



Department of biology

((Plant groups))

Lab 6

Stage 2

**Classification of Chlorophyta
(Blue-green algae) Part I**

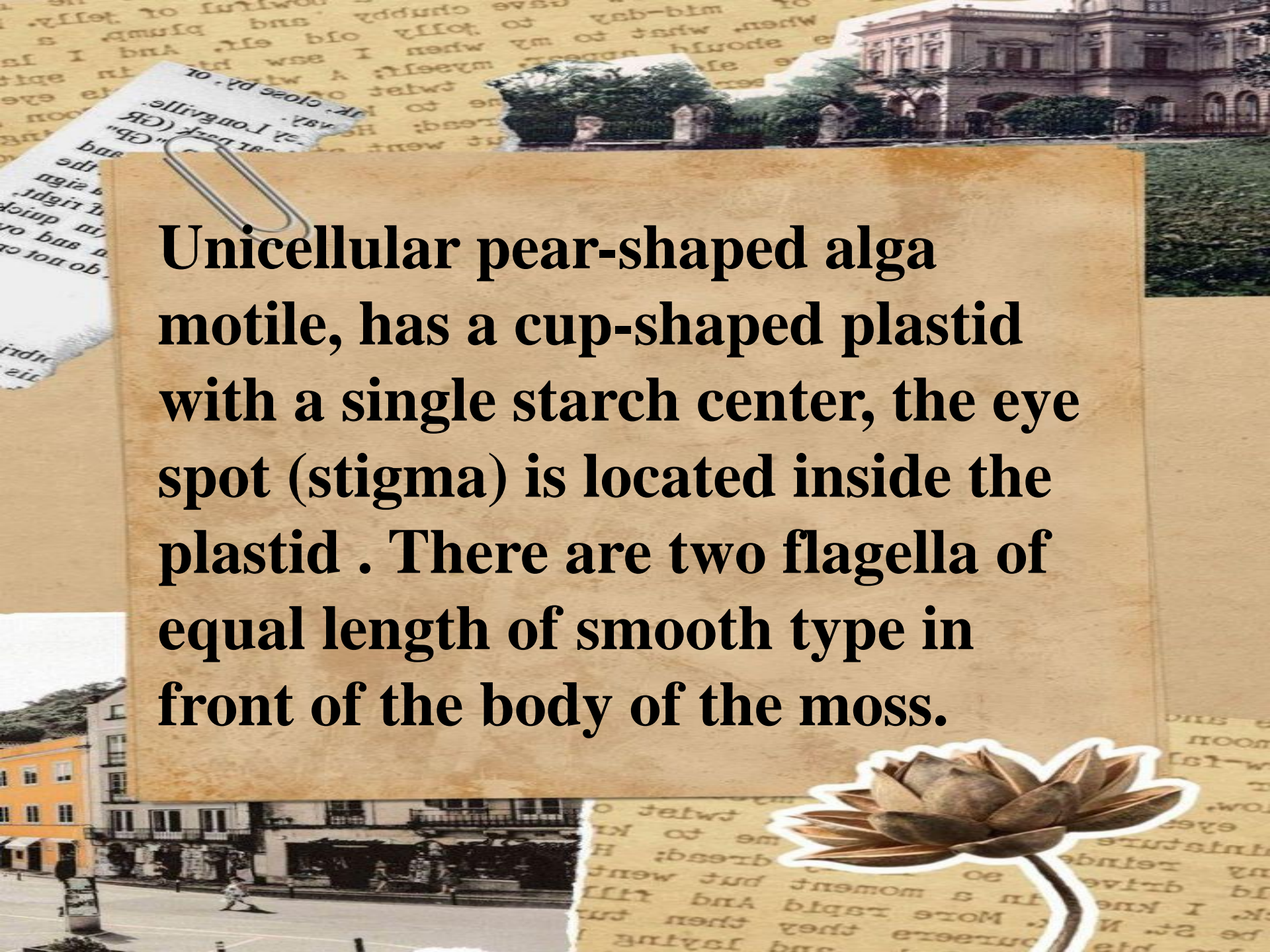
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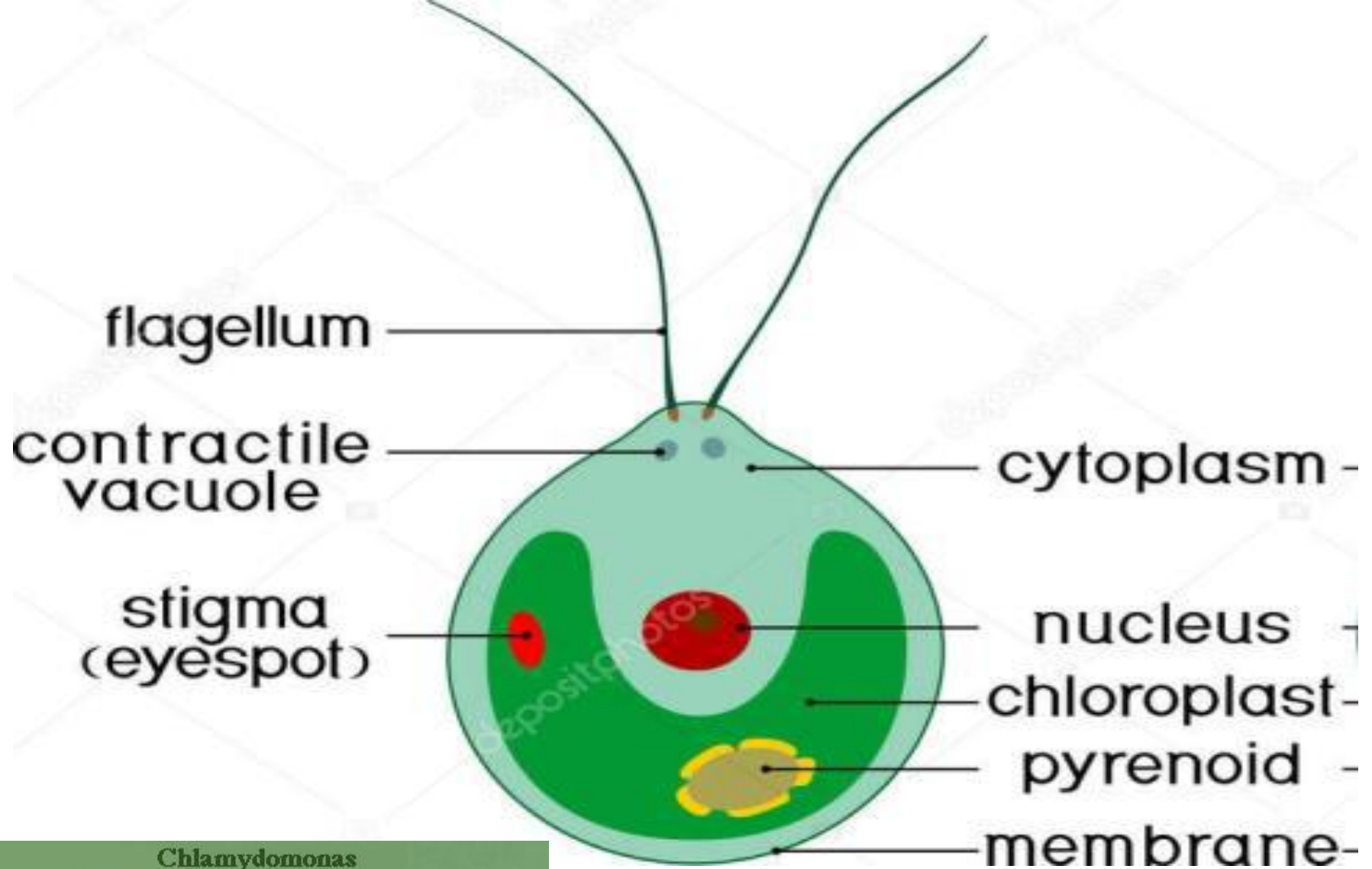
Msc. Zainab Nadhum Aziz

