

## DOMAIN EUKARYA

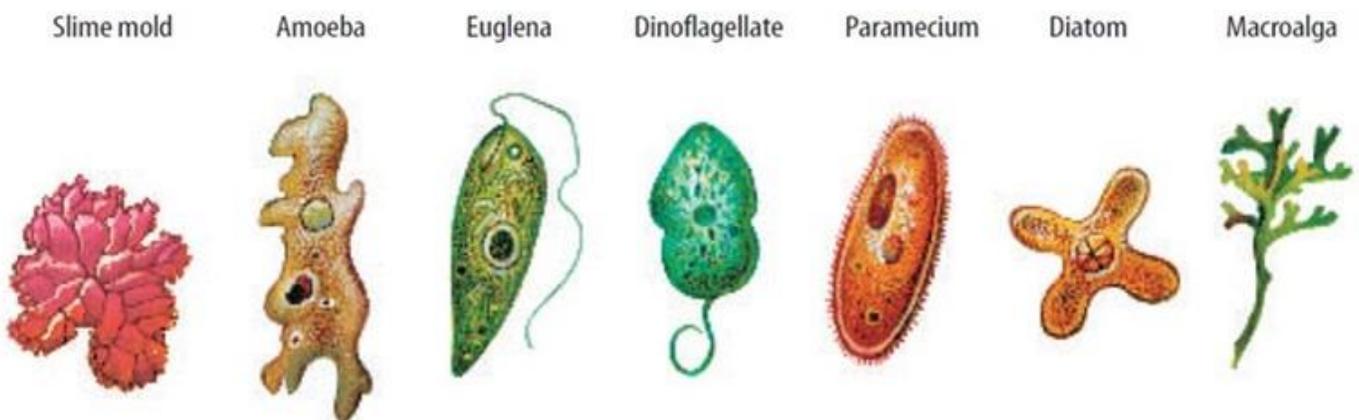
- Kingdoms within the Domain Eukarya are include **Protista, Fungi, Plantae and Animalia**



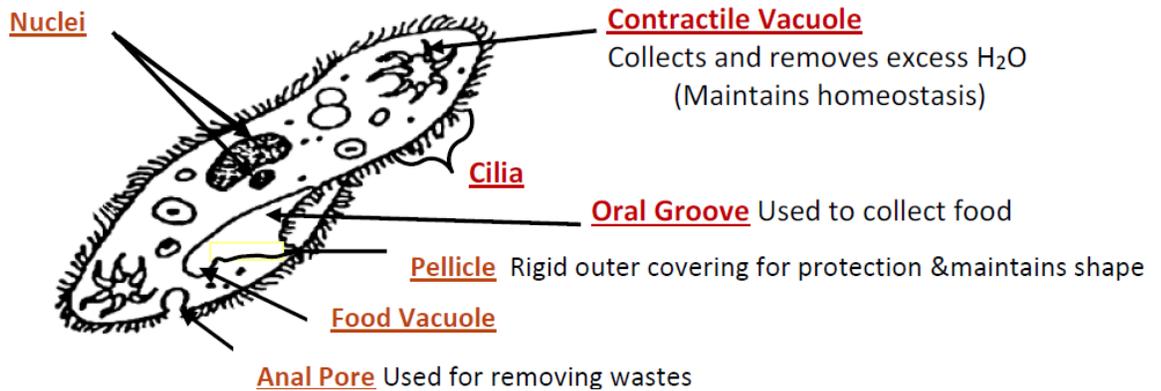
- All contain organisms composed of **eukaryotic cells**  
= cells containing an organized membrane-bound nucleus and organelles which perform a variety of functions
- Most members of this domain are multicellular and macroscopic, however there are a few unicellular, microscopic groups

