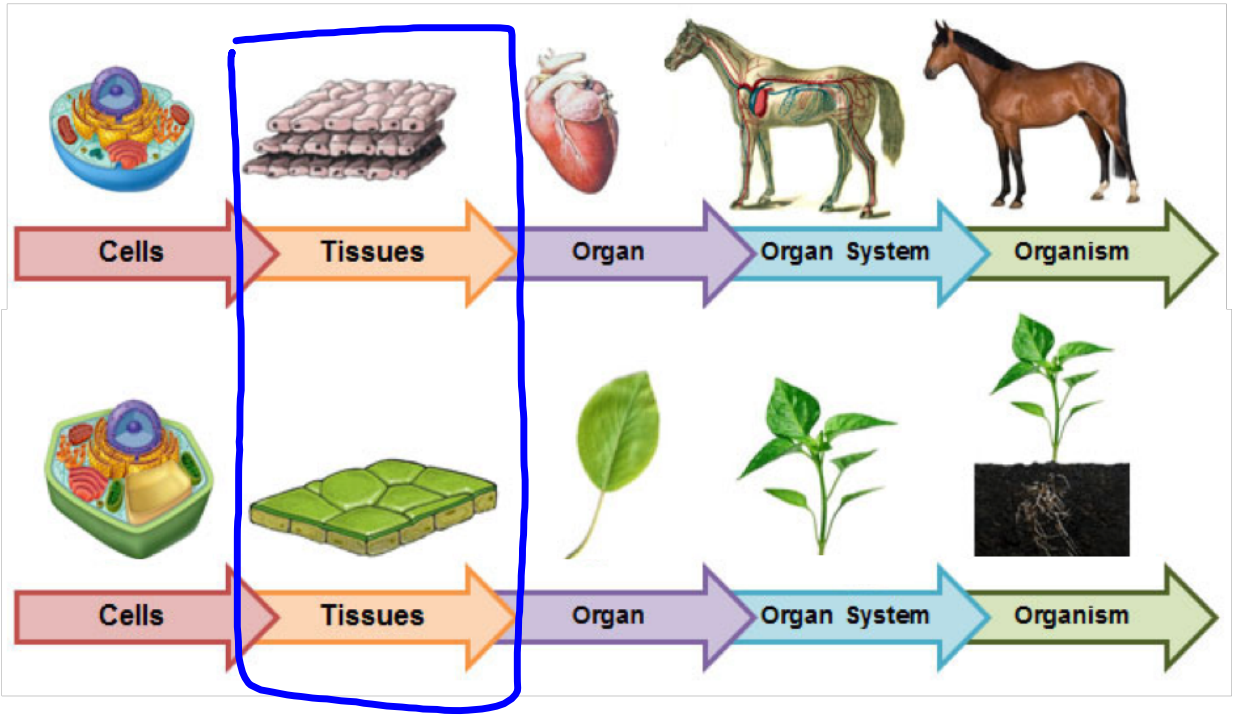
Induced Pluripotent Stem Cells

embryonic stem cells are valuable because they can become all cells

Adult stem cells that have been reprogrammed into an embryonic-like state

Why do we study cells?

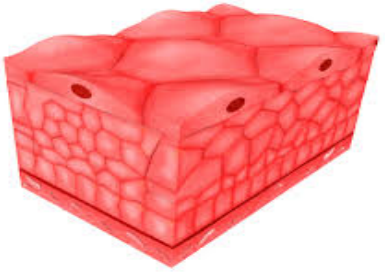


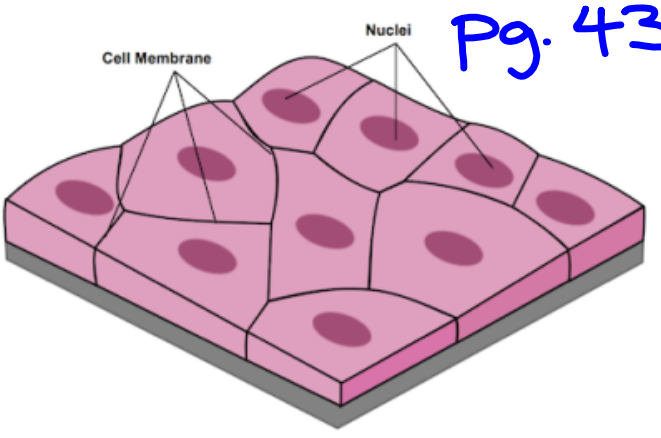
Tissues

Groups of cells that function together to perform specialized tasks

Epithelial Tissue

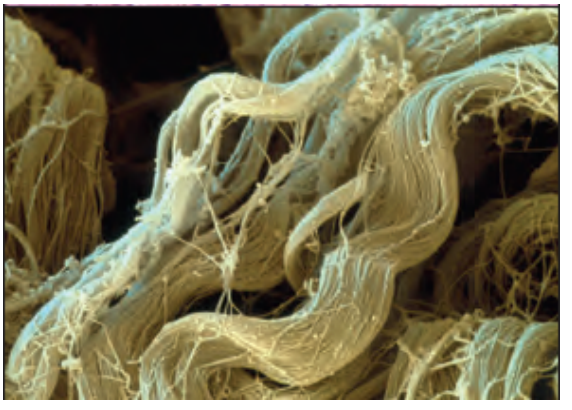
Pg. 43





- tightly packed cells that form a protective barrier
- line outside of body, form glands, line cavities

