

**Lab 4: Tissues**

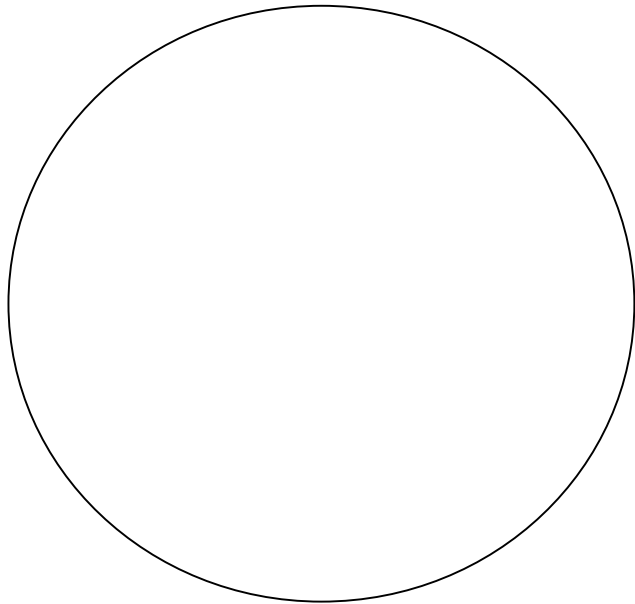
**Slide Assignment: Tissues**

(Beginning on p77 in Lab Text, p67 in Histology Text)

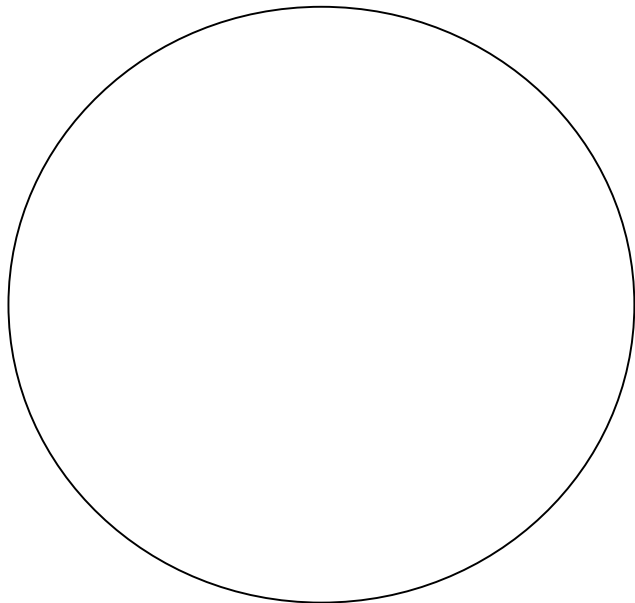
Draw the following slides using the figures in the lab and histology texts as a reference. Use whichever magnification works best to show all given structures. Please note that not every slide will show everything; you will need to look at multiple slides and/or sources. Your drawings should artistically combine views to include all structures.

**Connective Tissues:**

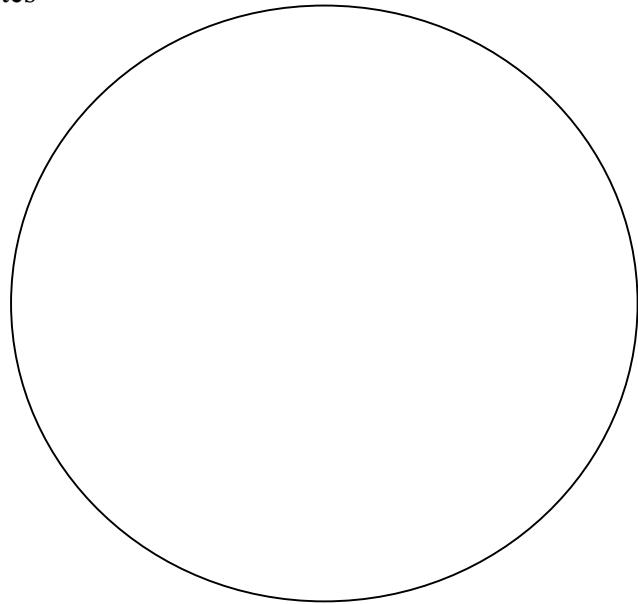
- **Areolar CT** – label the slide as directed:
  - Areolar CT (whole Slide)
  - Collagen Fibers
  - Elastin Fibers
  - Fibroblast Nuclei



