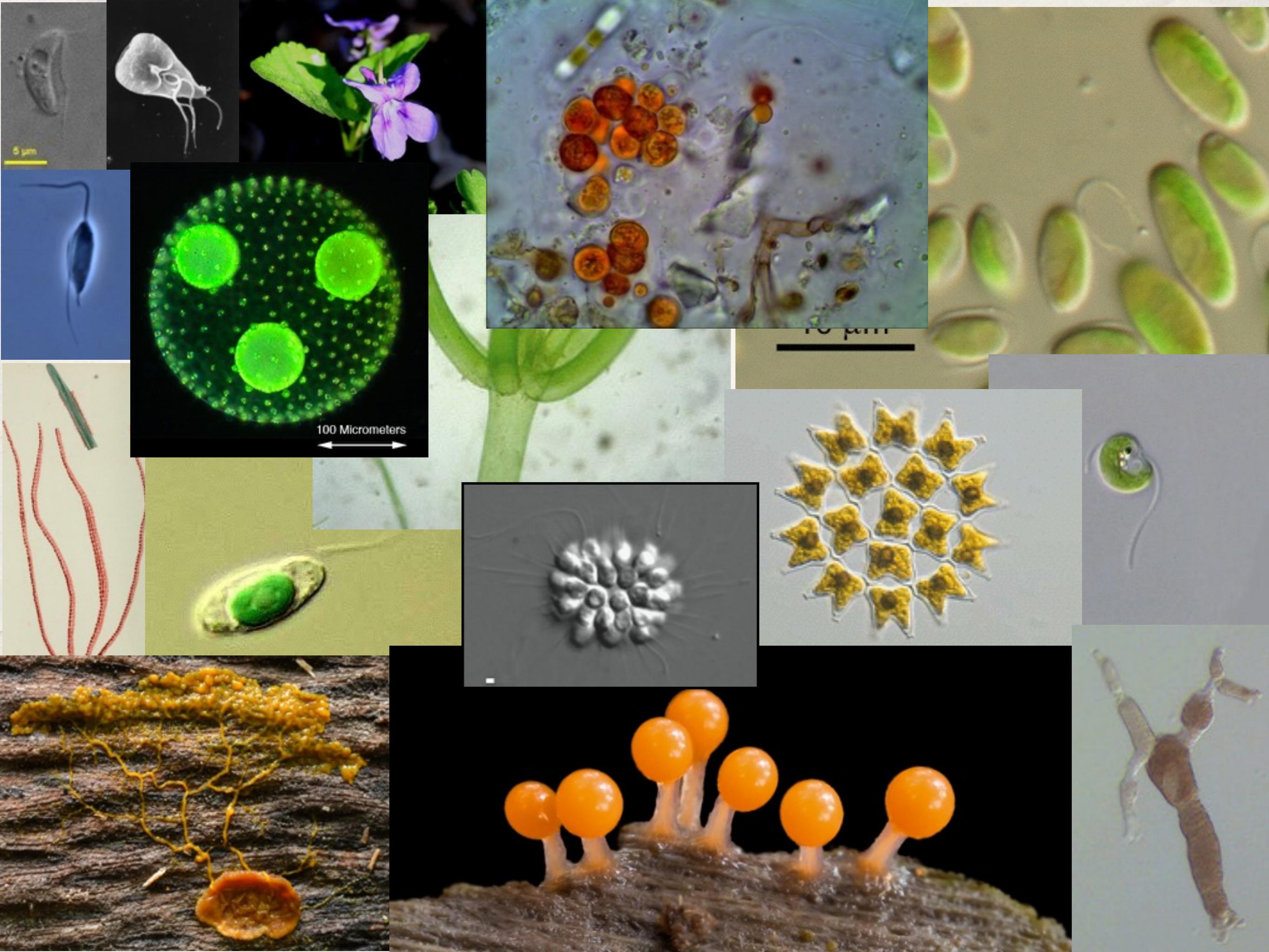
coneixem molt de molt poc?

# El tres dominis de l'arbre de la vida



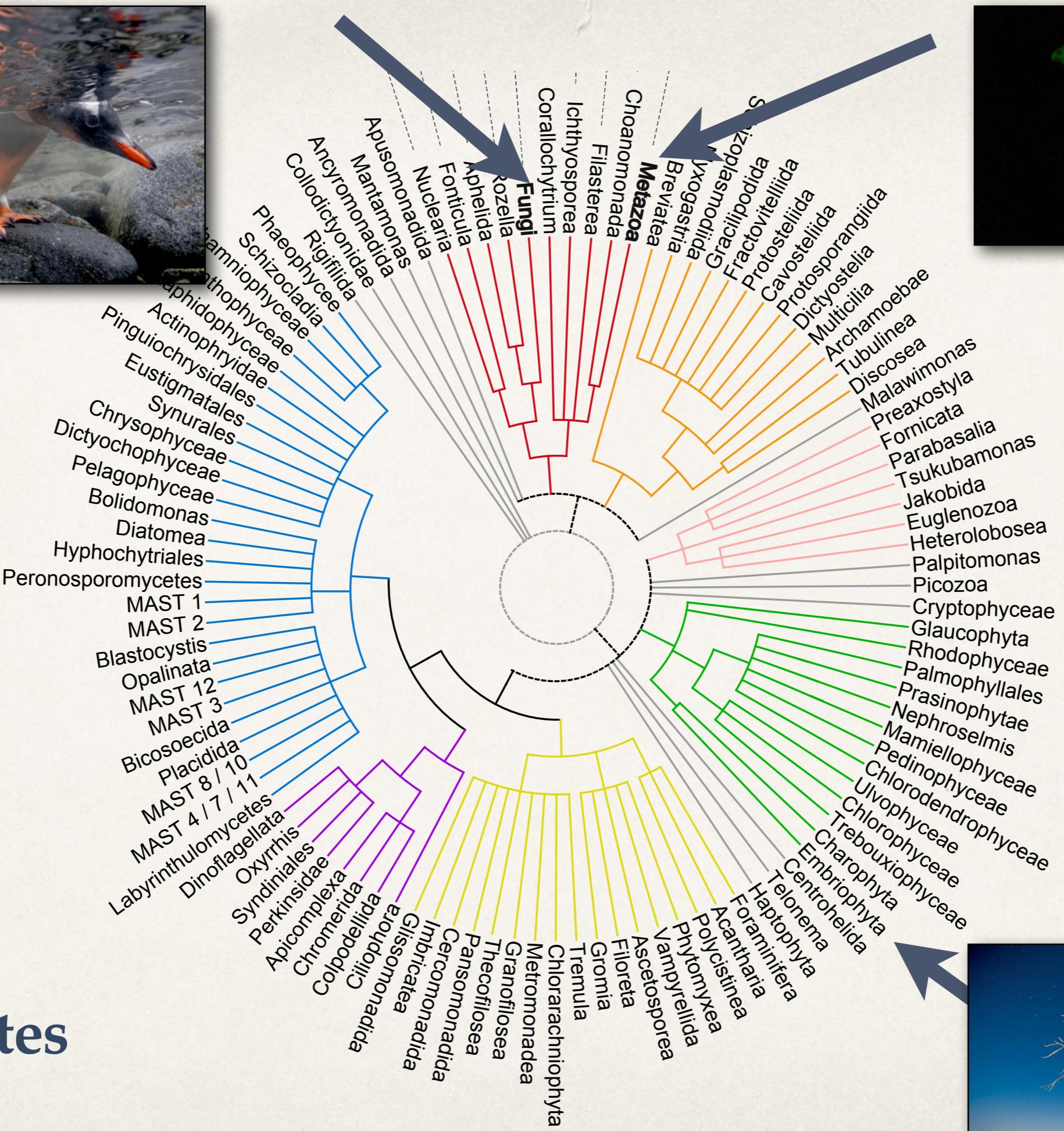
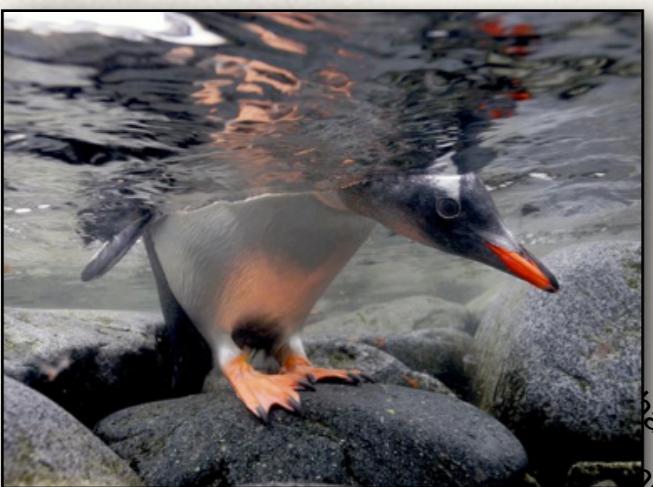
# El tres dominis de l'arbre de la vida



