



**Level sabke niklenga, par niklega ka
uska jo Apeksha mam ke sath padhega**



KINGDOM FUNGI

Eukaryotic & loose tissue
multicellular



They form the mighty
Mycelium!

GENERAL FEATURES

- Heterotrophic organisms
- They show a great diversity in morphology and habitat.
- Fungi do not have chlorophyll and chloroplast.
- Fungi prefer to grow in warm and humid places
- The cell walls of fungi are composed of chitin and polysaccharides.

They are dependent

- (1) Saprophytic
- (2) Parasitic

- Some unicellular fungi, e.g., yeast are used to make bread and beer.
Other fungi cause diseases in plants and animals; wheat rust-causing Puccinia is an important example. Some are the source of antibiotics, e.g., Penicillium.
- They can also live as symbionts – in association with algae as lichens and with roots of higher plants as mycorrhiza. ✓



Lichen



Mycorrhiza

- Their bodies consist of long, slender thread-like structures called hyphae. The network of hyphae is known as mycelium

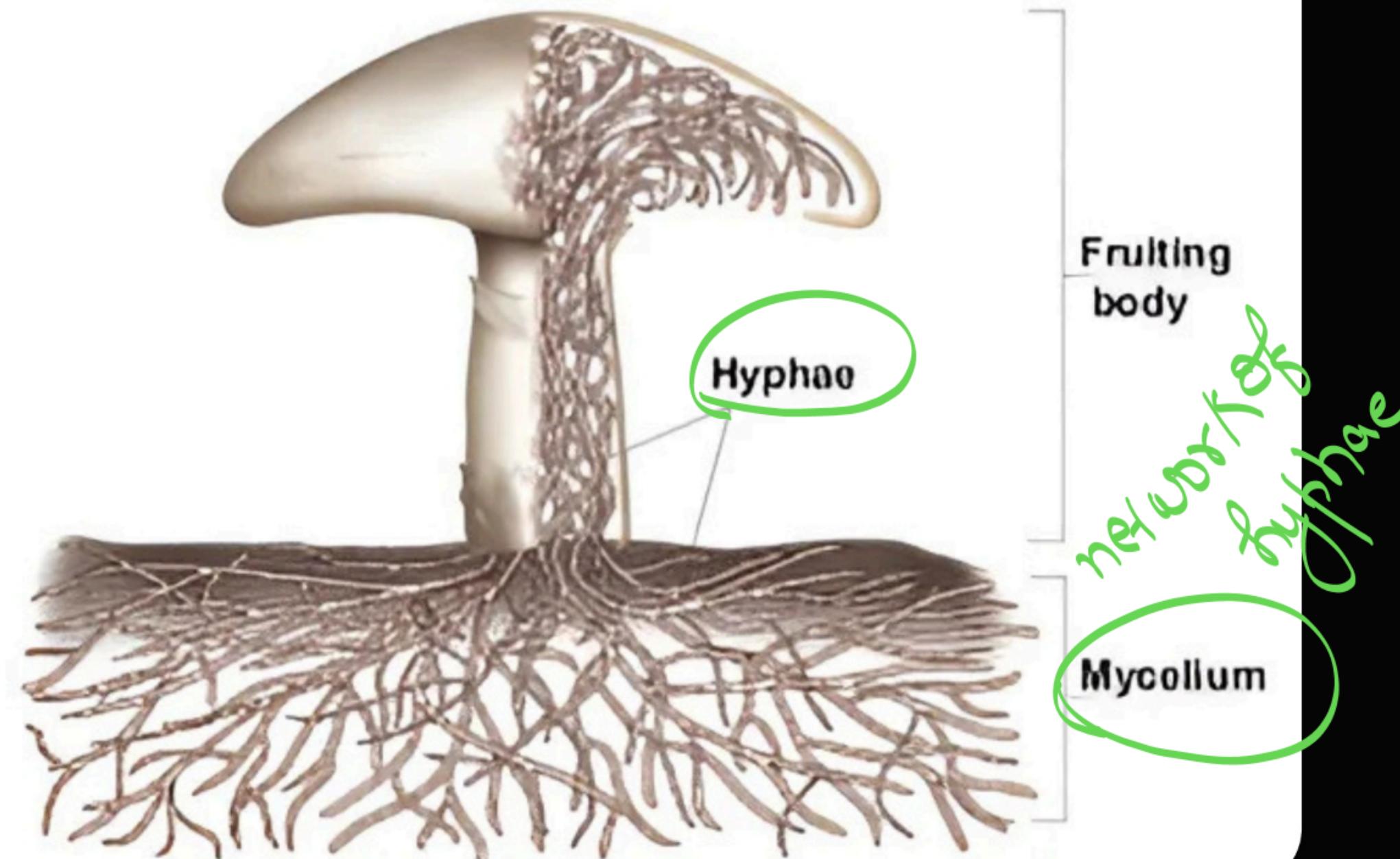




Hyphae

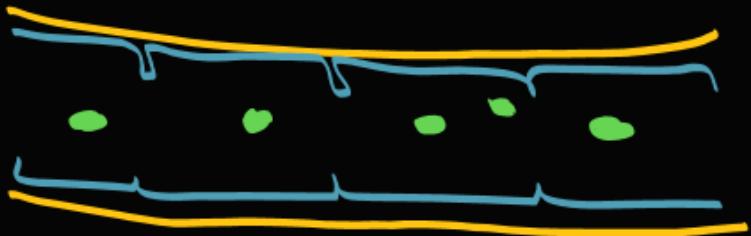


Mycellium



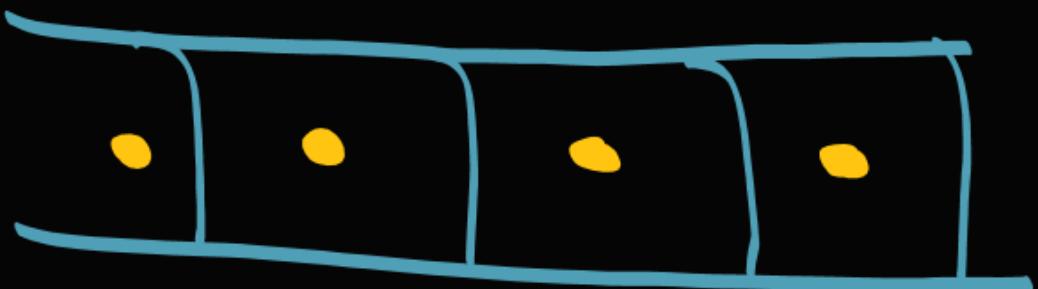
TYPES OF HYPHAE

Aseptate (no division)