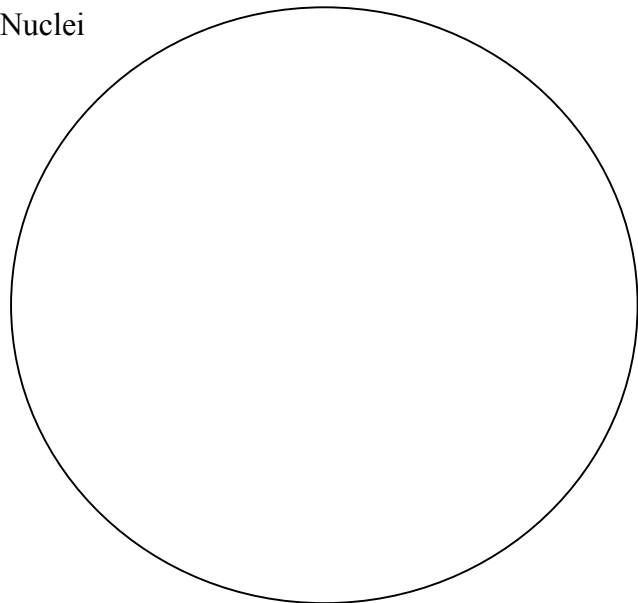
- **Adipose CT** – label the slide as directed:
  - Adipose Tissue (whole slide)
  - Nuclei
  - Lipid-containing (fat) cells
  - Capillaries



- **Reticular CT** – label the following slide as directed:
  - Lymph Node
  - Reticular CT
    - Reticular Fibers
    - Lymphocytes



- **Dense Regular CT** – label the slide as directed:
  - Tendon
    - Dense Regular CT
      - Collagen Fibers
      - Fibroblast Nuclei



- **Dense Elastic CT** – view the Nuchal Ligament slide, but draw and label the Aortic Wall slide as directed:

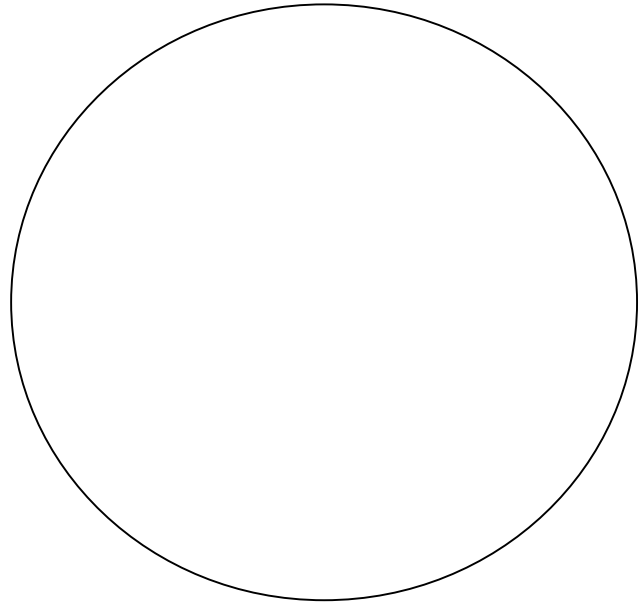
- Dense Elastic CT
- Elastic Fibers

\*You will see Smooth Muscle tissue between the Elastin Fibers. Label it!

- Smooth Muscle

\*You may also see Simple Squamous Epithelia lining the vessel. Label the epithelia and associated parts listed.

- Simple Squamous Epithelia
- Apical Surface
- Basal Surface
- Lumen

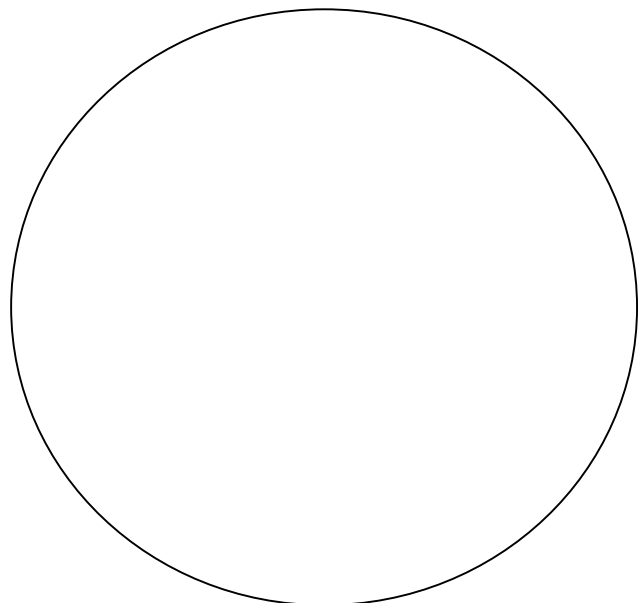


- **Dense Irregular CT** – label the slide as directed:

- Dense Irregular CT
- Collagen Fibers
- Fibroblast Nuclei

\*This is a section of the Epidermis and Dermis. The Dense Irregular CT makes up the Dermis, but Stratified Squamous Keratinizing/Cornified Epithelia make up the Epidermis. Label the associated structures of the Epidermis listed.

- Stratified Squamous Keratinizing/Cornified Epithelia
- Apical Surface
- Basal Surface
- Lumen



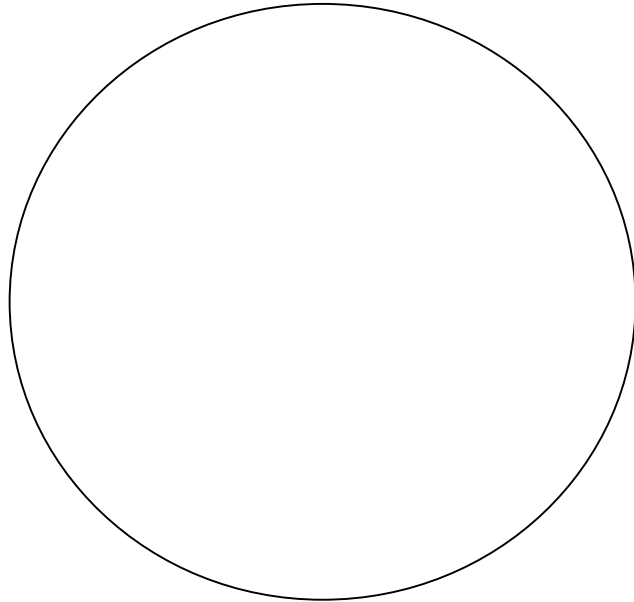
**Cartilage:**

- **Hyaline Cartilage** – label the following slide as directed:

- Tracheal Rings
  - Hyaline Cartilage
    - Chondrocytes
    - Lacuna
    - Matrix

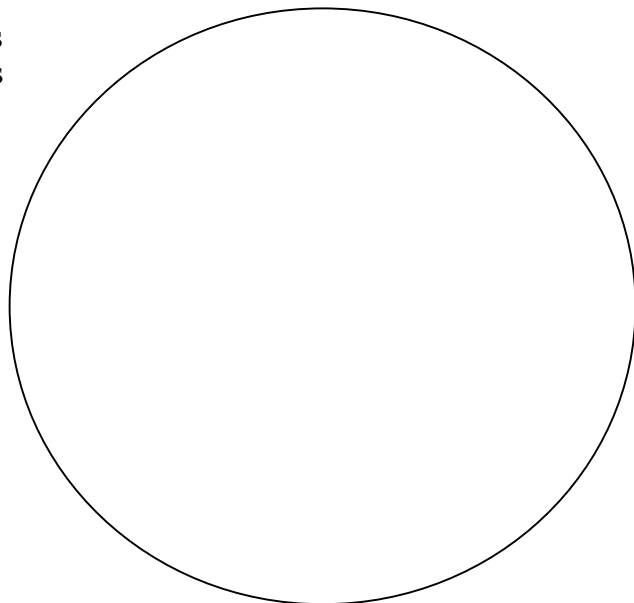
\*Since this is a slide of the Trachea, you will also see Pseudostratified Ciliated Columnar Epithelia. Label the epithelia and associated structure listed.