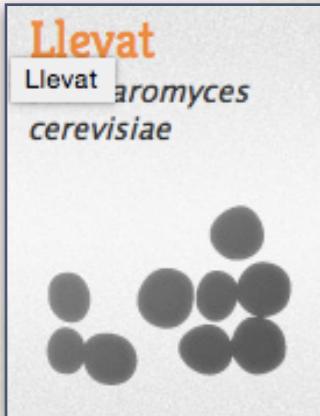
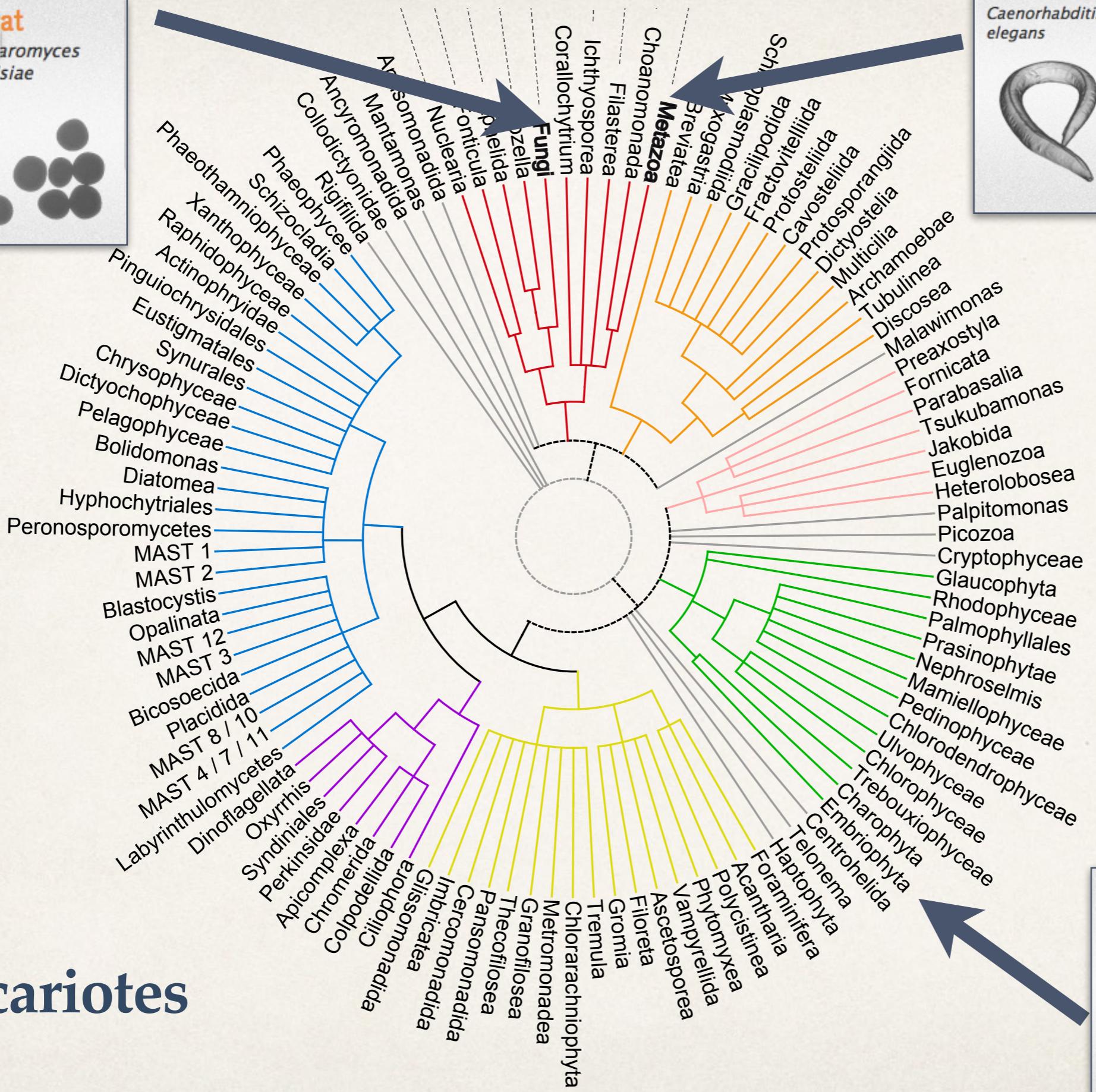


