

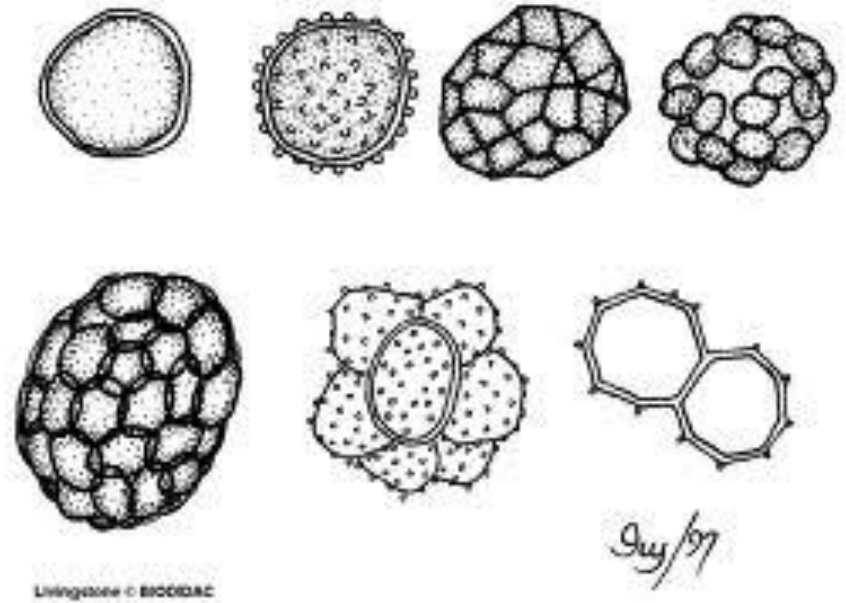
Kingdom Fungi – Characteristics & Reproduction

Characteristics of Kingdom Fungi:

- Eukaryotes
- Prefer dark, warm, moist areas
- Unicellular (yeast) or Multicellular (molds, mushrooms)
- Have cell wall in L. C. – **NOT** part of K. Plantae because they ***lack chlorophyll***
- **All** are heterotrophic – digestion is extracellular (external), then the food is absorbed through the cell wall/ cell membrane
 - A) Saprobies = absorb food from dead/decaying organisms
ex) mushrooms
 - B) Parasites = obtain food from a living host ex) ringworm or Athlete's foot

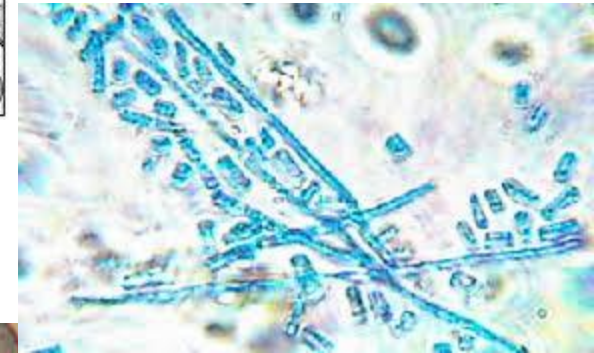
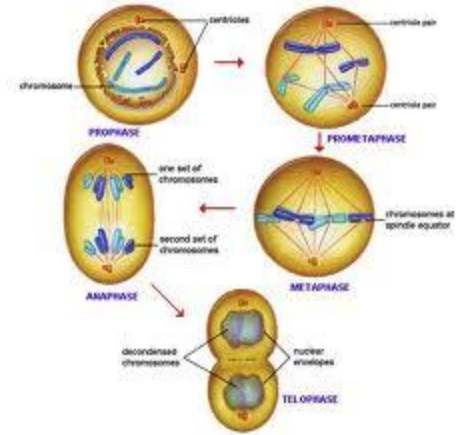
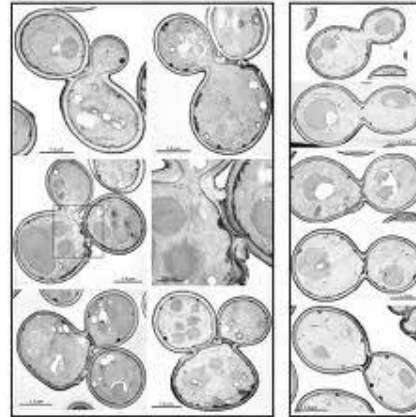
Reproduction