## PROTISTA KINGDOM

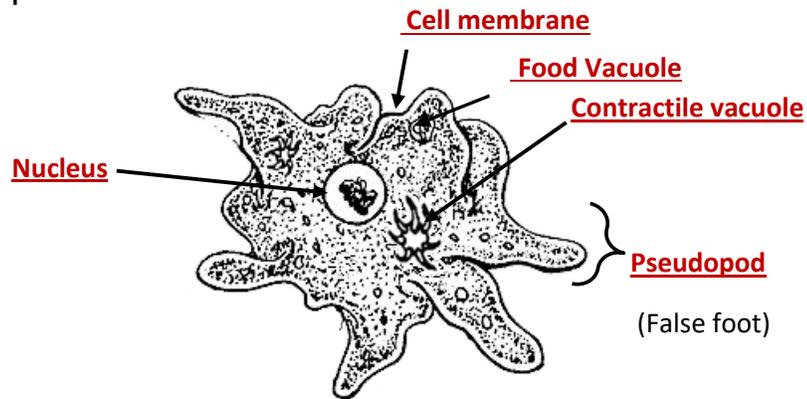
- Contains “plant-like”, “animal-like” and “fungi-like” organisms  
= the JUNK DRAWER of taxonomy
- General Characteristics
  - **eukaryotic (true nucleus)**
  - **microscopic**
  - contain specialized ‘**organelles**’
  - most are **aquatic** (fresh water or marine)
  - most are **unicellular**, but may live in **colonies**



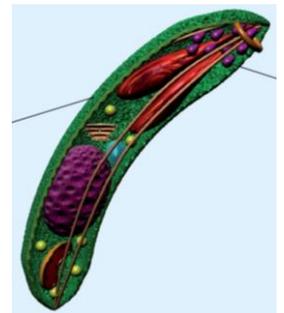
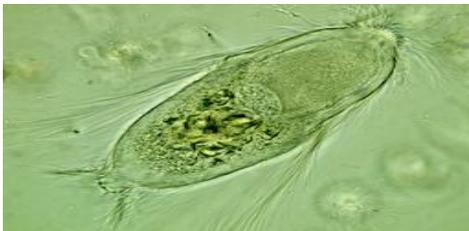
- Made up of 3 distinct groups based on nutrition
  - **Animal-like Protists (Protozoans)**
    - = **heterotrophs** (take in food)
  - 4 groups based on movement
    - Ciliphorans => use hair-like cilia
      - example: Paramecium



- Sarcodinians => move by extending their cytoplasm
  - pseudopod: extension of cytoplasm used to move & obtain food
  - example: Amoeba



- Zooflagellates => move via whip-like flagella  
example trichonympha



- Sporozoans => no structure for movement, use host to survive
  - example Plasodium (causes malaria)

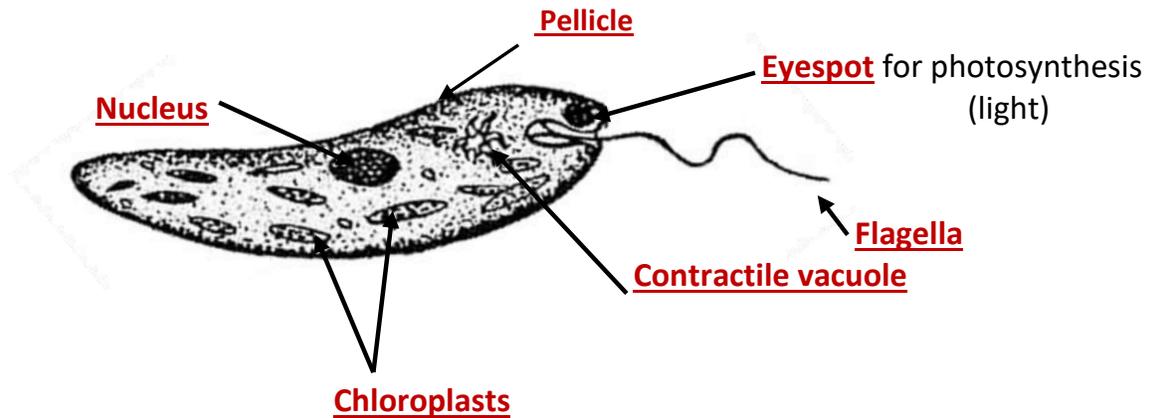
## - Plant-like Protists

= **autotrophs** (contain chlorophyll and photosynthesize)

- includes many of the algae phyla

### Unicellular algae

- Dinoflagellates => algae with **2 flagella**, usually marine
- Diatoms => Cell walls have **silica**, abundant in Oceans
- Euglenoids => no cell walls, but perform **photosynthesis**



### Multicellular Algae

=> similar to land plants, but different because of its reproduction

=> Grouped based on color

(ALL have chlorophyll, but **masking pigments** affect color)

- Green algae
- Red algae
- Brown Algae

## - Fungi-like Protists

= heterotrophs (**saprophytes or parasites**)