# Eucariotes: El biaix dels tres grans grups multicel·lulars

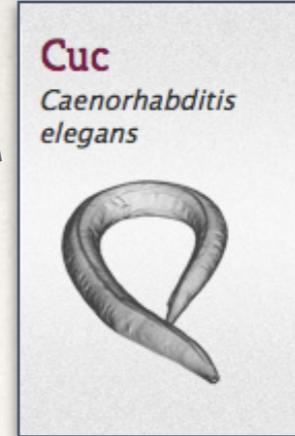




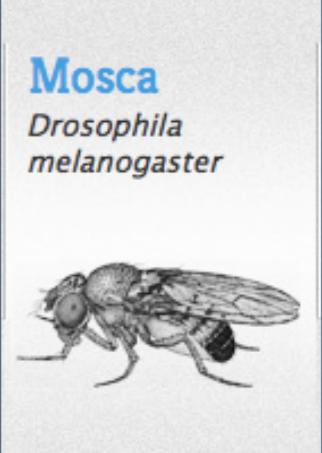
# Eucariotes



**Llevat**  
Llevat *aromyces*  
*cerevisiae*



## Cuc



## Mosca

*Drosophila melanogaster*

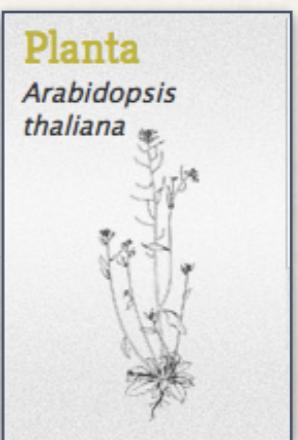


## **Peix**

*Danio rerio*

