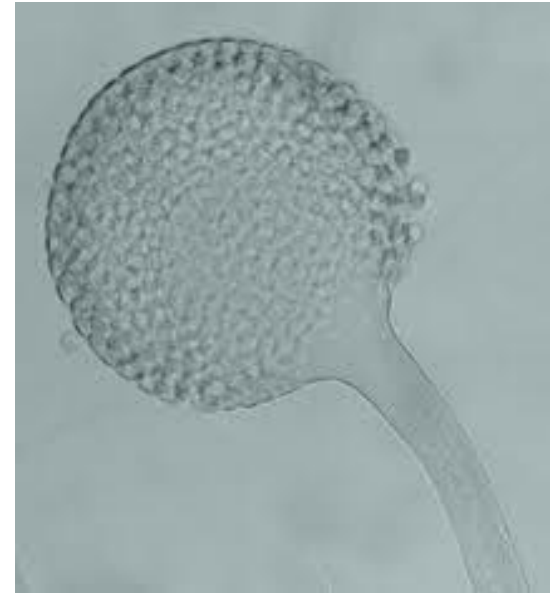


Classification of Kingdom Fungi

Classification of Kingdom Fungi

- Fungi are organized based on the type or shape of the spore bearing structure they produce = sporangium.

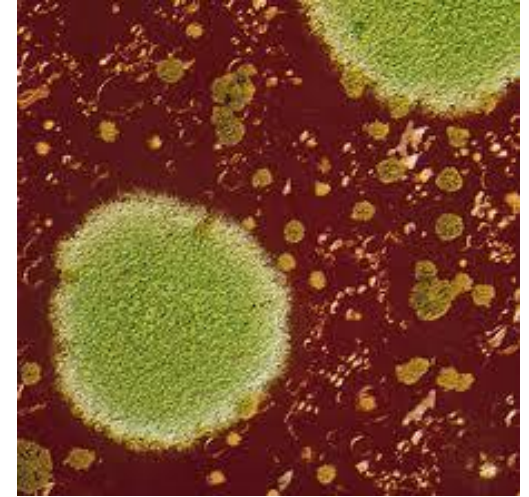


There are 3 phylums:

1. Phylum Mastigomycota

Ex) Water Molds

- Motile spores – flagella with cellulose cell walls
- Mainly saprophytes
- Sexual and asexual reproduction



2. Phylum Amastigomycota

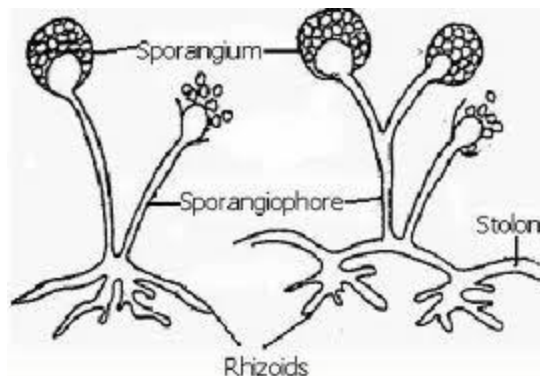
- Non-motile spores with chitin cell walls.
 - There are 3 classes:
 - Class Zygomycetes
 - Class Ascomycetes
 - Class Basidiomycetes



