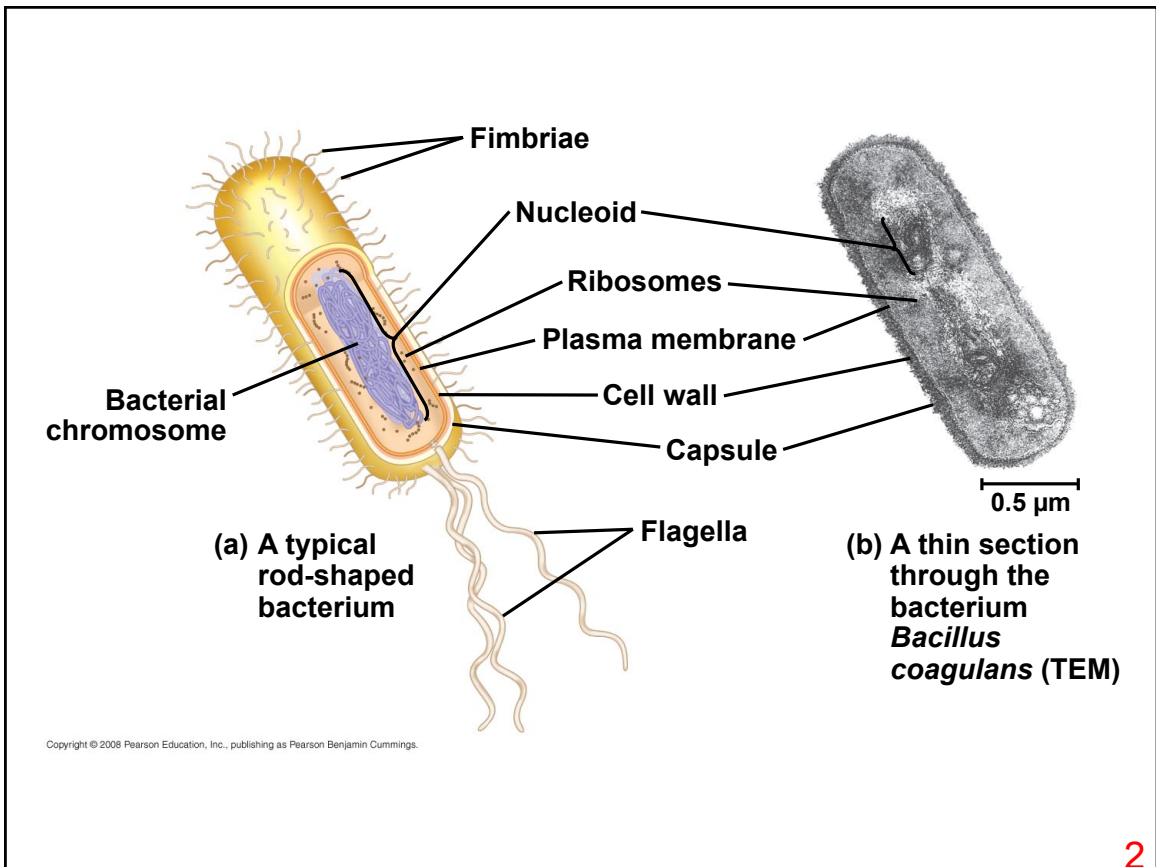
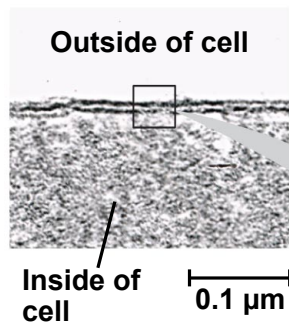


