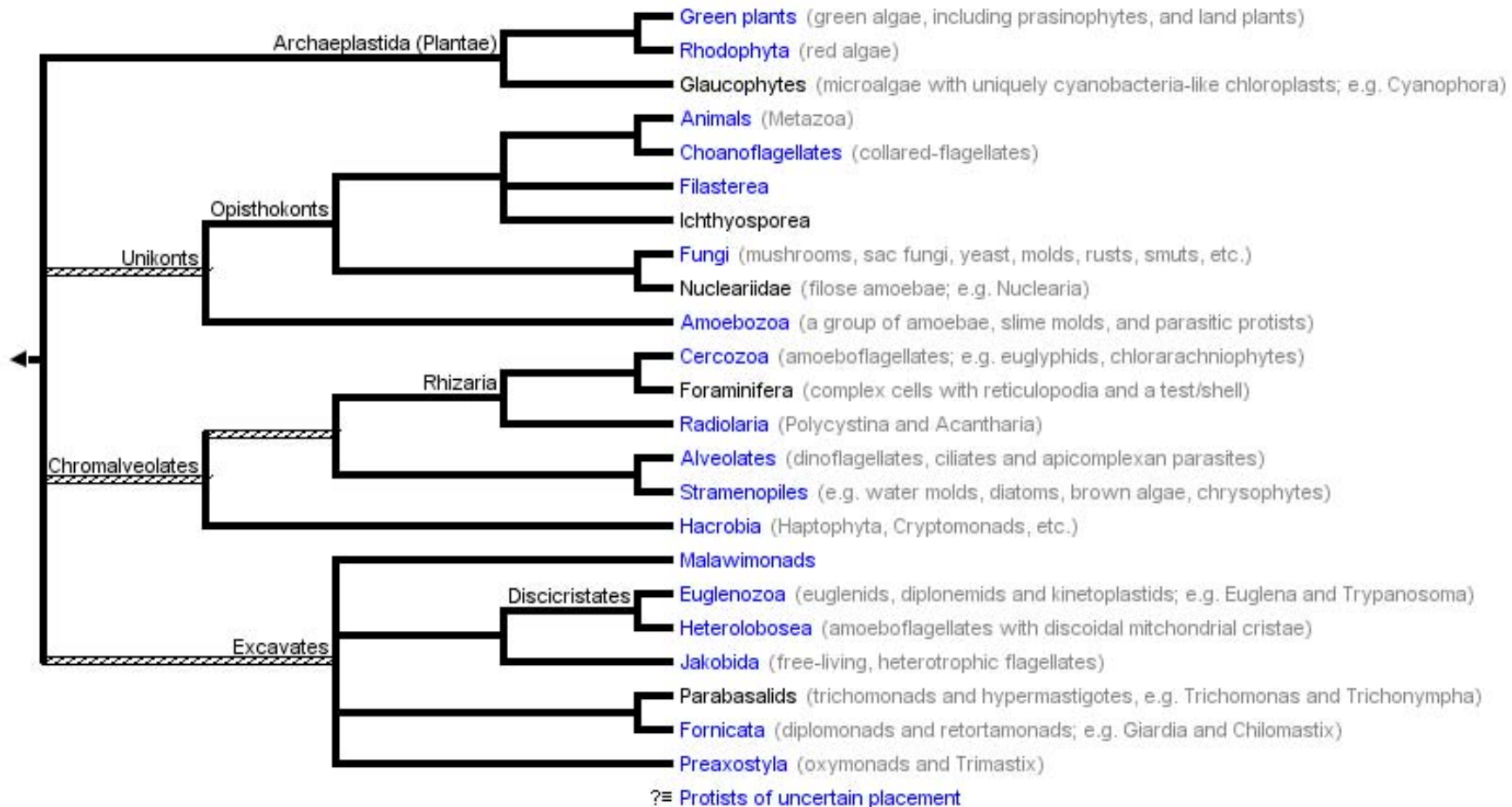


# What is a Protist?

From the Tree of Life Project  
[www.tolweb.org](http://www.tolweb.org)





- All of these organisms are composed of eukaryotic cells
- Note the relationship between green plants, animals, and fungi
- Animals and fungi more similar because they share similar evolutionary pathway
- Protists = all eukaryotic organisms that are not a green plant, animal, or fungi