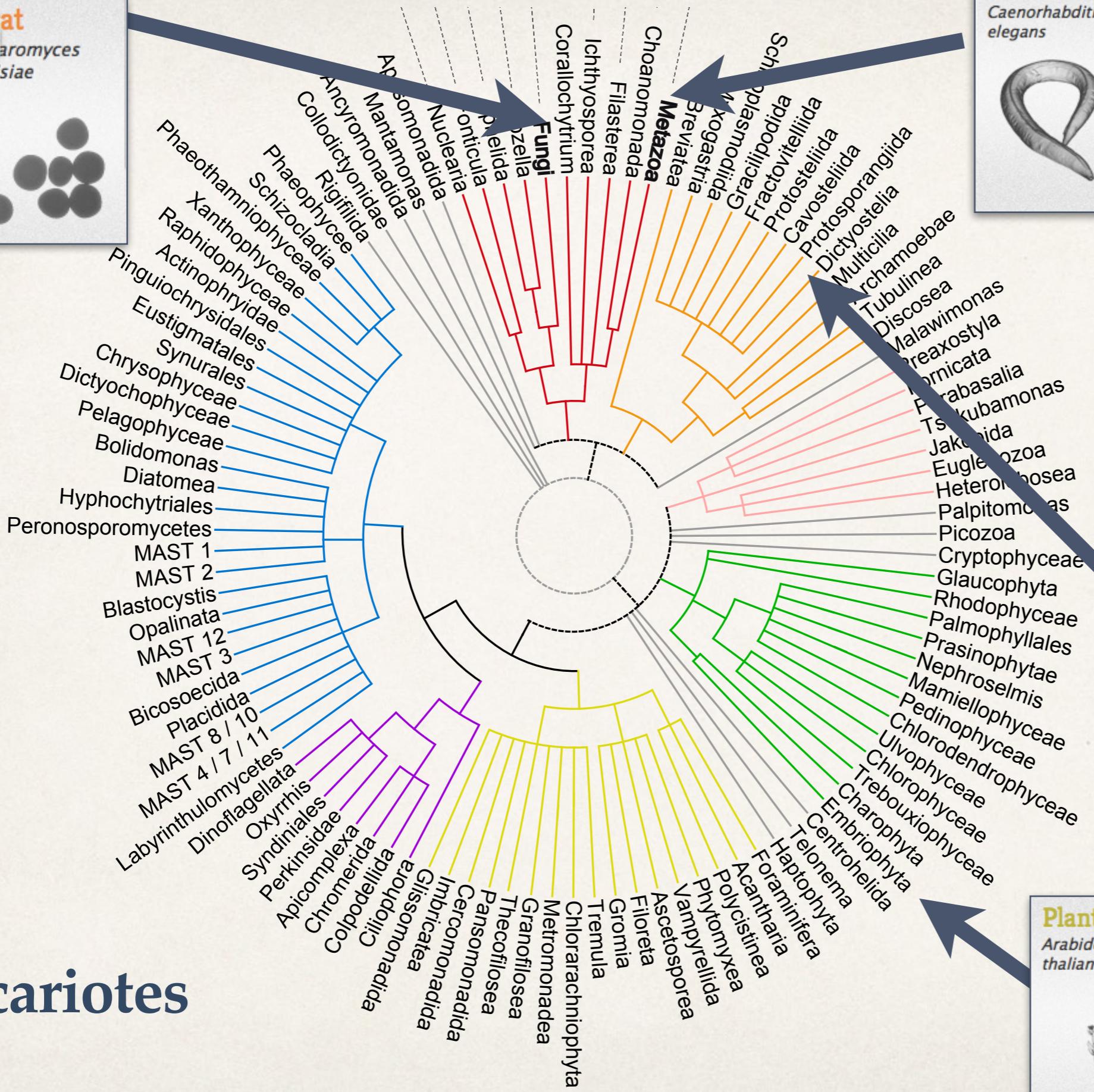


## Ratolí

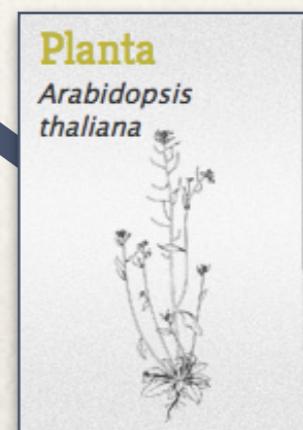


**Planta**  
*Arabidopsis*  
*thaliana*

# Eucariotes



Flickr The Why Files



Planta



Mo

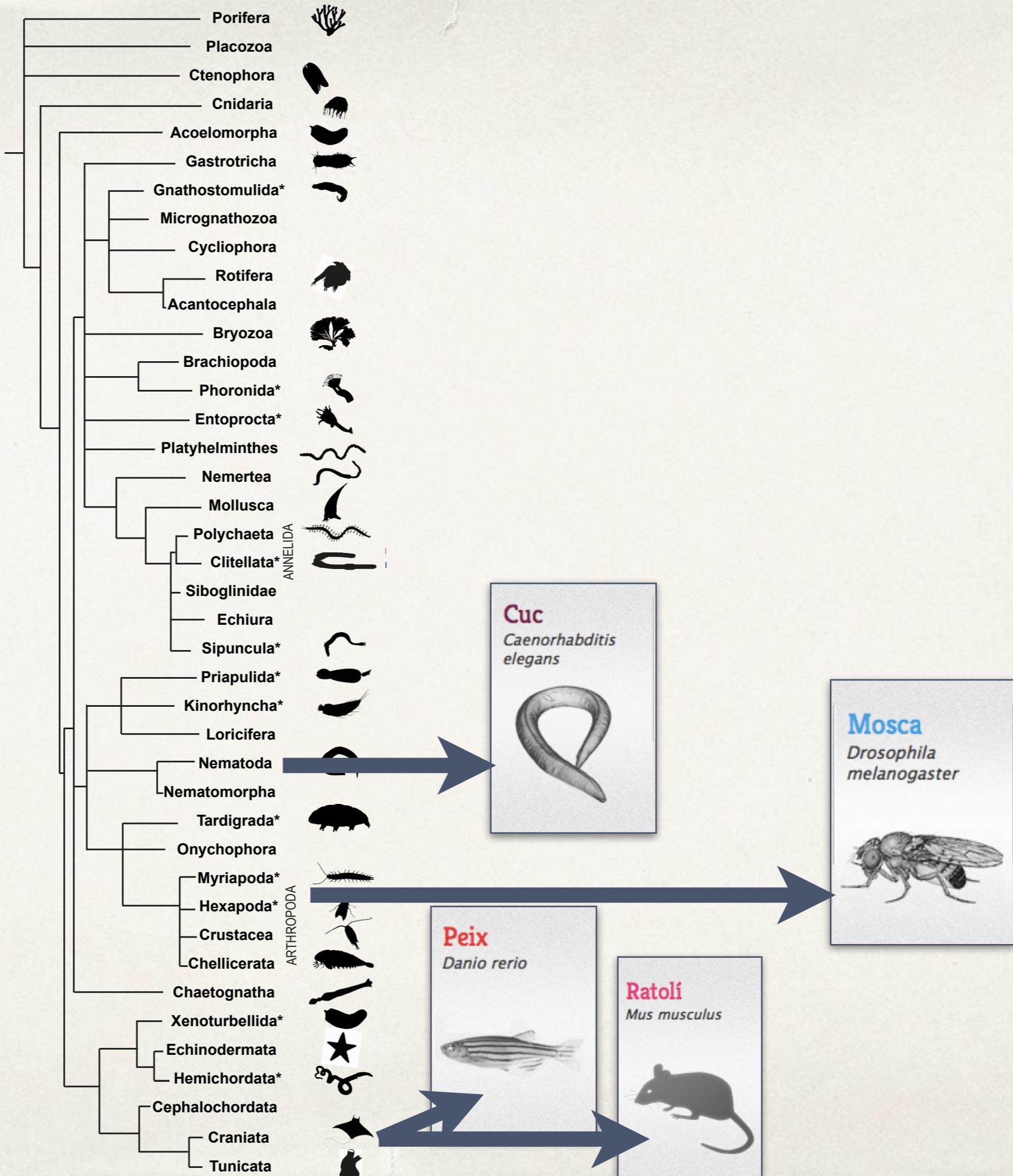
*Drosophila melanogaster*

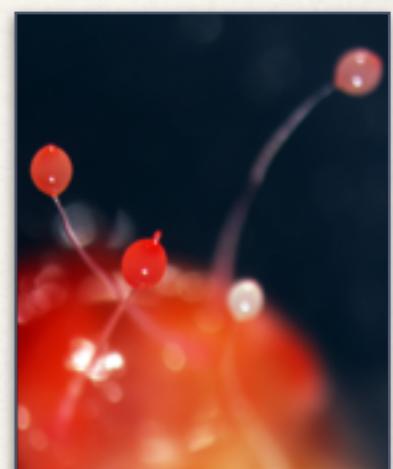
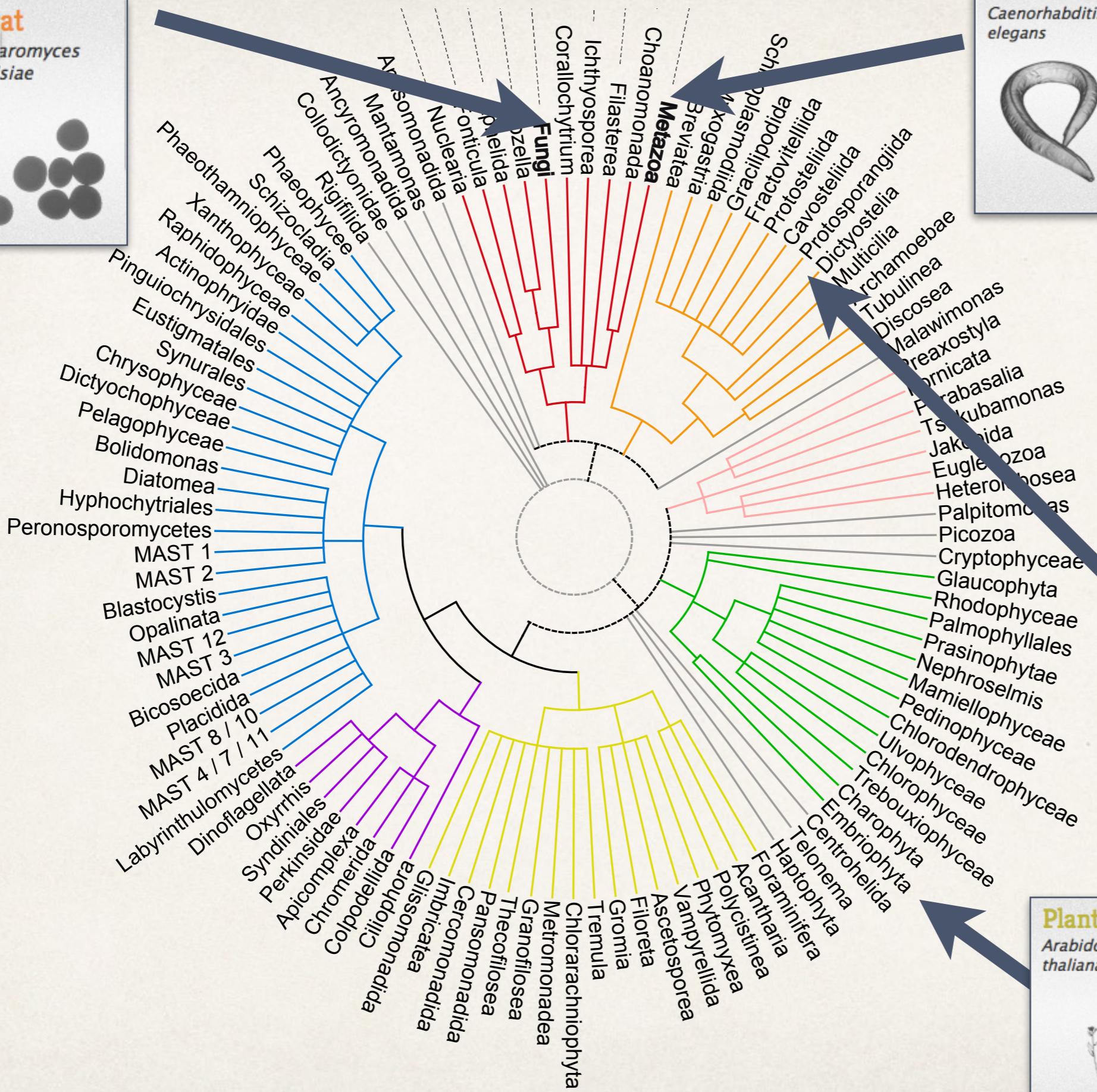


