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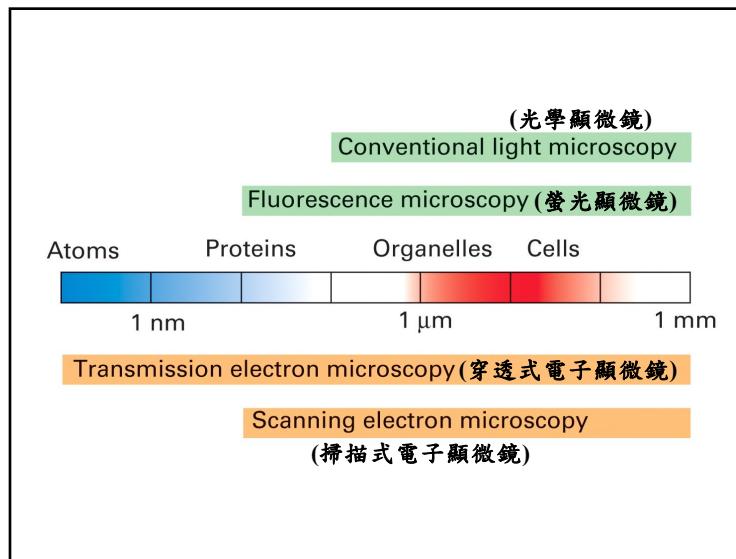
Outline

- Cell and microscopy
- Cell membrane
- Overall cell structure
 - Prokaryotic cell (原核細胞) vs Eukaryotic cell (真核細胞)
 - Animal cell vs Plant cell
- Nucleus (細胞核)
- Ribosome (核糖體)
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- Mitochondria (粒線體) and chloroplast (葉綠體)
- Cytoskeleton (細胞骨架) and cell wall (細胞壁)
- Extracellular components

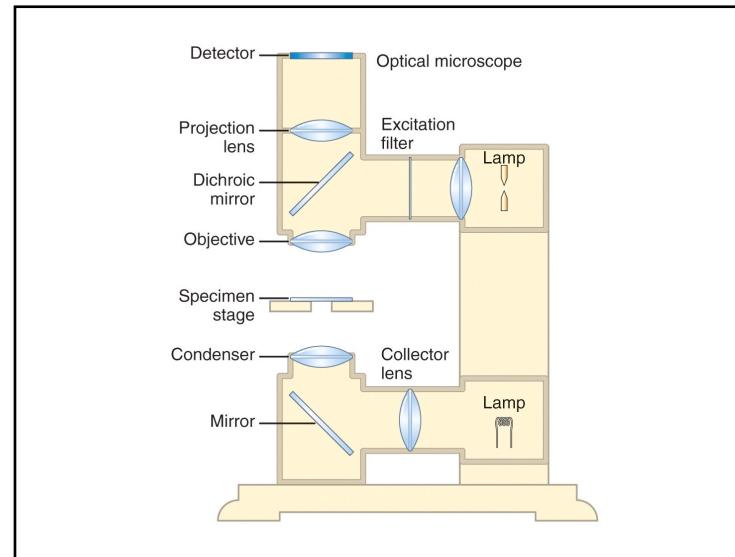
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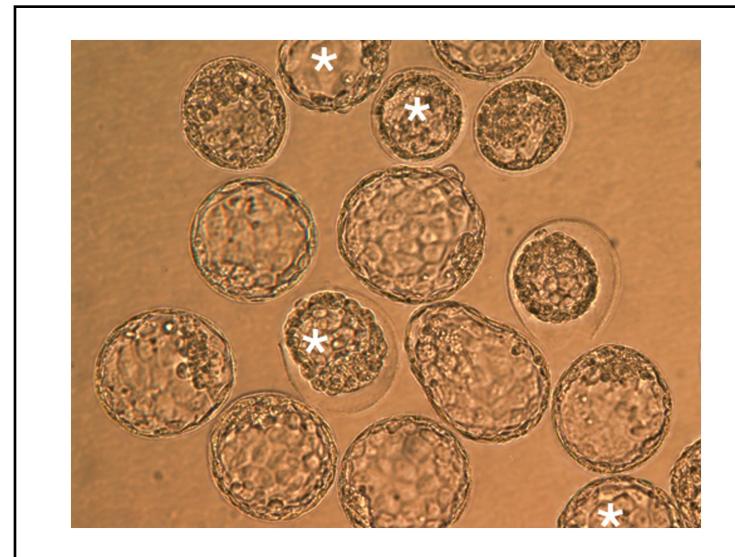
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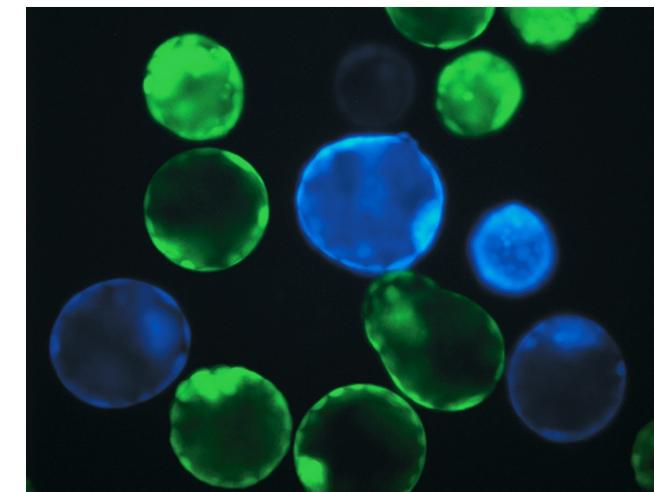
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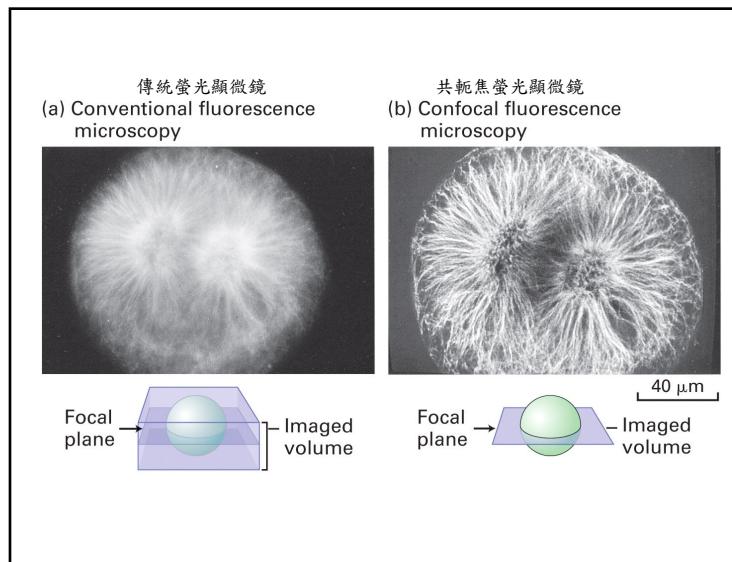
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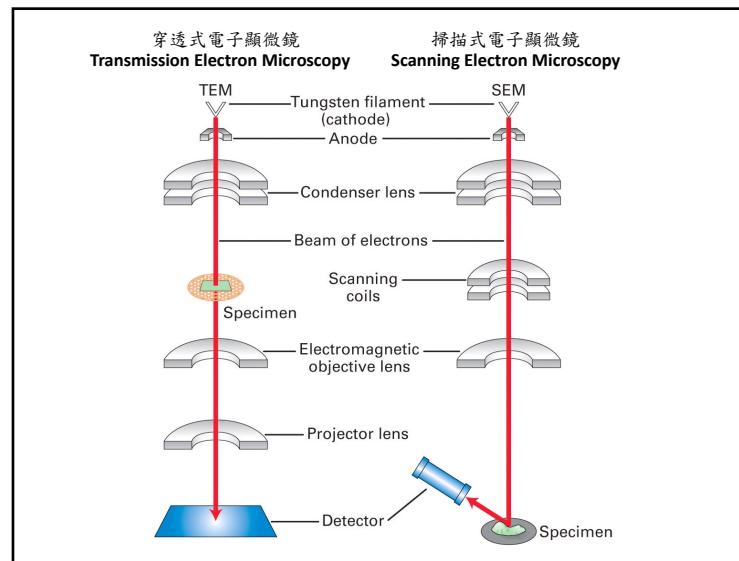
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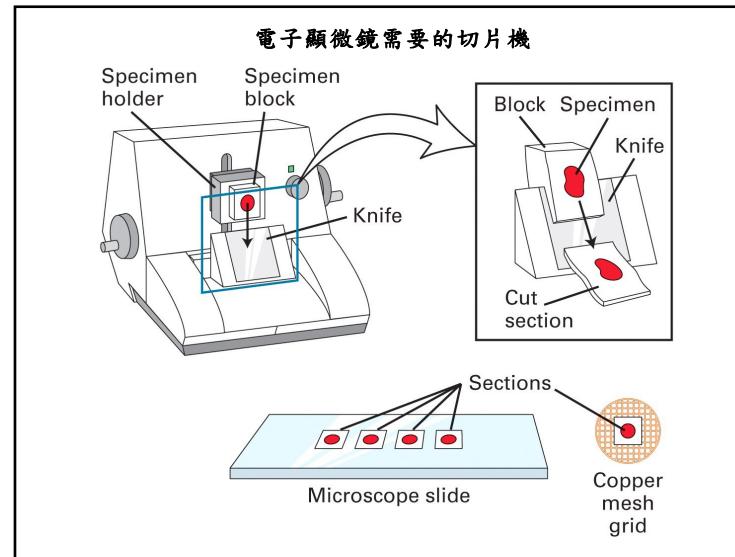
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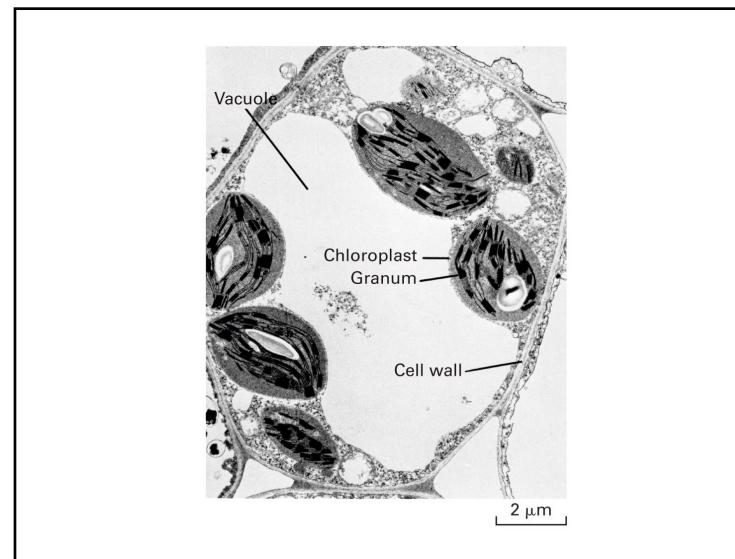
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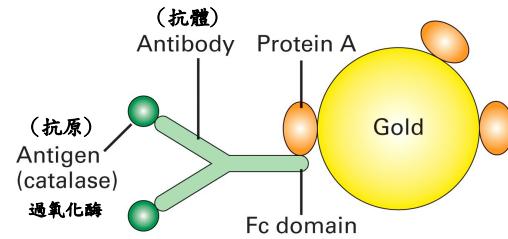