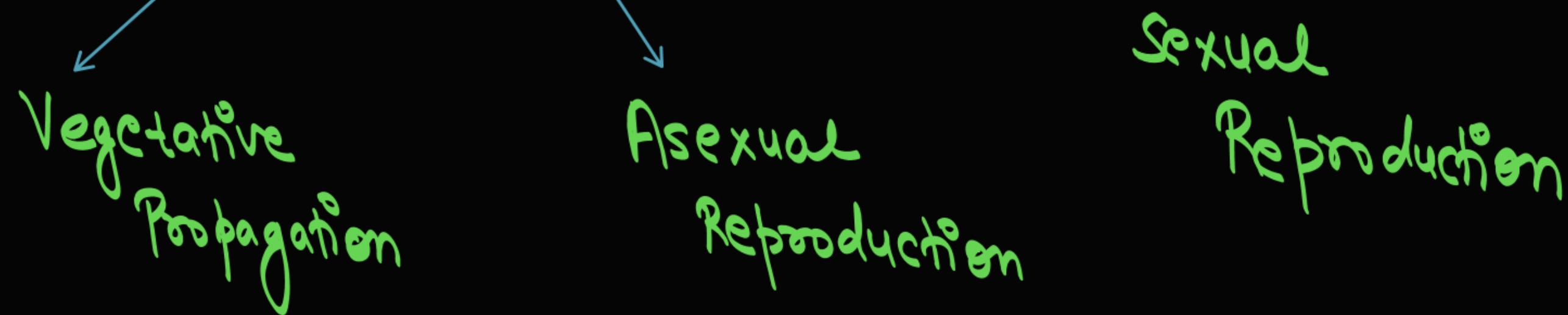


multinucleate coenocytic

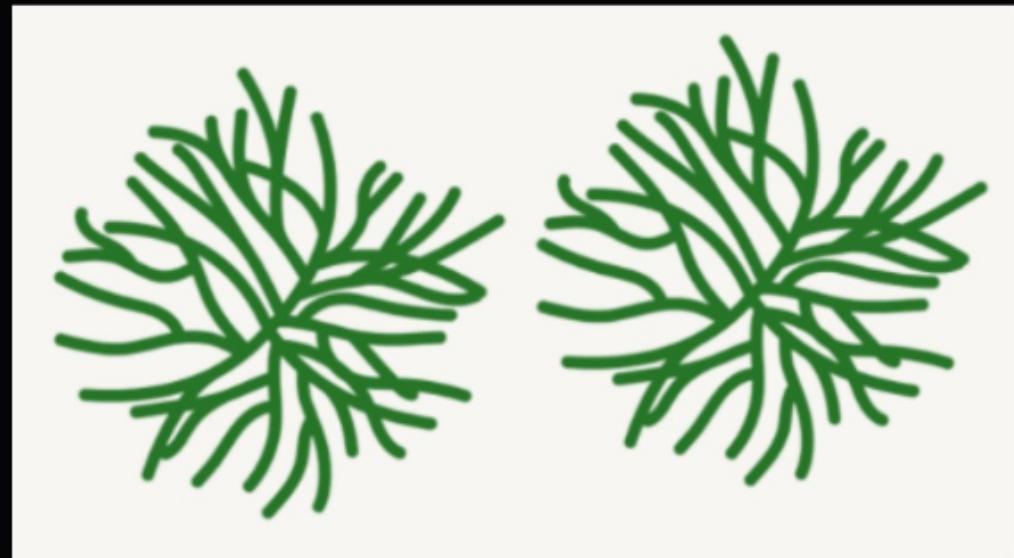
Septate (Septa is present)