Green Plant



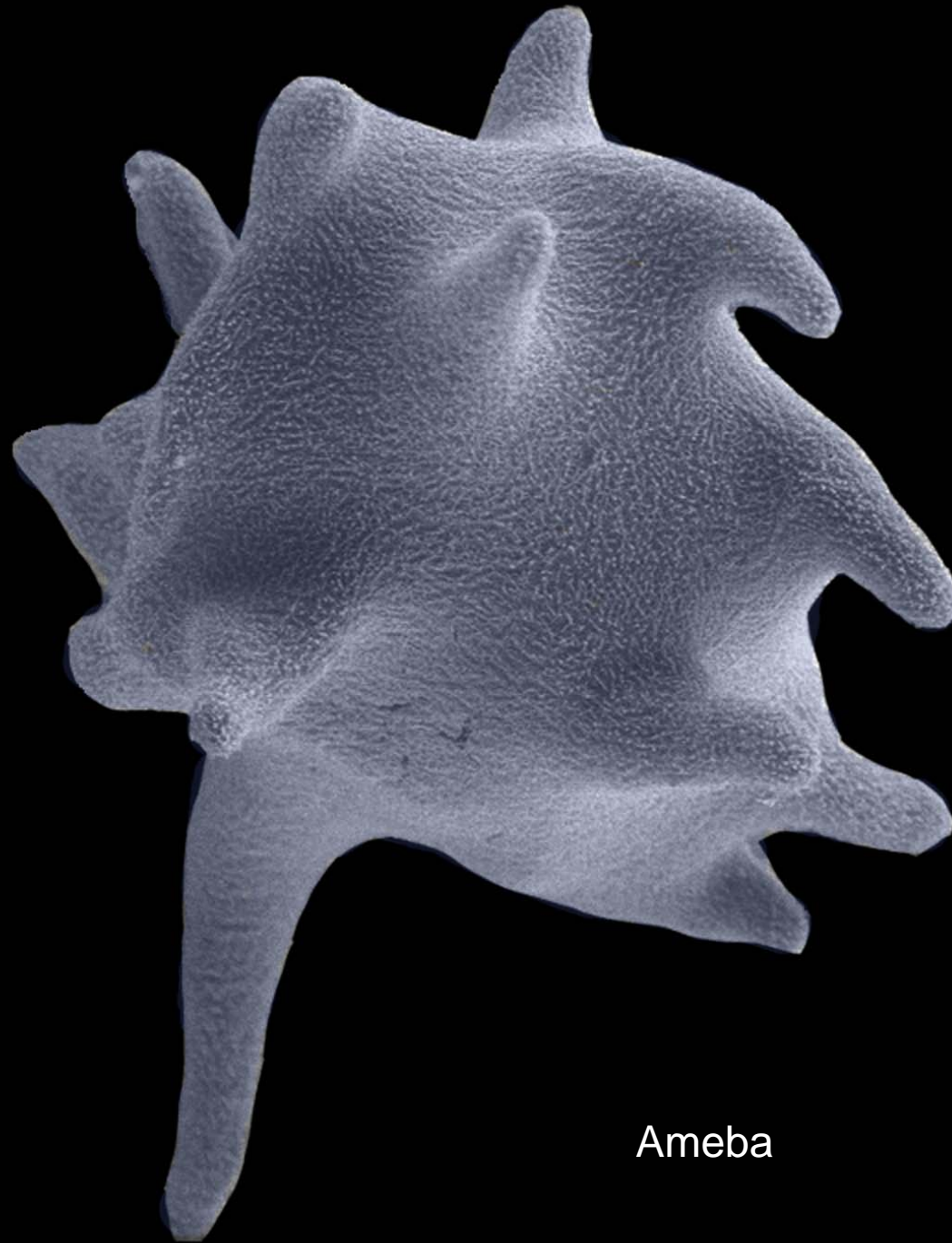
Animal





Fungi

The following slides show a diverse group of organisms which are referred to as the protists.