Peix

## *Danio rerio*





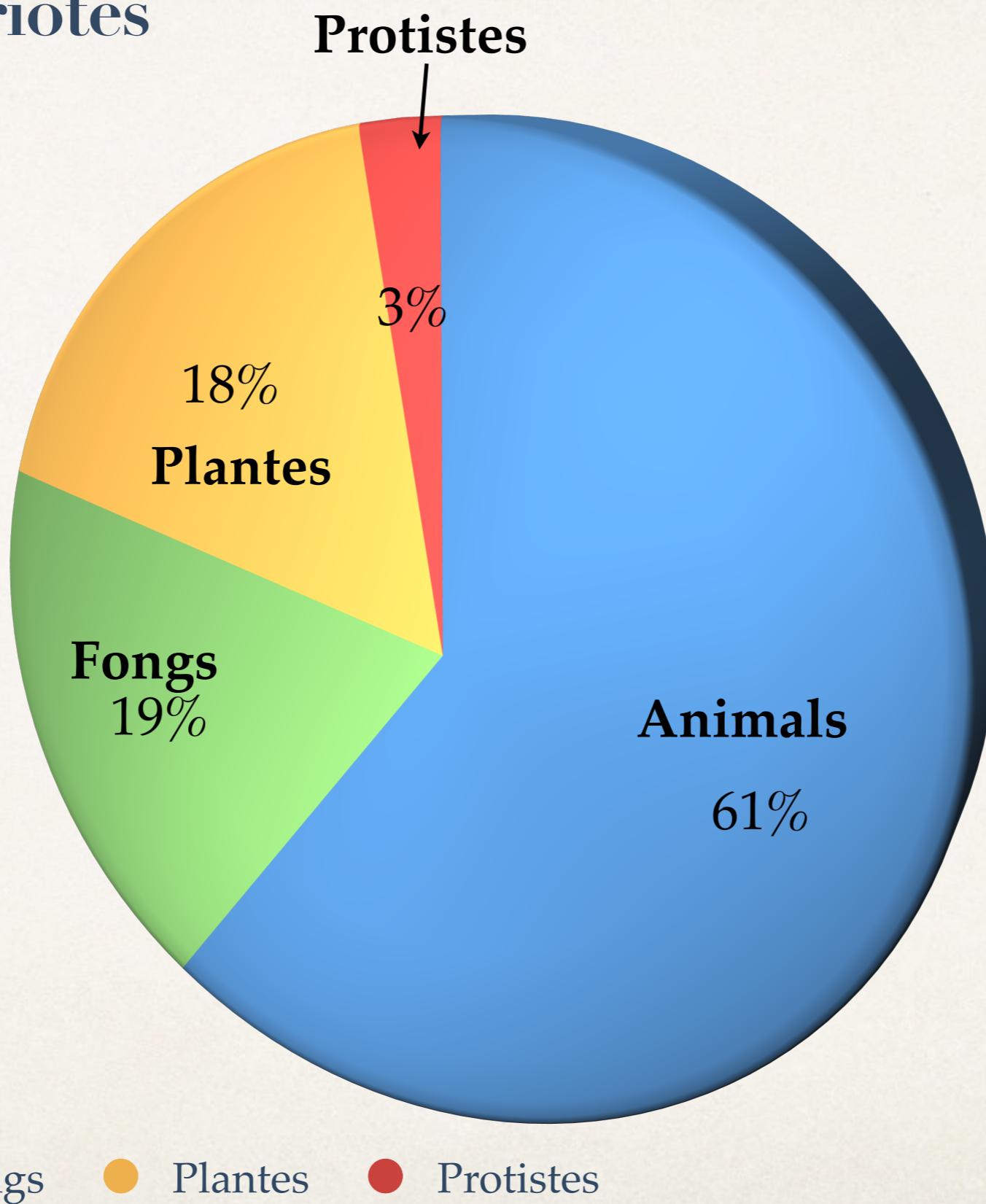


Flickr The Why Files

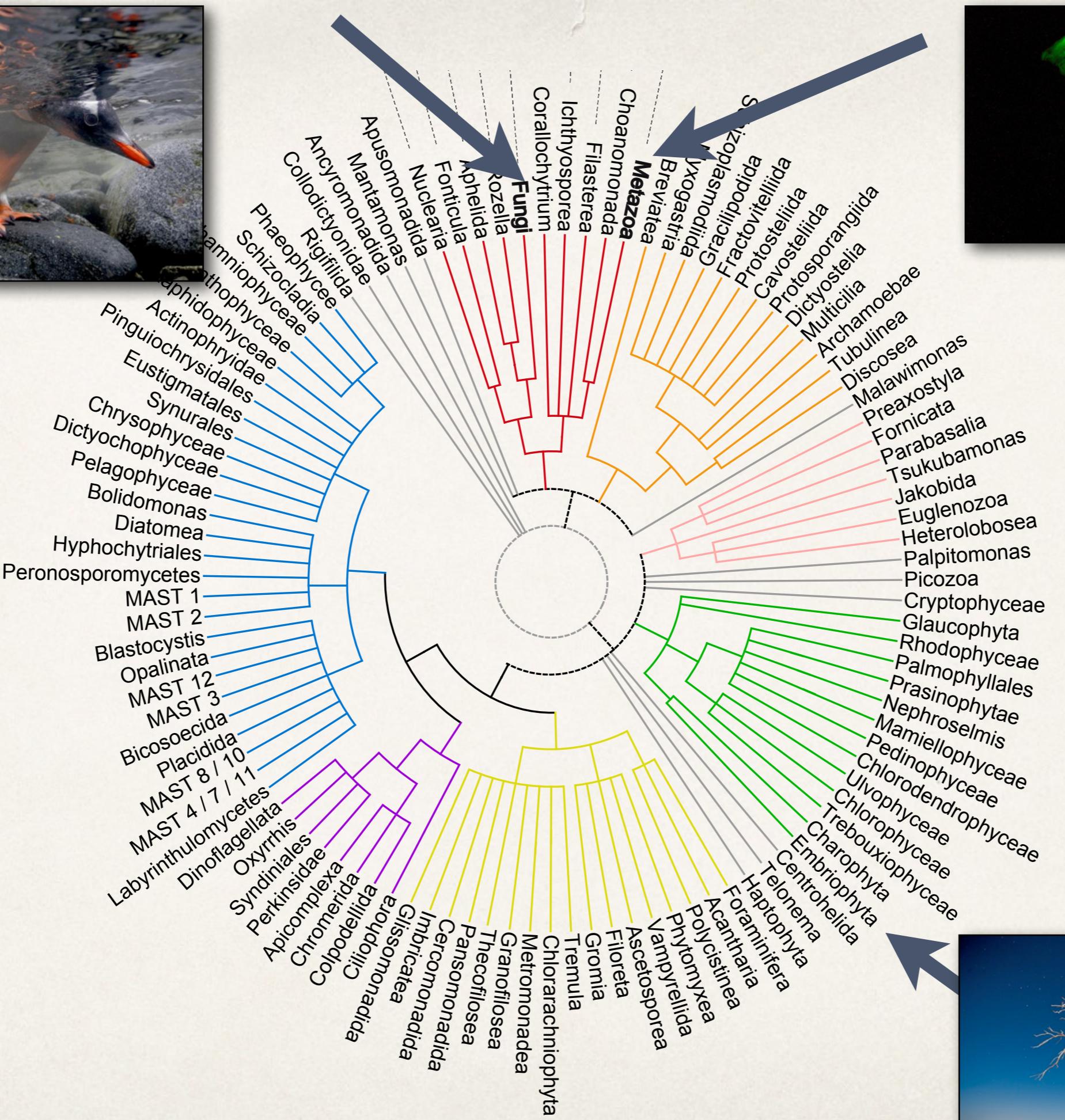
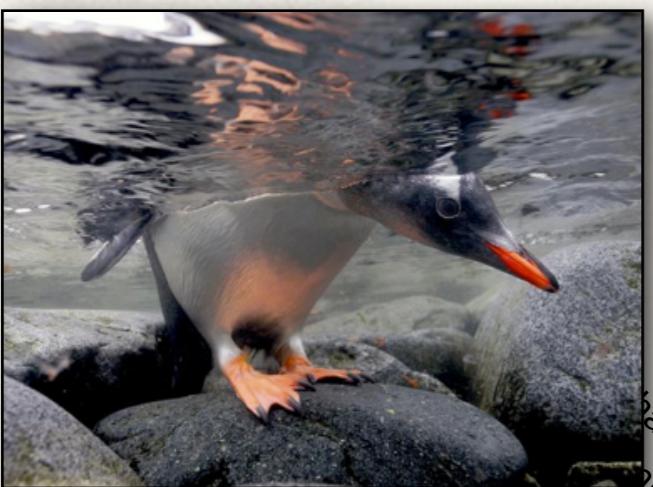
**El biaix és a tota la recerca**

