

## **Lab 5: Urogenital & Musculoskeletal Systems**

**Urogenital System** pp. 199-207, p. 214 questions 1-3, 5, 7-11, 14, 17

**Long Bone & The Skeleton** pp. 249-251 & 252-255, p. 262 questions 1-6

**The Muscles** pp. 255-259 & C57, p. 262 questions 7, 8, 12-14

### **Urogenital System** pp 199-207

-We are focusing on the fetal pig urogenital system; we will look more closely at the human reproductive system in a few weeks

-*Urinary System*: **kidney, ureter, urinary bladder, urethra**

-*Male Reproductive System*: **testis, epididymis, inguinal canal, vas deferens, spermatic cord, seminal vesicle, urethra, bulbourethral glands (Cowper's gland), penis**

-*Female Reproductive System*: **ovary, oviduct, uterine horn, urethra, vagina**

-How is the urethra different in the male and female?

-Why do female pigs have a uterine horn and human females have a uterus?

### **Kidney Structure** p. 222

-Use the sheep kidney on display to identify the structures within the kidney:

**renal artery & vein, renal cortex, renal medulla, nephrons, renal pelvis, ureter**

-You will not be able to see all the structures, but be able to identify the region where you would find them

-What is the major function of the kidneys?

### **Long Bone** pp. 249-251

-Read about the skeletal system and then about the long bone

-You should know the following parts of a long bone: ***spongy bone, compact bone, periosteum, yellow bone marrow, red bone marrow, diaphysis, epiphyses***

-use the cow femur in order to locate some of the above terms

-You will not be able to see the red marrow on cow femur, but may have noticed it when you cut through the pelvic bone on your fetal pigs

-Besides the yellow marrow in the center of the bone, what is the rest of the material in the center cavity (medullary cavity) of the cow femur?

### **Skeleton** pp. 252-255

-Be able to identify ***ALL*** the bones on p.254 using the articulated skeleton in the lab

-You will already know more than you think, so focus on the bones you are unfamiliar with

### **Muscles** pp. 255-259

-Be able to identify the following muscles: ***biceps brachii, triceps brachii, tibialis anterior, gastrocnemius, quadriceps group, hamstring group, deltoid, trapezius, pectoralis major***

-Use the muscle man model for locating and practicing the muscles

### **Muscle Action & Antagonistic Pairs** pp. 249, 258-259, C57

-Know the following terms: ***origin, insertion, action of the muscle, antagonistic pair*** (p.249 &258)

-Know the muscle action terms: ***flexion, extension, abduction, adduction*** (p.258)

-Complete the table on p. C57

-Use the muscle man to describe where the muscles has its origin and its insertion