1- Classification of Chlorophyta

- Division : Chlorophyta
- Class : Chlorophyceae
- Order : Volvocales
- Family: Chlamydomonaceae
- Genus: *Chlamydomonas*

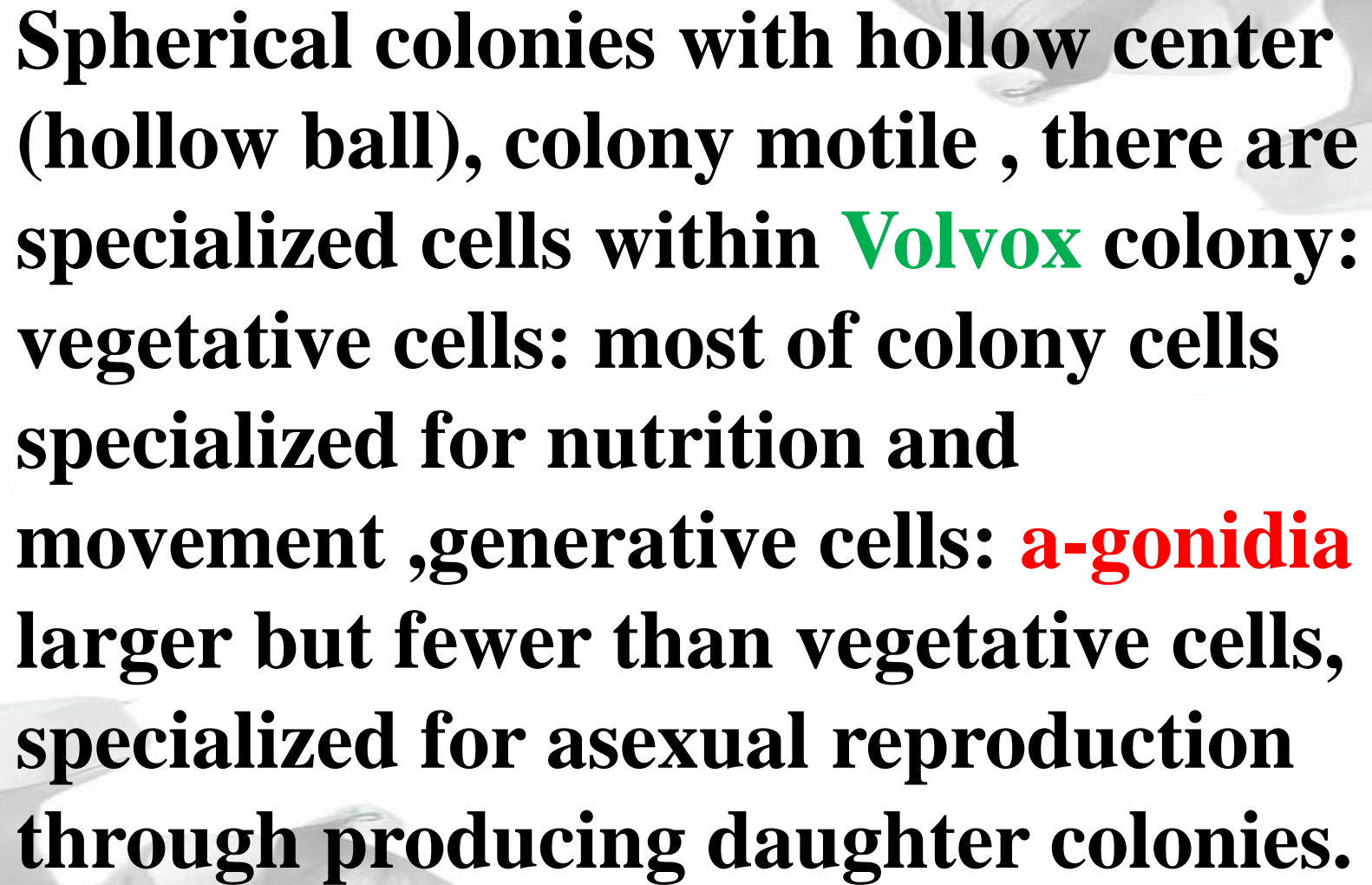
Unicellular pear-shaped alga motile, has a cup-shaped plastid with a single starch center, the eye spot (stigma) is located inside the plastid . There are two flagella of equal length of smooth type in front of the body of the moss.





2- Classification of Chlorophyta

- Division : Chlorophyta
- Class : Chlorophyceae
- Order : Volvocales
- Family: Volvocaceae
- Genus: *Volvox*



Spherical colonies with hollow center (hollow ball), colony motile , there are specialized cells within **Volvox colony:**

