

Lab 12 Dissection Steps:

- Identify the **sympathetic trunk** on both the left and right side. Follow the trunk on either side using blunt dissection, with the tip of an iris scissors, tracing it cranially. As you reach the transition from thoracic region to neck region look for and do the following:
 - Identify the **cervicothoracic ganglion**
 - Identify the **vertebral nerve** (which will run alongside the vertebral a.)
 - Identify the **ansa subclavia** (forming a 'loop' around the subclavian a.; the two sides of the 'loop' meet at the middle cervical ganglion)
 - Identify the **middle cervical ganglion**
 - Attempt to identify one or two **cardiac nerves**

- Re-identify the **vagosympathetic trunk** in the neck (in the carotid sheath, on both left and right sides; previously identified in Lab 9) and trace it caudally to the middle cervical ganglion

- Identify the **vagus nerve** (on both left and right sides) continuing caudally from the middle cervical ganglion
 - On the left side, identify the **left recurrent laryngeal nerve** leaving the left vagus nerve. It will be seen curving around the aortic arch and then continues cranially in the neck, alongside the trachea.

 - On the right side, identify the **right recurrent laryngeal nerve** leaving the right vagus nerve. It will be seen curving around the right subclavian artery and then continues cranially in the neck, alongside the trachea.

 - Identify where the vagus nerve splits into **dorsal and ventral branches** on both left and right sides

 - Where the left and right ventral branches unite on the ventral aspect of the esophagus, the ventral vagal trunk is formed; identify the **ventral vagal trunk**. (The ventral vagal trunk is usually formed just caudal to the heart and the root of the lungs.)

 - Where the left and right dorsal branches unite on the dorsal aspect of the esophagus, the dorsal vagal trunk is formed; identify the **dorsal vagal trunk**. (The dorsal vagal trunk is usually formed farther caudally than the ventral vagal trunk, and is located near the diaphragm.)

- Note: as you study the heart be sure to know the blood flow pattern and general valve locations.
- Identify the pericardium (and know the following components):
 - fibrous pericardium**
 - serous (membrane) pericardium**
 - parietal pericardium**
 - visceral pericardium (epicardium)**

- Incise the pericardial sac and open it to expose the heart
- Identify the ***auricular (left) & atrial (right) surfaces of the heart***
- Identify the **coronary groove**, the ***subsinoasal interventricular groove*** and the ***paraconal interventricular groove***.
- Identify the **right atrium** and **right auricle**. Open the right atrium with a longitudinal incision from the cranial vena cava to the caudal vena cava. Extend another small incision from this cut to the tip of the right auricle. Open the right atrium and clean out any debris/latex found inside.
- Identify the following structures inside the right atrium:
 - sinus venarum**
 - coronary sinus**
 - interatrial septum**
 - intervenous tubercle**
 - fossa ovalis**
 - crista terminalis***
 - right auricle**
 - pectinate muscles**
- Re-identify the **cranial vena cava** (previously identified in Lab 11) and **caudal vena cava**
- Identify the **right atrioventricular orifice**
- Identify the **endocardium**
- Identify the **pulmonary trunk** . Make an incision through the wall of the pulmonary trunk and continue this cut through the wall of the right ventricle. The cut should be made in the middle of the wall of the right ventricle, mid-way between the paraconal interventricular groove and the coronary groove.
 - Reflect the ventricular wall and remove any debris/latex found inside.
- Identify the **right ventricle**. Upon opening the right ventricle identify the following:
 - right atrioventricular valve (*parietal and septal cusps*)**
 - chordae tendineae**
 - papillary muscles**
 - trabeculae carnea, trabecula septomarginalis (aka moderator band), & conus arteriosus***
 - At the junction of the right ventricle and pulmonary trunk, find the **pulmonary valve**
 - Also closely associated with the pulmonary trunk, look for the ***ligamentum arteriosum (fetal ductus arteriosus)*** connecting the pulmonary trunk and the aortic arch. (It is a fibrous connection and may be difficult to dissect in some specimens.)

- ❑ The pulmonary trunk then bifurcates into right and left pulmonary arteries, which in turn give rise to lobar pulmonary arteries. Identify the **lobar pulmonary arteries** and also the **lobar pulmonary veins** on your isolated lungs. The lobar pulmonary veins then enter the left atrium of the heart.
- ❑ Open the left side of the heart with one longitudinal incision through the middle of the left ventricle and another small incision through the left atrium and left auricle. Remove any debris/latex found inside.
- ❑ Identify the **left atrium** and **left auricle**
- ❑ Identify the **left atrioventricular orifice**
- ❑ Identify the **left ventricle**
 - ❑ Open the left ventricle and identify the **left atrioventricular valve (*parietal and septal cusps*)**
 - ❑ At the junction of the left ventricle and the aorta, attempt to find/see the **aortic valve** (aortic root region) and its **semilunar cusps**
- ❑ Identify the **right coronary artery** as it leaves the aorta and follows the coronary groove (and extends to the subsinuosal interventricular groove)
- ❑ Identify the **left coronary artery** as it leave the aorta
 - ❑ Identify the ***circumflex branch***
 - ❑ Identify the ***paraconal interventricular branch*** that follows the paraconal interventricular groove
- ❑ Identify the **great cardiac vein**
 - ❑ Re-identify the **coronary sinus** where the great cardiac vein empties into the right atrium (previously identified with the right atrium terms)