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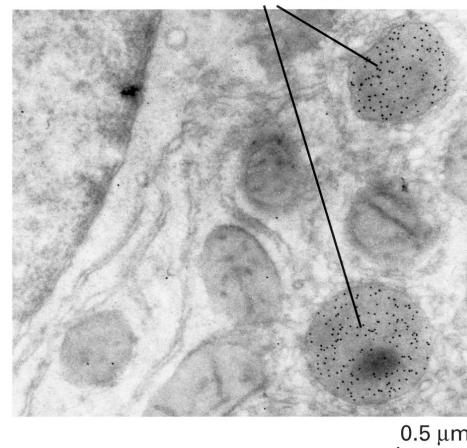
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Immuno-gold staining (免疫金染色)

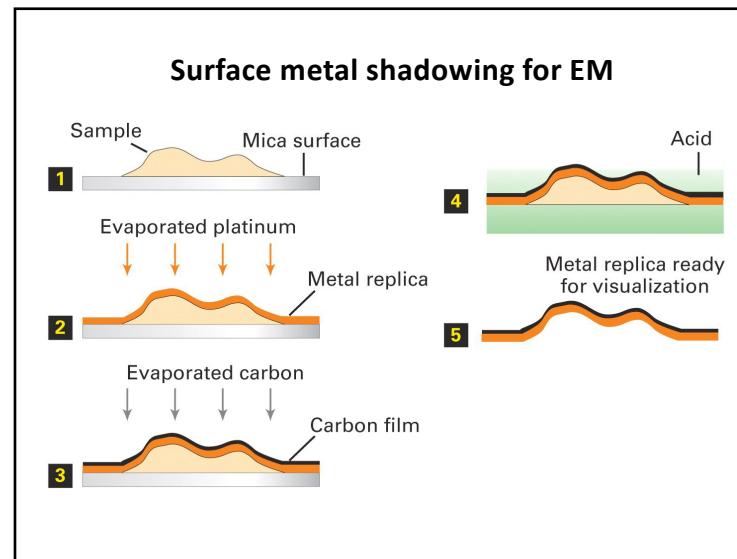


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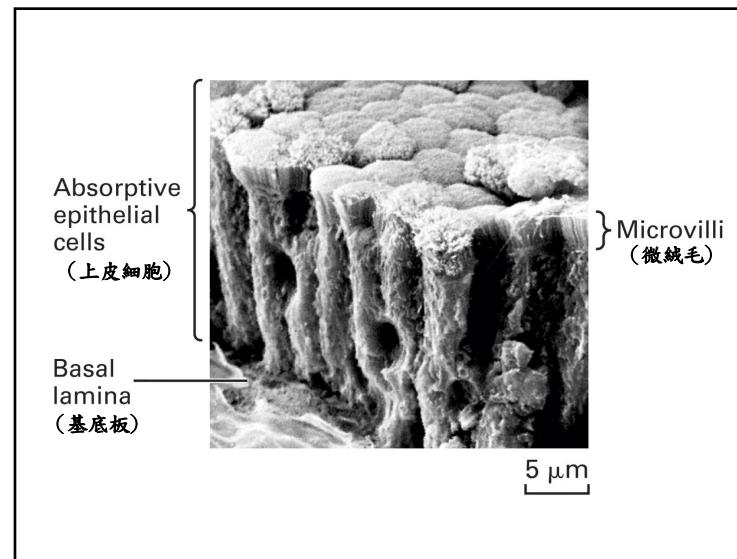
Peroxisomes (过氧化体)



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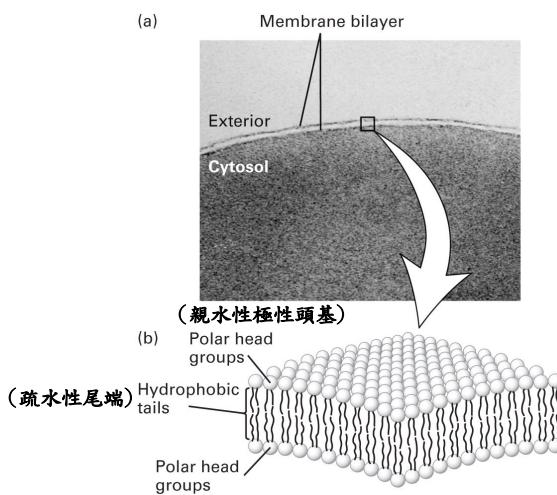
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Outline