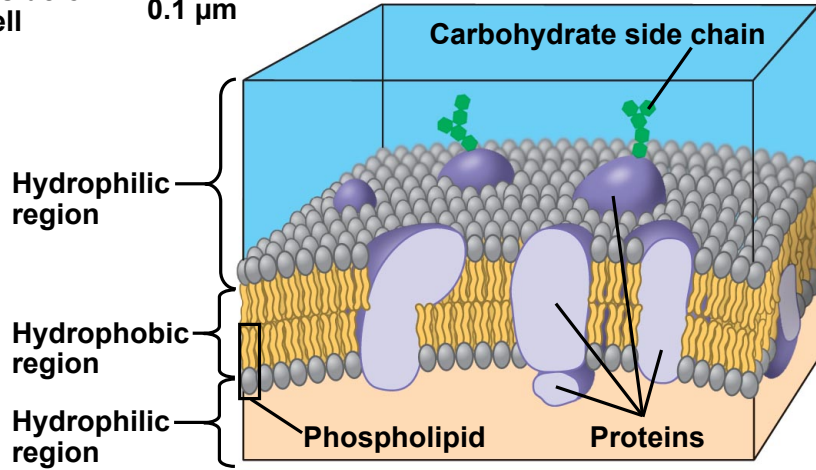
1



2



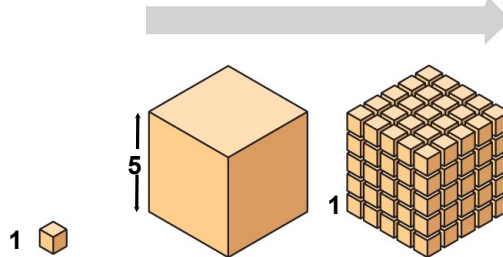
(a) TEM of a plasma membrane



(b) Structure of the plasma membrane

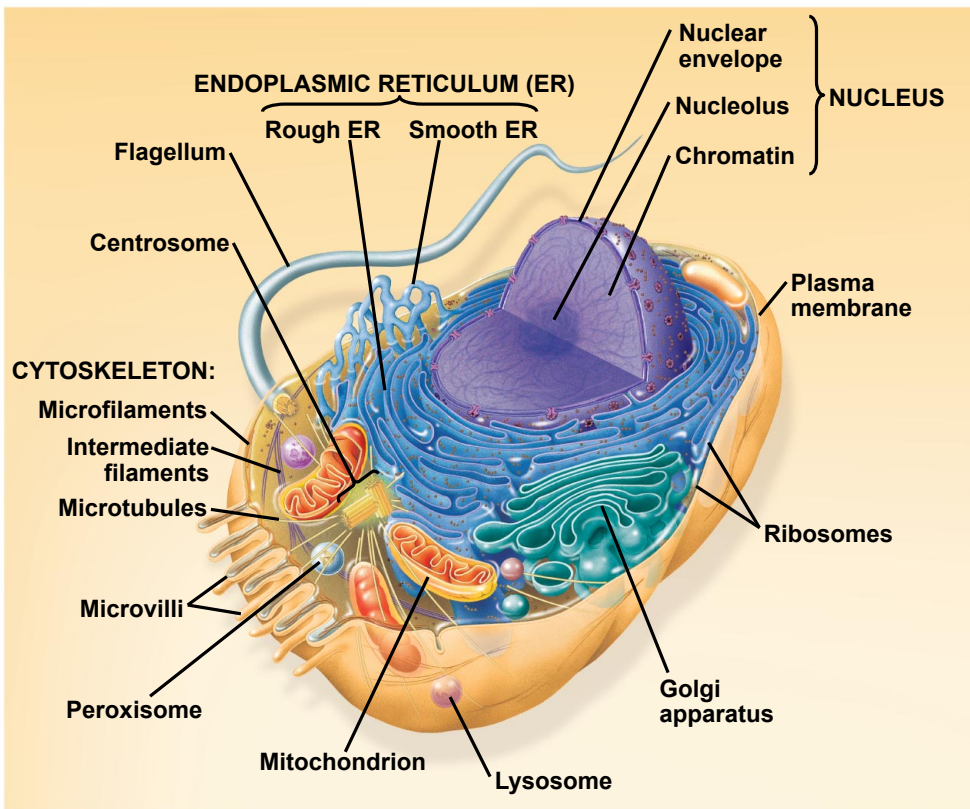
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Surface area increases while total volume remains constant

