BIOLOGICAL FRAMEWORKS FOR ENGINEERS

Session #15 [Cellular Motion and Shape Change]

General Objectives:

- ✓ Discuss the importance of cell movement and shape change
- ✓ Discuss mechanisms of cell motion

Central Framework:

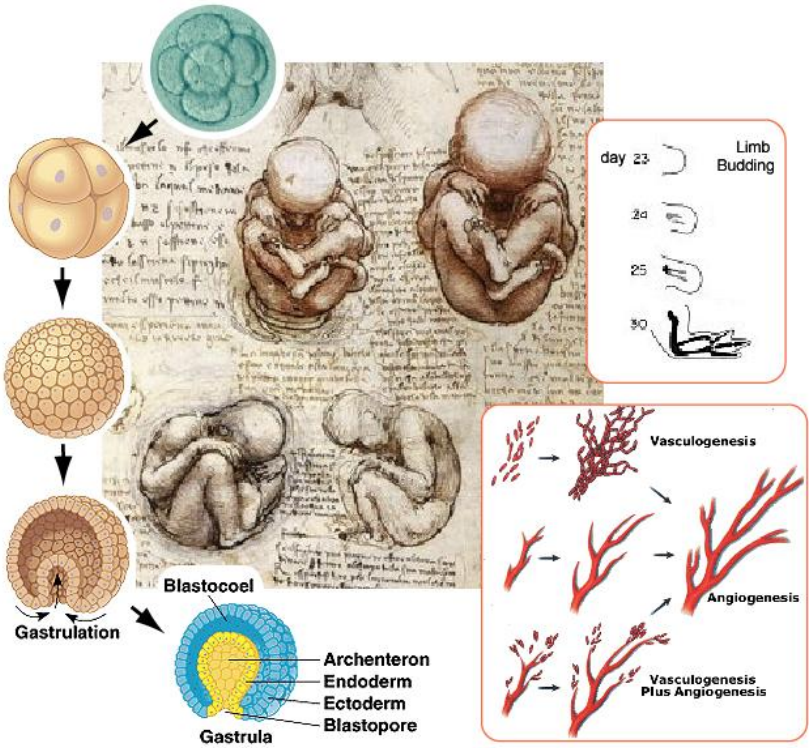
- ✓ Cellular movement and shape change is central to the life of an organism and is accomplished via different mechanisms.

Interactive Activity:

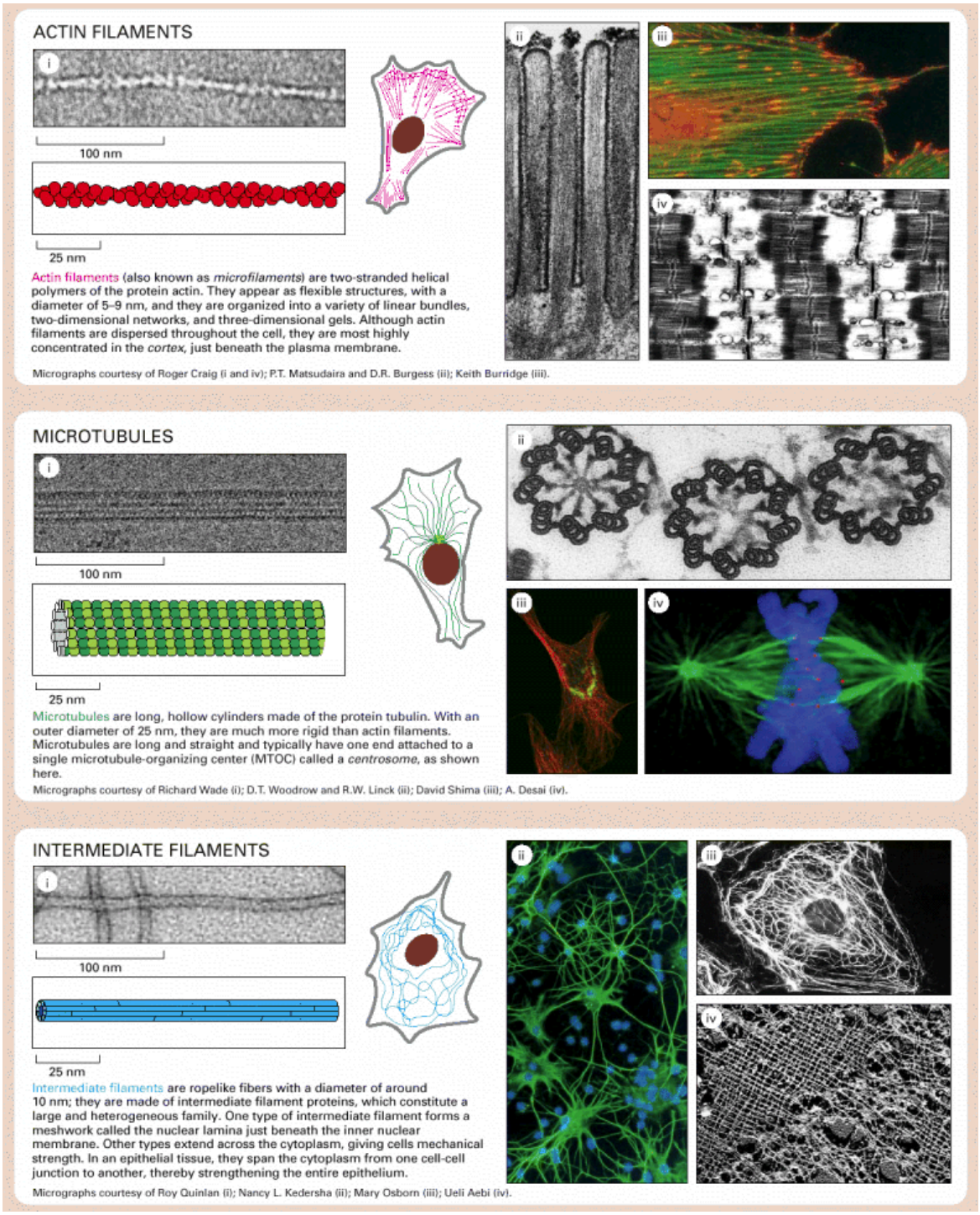
- ✓ Videos of cellular motion

Session Outline:

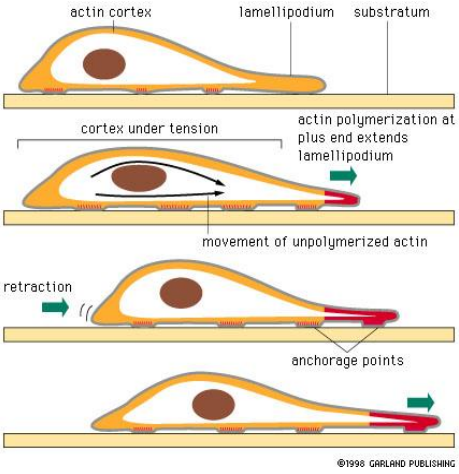
A. Importance of Cell Movement



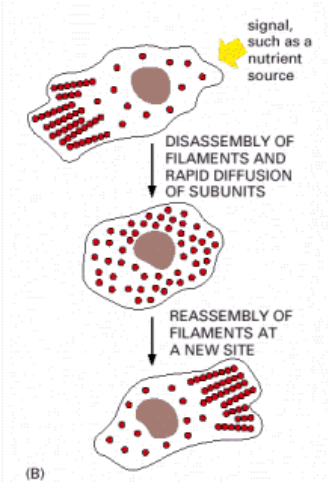
B. Cytoskeletal Movement



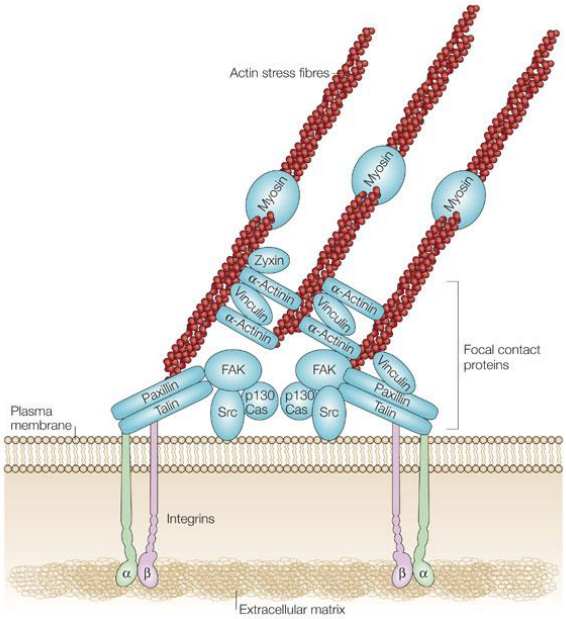
C. Mechanisms of Cell Movement



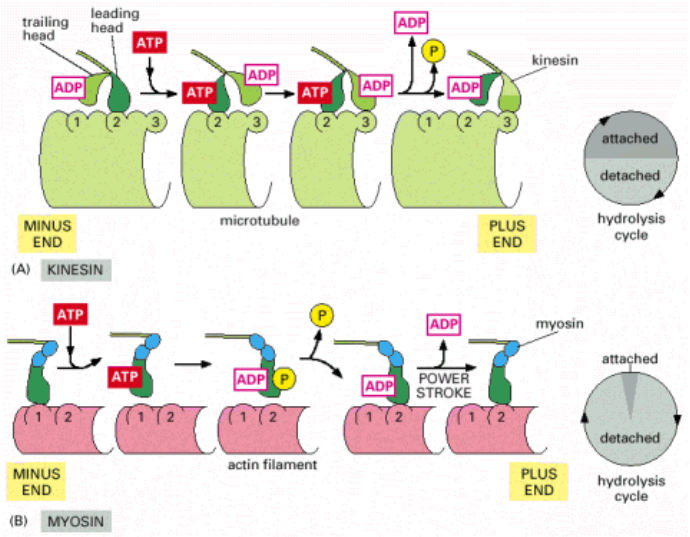
Polarization

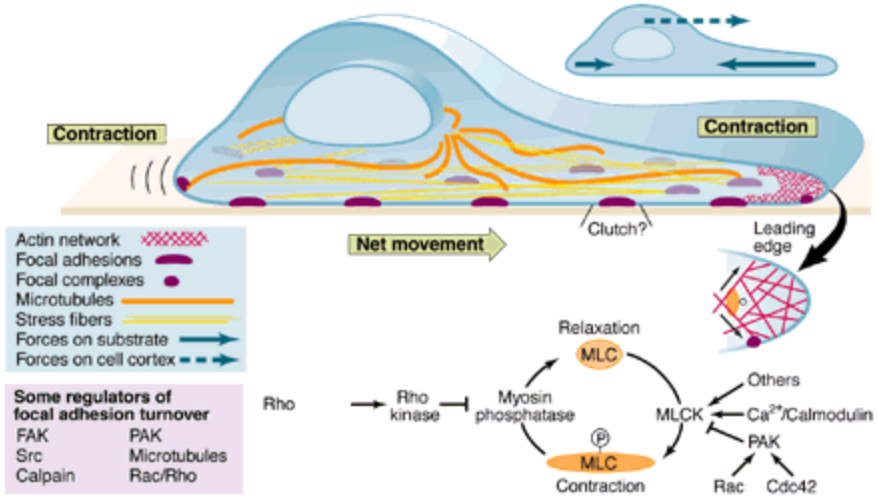


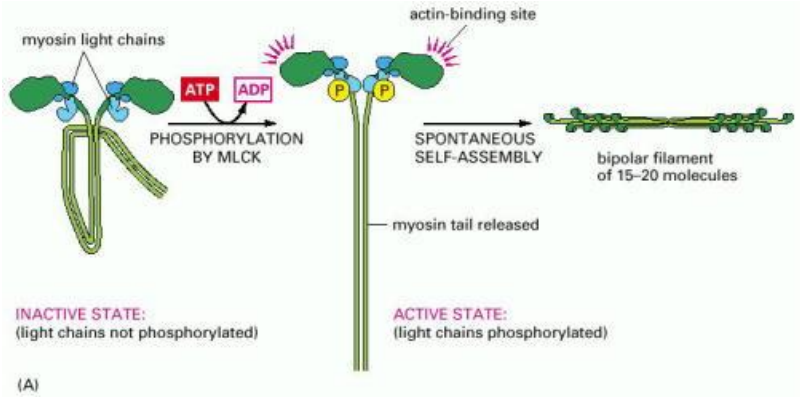