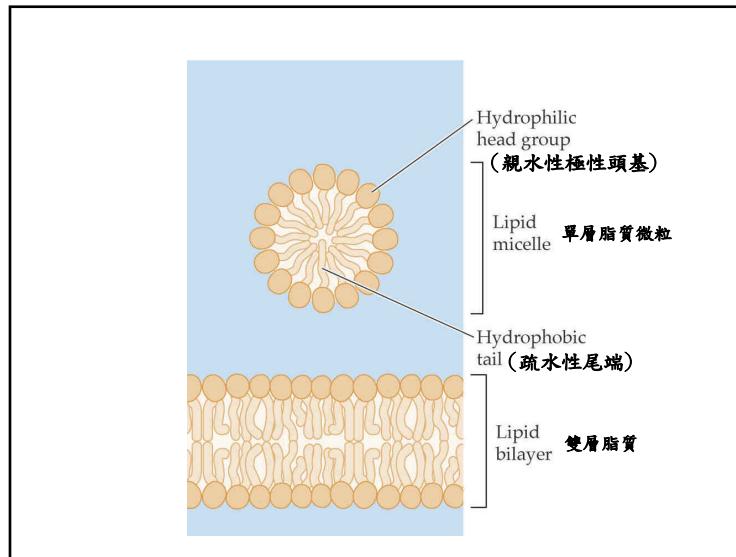
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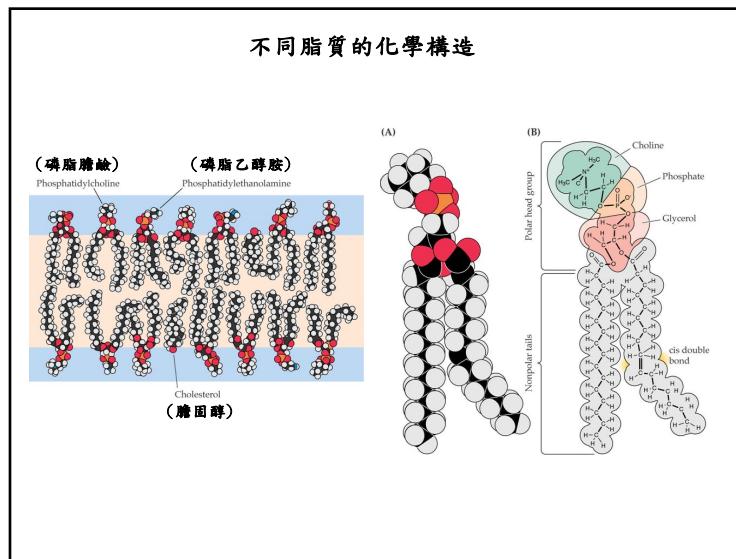
細胞的雙層脂質膜狀構造



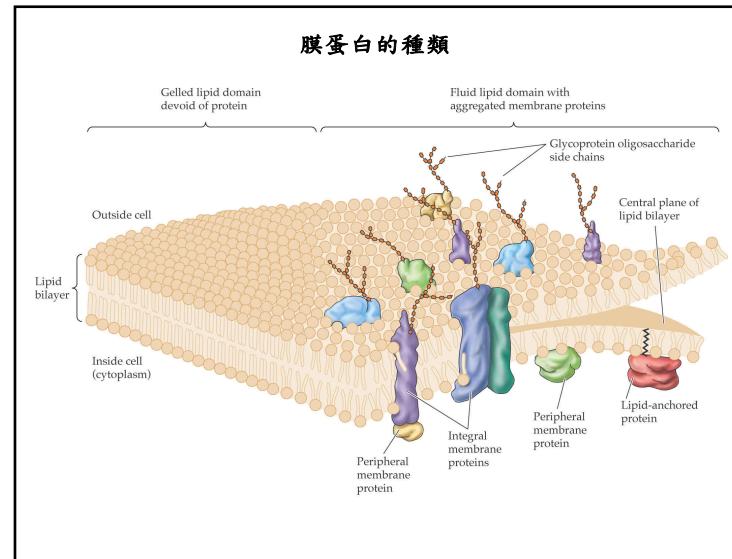
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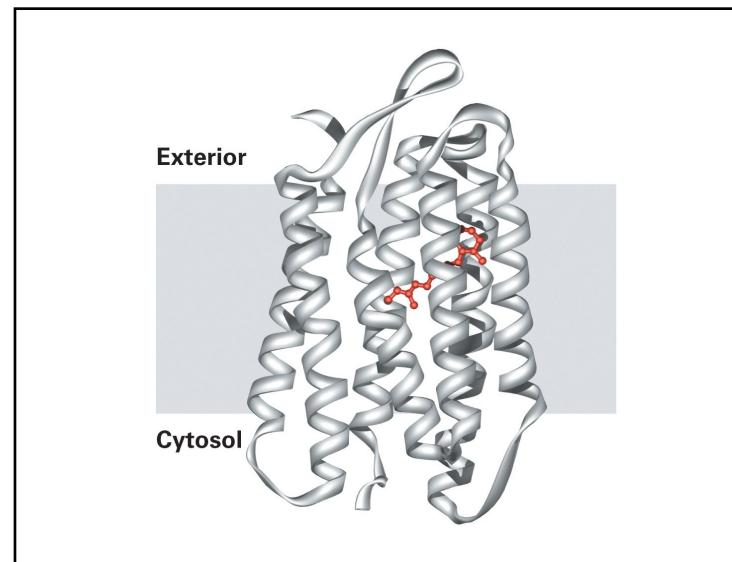
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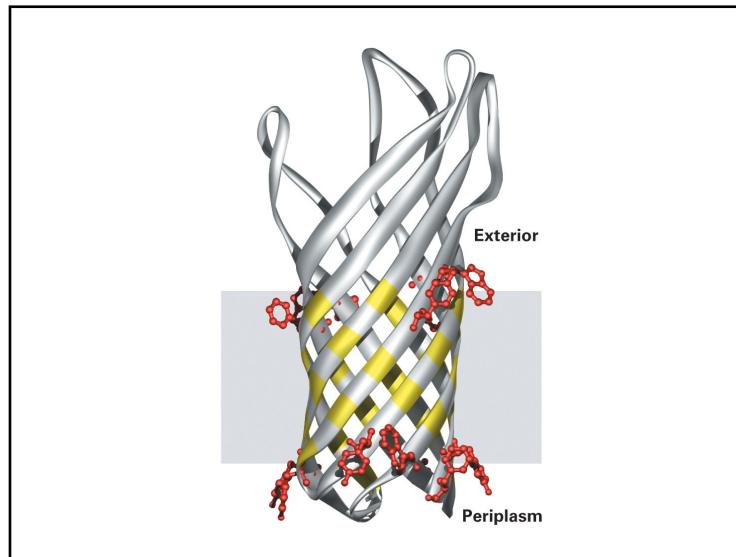
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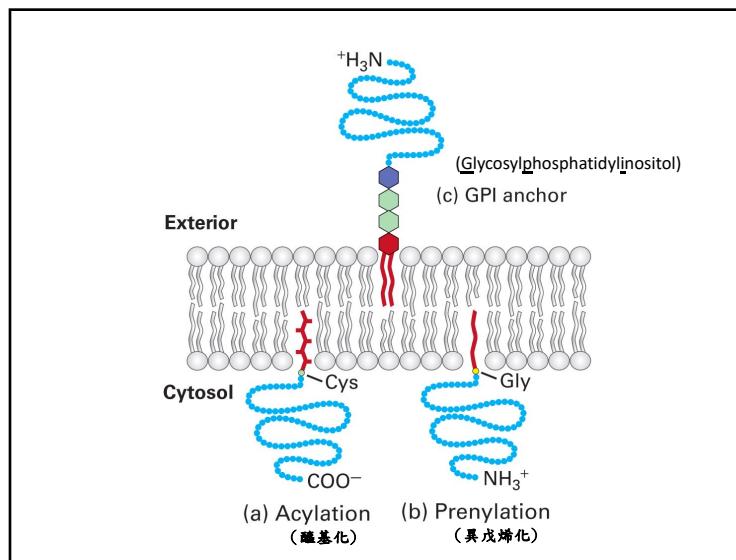
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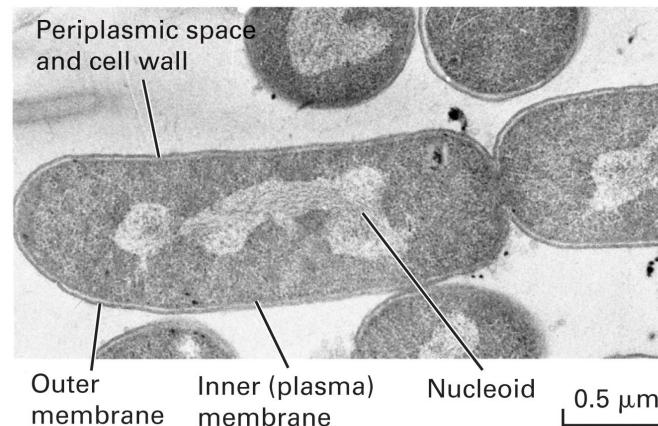
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Outline