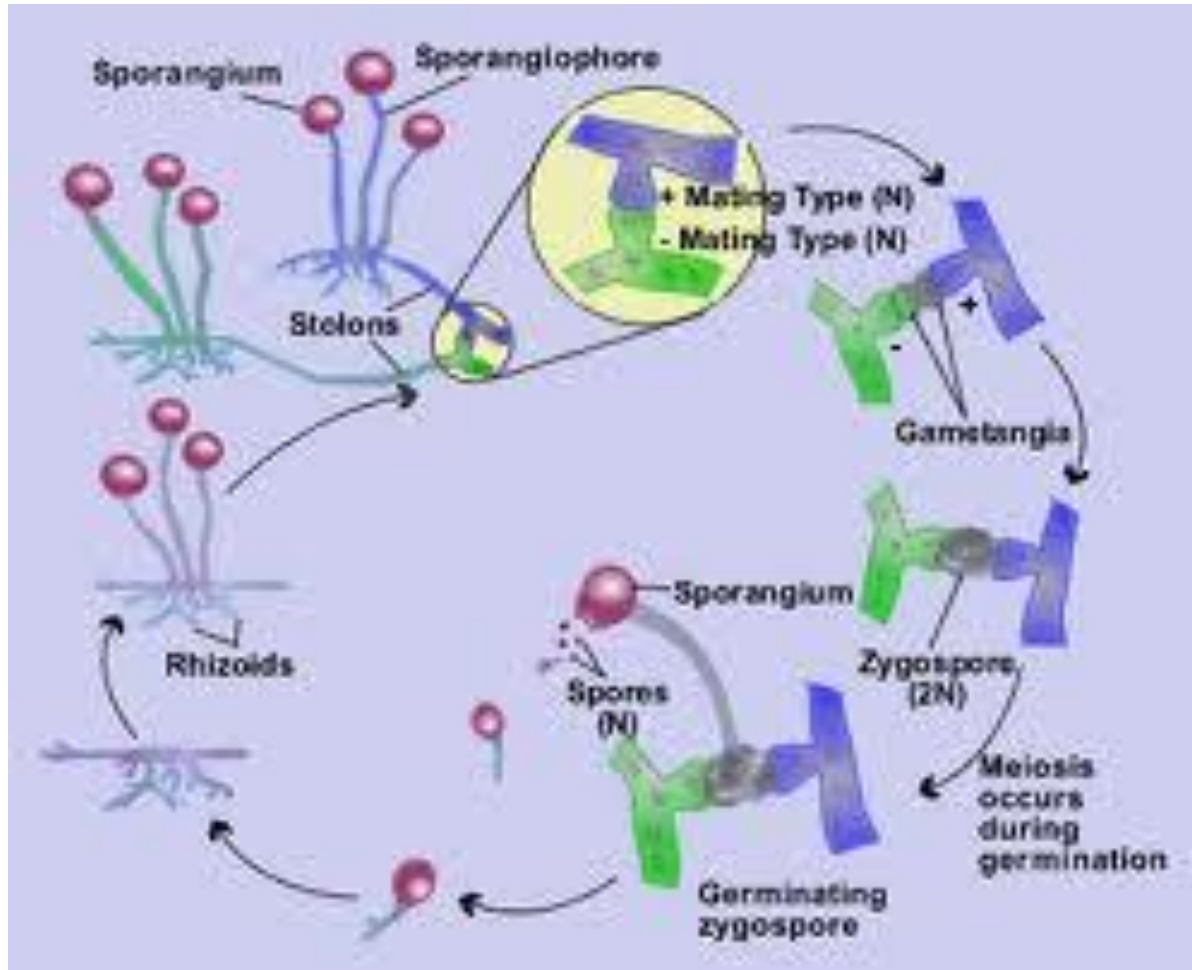
a) Class Zygomycetes:

Ex) *Rhizopus* (Bread mold)

- Form zygospores (sexual reproduction).
- Some are saprophytes
- Sexual & asexual spores
- **NO** dikaryotic stage



Life cycle of Zygomycetes (*Rhizopus* – Bread mold)