Ameba

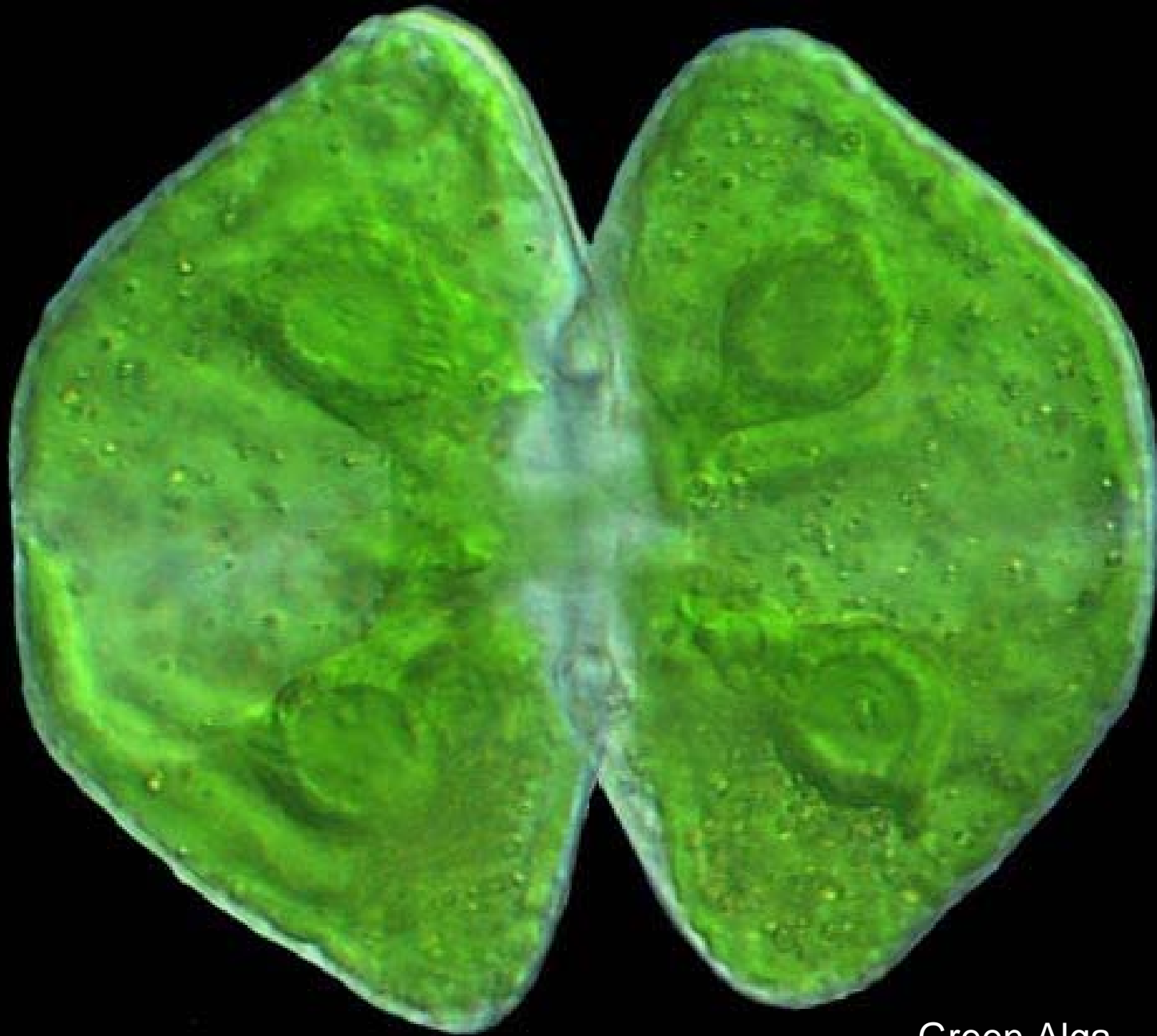


Amoebozoa

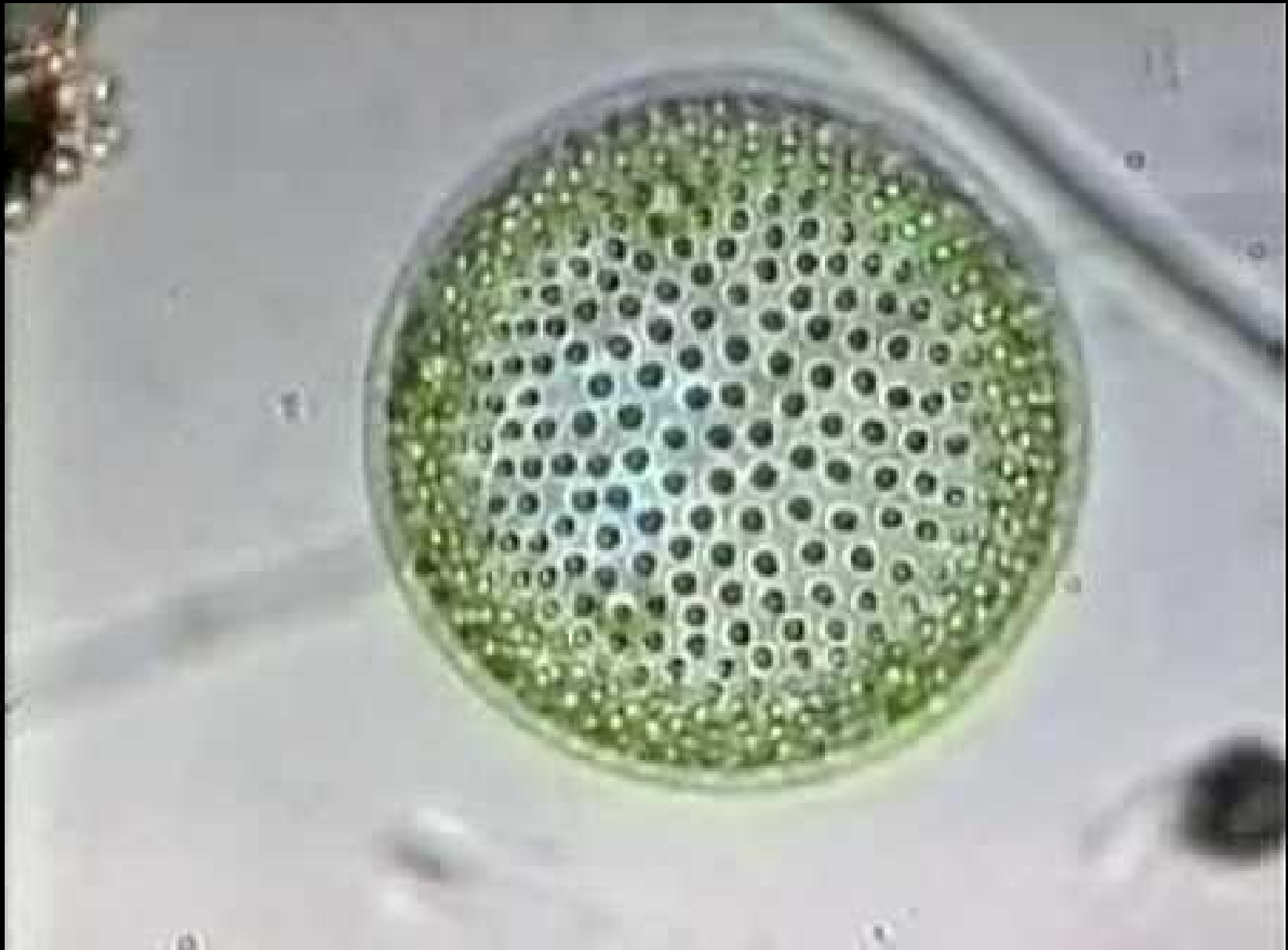
20μm



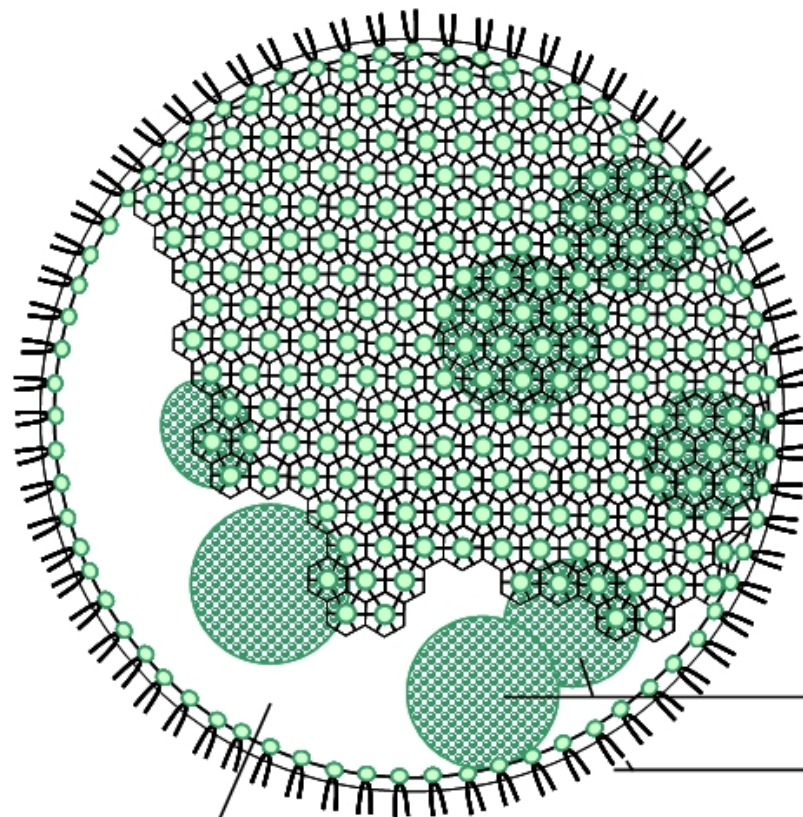




Green Alga

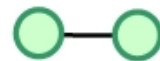


Volvox



Cells removed to show  
fluid-filled interior

● Single cell