- Fungi always produce ***spores*** – sexual, asexual or both.
- Spores are dispersed by air currents.
- *There are 4 types of asexual reproduction.*
- *There is 1 type of sexual reproduction.*

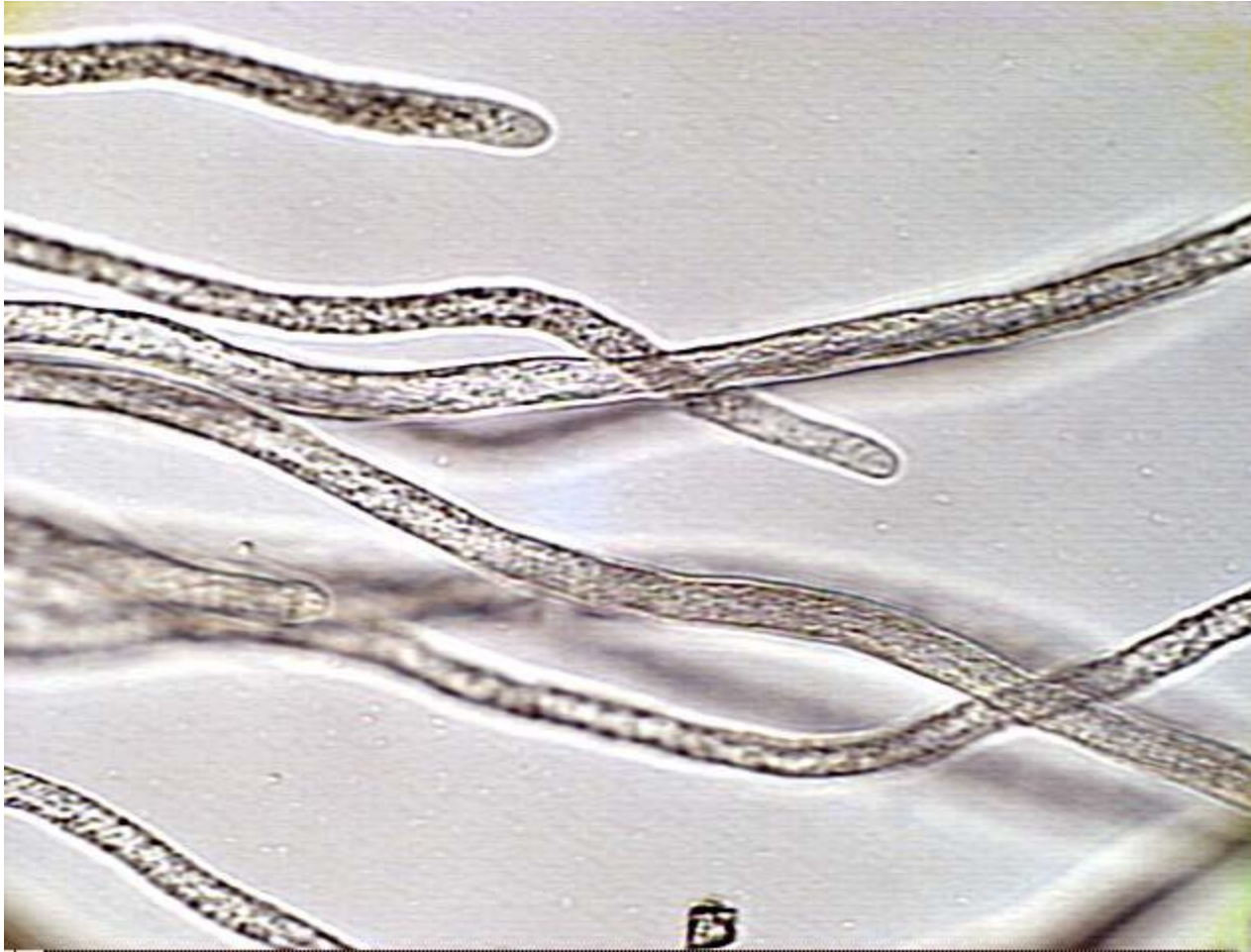


4 Types of Asexual Reproduction

1. **Fission** = simple cell division (mitosis).
2. **Budding** = new organism grows from the body of the parent and detaches.
3. **Fragmentation** = hyphae broken apart
4. **Spores** = reproductive cell that is haploid and has a thick outer covering for protection. Spores are produced in sporangia. Spores develop into haploid hyphae (N).