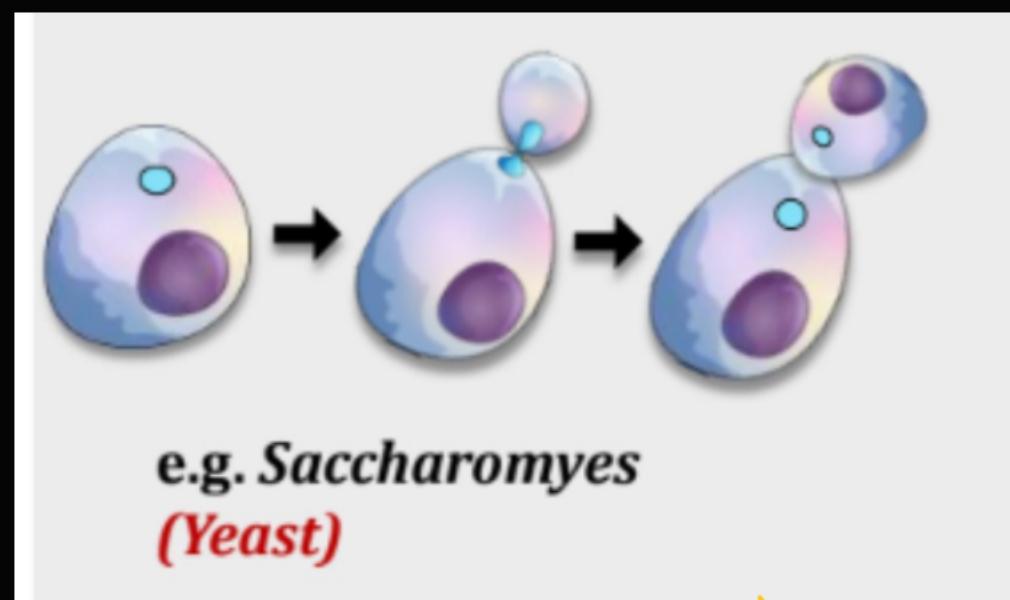
REPRODUCTION



VEGETATIVE PROPAGATION

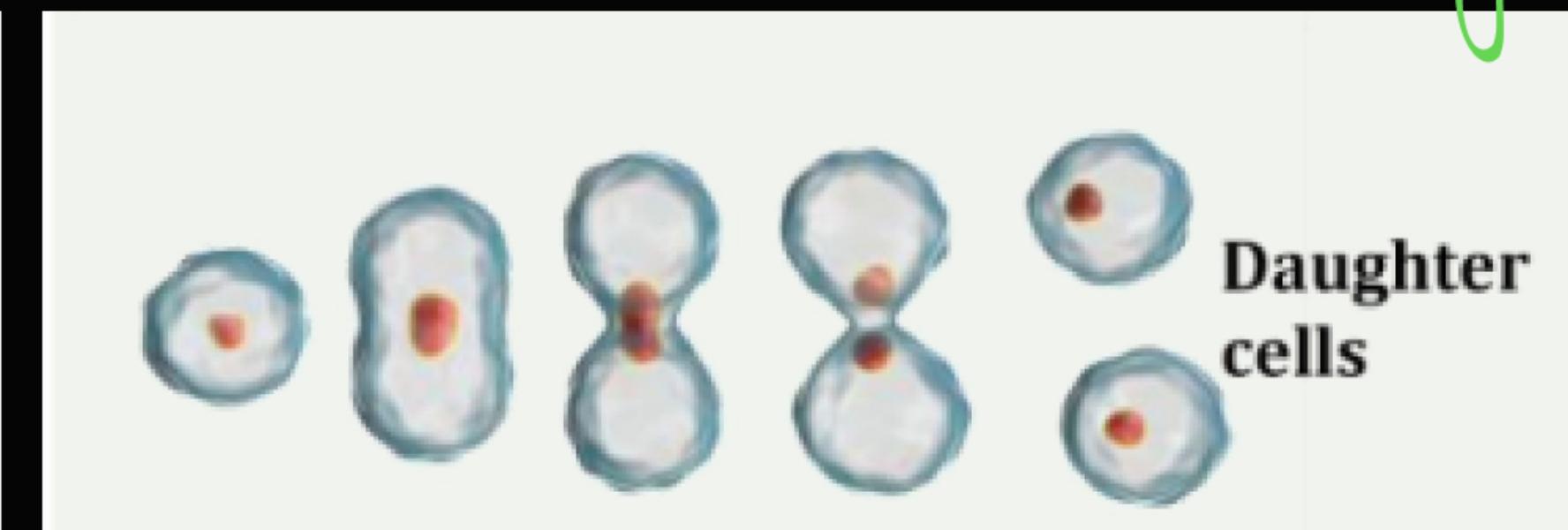


eg: Rhizopus
Fragmentation



e.g. *Saccharomyces*
(Yeast)