- **reproductive structures** like fungi

- example Slime Molds

### • Roles of Protists

- Food** for others (plankton)
- Some eat **bacteria**
- Help produce **oxygen**
- Breakdown dead plants and animals (**decomposers**)
- Some cause **diseases**



## DOMAIN EUKARYA

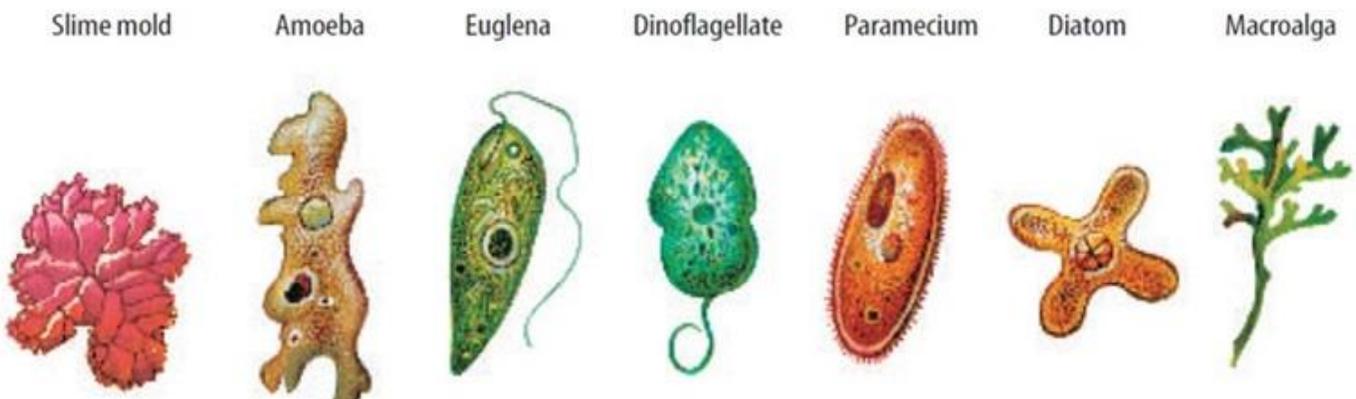
- Kingdoms within the Domain Eukarya are include \_\_\_\_\_  
\_\_\_\_\_



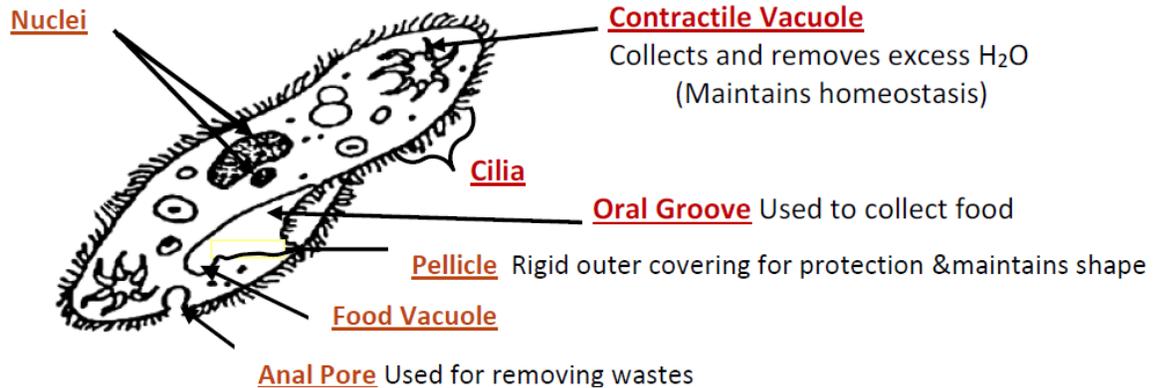
- All contain organisms composed of \_\_\_\_\_  
= cells containing an organized membrane-bound nucleus and organelles which perform a variety of functions
- Most members of this domain are multicellular and macroscopic, however there are a few unicellular, microscopic groups

### **PROTISTA KINGDOM**

- Contains “plant-like”, “animal-like” and “fungi-like” organisms  
= the JUNK DRAWER of taxonomy
- General Characteristics
  - \_\_\_\_\_
  - \_\_\_\_\_
  - contain specialized \_\_\_\_\_
  - most are \_\_\_\_\_ (fresh water or marine)
  - most are \_\_\_\_\_, but may live in \_\_\_\_\_