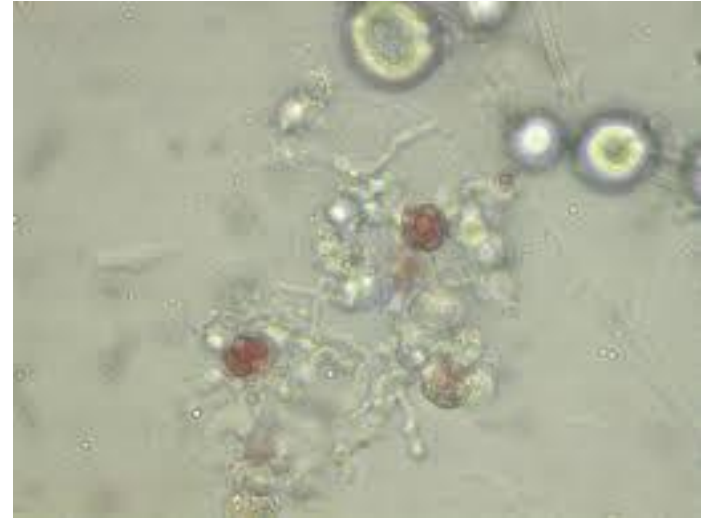


Hyphae



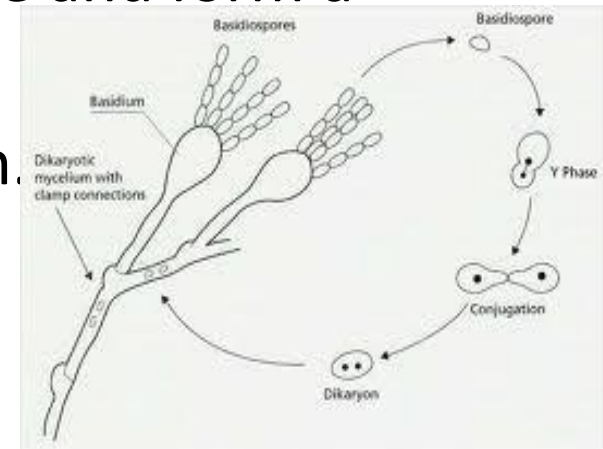
1 Type of Sexual Reproduction

- Spores = produced when 2 haploid cells called gametes undergo fusion (2 gametes fused together).

