

Lab 4: Circulation

Cardiovascular System: pp. 157-161

-We covered fetal circulation last week, but be sure to review and be able to compare to adult circulation

Pulmonary Circuit: pp. 161-152

-Review circulation in the lungs (we also covered this last week)

Systemic Circuit: pp. 162-170

-Be able to identify the arteries and veins of your pig in the thoracic and abdominal cavities

-Use pp. C51-52 in order to find the vessels you are responsible for knowing

-Think of the vessels as being a road map

-names of vessels usually give you an indication of where they are going to or coming from

Arteries: right & left common carotid, right & left subclavian, brachiocephalic, aortic arch, arterial duct, pulmonary trunk, dorsal aorta, celiac, mesenteric, right & left renal, right & left iliac, umbilical

Veins: right & left internal jugular, right & left external jugular, right & left subclavian, anterior (superior) vena cava, posterior (inferior) vena cava, umbilical, hepatic portal (p.197), right & left renal, right & left common iliac

-use p. 197 for the hepatic portal vein (do not remove any part of the liver)

-HP vein takes blood from intestinal capillaries to the capillaries in the liver,

-DO NOT REMOVE ANY ORGANS

-Use your probe to tease away tissue and membrane to find the vessels

-If you have good veins, please let me know and do not remove them!

-you can group up with someone else to view the arteries

-Once you are confident in identifying the veins, you may remove the veins in order to find the arteries, which will be below (inferior) to the veins in most cases

-Use the demo pig to check your work (has both arteries and veins)

-Skip section 13.4 blood vessel comparison (arteries are thicker walled than veins)

-You should be able to answer *ALL* the questions on p. 170

The Blood: pp. 172-174

-Read about red blood cells (erythrocytes) and white blood cells (leukocytes)

-Use the demo microscopes under high power to locate the 4 types of white blood cells mixed in with the red blood cells

-*Neutrophil, Eosinophil, Basophil, Monocyte, Lymphocyte*

-Understand how blood flows from artery → arteriole → capillary → venule → vein

Review for Practical Exam

2/27: Monday night- 6-7:30pm

2/28: Tuesday night- 6-7:30pm

-This will be your opportunity to use your pig for review

-You can come and go anytime during these times

-I will not be lecturing, just available for help if you have questions as you review

**** Use the lab webpage (<http://web.cortland.edu/biolab>) for outline/review handouts and images of the pig and other specimens/stations from the labs section**