# El biaix dels tres grans grups multicel·lulars

Espècies eucariotes descrites



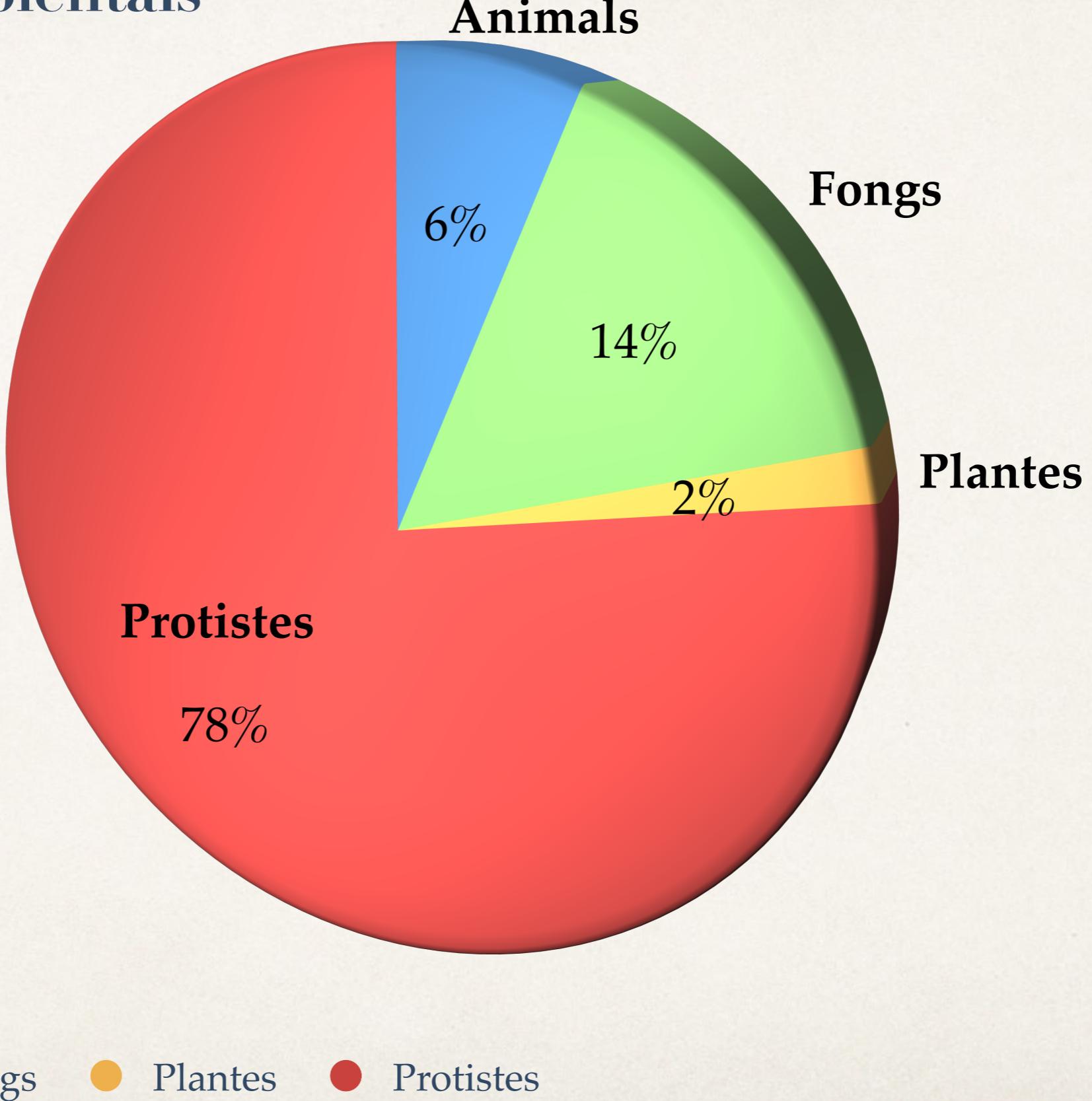
97% of the described eukaryotes are either land plants, fungi or metazoa