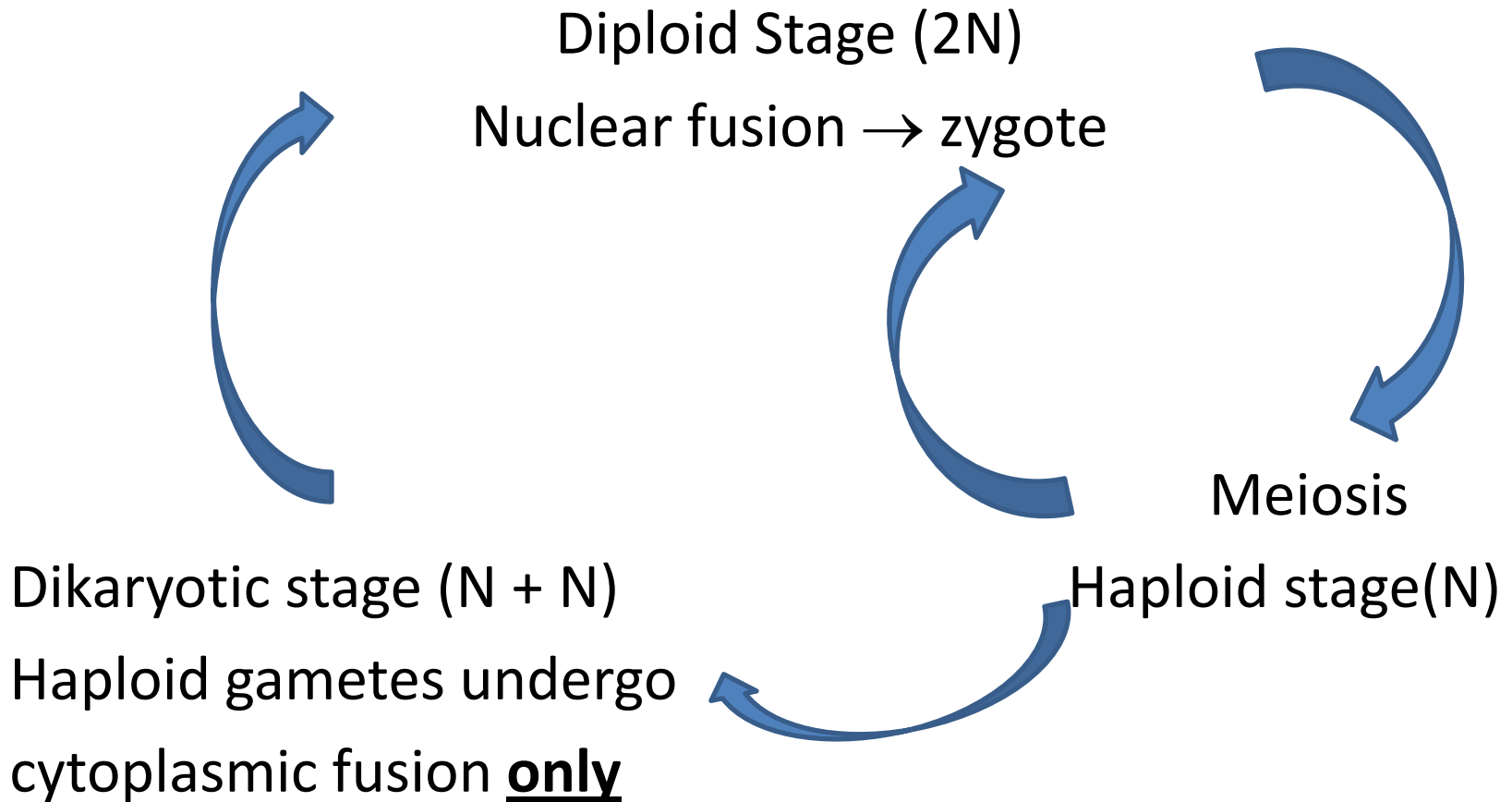


Dikaryotic stage

- The 2 haploid nuclei may or may not fuse right away.
 - If they fuse *immediately* = diploid (2N) – zygote created.
 - If they don't fuse right away, the 2 haploid nuclei divide independently creating a *dikaryotic stage* (2 nuclei) $N + N$.
 - This stage can last for a short or long period of time. However, eventually the 2 nuclei fuse and form a zygote.
 - Haploid gametes are produced again.