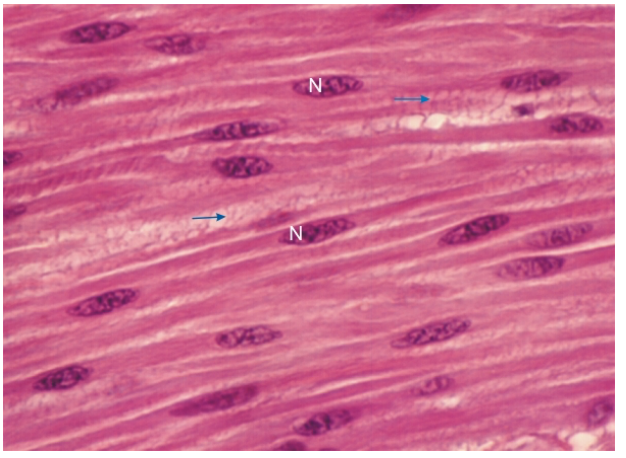
Connective Tissue

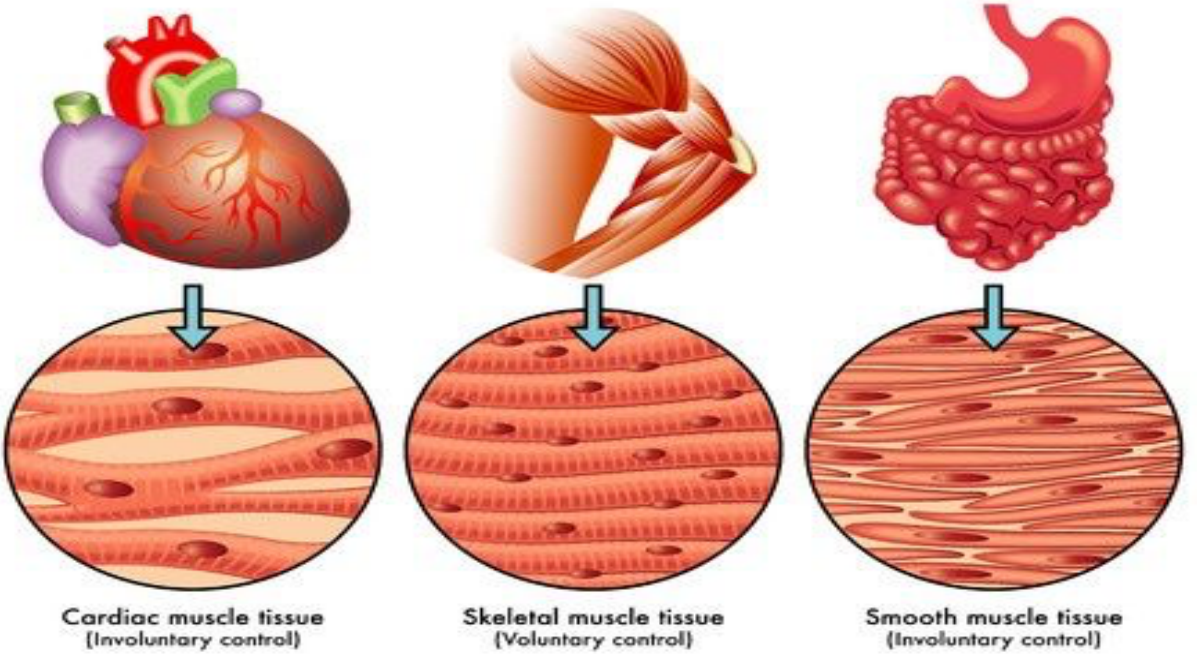


- ligaments (bone to bone)
- tendons (muscle to bone)
- cartilage
- bones
- blood