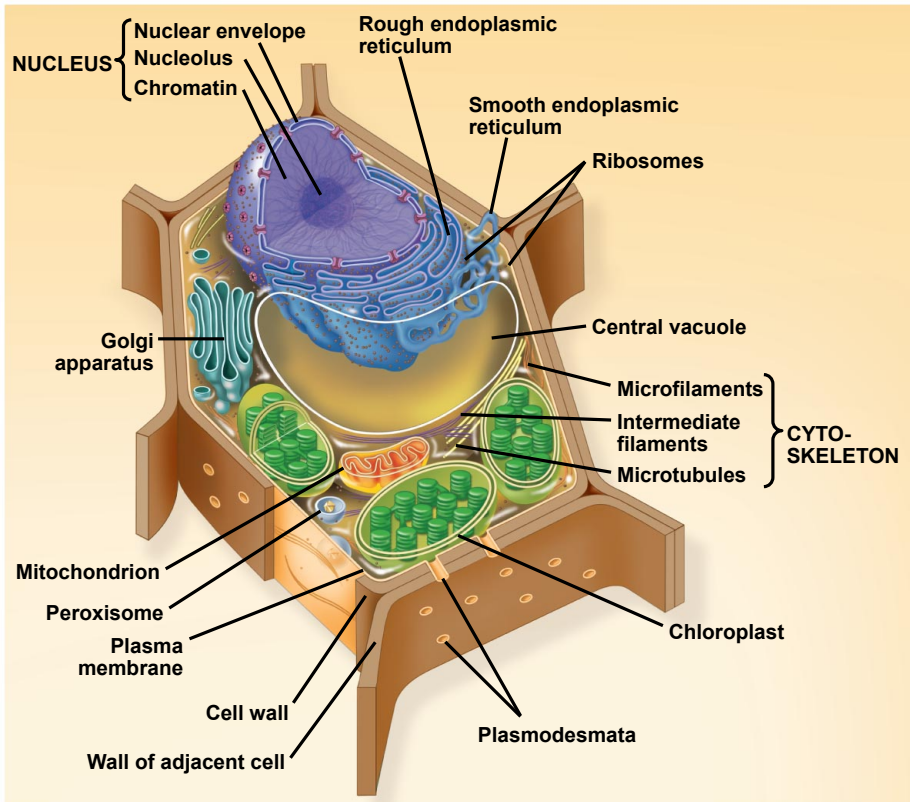


| | | | |
|---|---|-----|-----|
| Total surface area [Sum of the surface areas (height × width) of all boxes sides × number of boxes] | 6 | 150 | 750 |
| Total volume [height × width × length × number of boxes] | 1 | 125 | 125 |
| Surface-to-volume (S-to-V) ratio [surface area ÷ volume] | 6 | 1.2 | 6 |