Focal Adhesions



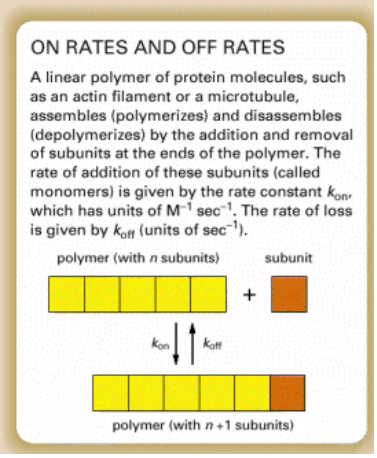
Motor Proteins

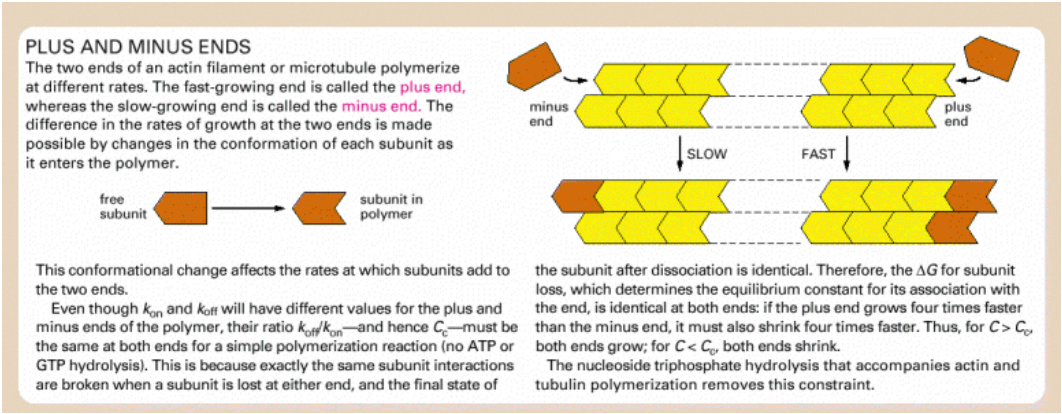


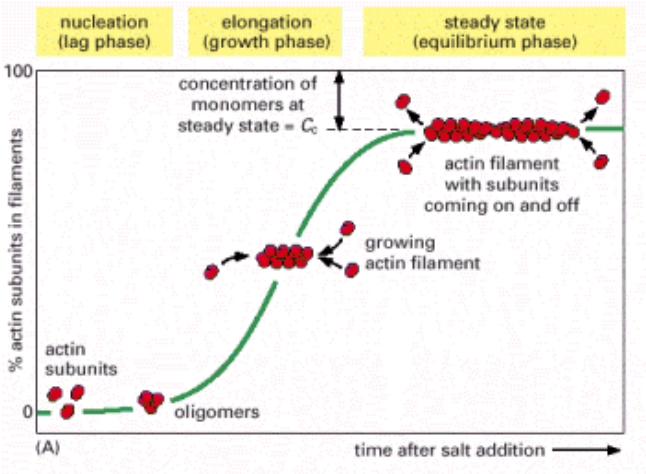


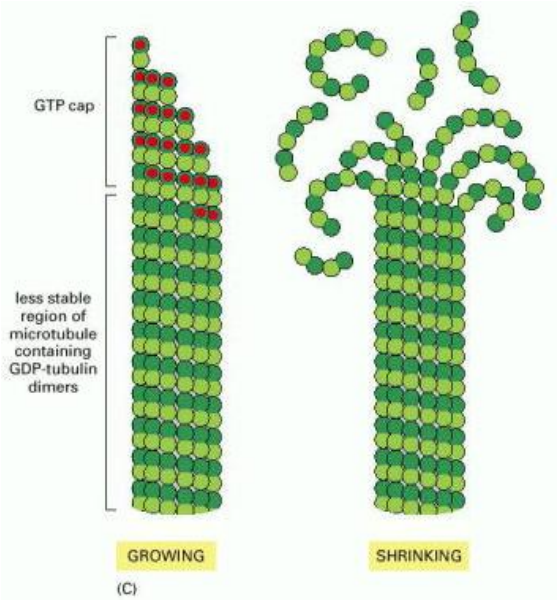


Assembly / Disassembly

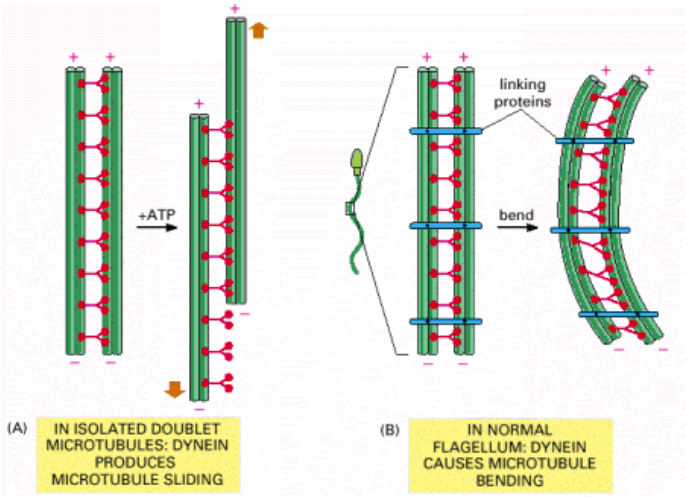








D. Flagella and Cilia



E. Muscle Cell Contraction