- Pseudostratified Ciliated Columnar Epithelia
  - Cilia
  - Goblet Cells
  - Apical Surface
  - Basal Surface
  - Lumen

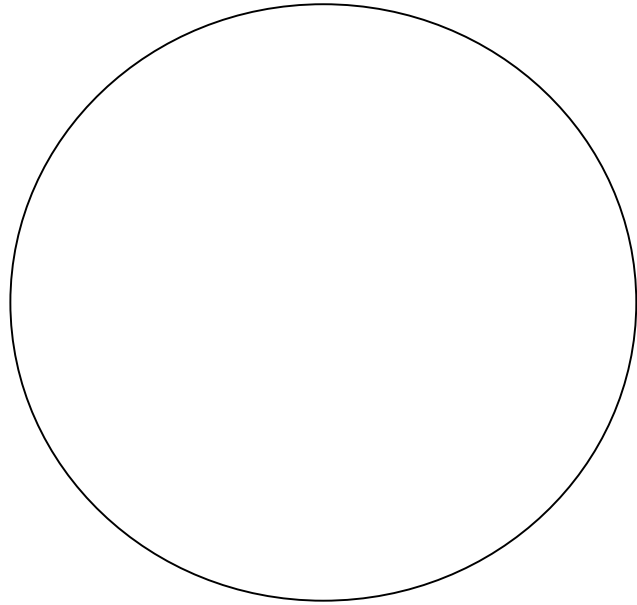


- **Elastic Cartilage** – view the Epiglottis slide, but draw and label the External Ear slide as directed:

- External Ear
  - Elastic Cartilage
    - Elastin Fibers
    - Chondrocytes
    - Lacuna

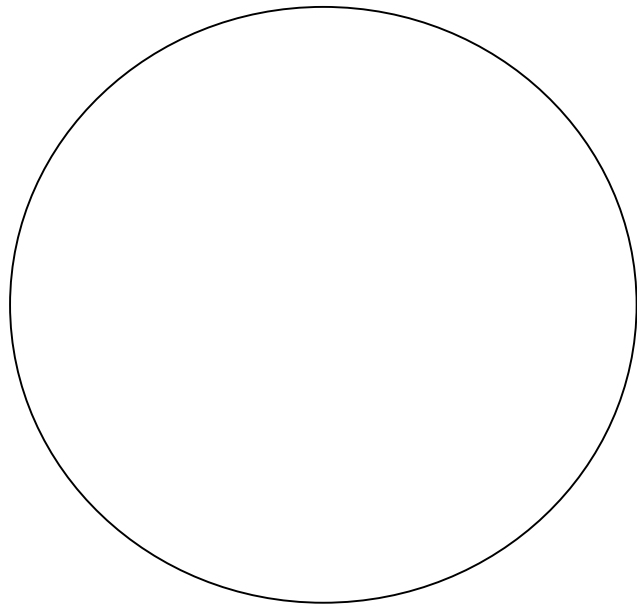


- **Fibrocartilage** – view the Meniscus & Vertebral Disc slides, but draw and label the Symphysis Pubis slide as directed:
  - Symphysis Pubis
    - Fibrocartilage
      - Collagen Fibers
      - Chondrocytes
      - Lacuna



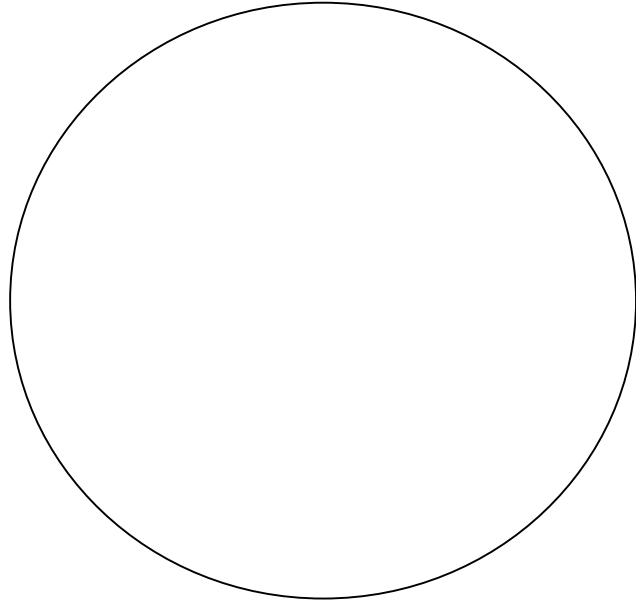
**Other:**

- **Osseous Tissue** – label the slide as directed:
  - Compact Bone
    - Osteon
      - Central/Haversian Canal
      - Lacuna
      - Lamella
      - Osteocyte