Budding

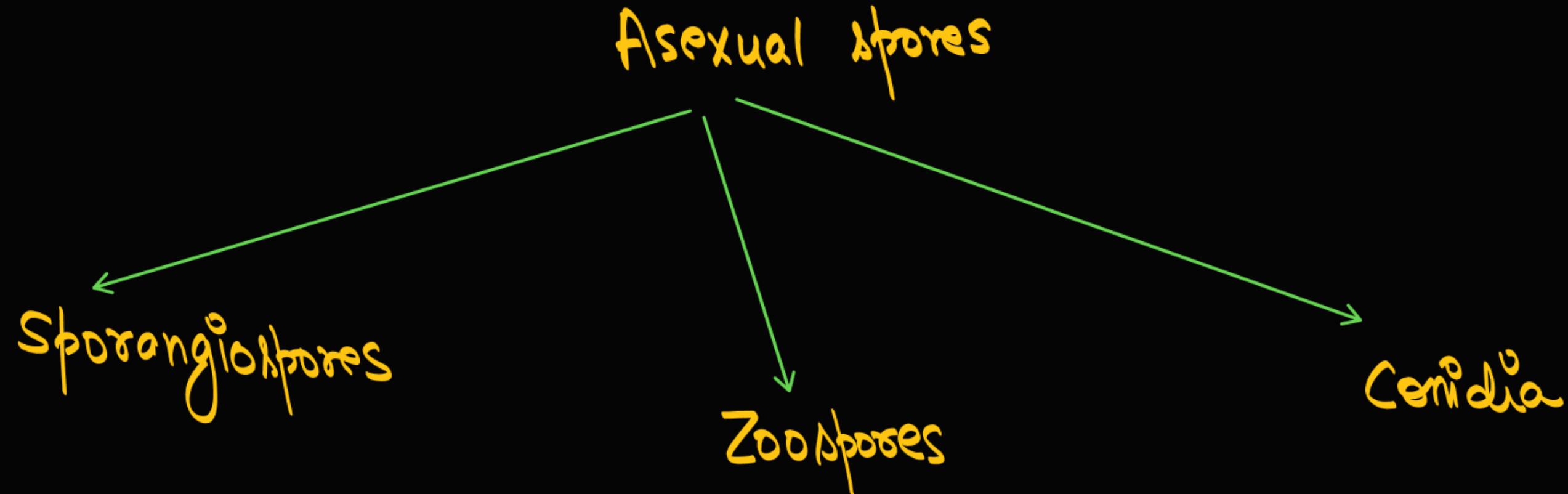


Binary Fission
eg:-
yeast

Daughter
cells

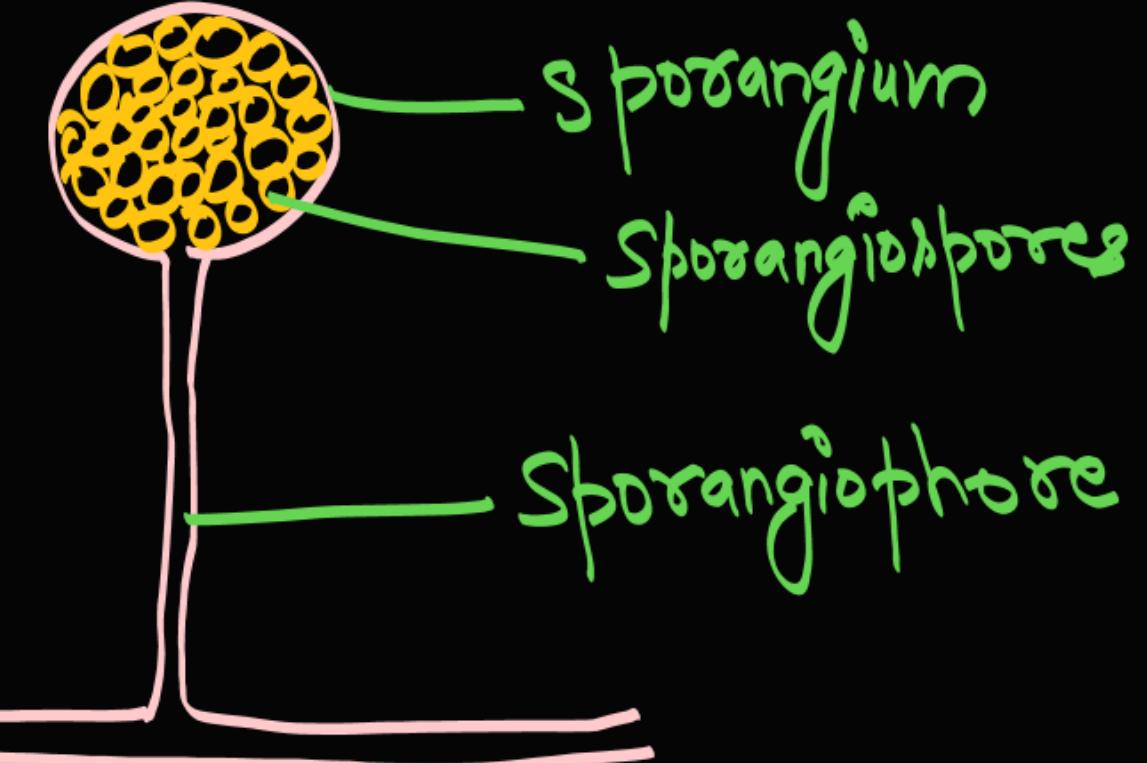
ASEXUAL REPRODUCTION

(favourable condition)