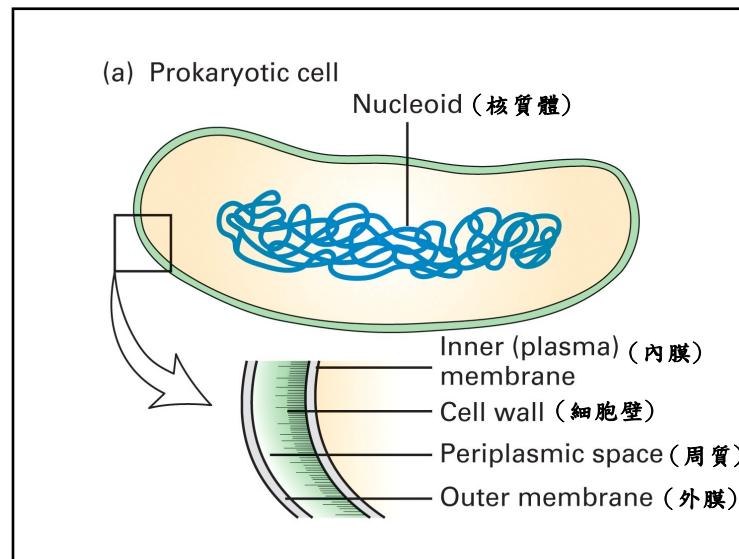
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- Extracellular components

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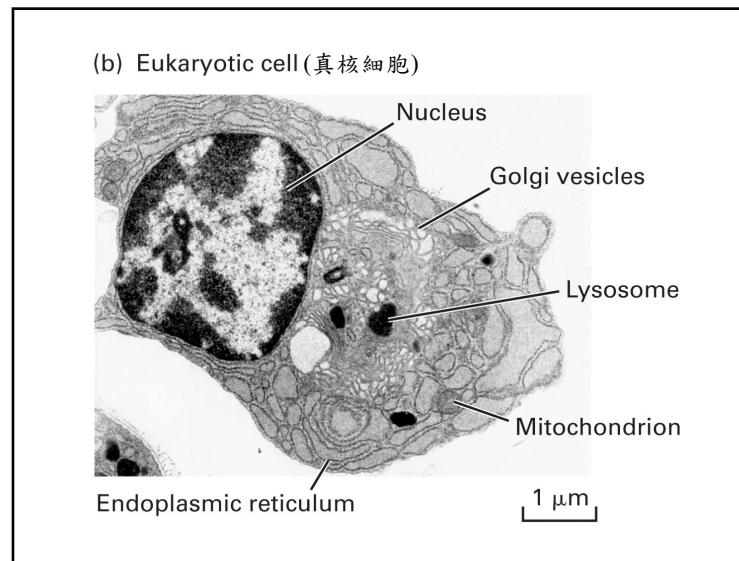
(a) Prokaryotic cell (原核細胞)



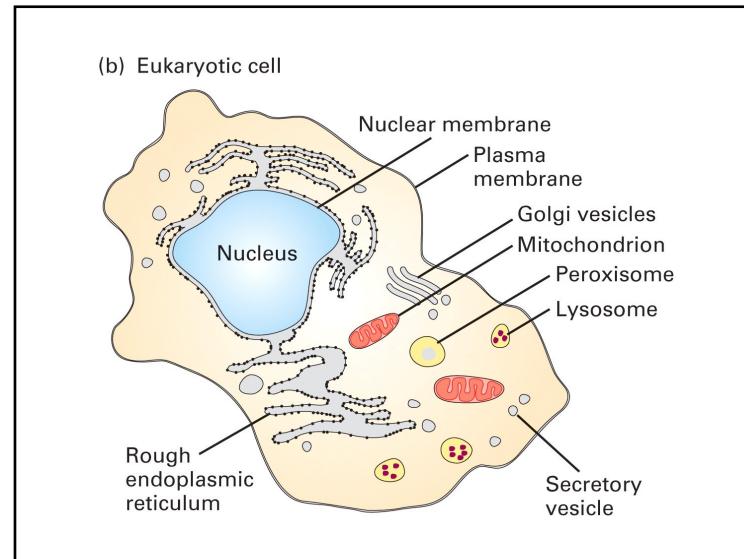
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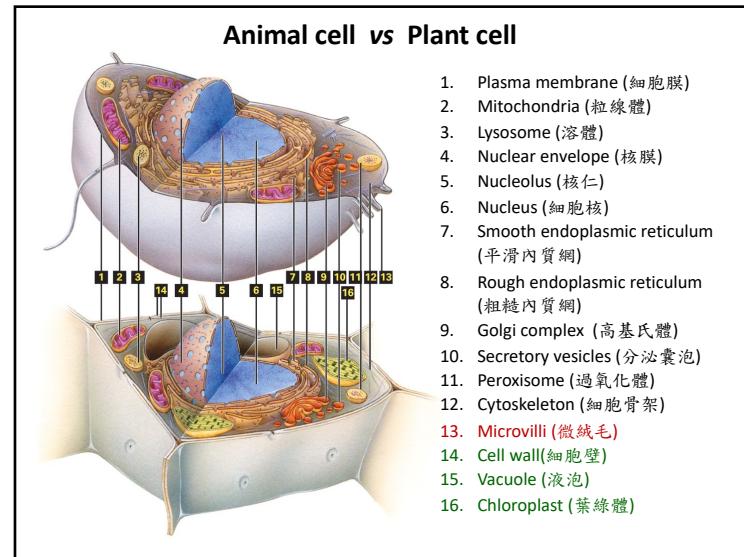
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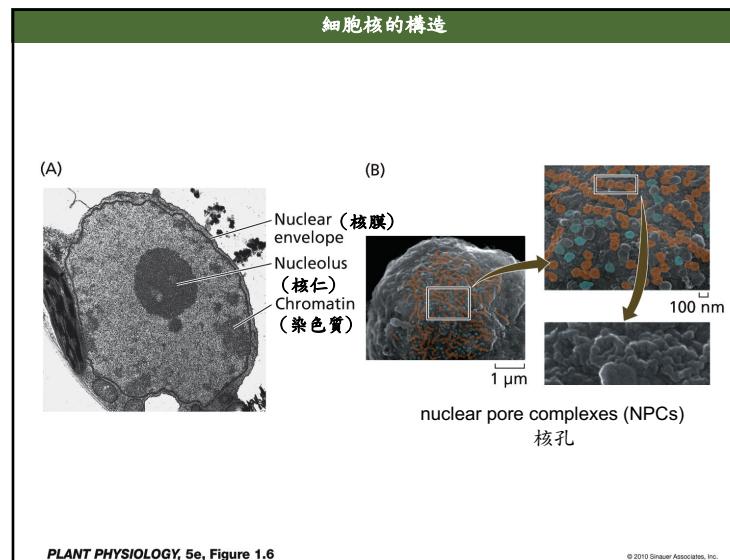