Two neighbouring cells connected  
by a protoplasmic bridge

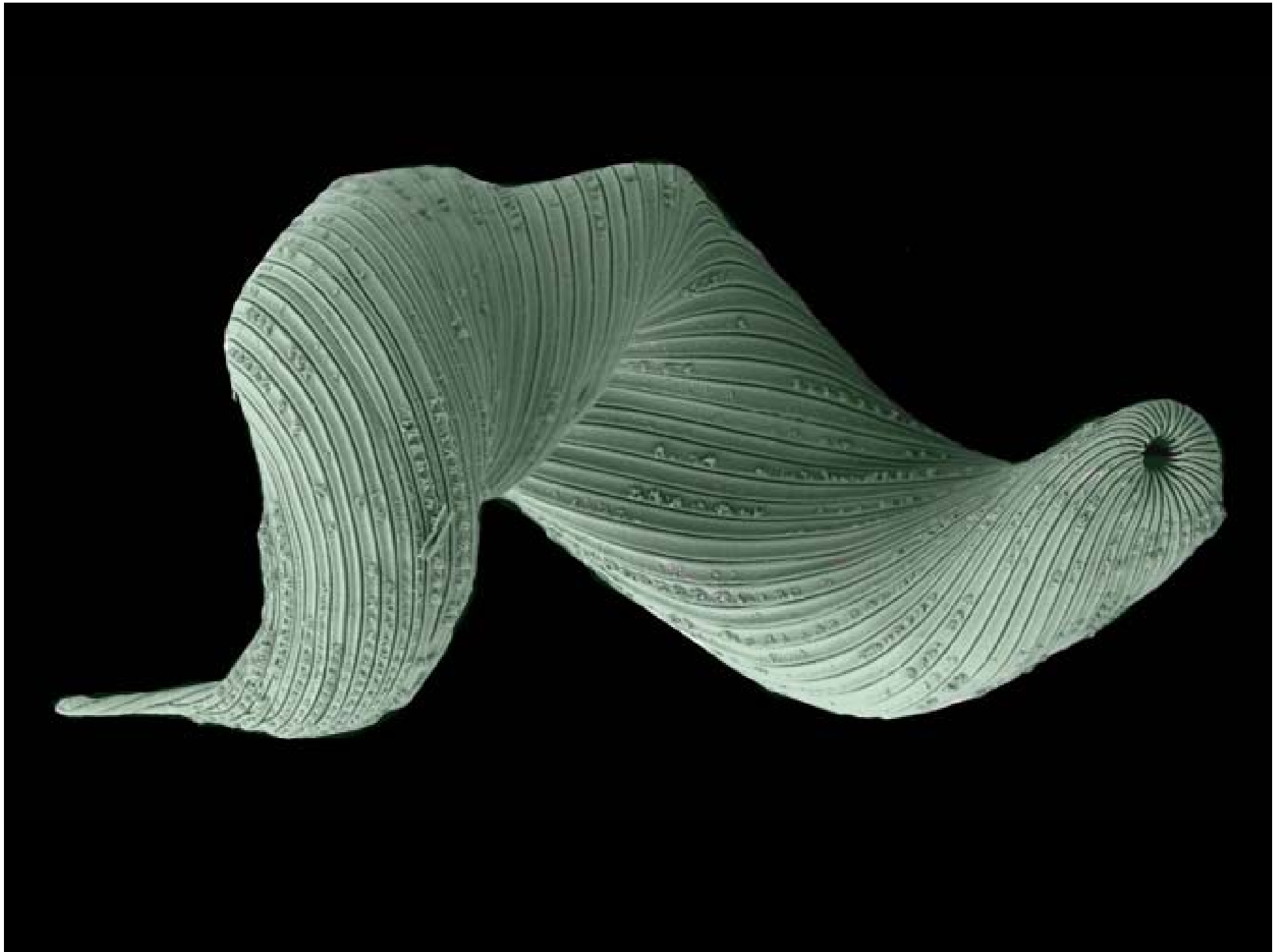
## Volvox

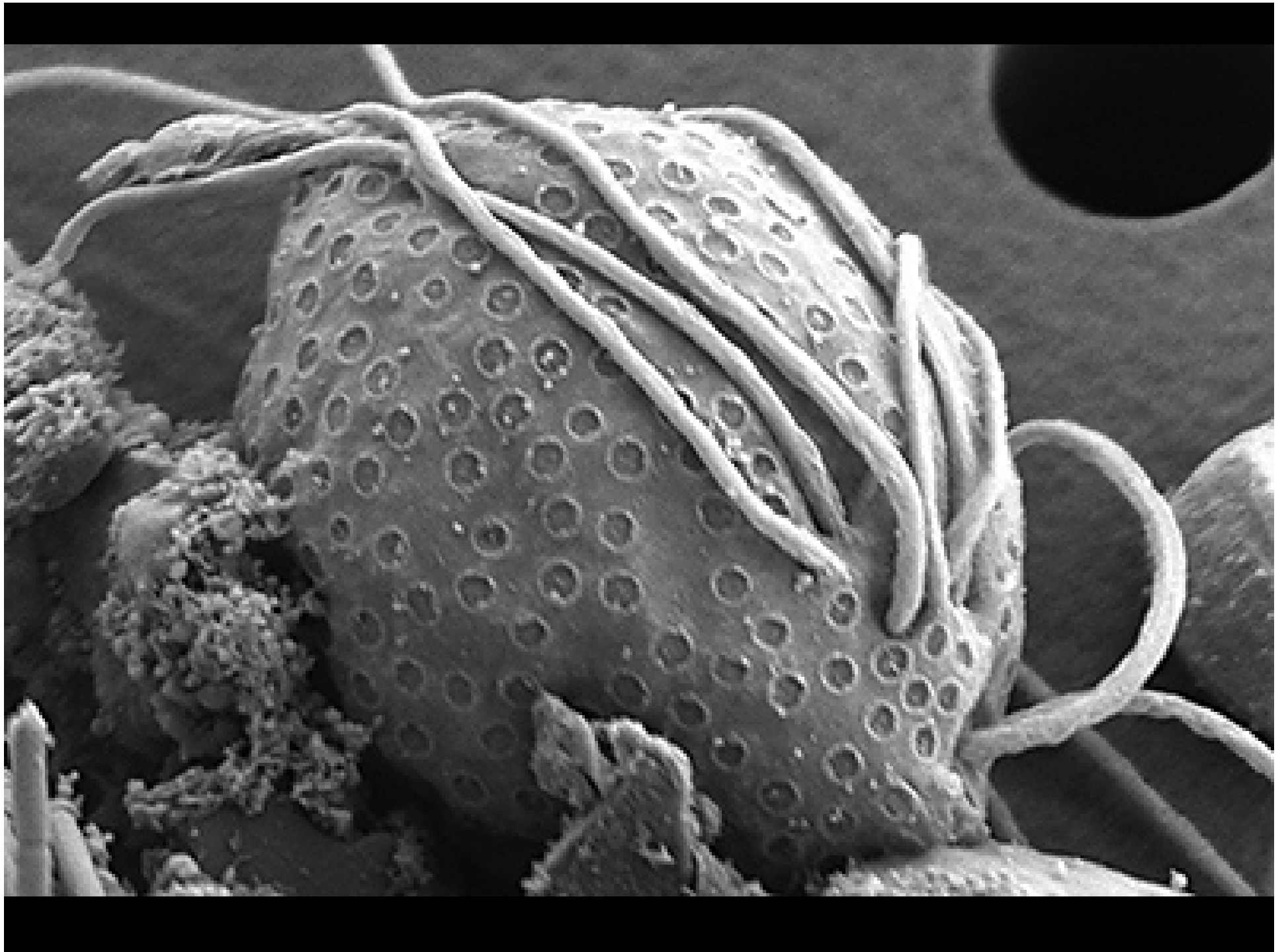
*Volvox* is a hollow ball of 500 - 50 000 cells, called a colony or coenobium, each with a pair of hair-like appendages called flagella. The flagella beat in synchrony, allowing the colony of cells to swim. One pole is the anterior (head) end as this always leads. Each cell possesses a green chloroplast containing the green pigment chlorophyll. Chlorophyll captures energy from sunlight which *Volvox* uses to make the food it needs by photosynthesis.