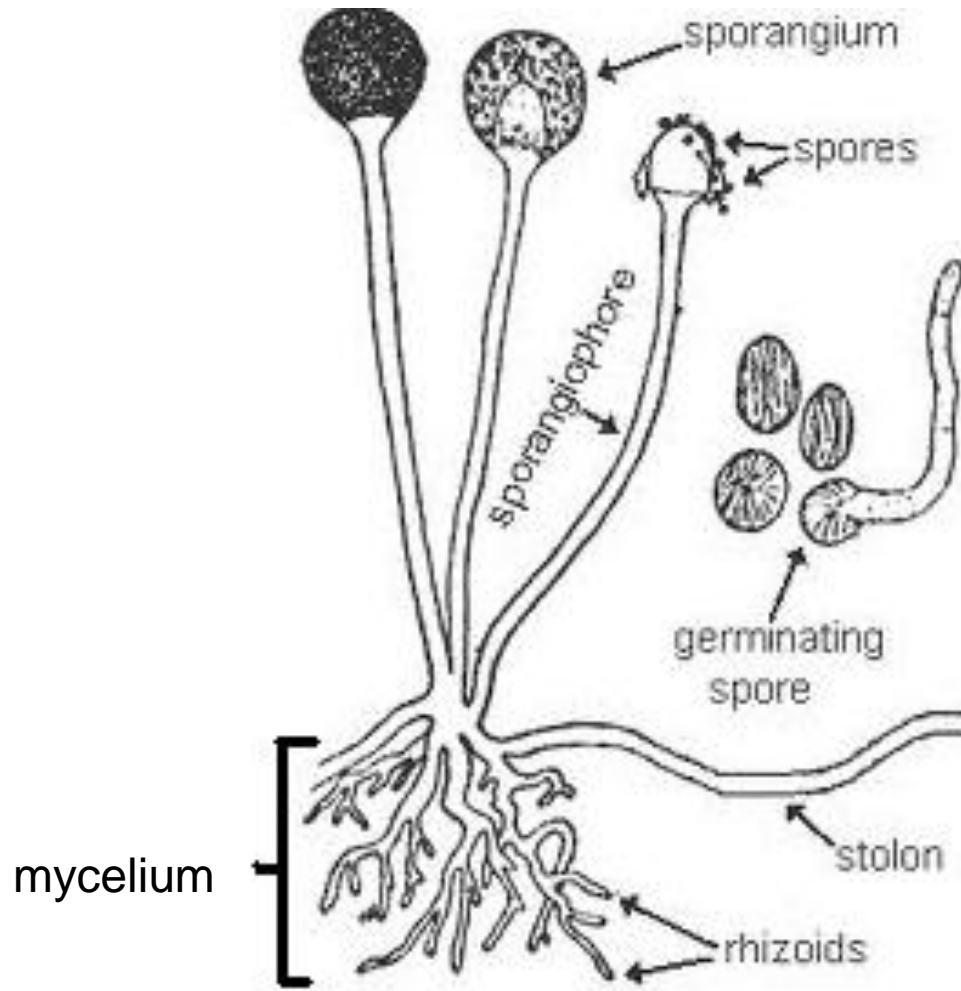


General L. C. of Sexual Reproduction in Fungi:

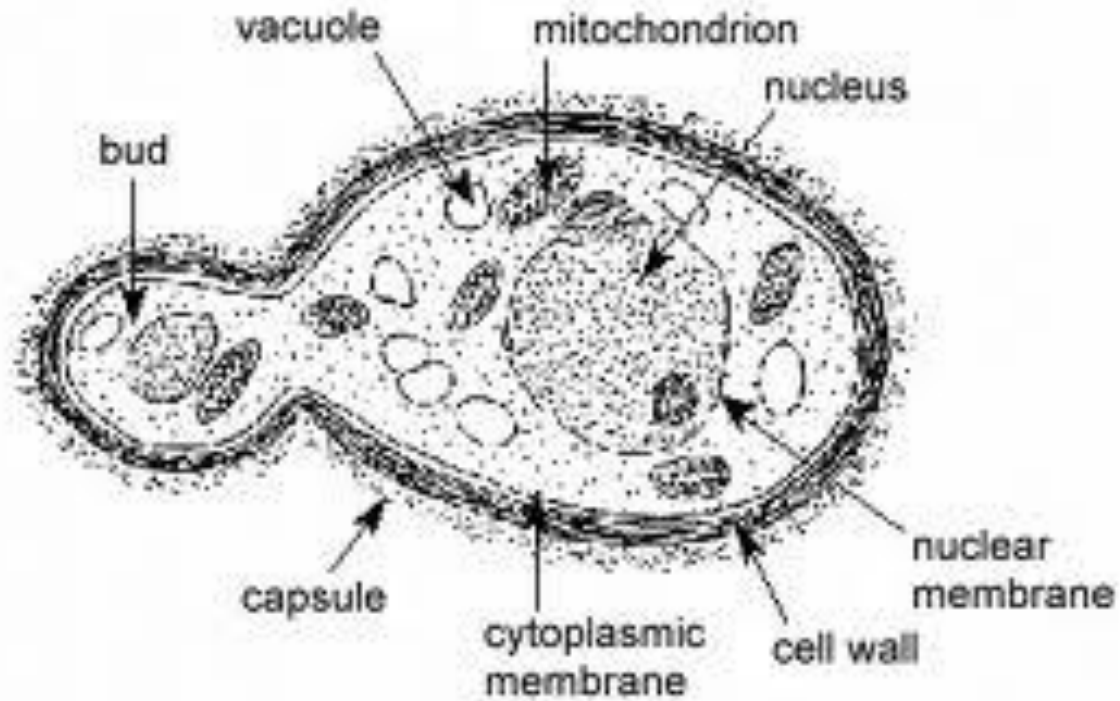


- There are 3 body plans to know of fungus.
 - Typical mold
 - Yeast
 - Mushroom

Typical mold body plan



Yeast body plan



Mushroom body plan