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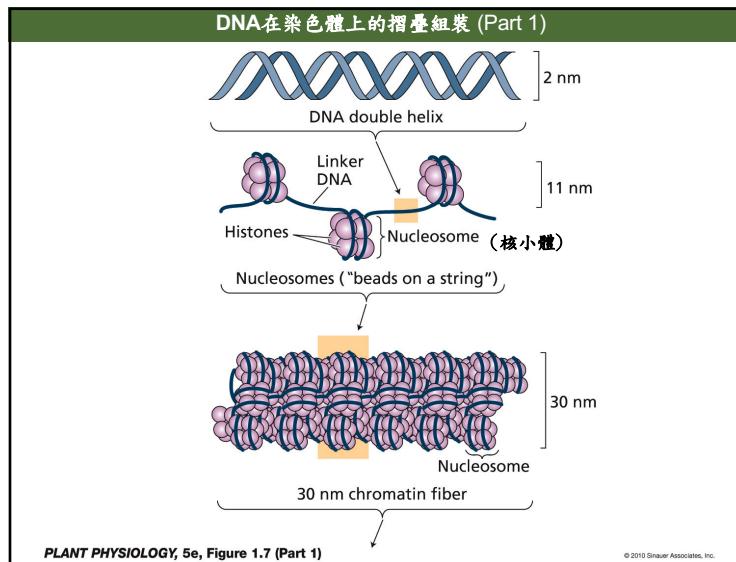
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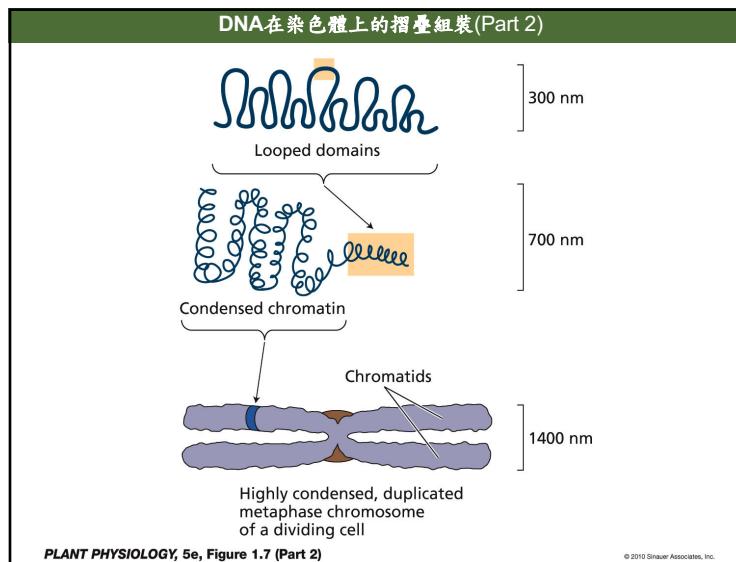
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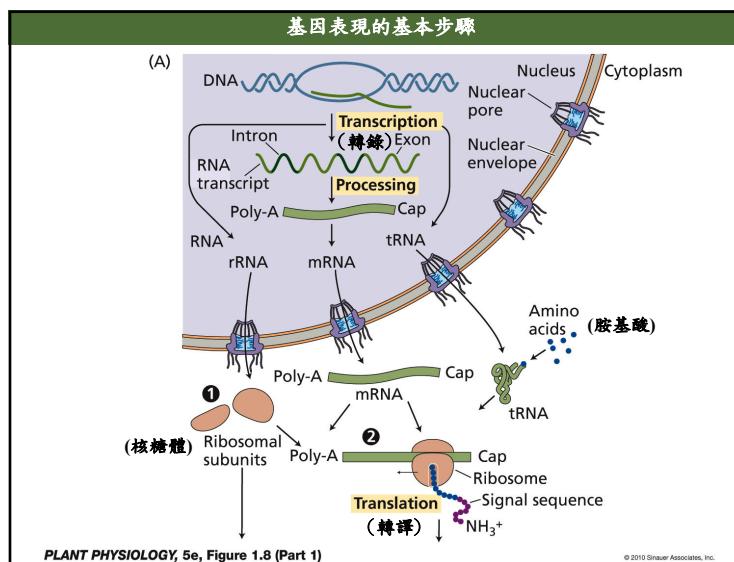
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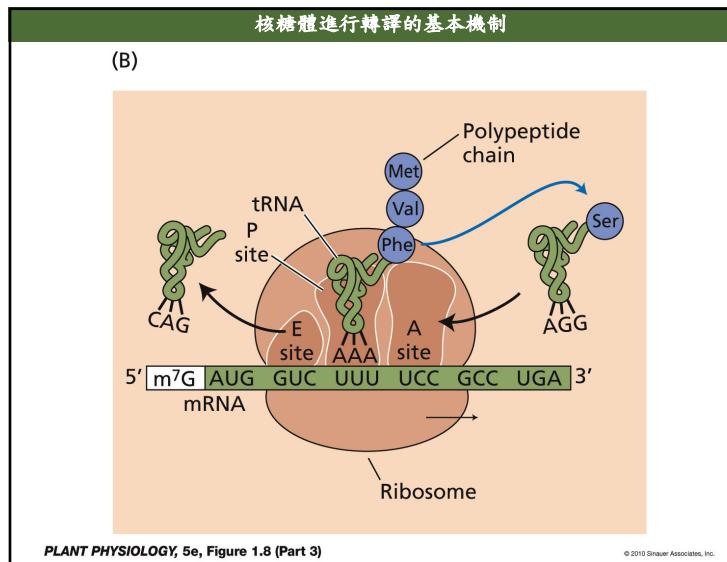


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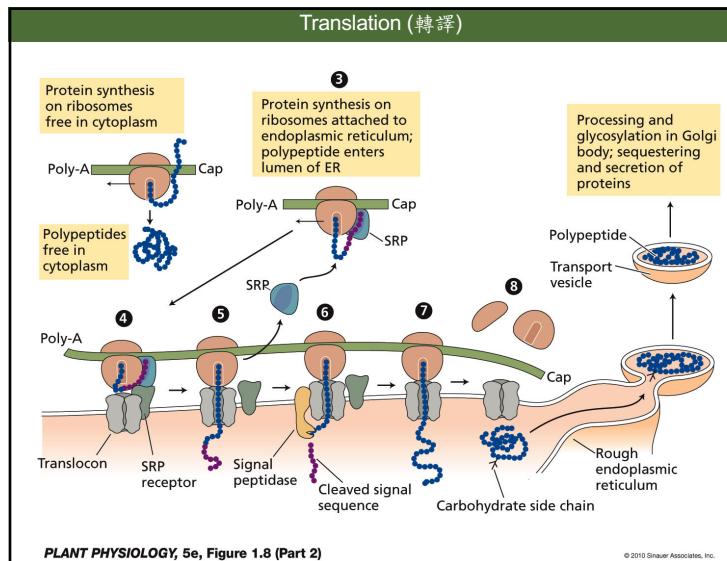
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- **Ribosome (核糖體)**
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 - Endoplasmic reticulum (内质网); Golgi complex (高基氏體); Secretory vesicles (分泌囊泡); Lysosome (溶體); Vacuole (液泡)
- Mitochondria (粒線體) and chloroplast (葉綠體)
- Cytoskeleton (细胞骨架) and cell wall (细胞壁)
- Extracellular components

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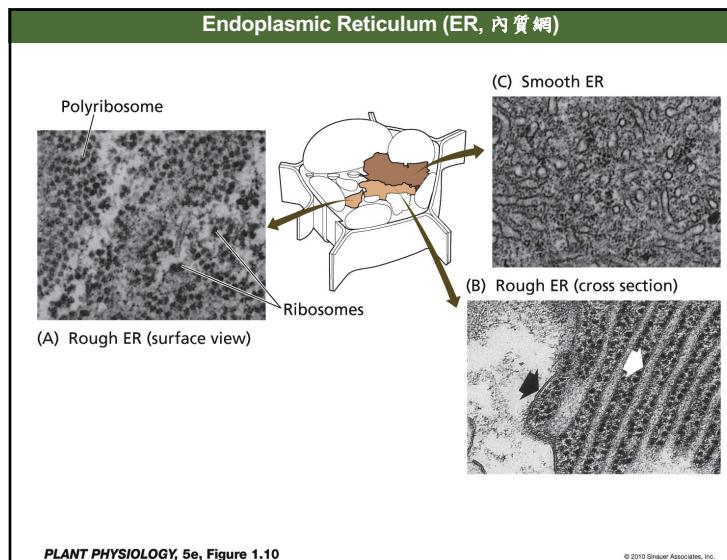