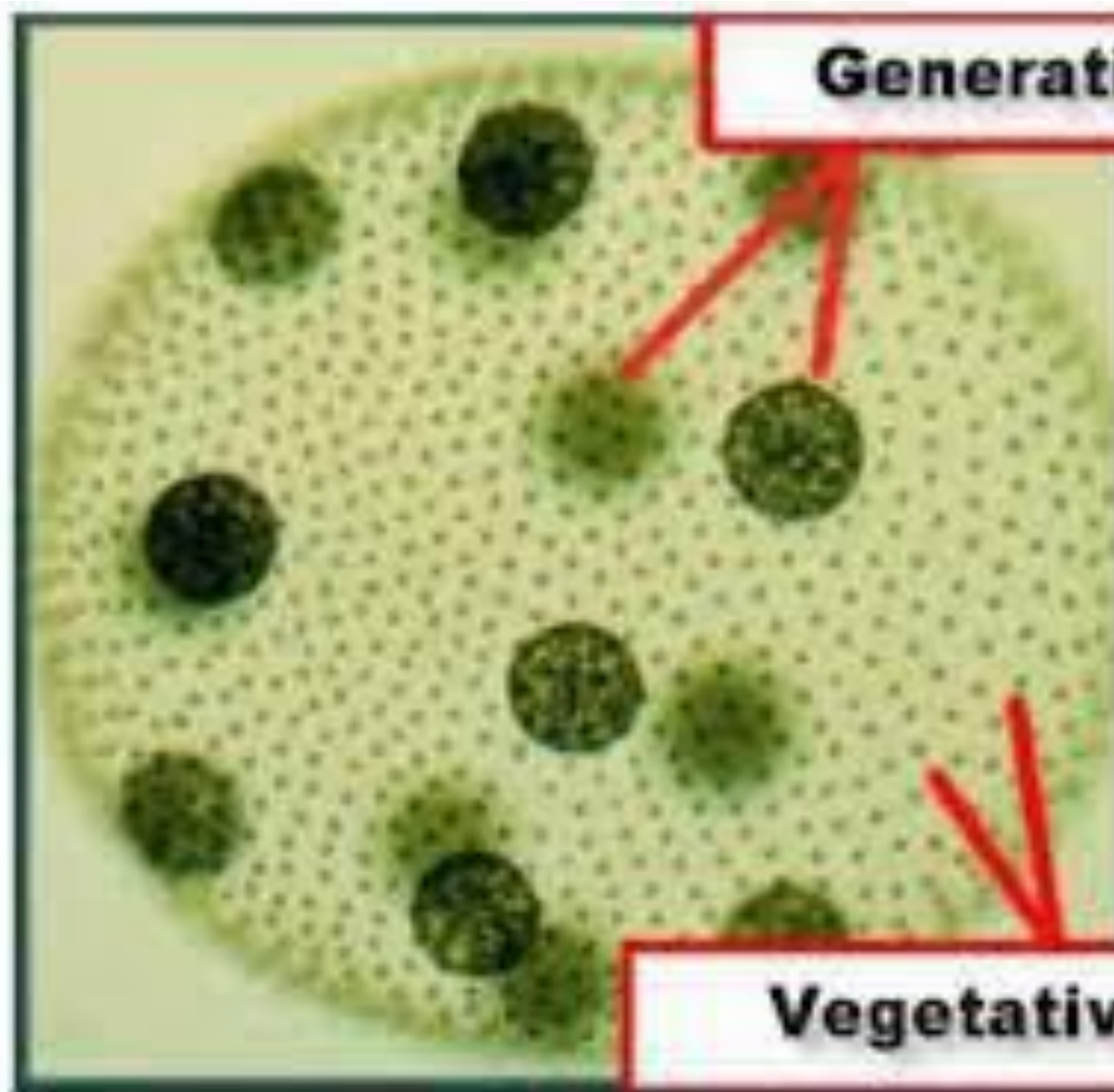
vegetative cells: most of colony cells specialized for nutrition and movement ,generative cells: **a-gonidia larger but fewer than vegetative cells, specialized for asexual reproduction through producing daughter colonies.**

Antheridia: specialized for sexual reproduction through producing male swimmers (male gametes).

Oogonia: larger and fewer in number than antheridia, specialized for sexual reproduction through producing ovum (female gametes).