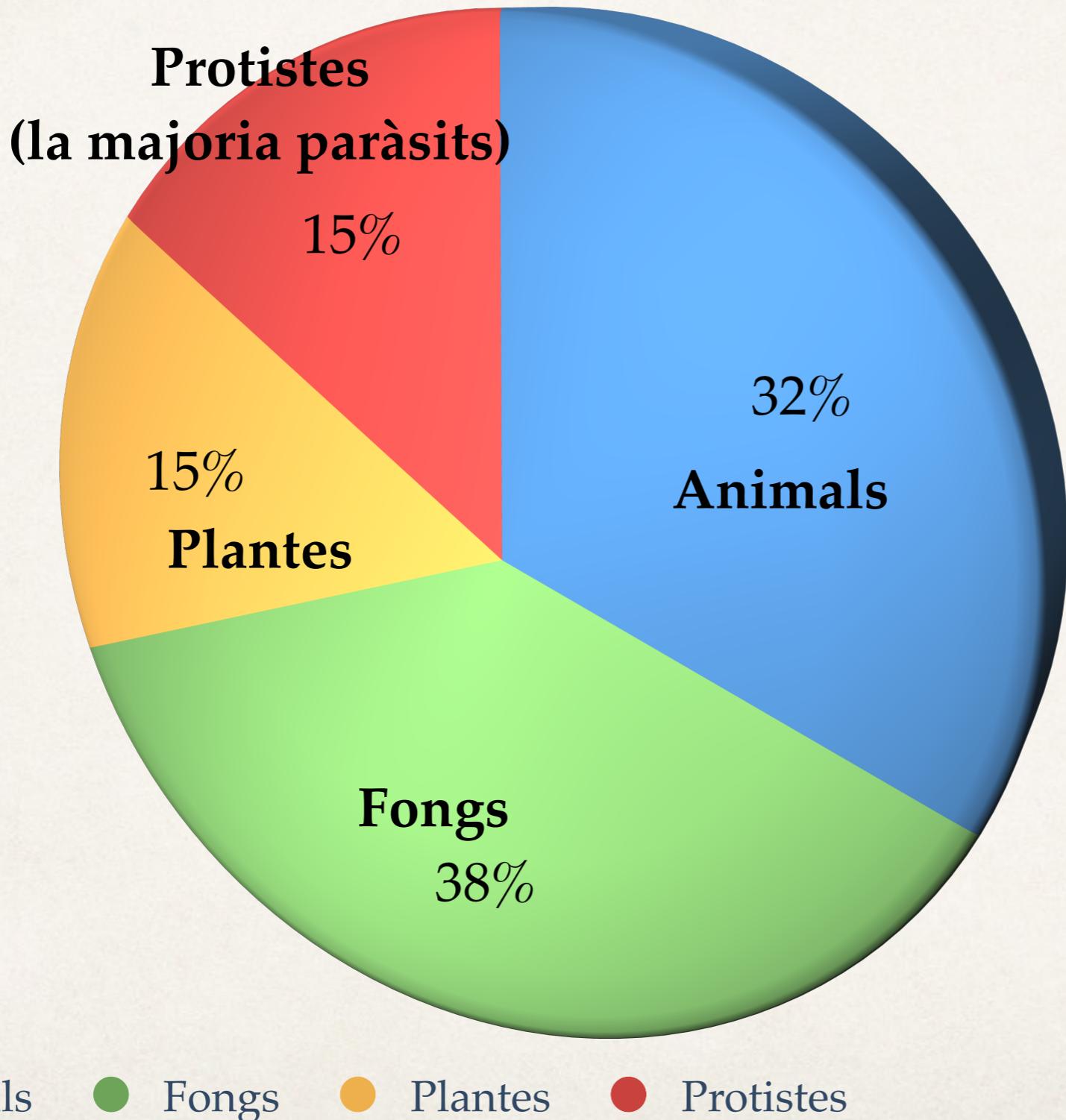
# Un món microbià

## seqüències ambientals



# El biaix dels genomes

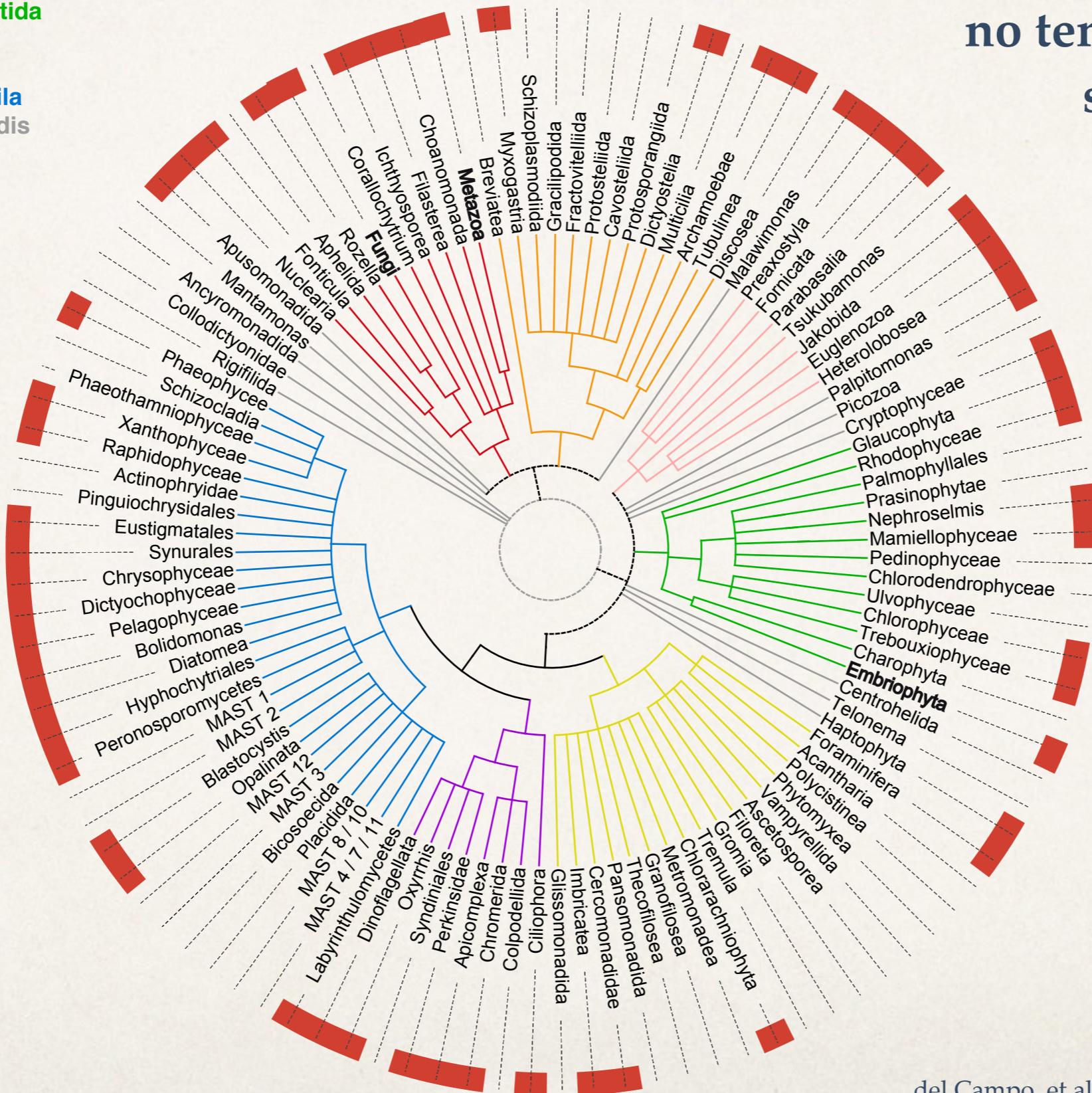
## projectes genoma



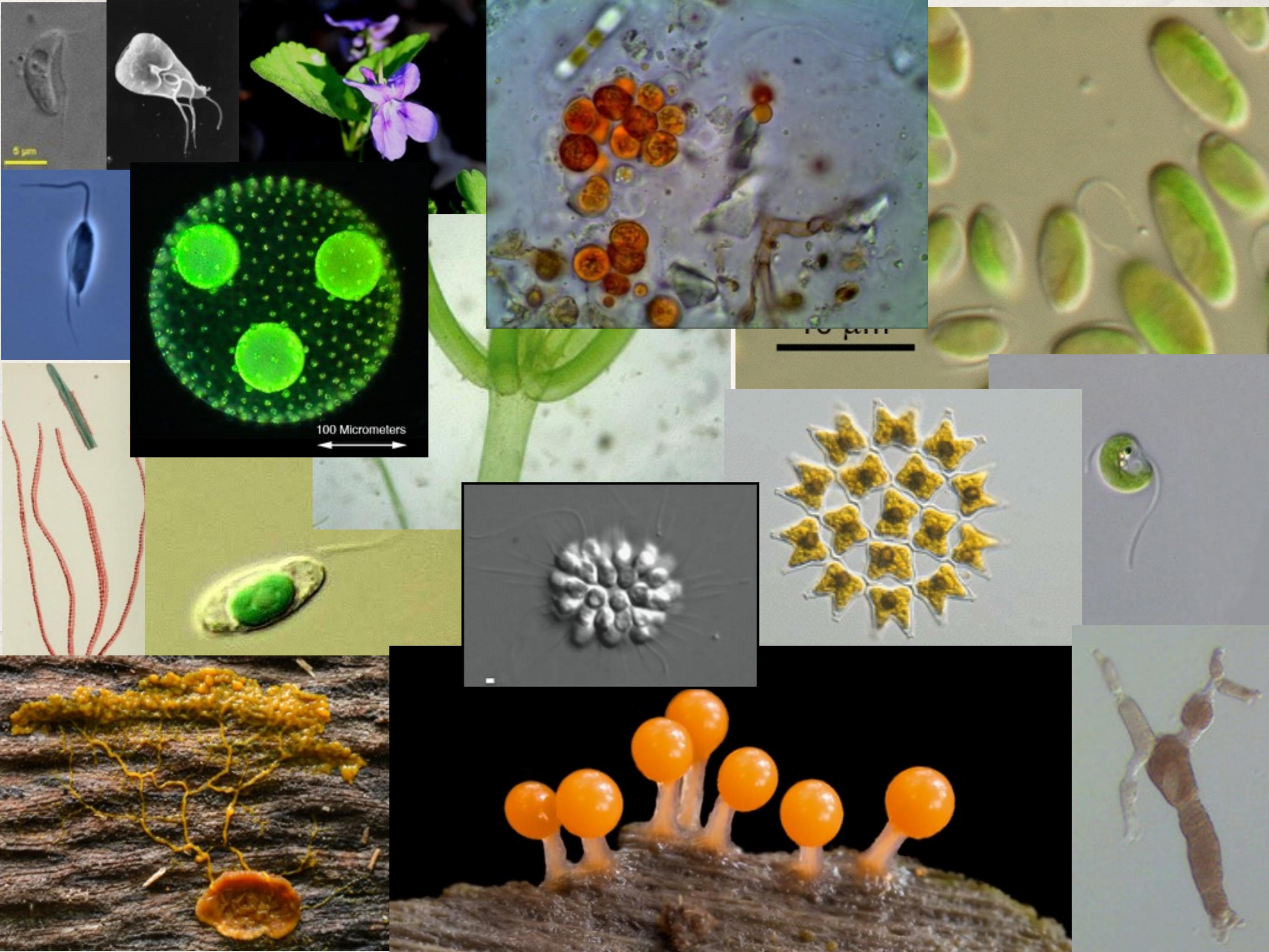
Animals-6%; 32%  
Plantes-2%; 15%  
Fongs-14%; 38%  
Protistes-78%; 15%