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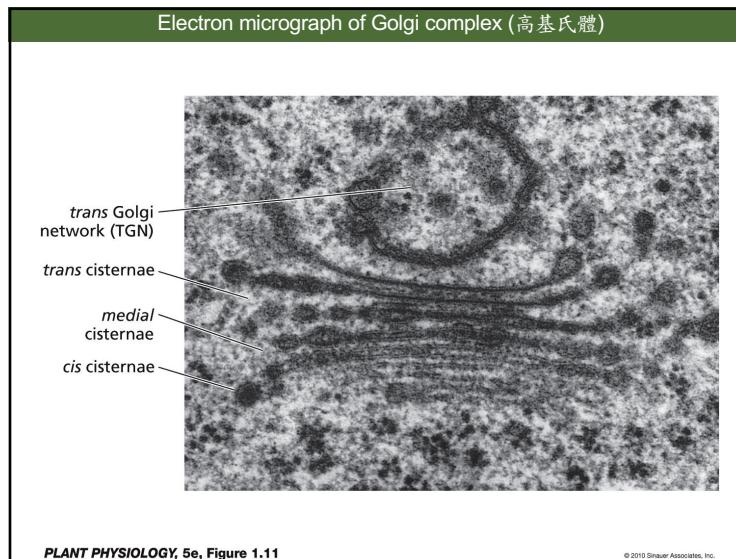
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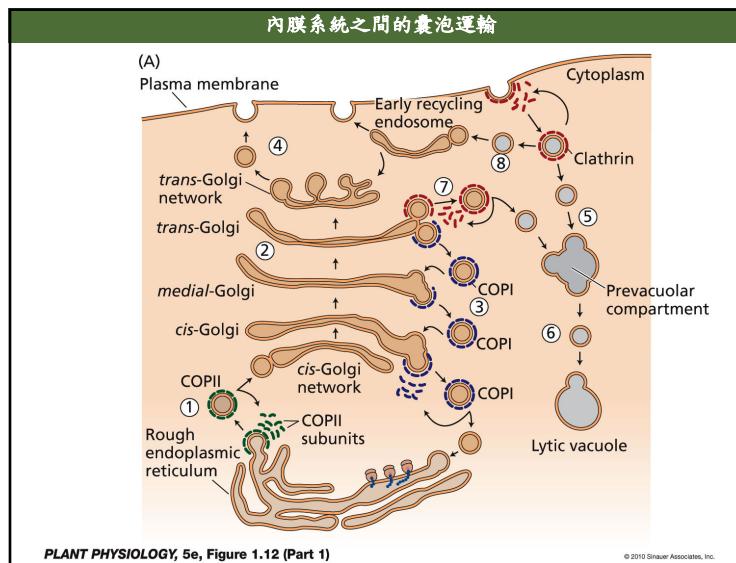
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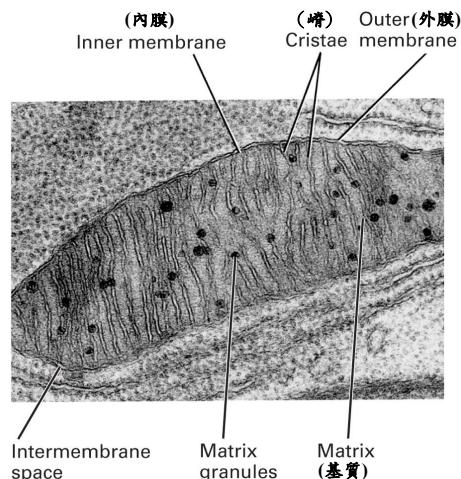
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Outline

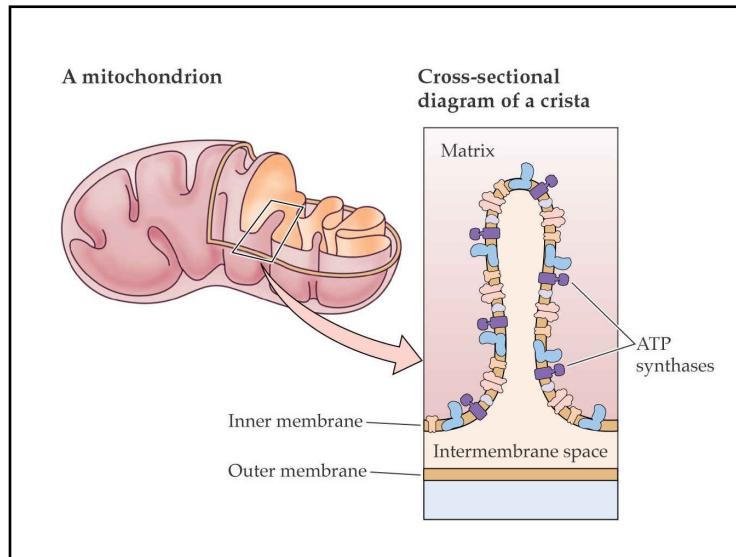
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- Cytoskeleton (細胞骨架) and cell wall (細胞壁)
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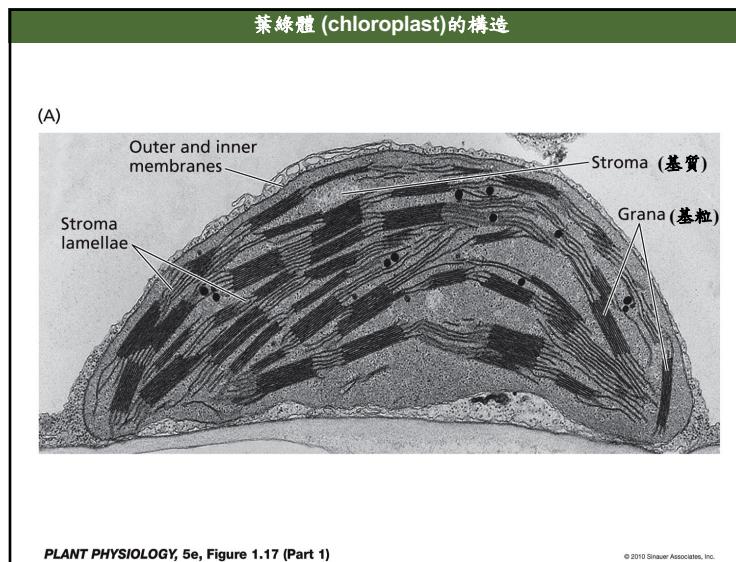
粒線體的構造