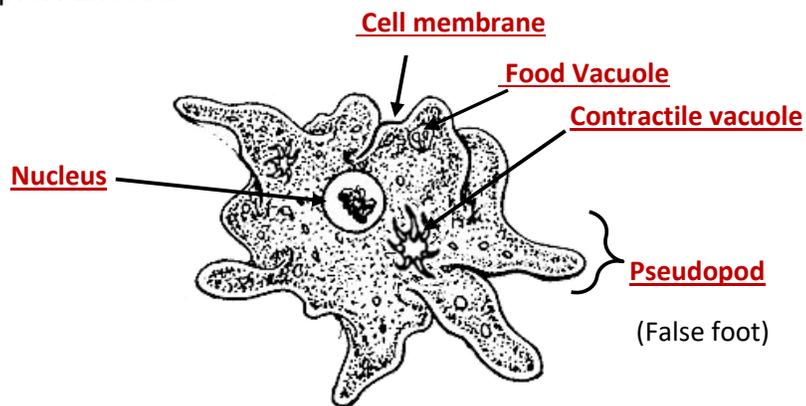
- Made up of 3 distinct groups based on \_\_\_\_\_
- **Animal-like Protists (Protozoans)**
  - = heterotrophs
  - 4 groups based on movement
  - Ciliphorans => use hair-like \_\_\_\_\_



- example Paramecium

Sarcodinians => move by extending their cytoplasm

- \_\_\_\_\_: extension of cytoplasm used to move & obtain food
- example: Amoeba



Zooflagellates => move via whip-like \_\_\_\_\_

- example trichonympha

Sporozoans => no structure for movement = use host to survive

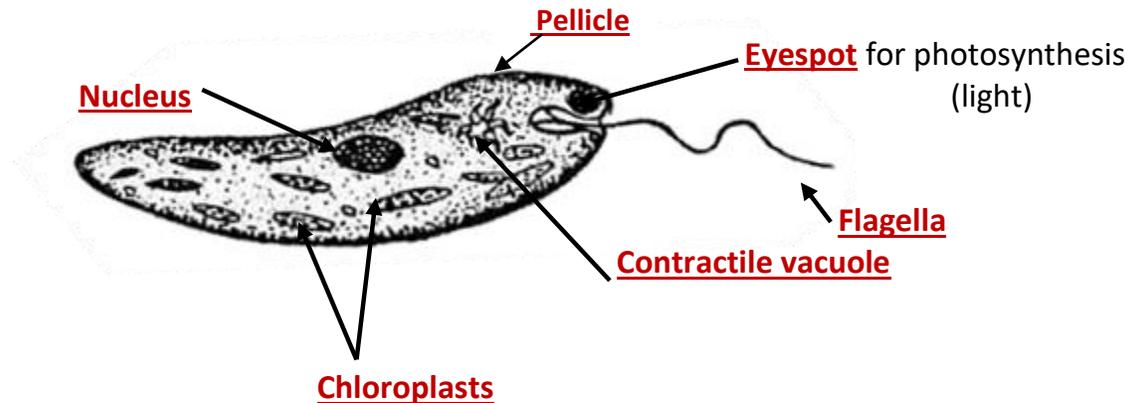
- example Plasodium (causes malaria)

## Plant-like Protists

- = autotrophs (contain chlorophyll)
- includes many of the algae phyla

### Unicellular algae

- Dinoflagellates  
=> algae with \_\_\_\_\_, usually marine
- Diatoms  
=> Cell walls have \_\_\_\_\_, abundant in Oceans
- Euglenoids => no cell walls, but perform \_\_\_\_\_



### Multicellular Algae

- => similar to \_\_\_\_\_, but different because of its \_\_\_\_\_
- => Grouped based on \_\_\_\_\_  
(ALL have chlorophyll, but \_\_\_\_\_ affect color)

  - Green algae
  - Red algae
  - Brown Algae

## - Fungi-like Protists

- = heterotrophs
- \_\_\_\_\_ structures like fungi

## • Roles of Protists

- \_\_\_\_\_ for others (plankton)
- Some eat \_\_\_\_\_
- Help produce \_\_\_\_\_
- Breakdown dead plants and animals \_\_\_\_\_
- Some cause \_\_\_\_\_