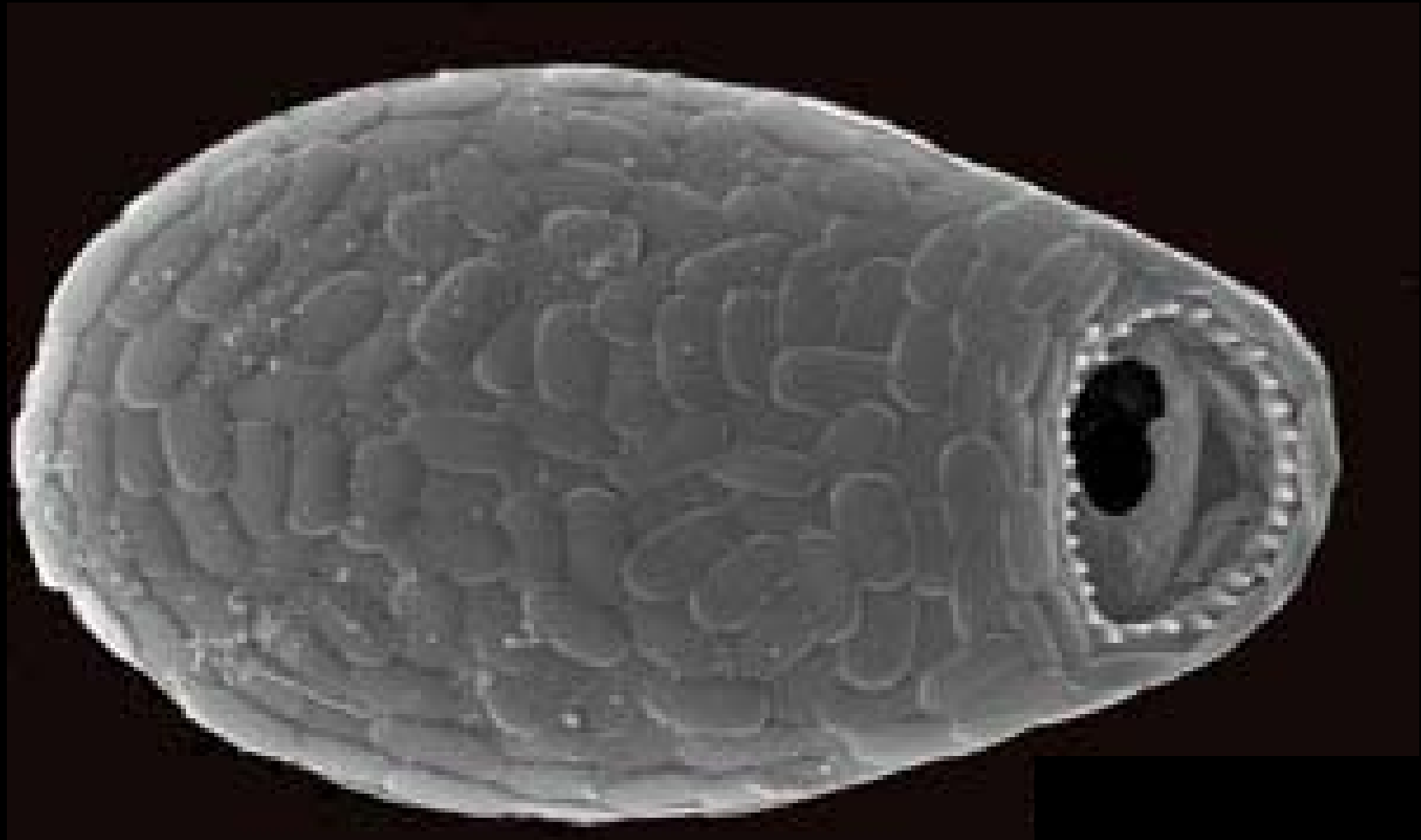
Daughter colonies

Flagella (one pair per cell)









