Introduction to Botany. Lecture 9

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Outline

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Previous final question: the answer

How do photorespiration and high temperatures relate?

- The higher is a temperature, the more oxygen from light stage.
- Also, all chemical reactions (including photorespiration) will speed up.
- Also, some plants close stomata at hot hours and (not willingly) increase oxygen concentration in tissues.

Cell
Plant cells

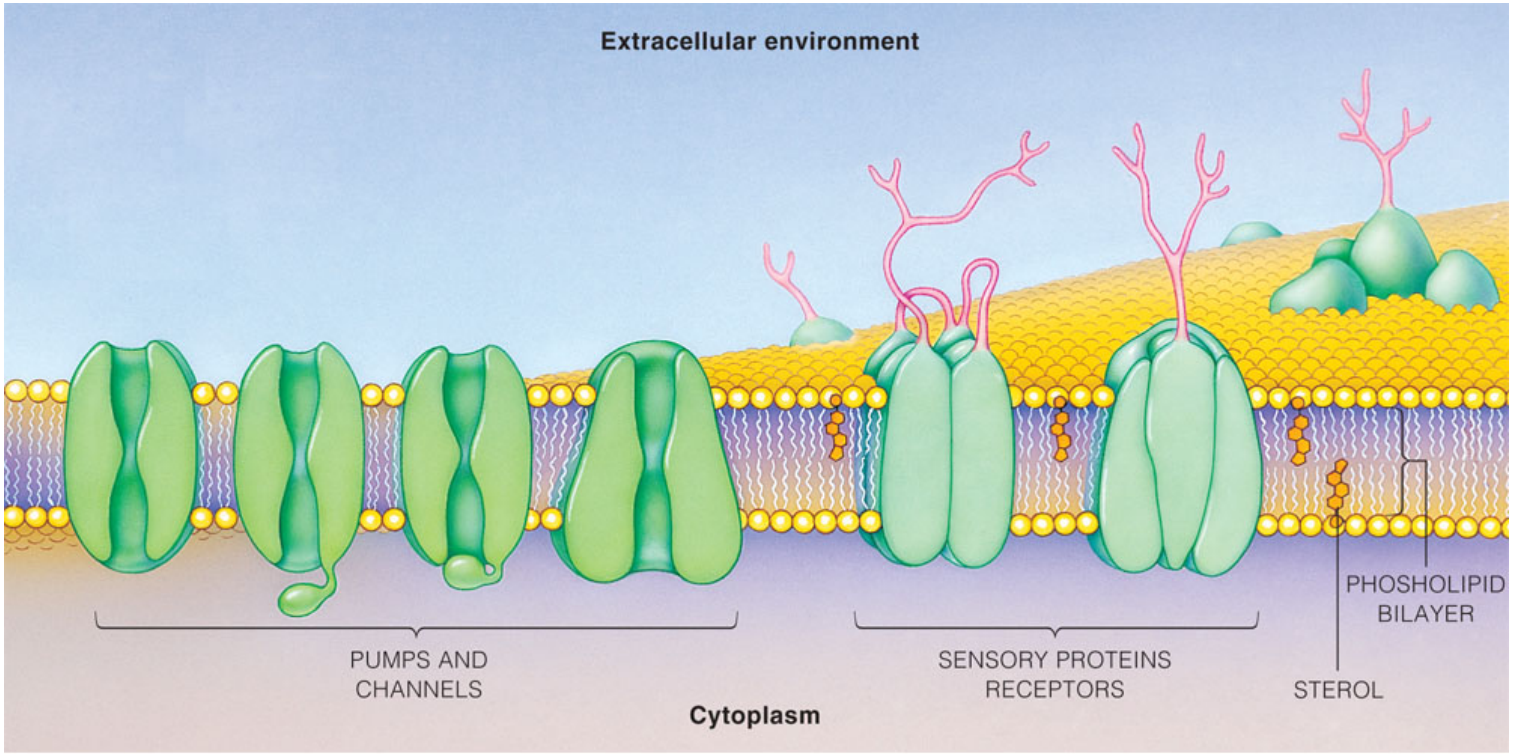
Plant cells

List of cell structures

- Cell membrane
- Cytoplasm
- Nucleus, nuclear pore, nucleolus, chromatine
- **Chloroplast, thylakoids**
- Mitochondrion, cristae
- ER (endoplasmatic reticulum/network)
- Goldgi apparatus (AG)
- **Vacuoles**, lysosomes, peroxisomes
- Ribosomes
- **Cell wall**

Chloroplasts and mitochondria are both results of symbiogenesis

Plasma mebmrane



Phospholipids, sterols, proteins: pumps, receptors, channels

Final question (1 point)

Final question (1 point)

Name main differences between animal and plant cell.

Summary

- Eukaryotic and prokaryotic cells are cells of different levels of organization
- Eukaryotic cell is a “second-level” cell, cell from cells, ecosystems
- Chloroplasts and mitochondria are both results of symbiogenesis

For Further Reading

A. Shipunov.
Introduction to Botany [Electronic resource].
2015.
Mode of access:
http://ashipunov.info/shipunov/school/biol_154