



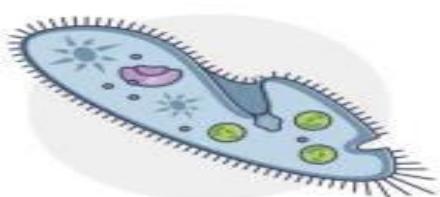
Types of Microorganisms

Protozoa

Presented by Dr Uswa Fazal

Fsc part(1)

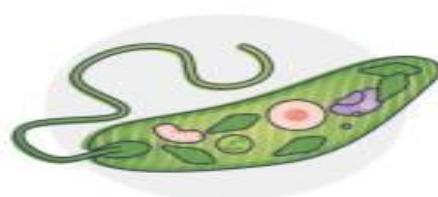
PROTOZOA



PARAMECIUM



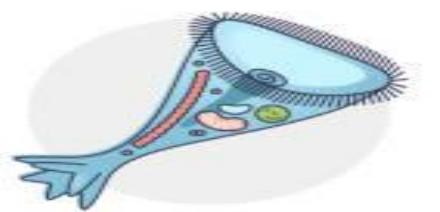
DIDINIUM



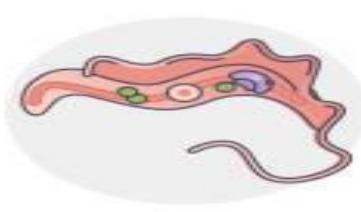
EUGLENA



DIFFLUGIA



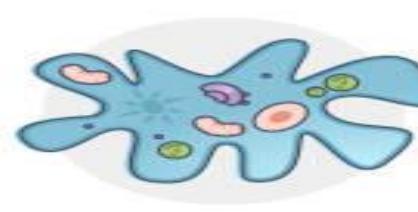
STENTOR



TRYPANOSOMA



CARCHESIUM



AMOEBA



Characteristics of Protozoa

- **Eukaryotic Cells**
- Tiny living things seen only under a microscope
- They are unicellular eukaryotes (have nucleus)



...Continued

- **Movement**
- Move with cilia (hairs), flagella (tail), or pseudopodia (false feet)
- **Reproduction**
- Reproduce by splitting into two or by sexual method
- Form cysts to survive in hard conditions



Types of Protozoa

- **Amoeboids**
- Move with pseudopodia (e.g., *Entamoeba histolytica*)
- **Flagellates**
- Move with flagella (e.g., *Giardia lamblia*)



...Continued

- **Ciliates**
- Move with cilia (e.g., Paramecium)
- **Sporozoa**
- Non-motile parasites (e.g., Plasmodium causing malaria)



Roles of Protozoa

- **Beneficial**
- Keep water and soil clean
- Recycle dead organic matter
- Used in pest control



Roles of Protozoa

- **Pathogenic**
- Cause malaria (Plasmodium)
- Cause dysentery (Entamoeba histolytica)
- Cause sleeping sickness (Trypanosoma)



:)

Thank You