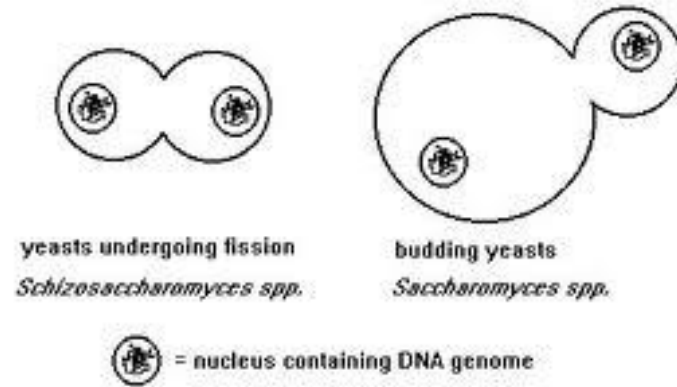
b) Class Ascomycetes

Ex) Yeast (no fruiting body),
truffles

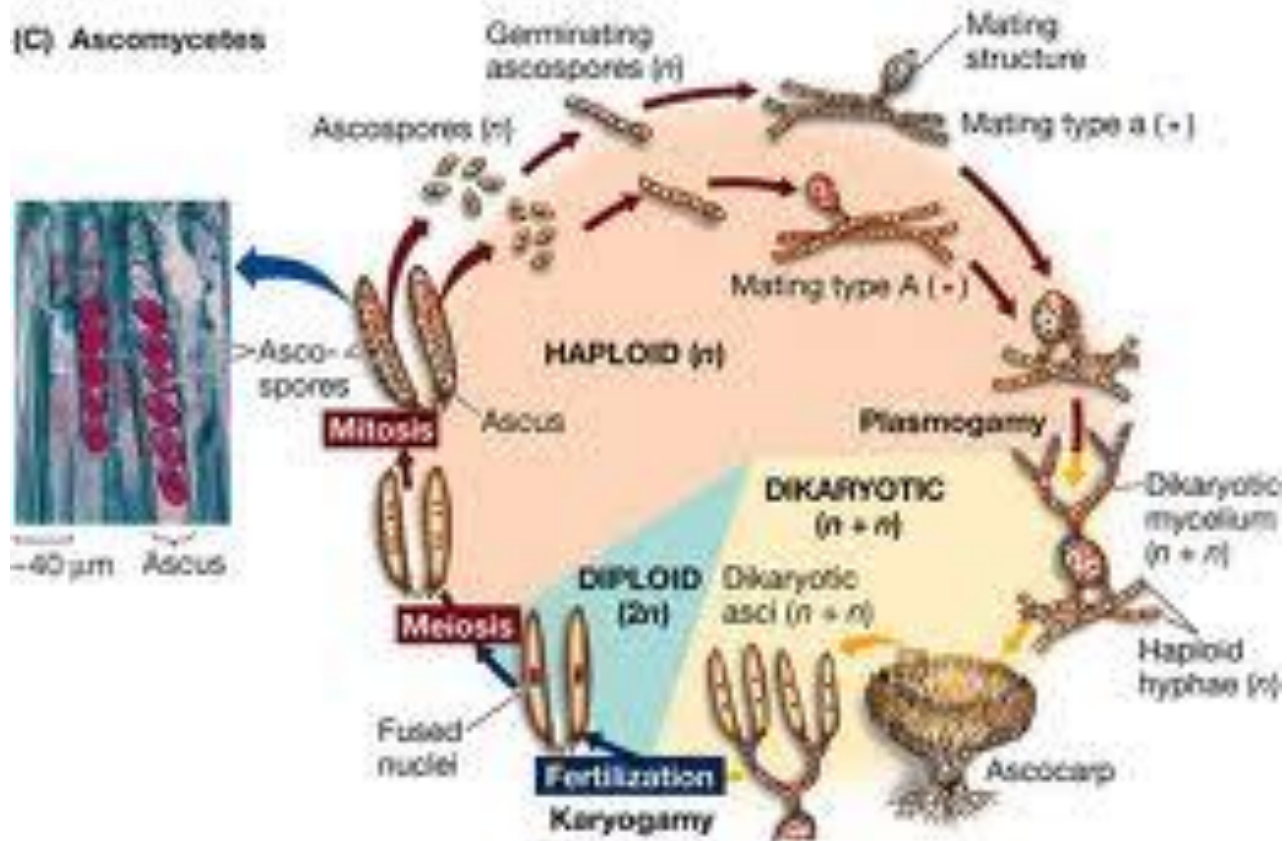
- **SAC** fungi (sac shaped sporangia)
- Sexual and asexual spores.
 - Sexual spores called ascospores
- **SHORT** dikaryotic stage
- Many pathogens of plants ex)
Dutch Elm's disease

Memory trick: "Asc" rearranges to form
"SAC"