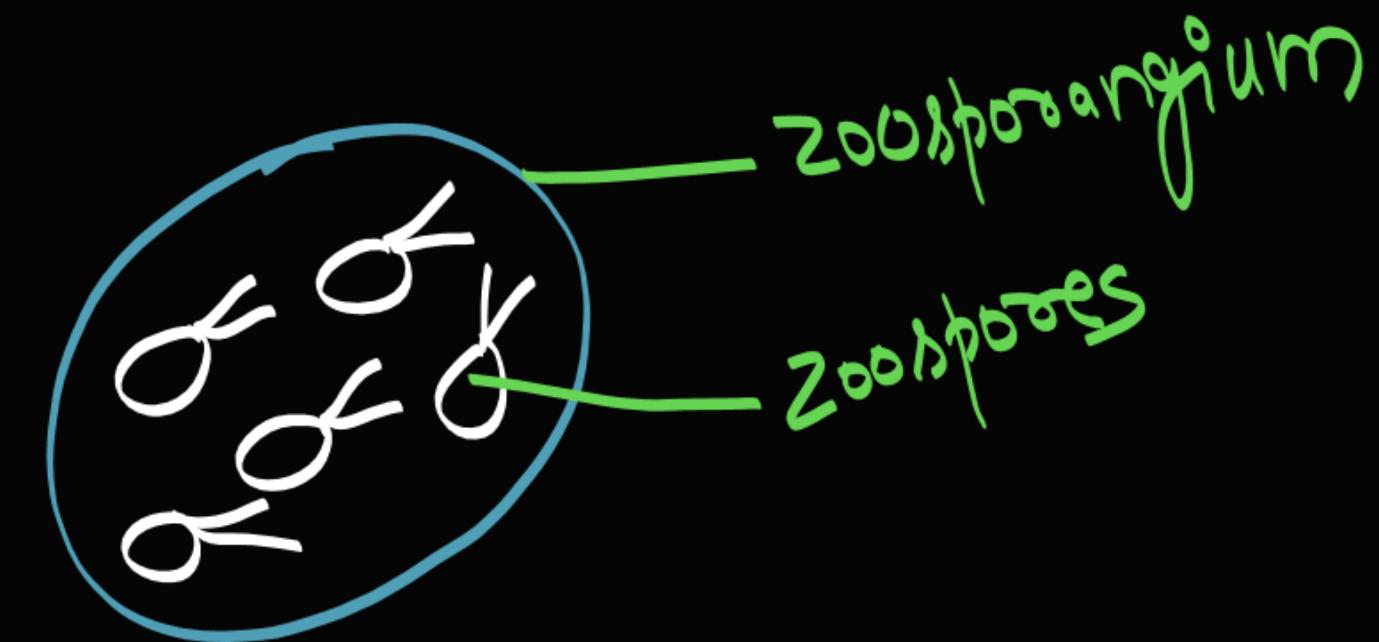


(i) Sporangiospores :