Generative Cell

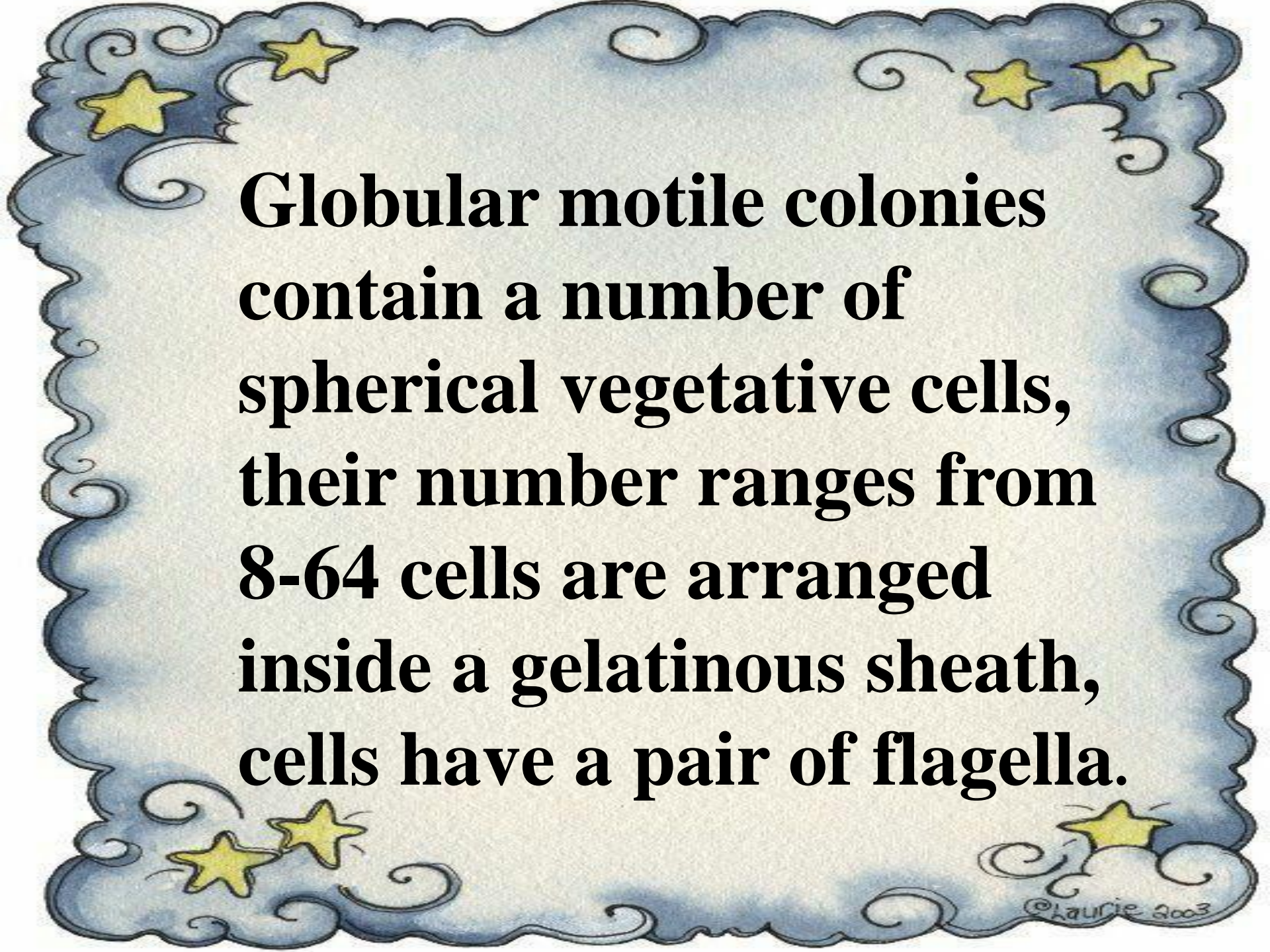
Vegetative Cell



3- Classification of Chlorophyta

- Division : Chlorophyta
- Class : Chlorophyceae
- Order : Volvocales
- Family: Volvocaceae
- Genus: *Eudorina*



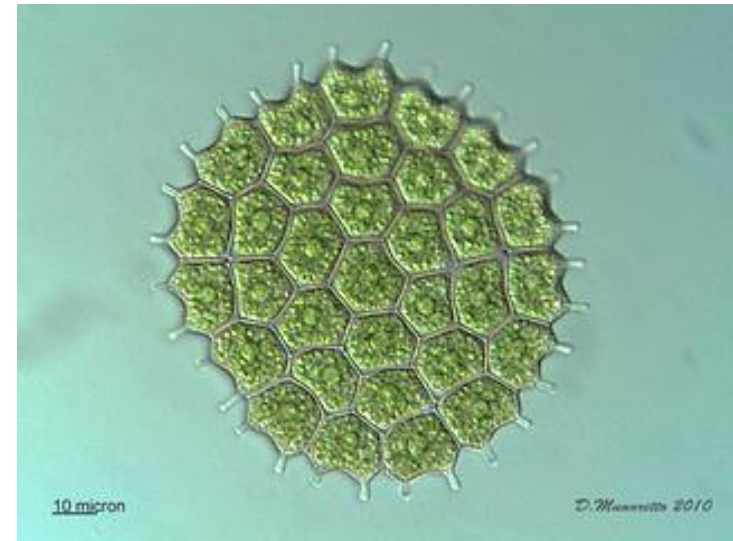


**Globular motile colonies
contain a number of
spherical vegetative cells,
their number ranges from
8-64 cells are arranged
inside a gelatinous sheath,
cells have a pair of flagella.**

4- Classification of Chlorophyta

- Division : Chlorophyta
- Class : Chlorophyceae
- Order : Chlorococcales
- Family: Hydrodictyaceae
- Genus: *Pediastrum*

An alga that exists in the form of specific immobile colonies, often found in fresh water, Each cell has a parietal plastid with one starch center.





Thank You