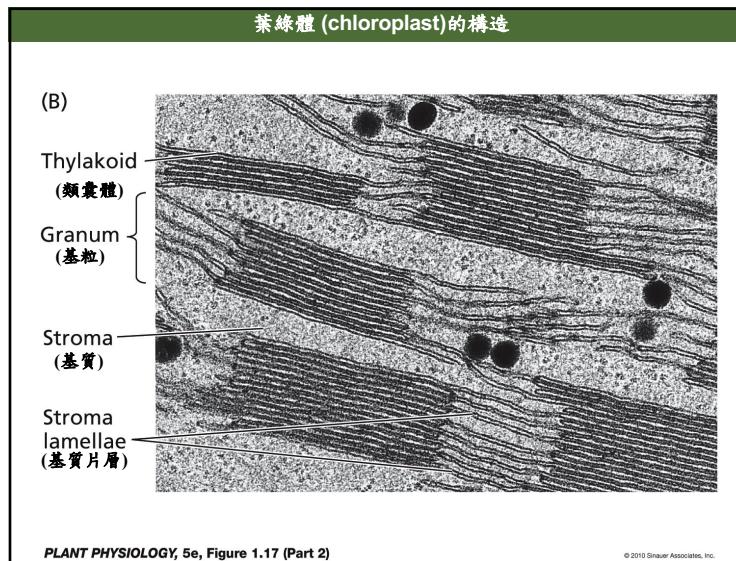
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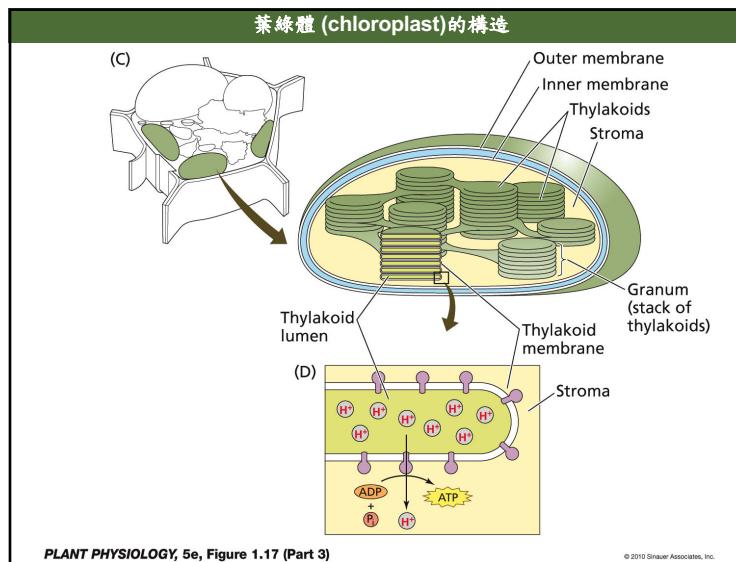
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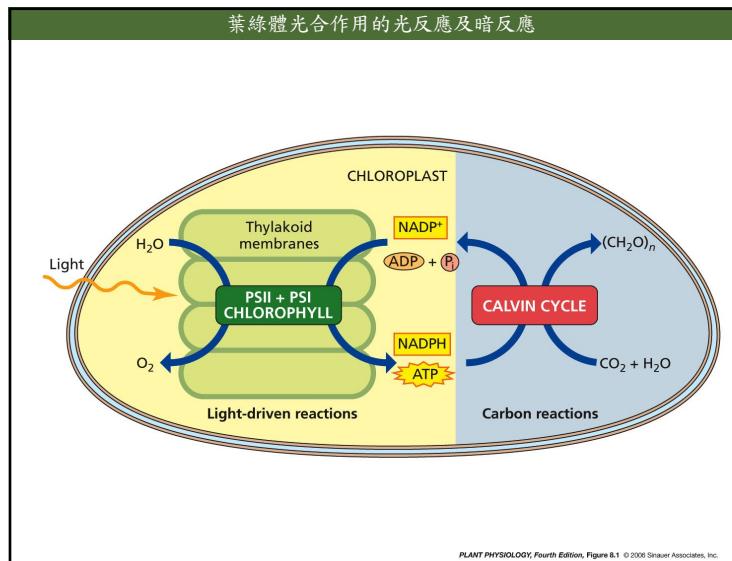
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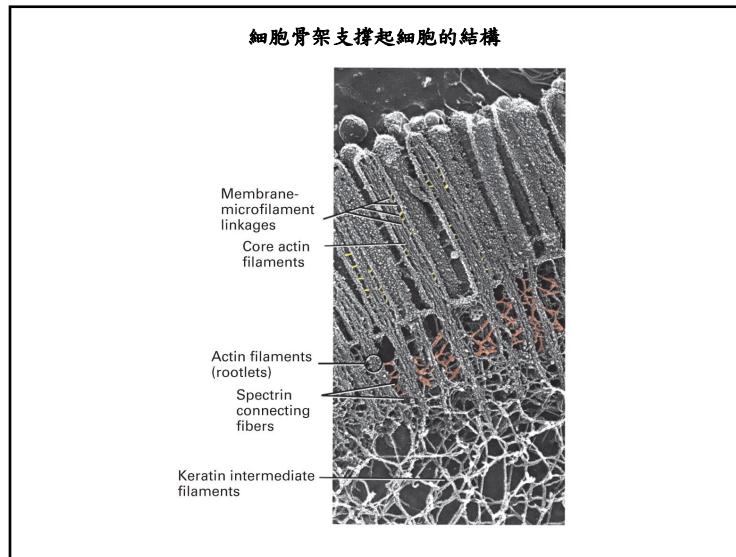