Replicating Yeasts: Fission vs. Budding



Life cycle Ascomycetes

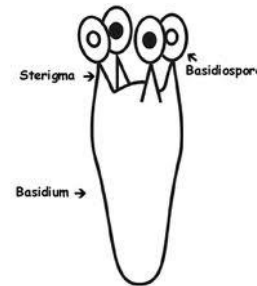


c) Class Basidiomycetes

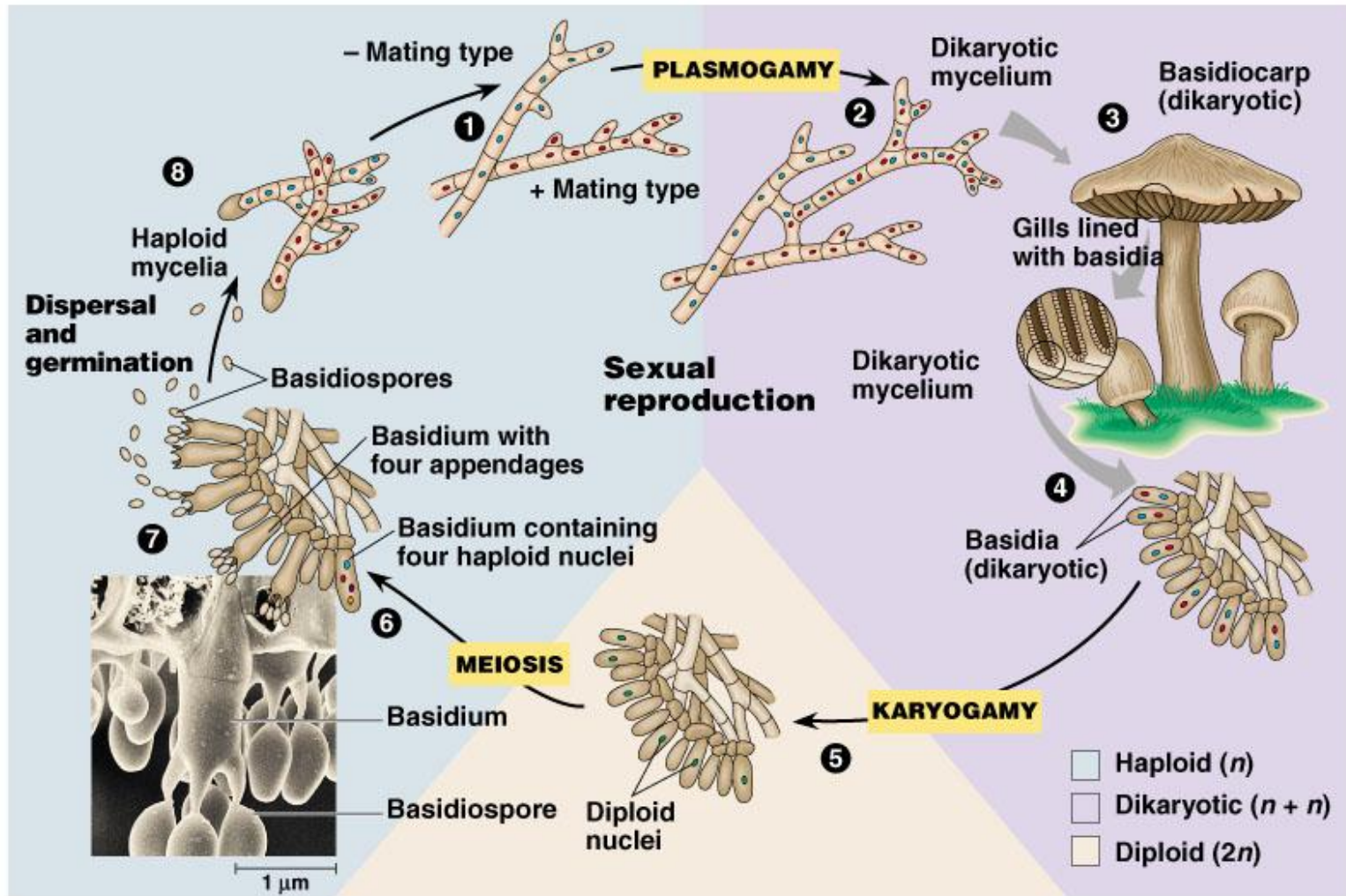
Ex) mushrooms, bracket fungi, puff balls



- **CLUB** fungi
- **Sexual spores** only = Basidiospores - No asexual spores
- **LONG** dikaryotic stage
- Many are pathogens
ex) smuts & rusts



L.C. of Basidiomycetes



- Memory trick for the dikaryotic stage:

ZAB – no, short, long

Z = no dikaryotic stage for zygomycetes

A = short dikaryotic stage for ascomycetes

B = long dikaryotic stage for basidiomycetes

3. Phylum Deuteromycota

Ex) Athlete's foot, ringworm, thrush, yeast infections.

- **Imperfect fungi** – resemble sac & club fungi (*so imperfect*)
- **Asexual spores only** – no sexual ones
- Pathogens of animals – ringworm, Athlete's foot – PARASITES!!



ADAM