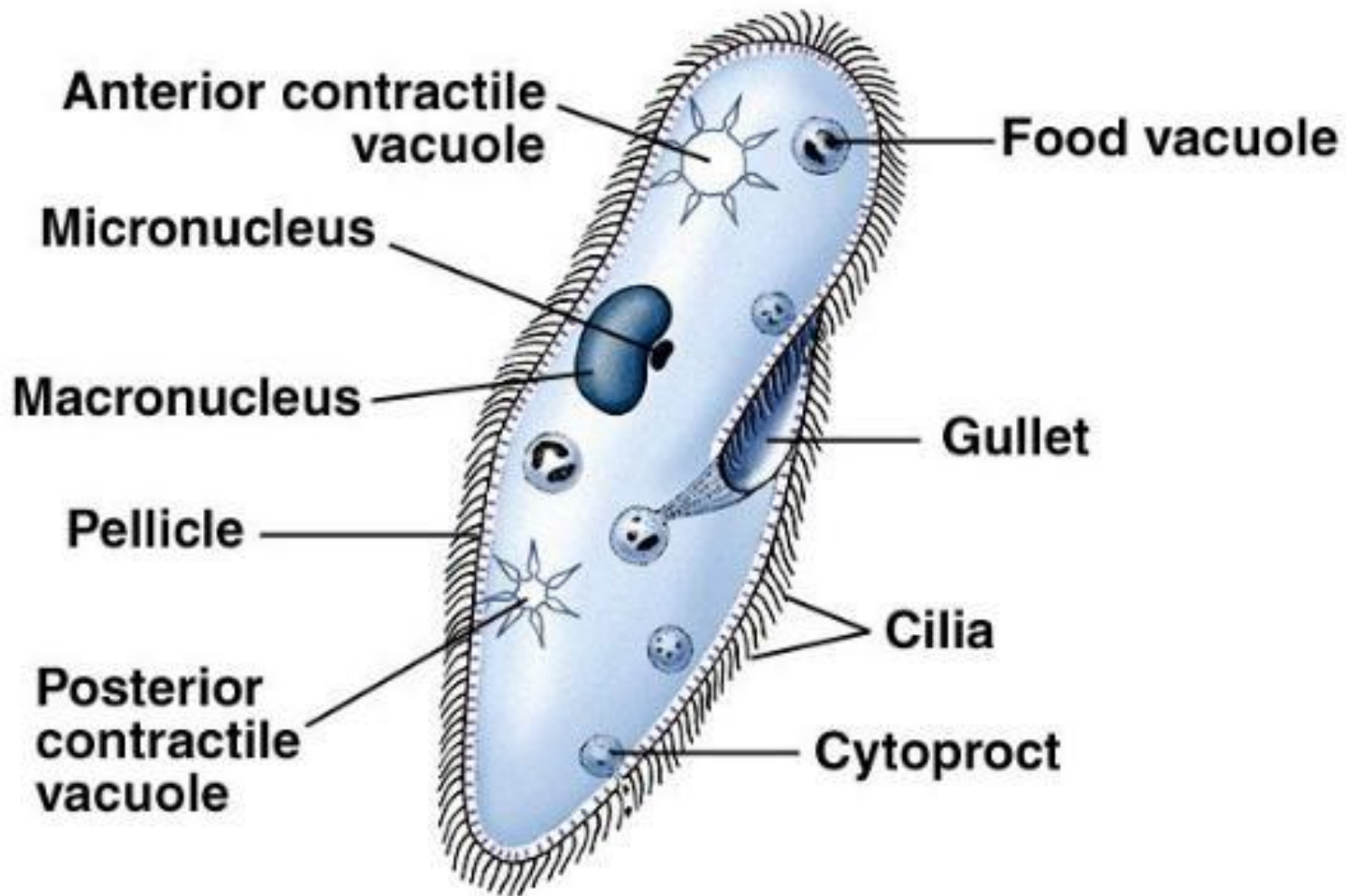






Paramecium

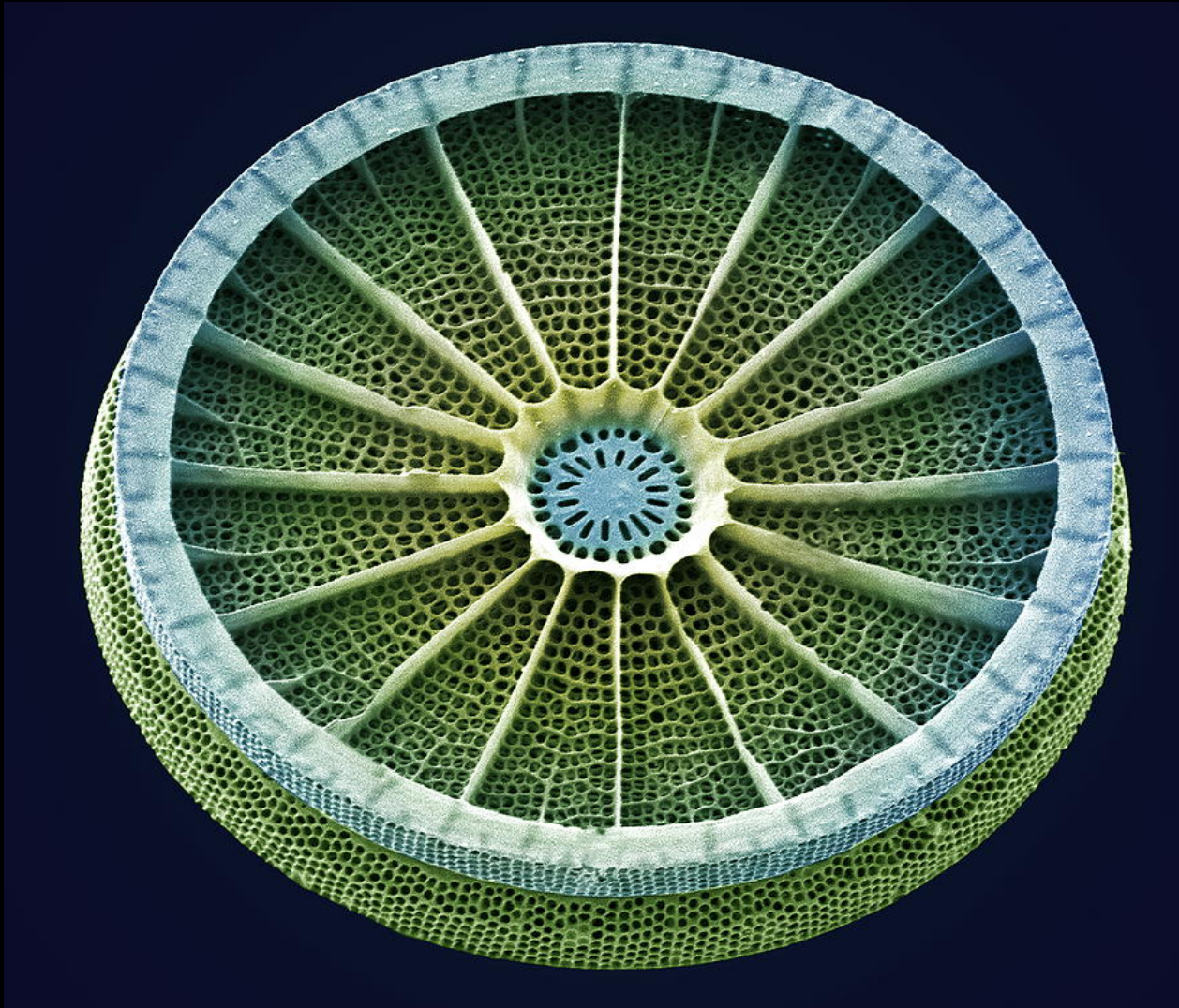
## Ciliate – *Paramecium*





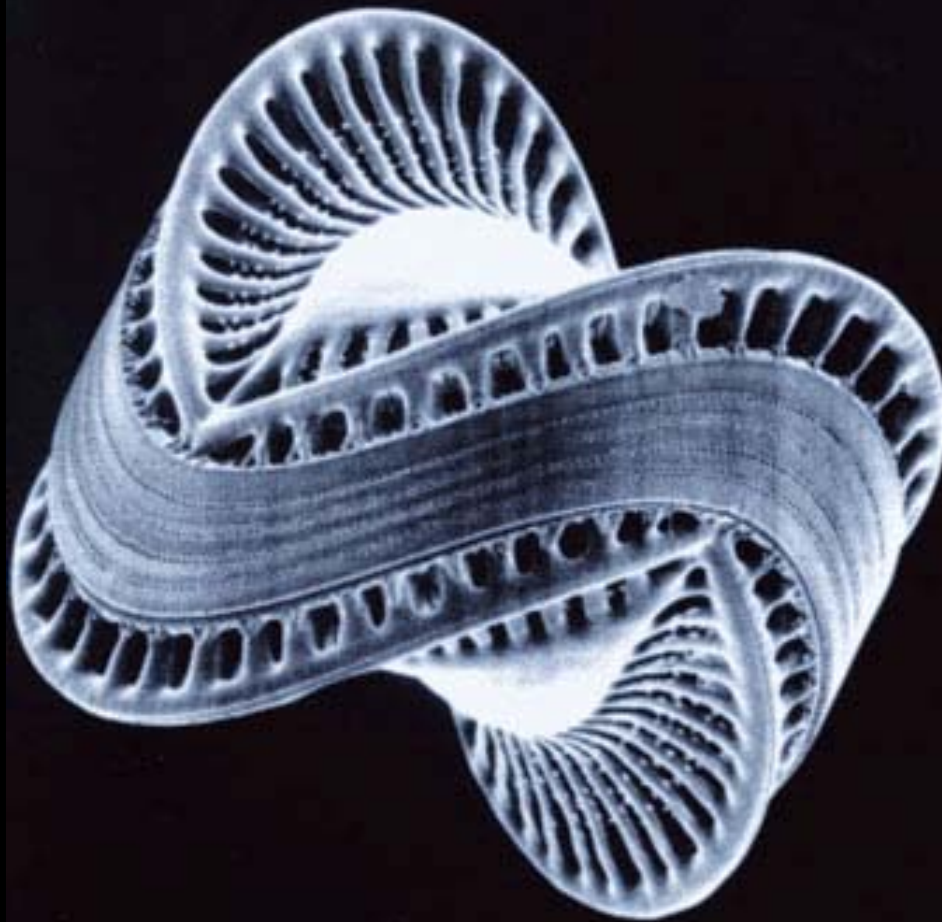