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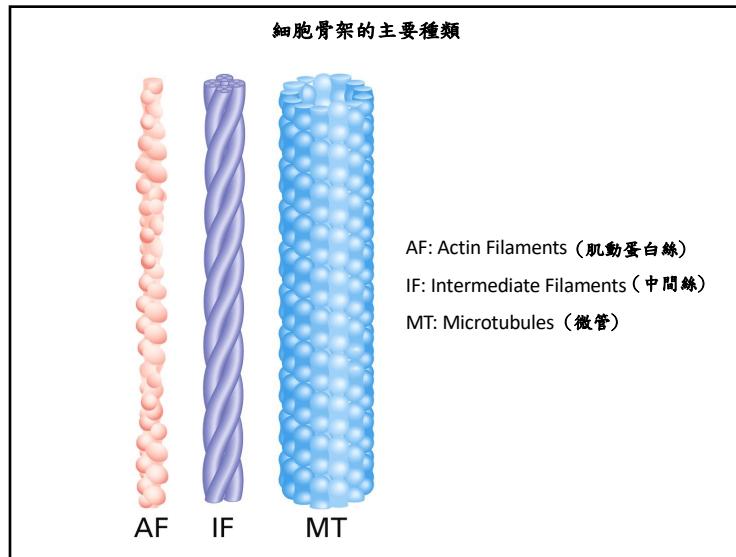
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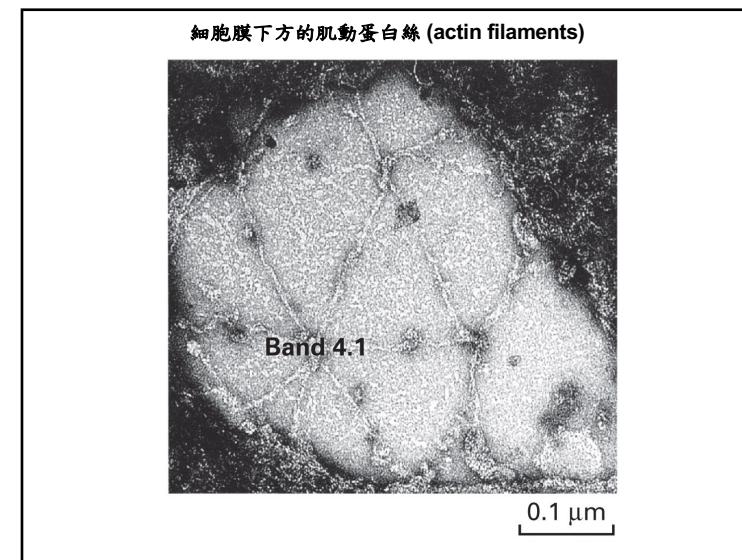
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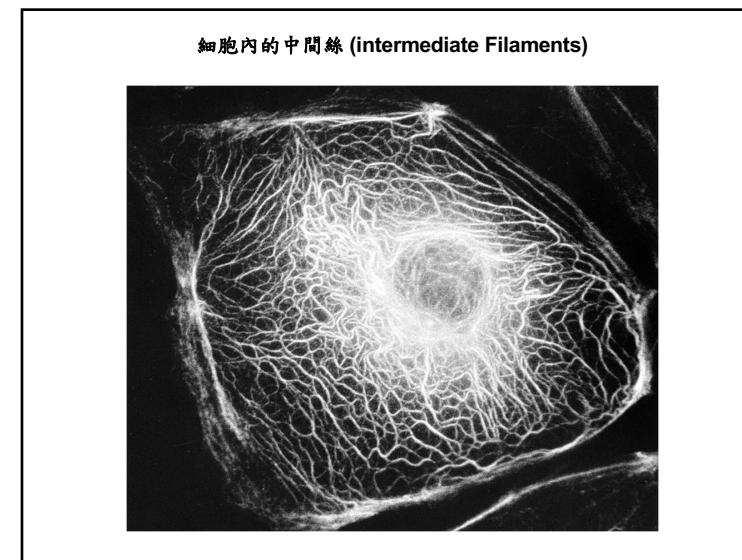
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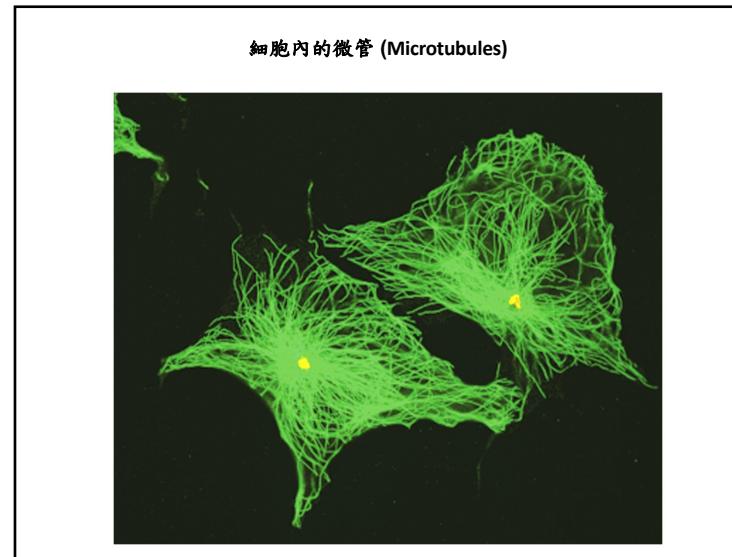
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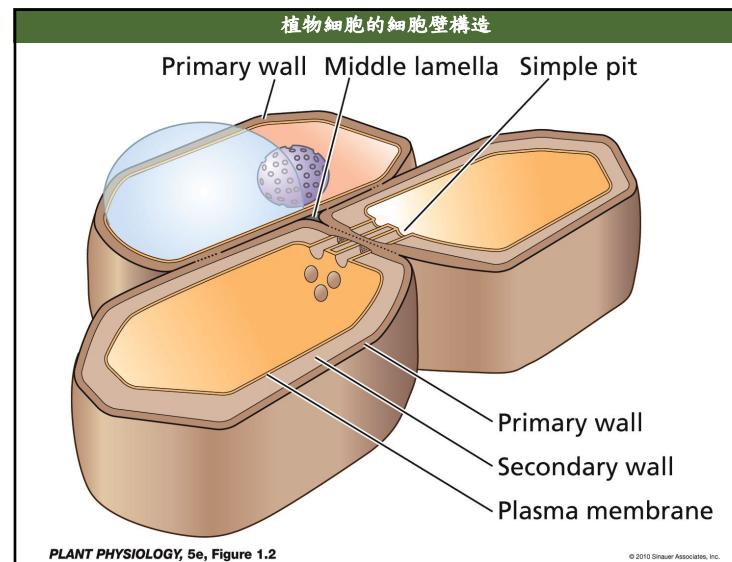
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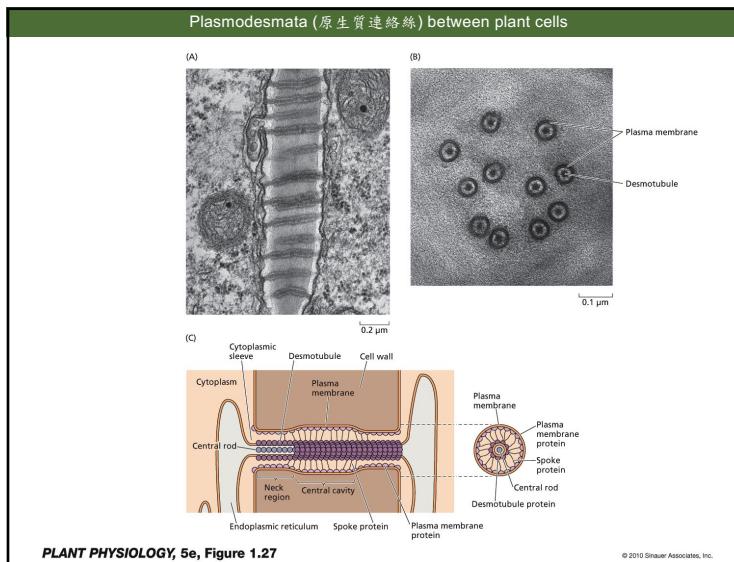
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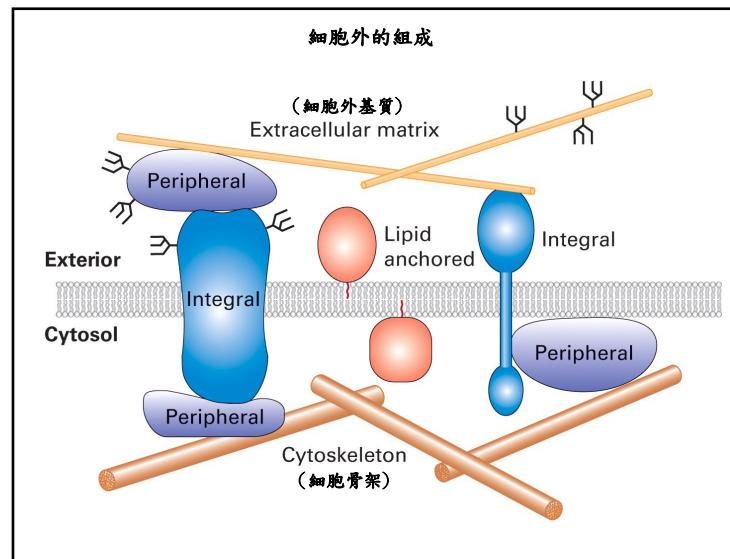
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Outline

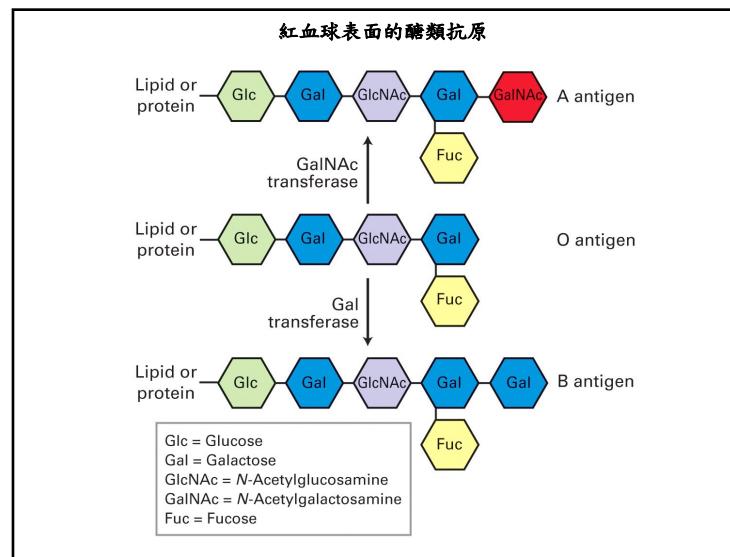
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紅血球表面的醣類抗原決定血型及輸血時的相容性

TABLE 5-2 ABO Blood Groups

| Blood-Group Type | Antigens on RBCs* | Serum Antibodies | Can Receive Blood Types |
|------------------|-------------------|-------------------|-------------------------|
| A | A | Anti-B | A and O |
| B | B | Anti-A | B and O |
| AB | A and B | None | All |
| O | O | Anti-A and anti-B | O |

*See Figure 5-16 for antigen structures.

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Questions?

Reference:

Lodish, et al., Molecular Cell Biology, 2004
Buchanan, et al., Biochemistry and Molecular Biology of Plants, 2001
Taiz & Zeiger, Plant Physiology, 2010