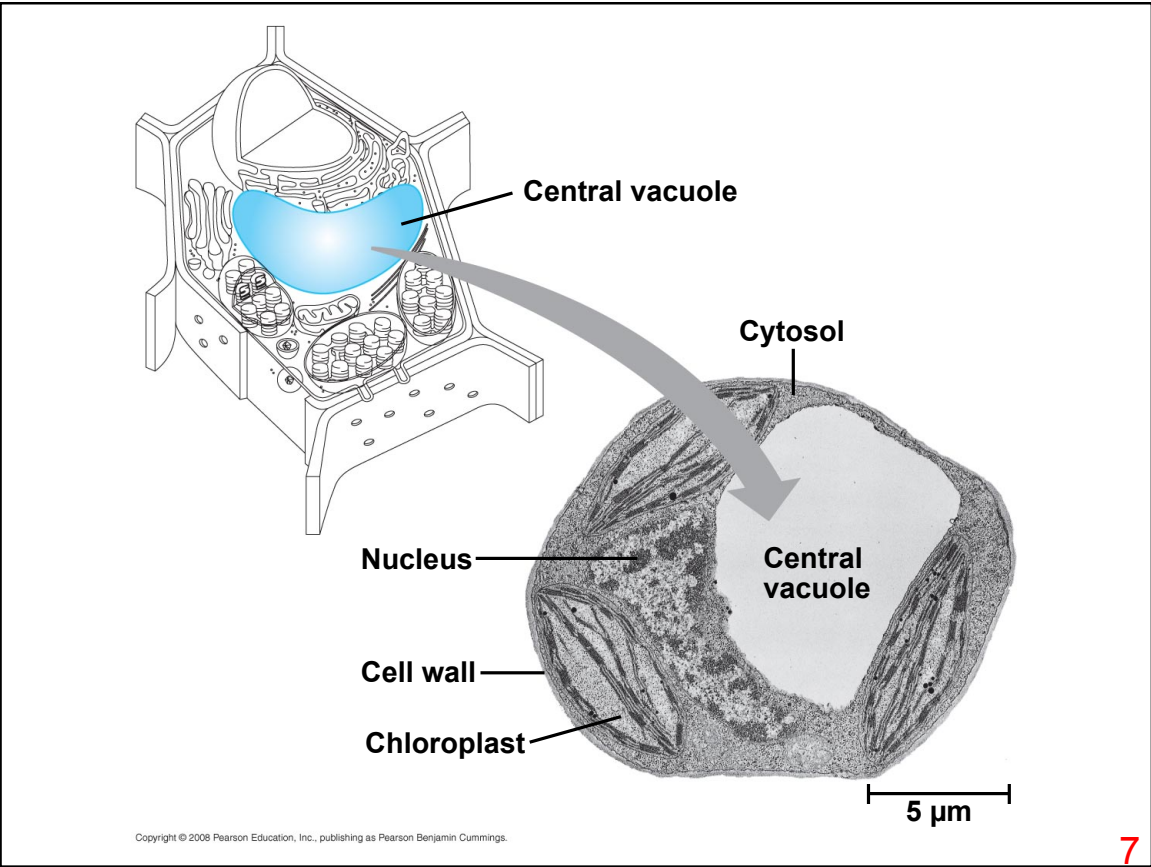
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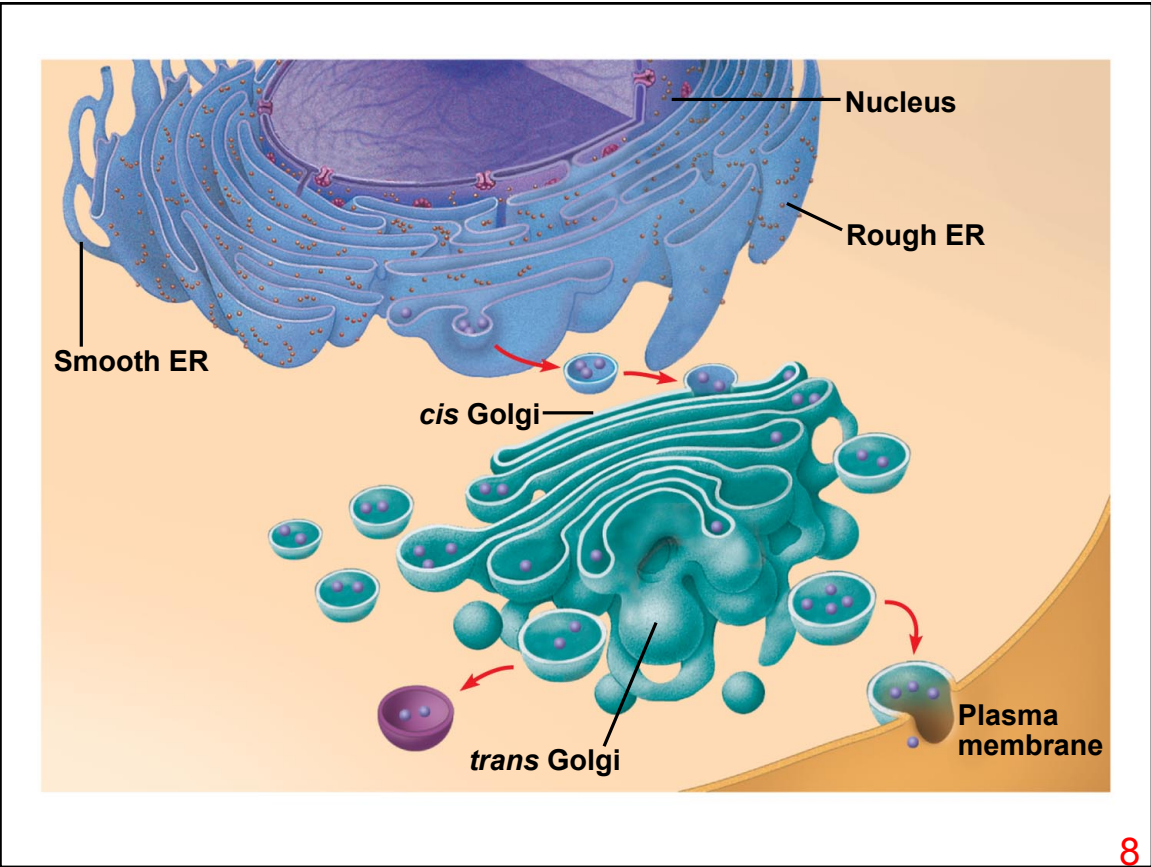
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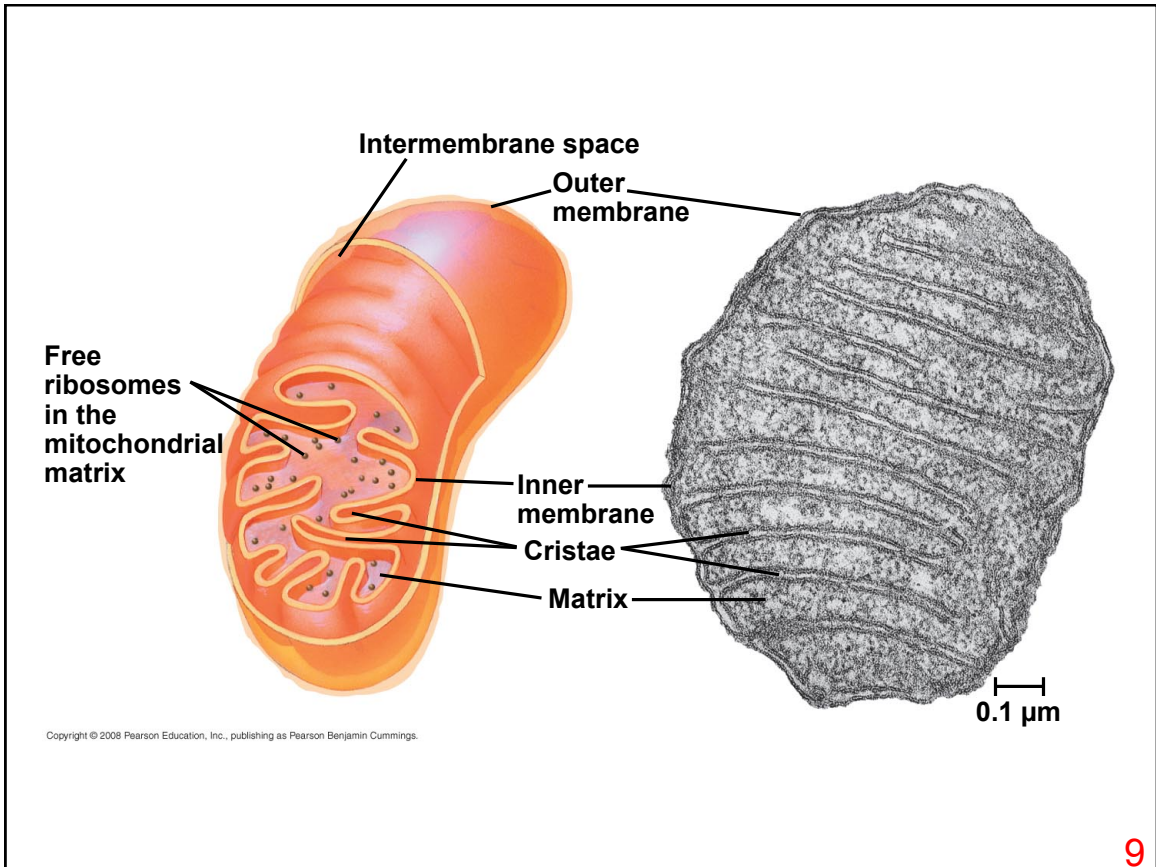
