Fetal Pig Dissection

This dissection outline will help you in dissecting your pig, and hopefully in identifying structures. When in doubt, ask a teacher. You WILL be tested on the material in this lab, by having to identify marked structures on a pig, so PLEASE pay attention and don't let your other group members do all the work! You will be graded on your participation in the dissection. Anything mentioned here by name (in **bold**) is FAIR GAME on the test, so be sure you know anything listed here that is NOT extra credit!!!

Day One:

Obtain a pig from the instructor. The first thing you will do is identify whether you have a male or a female pig. Don't let the large projection on the stomach fool you—this is the **umbilical cord**!! Refer to page 5 of your lab manual for help in sexing the pig.

Using pages 4/5 as a guide, ID the **knees/shoulders** of the pig. Are they similar to ours? What is different? What about the **toes**? Do they have as many as we do? What toes do pigs appear to walk on? Where are the rest? What do you think the purpose of the flaps on the hooves is?

Check the mouth for **teeth**. BE CAREFUL THEY ARE SHARP!! Do we have teeth at birth? Why do you think these pigs do?

Day Two:

Using page 16 as a guide, cut into the front leg and find the **biceps** and **triceps** muscles (the manual calls the **triceps** the **triceps brachii**). Note that they do not show the **biceps**—using the picture of human on page 14, try to find it on the pig. Where should it be? Compare these muscles to your own, and note the differences. Why are they different?

EXTRA CREDIT: dissect out the jaw muscles, and compare them to ours. Why are these different?

Day Three:

Cut the pig open, and identify what organs you can using page 21 (of importance: **lungs, heart, diaphragm, stomach, kidney, liver, intestines, larynx, trachea**). Focus on the **lungs** for now. Dissect up in the throat, and follow the **trachea** as far up as you can. What surround the trachea? Why? Can you find the esophagus?

EXTRA CREDIT: get a straw, cut the trachea, and inflate the lungs. Why are they so small to begin with?

Day 4:

ID the **heart**. Try to trace blood vessels, using the diagram on page 35. You should be able to see the **aorta**, **umbilical artery/vein**, and **carotids**. What is the difference between arteries and veins? Can you identify any other vessels from the diagram?

Cut into the **heart** and ID the chambers (**ventricles** only, atria are too small). How does blood flow through the **heart**? What is the difference between the sides of the **heart**, and why do you think this is? Think about blood flow through the **heart** when you answer this question (use pages 32-33 to help you).

EXTRA CREDIT: find the vessels that might be involved in a heart attack, and explain why that might happen. What are these vessels called?

Day 5:

Cut into the pigs head, and remove the skin over the **skull,** and remove the skullcap to expose the **brain** (be gentle!!) Does this indicate how complex the nervous system is? Remove the **brain** (or half of it). What structures can you ID using page 44 as a guide? (areas of importance: **corpus callosum, cerebrum, cerebellum, arbor vitae, gyrus, sulcus** others you might be able to see**:** thalamus, olfactory bulb, optic chiasma. These are harder to see) Do you think our brain is just bigger than a pig's brain, or is it more complex? What clues to you have to base your answer on?

EXTRA CREDIT: cut into the spine and ID areas found on page 45. Why do you think there are two different colors in the spinal cord?