*Plasmodium malariae*



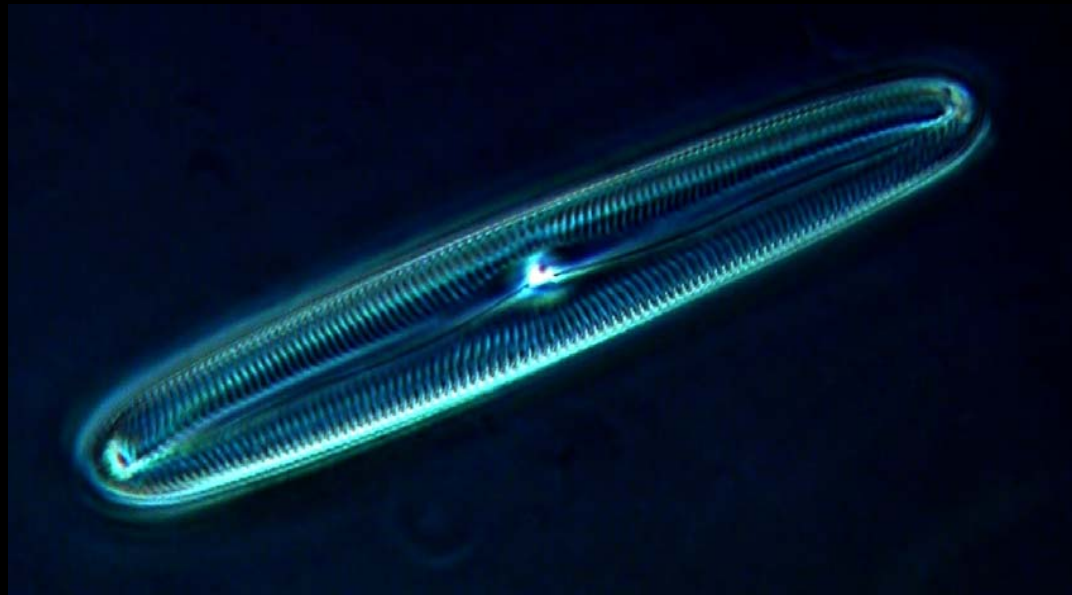


Diatom





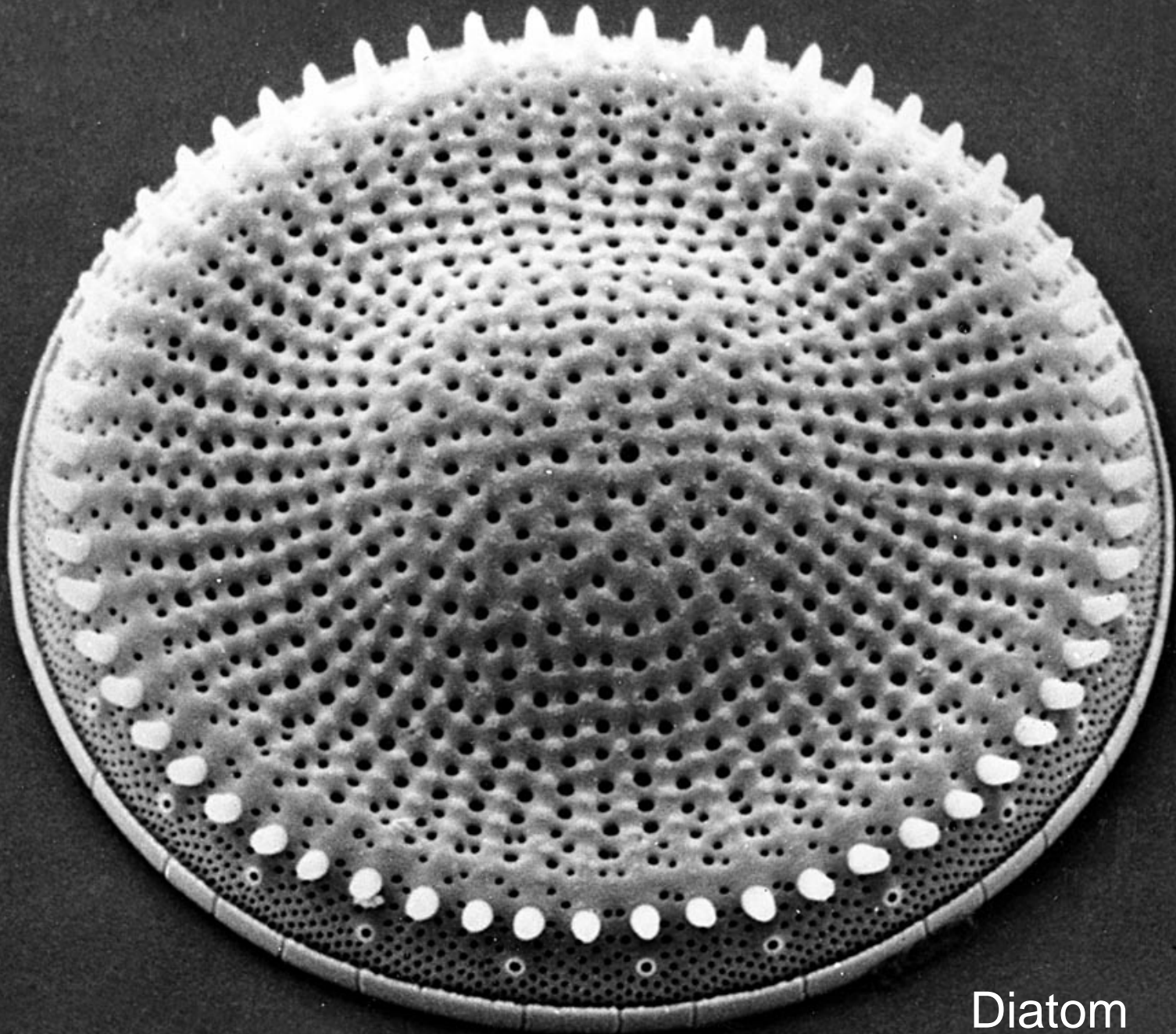
Diatom



Diatom



Diatom



Diatom