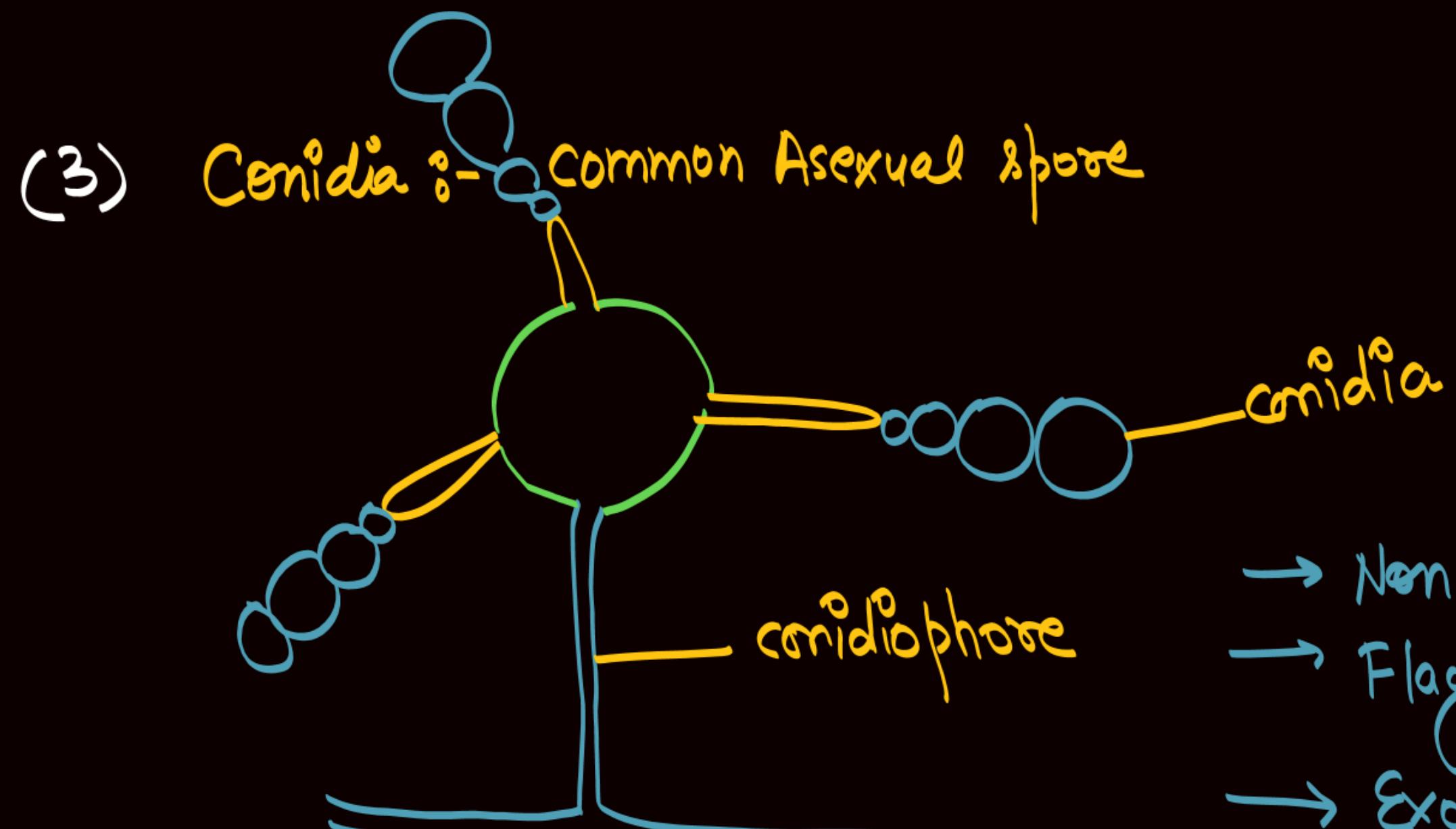
- Non-motile
- Flagella Absent
- Endogenous in origin



