

During the lab period (can be completed in any order):

1. For your Histology Notebook:

- **skeletal muscle (ls, stained for striations)** – *Brief Atlas*: Plate 28 (p. 12); *Histology Atlas*: Figs. 9.6-9.8 (p. 78)
  - Recommended # of pages: 1-2
  - Draw at 400x total magnification.
  - Label the following: skeletal muscle fiber, nucleus, A band, I band, sarcomere
  - Answer the following questions:
    - **Question 11**: Is this type of tissue under voluntary or involuntary control?
    - **Question 12**: What happens to the sarcomere during contraction?
- **motor nerve endings/motor end plate/neuromuscular junction** – *Brief Atlas*: Plate 30 (p. 12)
  - Recommended # of pages: 1
  - Draw at 100x and 400x total magnification.
  - Label the following: axon, axon terminal, skeletal muscle, synaptic vesicles.
- **cardiac (heart) muscle** – *Brief Atlas*: Plate 31 (p. 13); *Histology Atlas*: Fig. 9.13 (p. 81)
  - Recommended # of pages: 1
  - Draw at 400x total magnification.
  - Label the following: nucleus, intercalated disc, branching muscle fibers
  - Answer **Question 13**: Is this type of tissue under voluntary or involuntary control?
- **smooth muscle** – *Brief Atlas*: Plate 32 (p. 13), Plate 43 (p. 18), and Plate 44 (p. 18)
  - Note: Numerous tissues can be used for smooth muscle (pretty much anything hollow inside: esophagus, stomach, jejunum, ileum, blood vessels, etc.). I'll put out a couple; you only have to choose one (whichever you feel is best for you).
  - Recommended # of pages: 2
  - Draw views at both 100x and 400x total magnifications.

- Label the following: circular layer (on 100x view), longitudinal layer (on 100x view), nucleus (on 400x view), smooth muscle fiber (on 400x view)
- Answer the following questions:
  - **Question 14:** Is this type of tissue under voluntary or involuntary control?
  - **Question 15:** What is the function of smooth muscle in the walls of hollow organs?
- Note: I'll also put out some teased smooth muscle fibers. They're nice and you can draw them if you think they're helpful.

**Before the next lab period:**

1. Look over the information in the first part of the Lab 8 Objectives.