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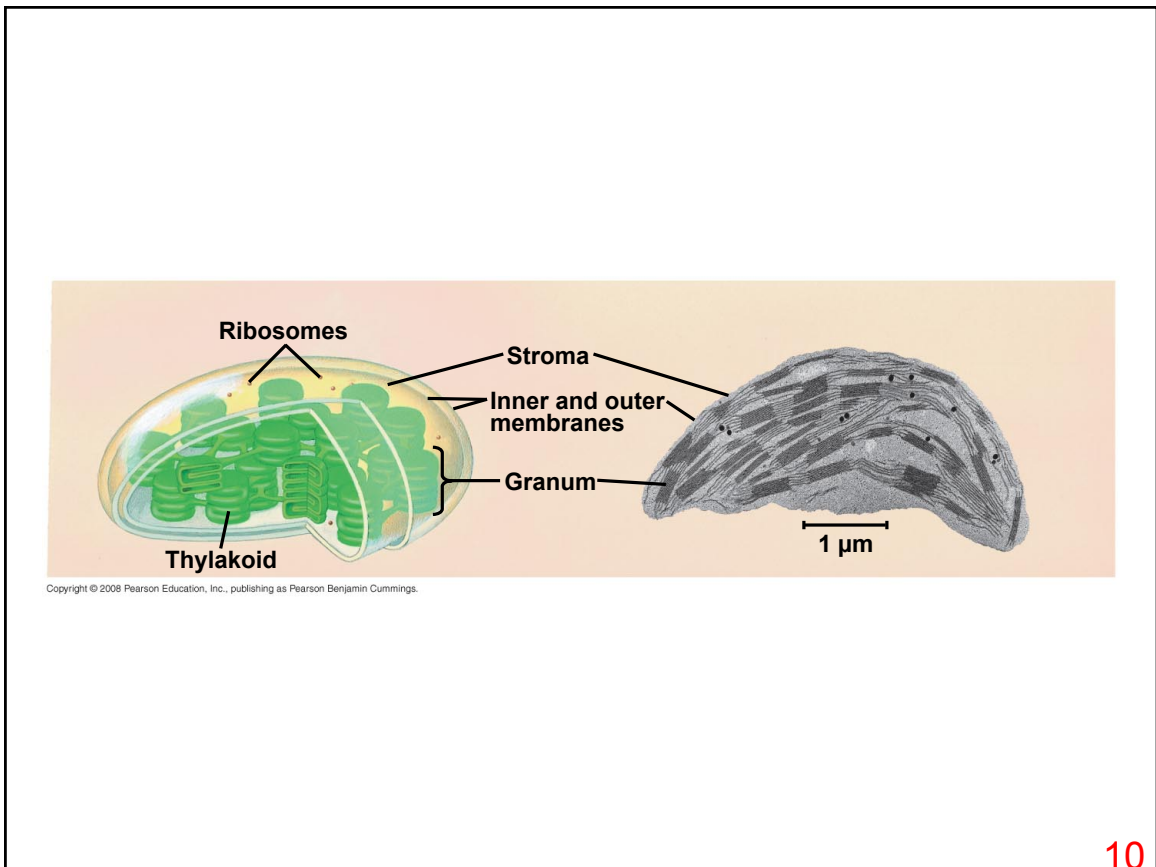
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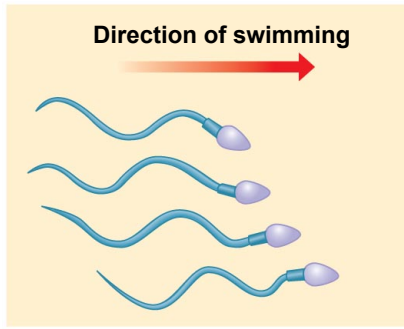
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9



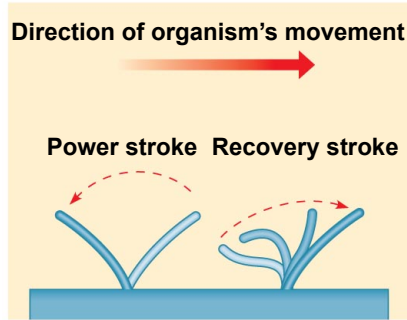
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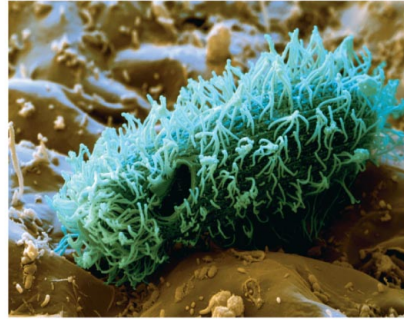
(a) Motion of flagella



5 μm



(b) Motion of cilia



15 μm

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