2. Zoospores



- (1) Motile
- (2) Biflagellated
- (3) Endogenous
- (4) Aquatic



conidia

conidiophore

→ Non-motile
→ Flagella Absent
→ Exogenous in origin

QUESTIONS

Which of the followings is a unicellular fungal form?

- a. Hypha
- b. Yeast
- c. Mycelium
- d. All of the above

(B)

QUESTIONS

Which one is saprophytic in nutrition?

- a. Fungi
- b. Cyanobacteria
- c. Viruses
- d. All the above

QUESTIONS

Which of the following does not contain chlorophyll?

- a. Fungi
- b. Algae
- c. Bryophyta
- d. Pteridophyta

(A)

SEXUAL REPRODUCTION

Unfavourable condition.
(Sexual spores)

- Plasmogamy :- Fusion of cytoplasm



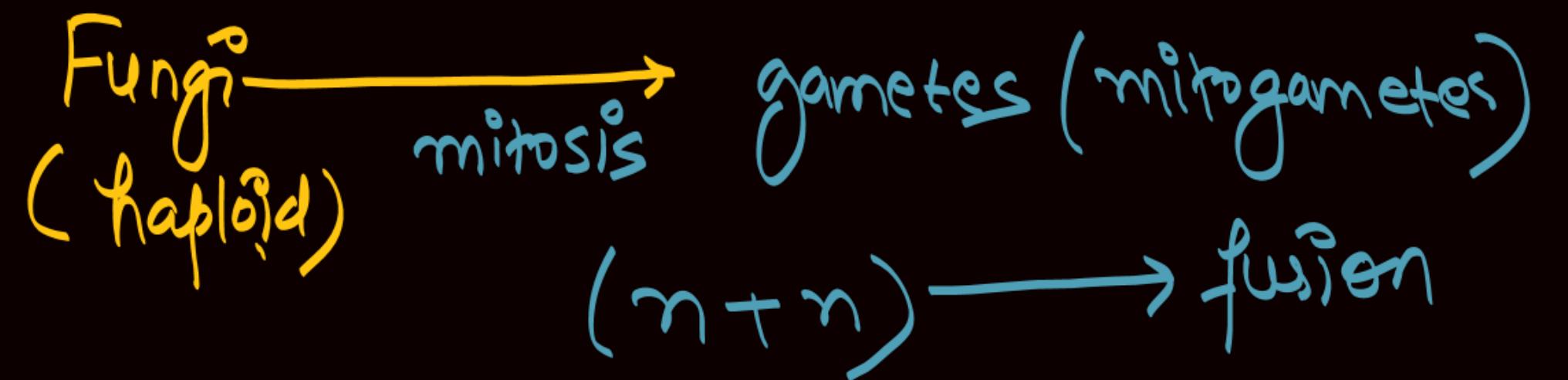
- Karyogamy :- Fusion of nuclei ($n+n$) → Dikaryon stage

