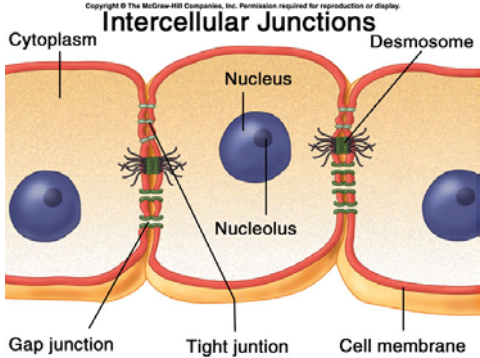
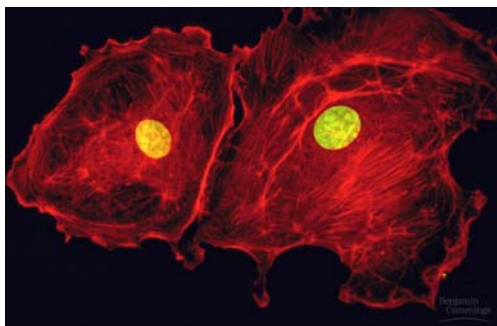
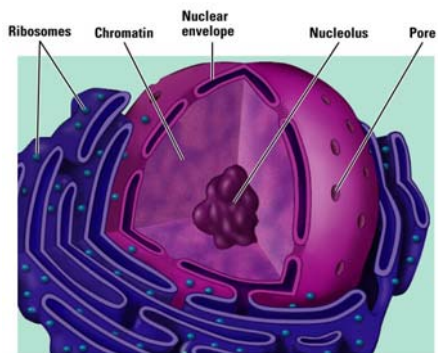


Copyright © The McGraw-Hill Companies, Inc. Permission required for reproduction or display.



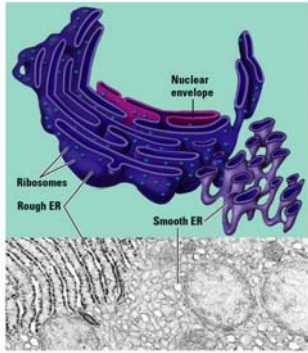
NUCLEUS



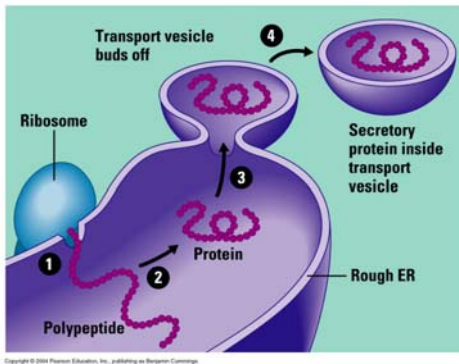


Copyright © 2004 Pearson Education, Inc., publishing as Benjamin Cummings.

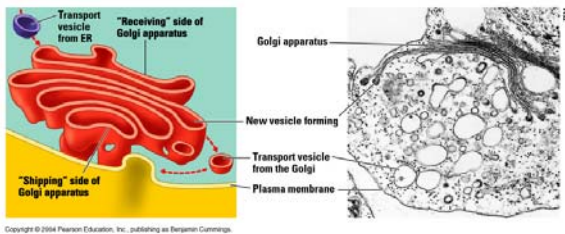
ENDOPLASMIC RETICULUM



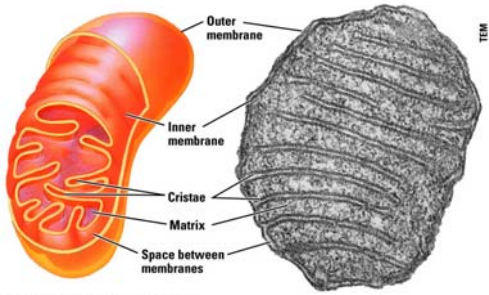
RER Protein Synthesis



GOLGI APPARATUS

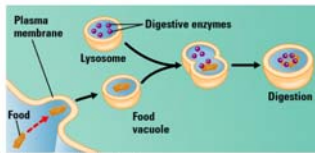


MITOCHONDRIA

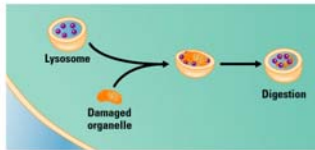


Copyright © 2004 Pearson Education, Inc., publishing as Benjamin Cummings.

Lysosomes: Endocytosis & Hydrolysis



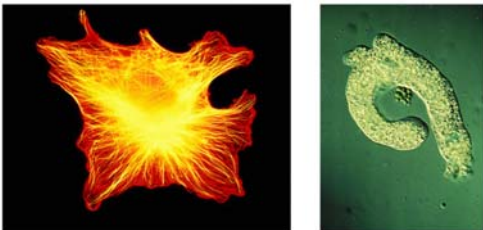
(a) Lysosome digesting food



(b) Lysosome breaking down damaged organelle

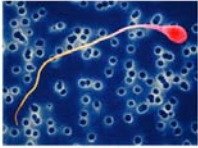
Copyright © 2004 Pearson Education, Inc., publishing as Benjamin Cummings.

CYTOSKELETON

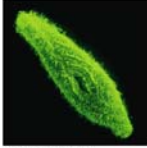


Copyright © 2004 Pearson Education, Inc., publishing as Benjamin Cummings.

FLAGELLA & CILIA



(a) Flagellum of a human sperm cell



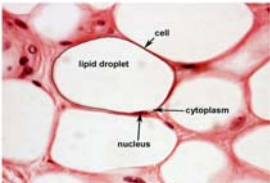
(b) Cilia on a protist



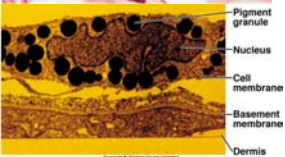
(c) Cilia lining the respiratory tract

Copyright © 2004 Pearson Education, Inc., publishing as Benjamin Cummings.

Inclusions



lipid droplet
nucleus
cytoplasm
cell



Pigment granule
Nucleus
Cell membrane
Basement membrane
Dermis

Ex.

- melanin - pigment in skin, hair, eyes
- glycogen - glucose storage - liver and muscles
- lipids - stored in fat cells (longterm energy)



Glycogen (red)

The Cell Cycle

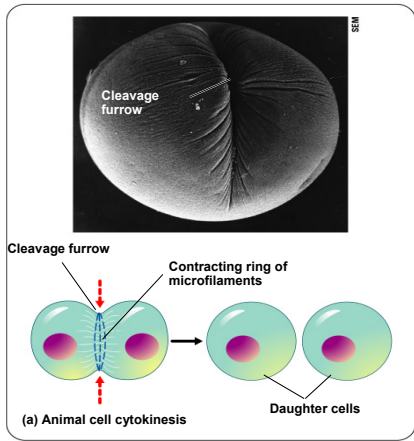
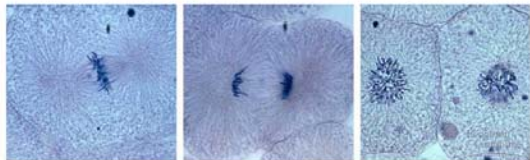
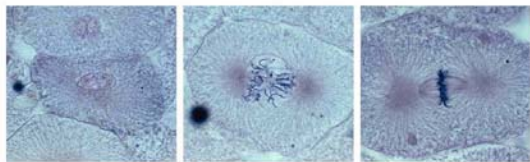


Figure 8.8a



Cell undergoing Mitosis

Cancer:
Cells Growing Out of Control