# El biaix dels genomes

**Opisthokonta**  
**Amoebozoa**  
**Excavata**  
**Archaeplastida**  
**Rhizaria**  
**Alveolata**  
**Stramenopila**  
 Incertae sedis



51% llinatges eucariotes  
no tenen cap genoma  
seqüenciat



# Comunitats científiques

## Bacteri

*Escherichia coli*



## Planta

*Arabidopsis thaliana*



## Mosca

*Drosophila melanogaster*



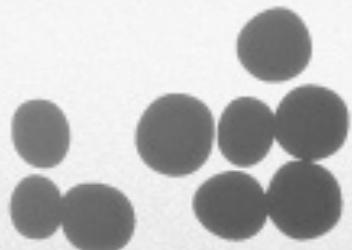
## Ratolí

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*Llevat aromyces cerevisiae*



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*Caenorhabditis elegans*



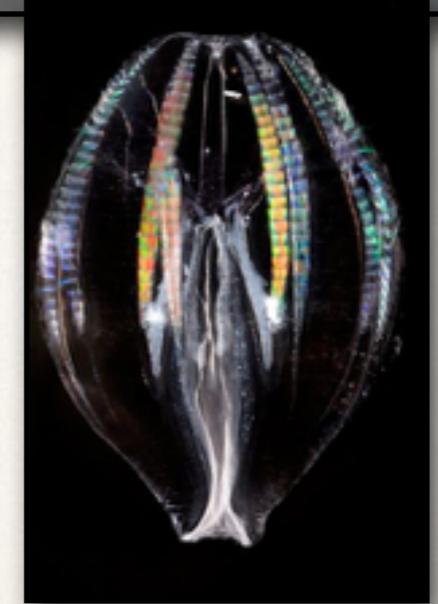
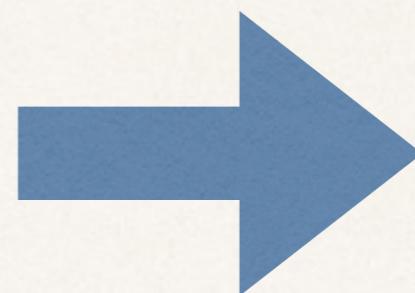
## Peix

*Danio rerio*

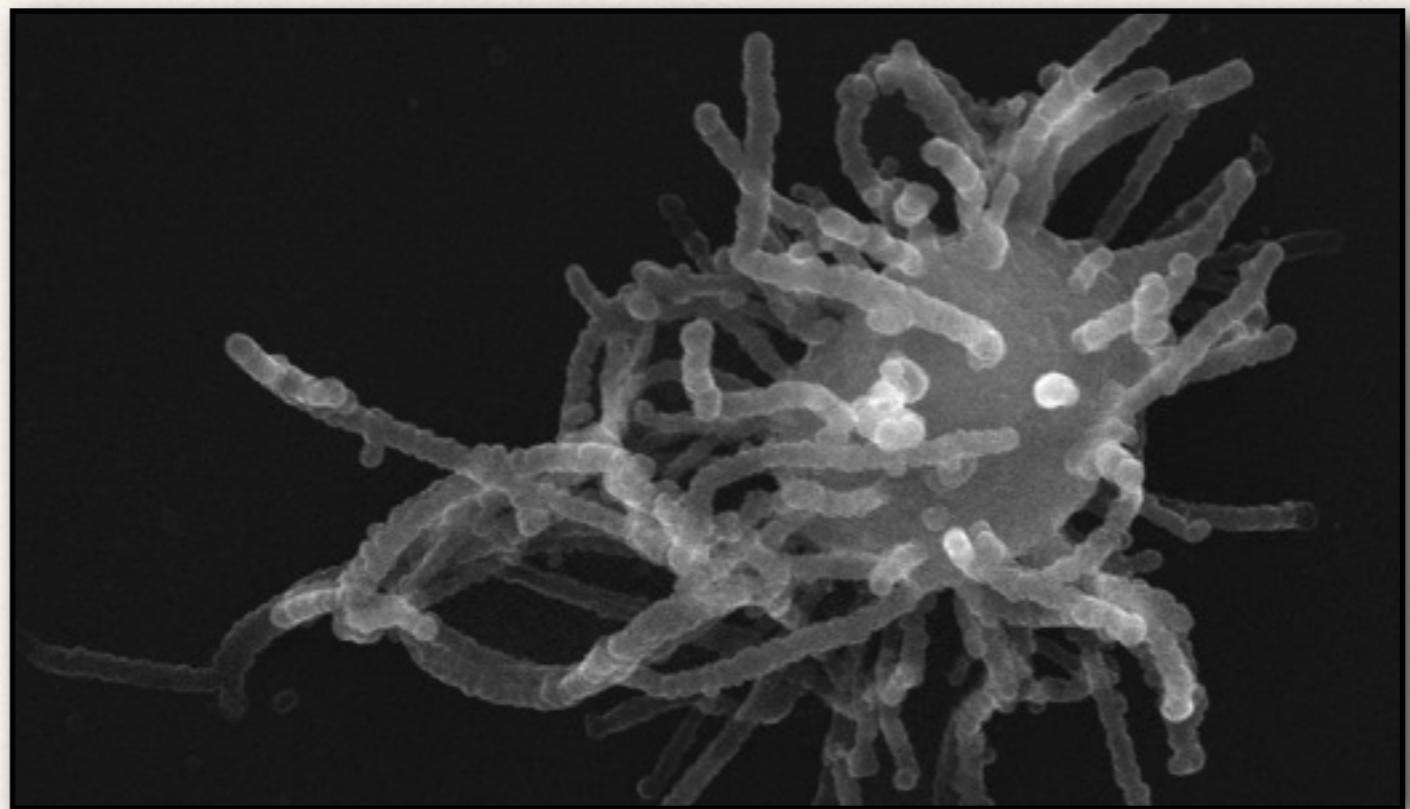


1. La pregunta
2. El model

# L'origen d'animals



flickr and National Geographic



**ancestre  
unicel·lular  
dels animals**

# Quin és el problema?



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# Agraïments



<http://www.multicellgenome.com>