Muscle Tissue

- allows for movement



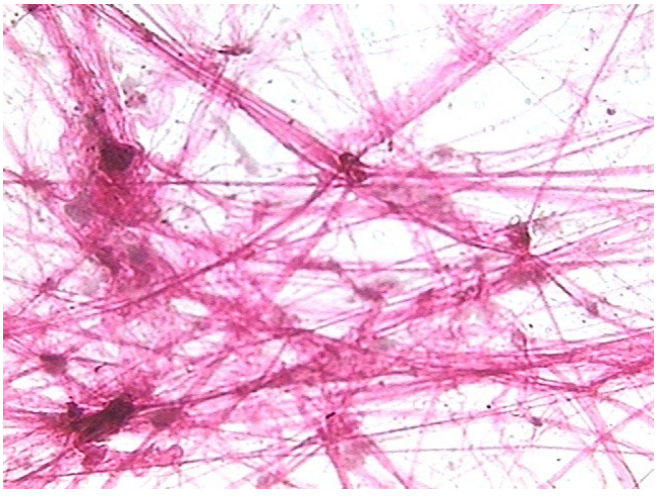


- involuntary
- only found in the heart

- voluntary

- involuntary
- found in blood vessels, stomach, and other organs

Nervous Tissue

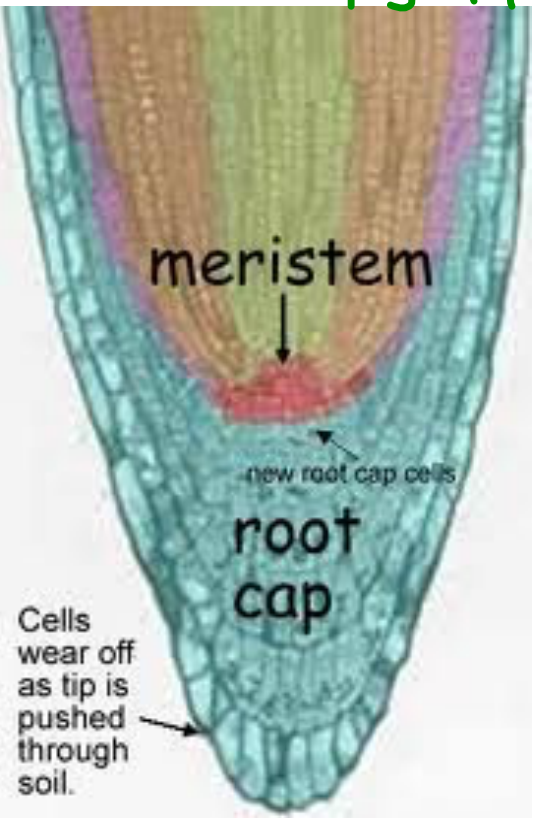


- creates signals and transmits them around body
- responds to inside and outside information

Pg. 44

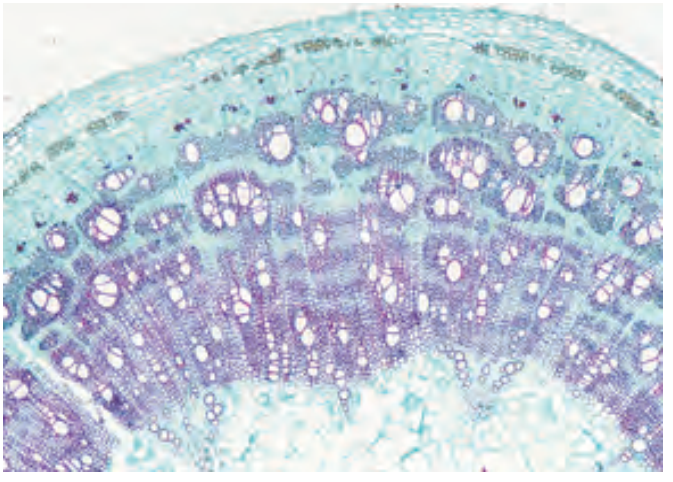
Meristematic Tissue

- group of stem cells in plants



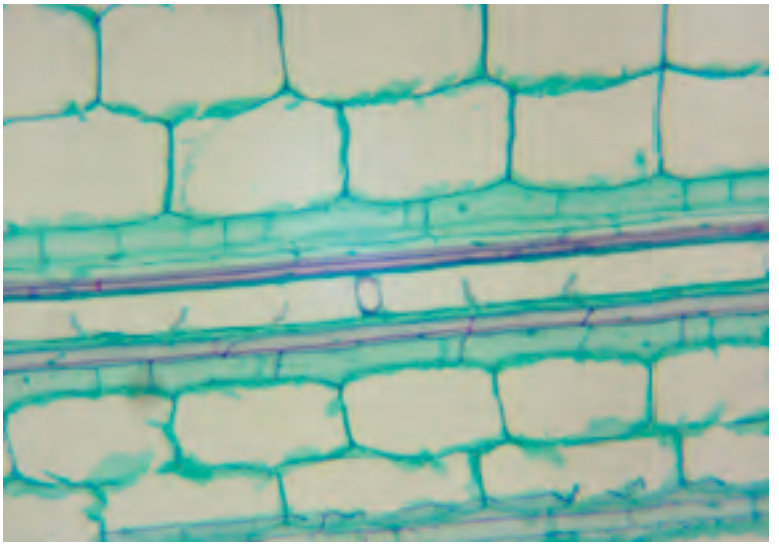
Epidermal Tissue

- acts as a protective barrier



Ground Tissue

- In the stem: supports plant
- In roots: stores food and water



- In the leaves: Where photosynthesis occurs

Vascular Tissue

- xylem

  roots → leaves

- phloem

  leaves → other parts of plant