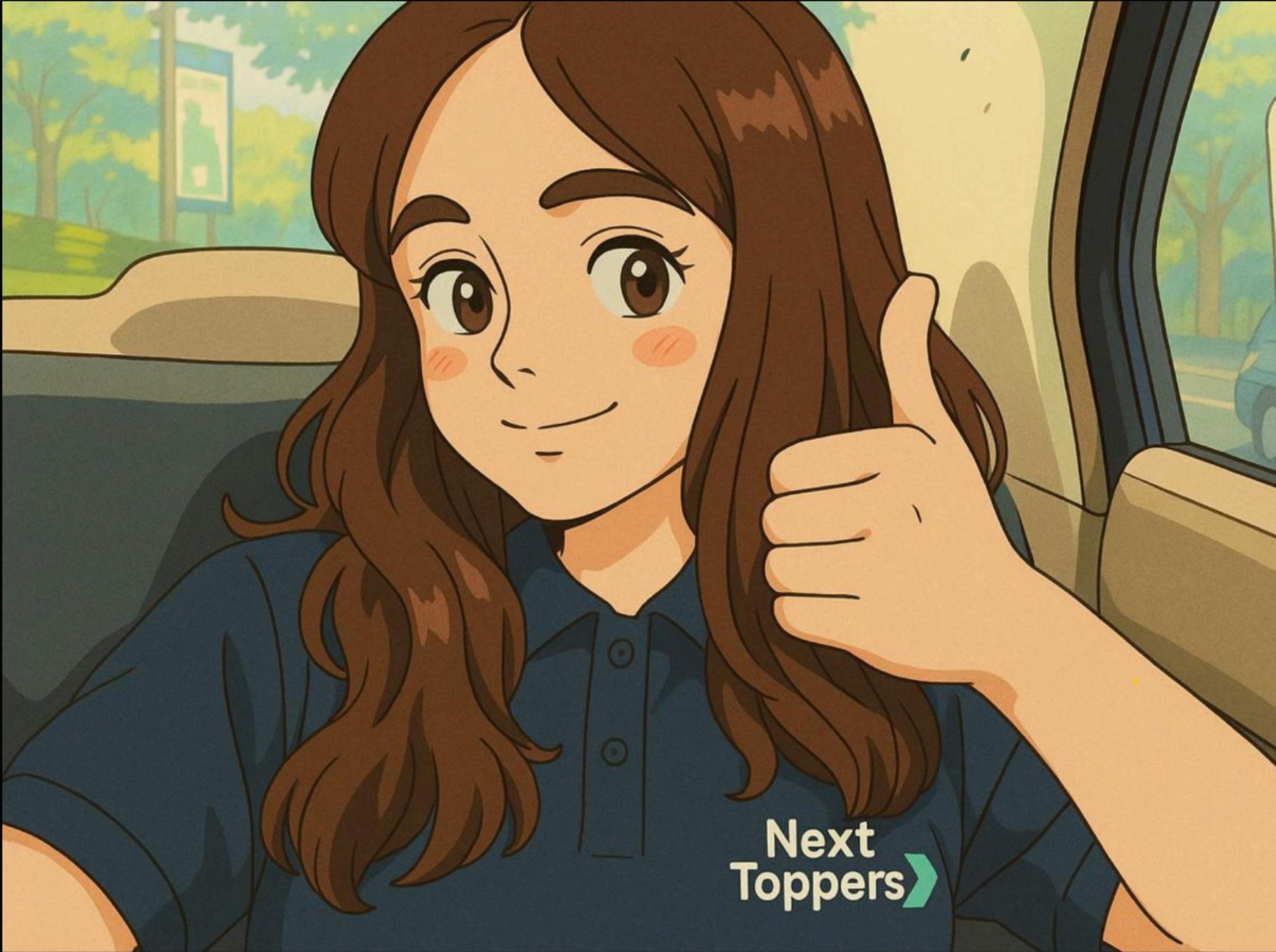


- Meiosis → Zygote → $\xrightarrow{\text{Meiosis}}$ O O O O Haploid

Sexual spores

Single life





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