

BIOLOGICAL FRAMEWORKS FOR ENGINEERS

Session #18 [µm: Cell-Cell and Cell-ECM Interactions]

General Objectives:

- ✓ Examine cell-cell and cell-ECM interactions.
- ✓ Discuss the importance of each connection from a physiologic perspective.

Central Framework:

- ✓ Cell-cell interactions facilitate integrated responses and the passing of mechanical information.

Session Outline:

A. Cell-to-Cell

Tight Junctions

Gap Junctions

Adherens Junctions

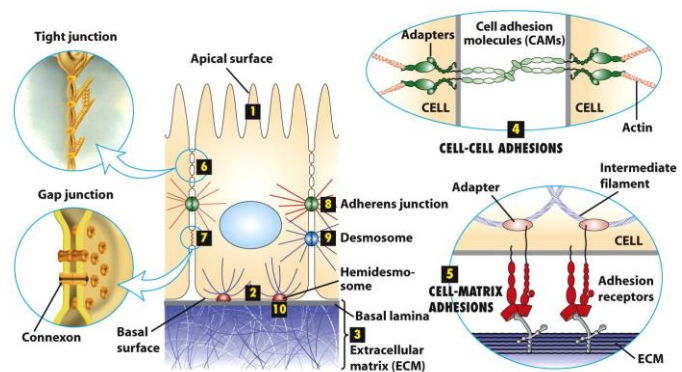


Figure 19-1
Molecular Cell Biology, Sixth Edition
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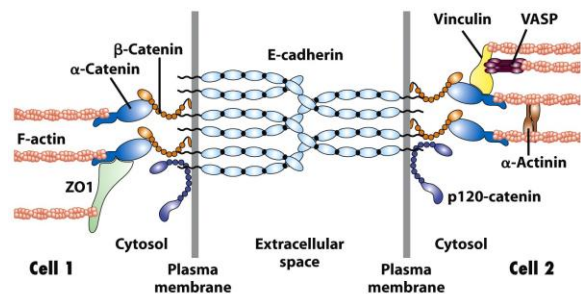


Figure 19-12
Molecular Cell Biology, Sixth Edition
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B. Cell-to-ECM

Basal Lamina (Basement Membrane)

Glycoaminoglycans (GAGs)

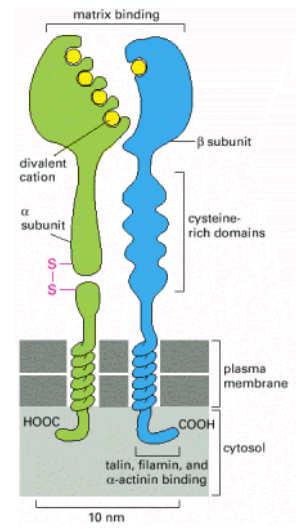
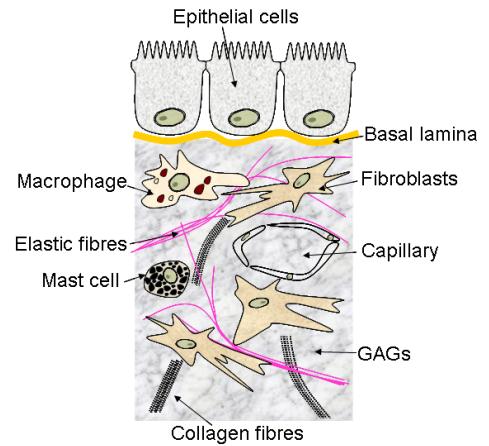
Elastin

Collagen

Laminin

Fibronectin

Integrins



Focal Adhesions