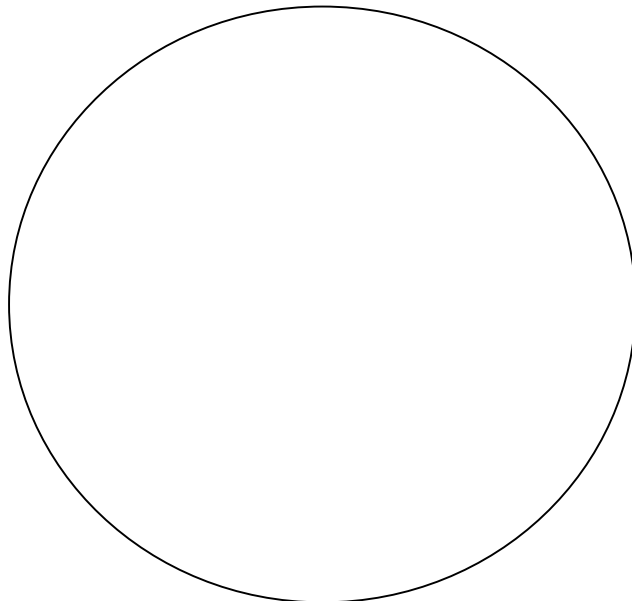
- **Hematopoietic Tissue** (actually a unique form of Connective Tissue) - label the slide as directed:

- Blood Smear
  - Erythrocytes (Red Blood Cells)
  - Leukocytes (White Blood Cells)
  - Platelets
  - Plasma



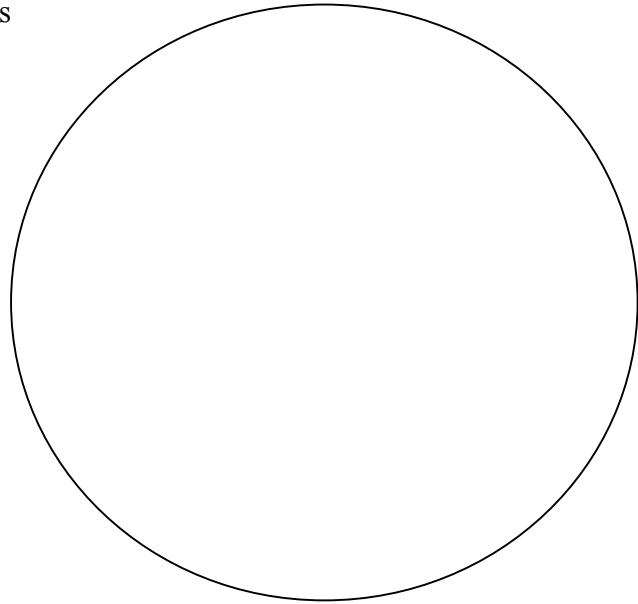
- **Nervous Tissue** - label the slide as directed:

- Spinal Cord
  - Neuron
  - Cell Body
  - Axon

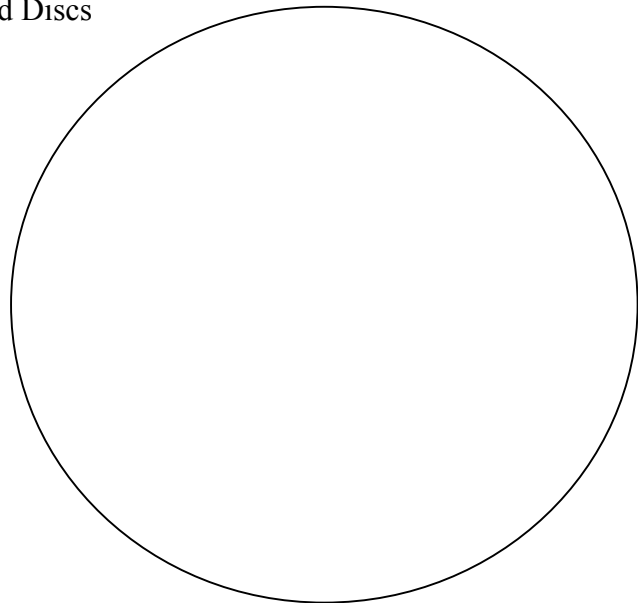


**Muscle:**

- **Skeletal Muscle** – draw & label a longitudinal section as directed:
  - Striated Muscle
  - Muscle Fiber
  - Nuclei
  - Sarcomeres



- **Cardiac Muscle** – view a teased section, but draw & label a longitudinal section as directed:
  - Cardiac Muscle
  - Muscle Fiber
  - Nuclei
  - Sarcomeres
  - Intercalated Discs



- **Smooth Muscle** – draw & label a longitudinal section as directed:
  - Visceral Muscle
  - Muscle Fiber
  - Nuclei

