Lab Practical 1 - BIOL 2402

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| Exercise 41: Structure of the Heart |
| fibrous pericardium | right atrium | left ventricle |
| parietal pericardium |  | right auricle |  | aortic (semilunar) valve  |
| pericardial cavity |  | superior vena cava |  | aorta |
| epicardium (visceral pericardium) |  | inferior vena cava |  | systemic circulation |
| myocardium (cardiac muscle) |  | coronary sinus |  |  |
|  | intercalated disc\* |  | interatrial septum | cardiac circulation |
|  | musculi pectinate\* |  | tricuspid valve |  | left coronary artery |
|  | papillary muscle | right ventricle |  |  circumflex a. |
|  | chordae tendineae |  | interventricular septum |  |  anterior interventricular a. |
|  | trabeculae carneae  |  | pulmonary (semilunar) valve |  | right coronary a. |
|  | moderator band \* |  | pulmonary trunk |  |  marginal a. |
| endocardium |  | pulmonary arteries (L & R) |  |  posterior interventricular a. |
|  |  | left atrium |  | great cardiac vein |
| ligamentum arteriosum |  left auricle |  | middle cardiac vein |
|  |  pulmonary veins (L & R) |  |  |
|  |  mitral (bicuspid) valve |  |  |

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| Lab Exercise 44: Blood Vessels |
| tunica interna (intima) | artery |
|  | endothelium | arteriole |
|  | simple squamous | capillary |
| tunica media | venule |
|  | smooth muscle | vein |
| tunica externa (adventitia) |  | one-way valve |
|  | connective tissue | oxygenated blood (red) |
|  |  | deoxygenated blood (blue) |
| **Major arteries and veins - see page 597-611 (text) and attached page** |

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| Special Circulations |
| Pulmonary | Hepatic Portal System | Cerebral |
| rt. ventricle | hepatic portal vein | internal carotid artery (l. & rt.) |
| pulmonary trunk | gastric vein (l. & rt.) | Circle of Willis |
| pulmonary arteries |  splenic vein |  anterior cerebral a. |
| lobar arteries\* |  hepatic veins |  anterior communicating a. |
| rt. & l. pulmonary veins | inferior vena cava |  middle cerebral a. |
| left atrium |  |  posterior communicating a. |
|  |  |  posterior cerebral a. |
|  |  | basilar artery  |
|  |  |  | vertebral artery (l. & rt.) |

**\* not in lab manual – check text, website, or other source**

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| Lab Exercise 45: Pulse Rate and Blood Pressure |
| pulse points | blood pressure |
|  | common carotid artery |  | sphygmomanometer |
|  | brachial artery |  | sounds of Korotkoff |
|  | radial artery | stethoscope |
|  | femoral artery |  | auscultation\* |
|  | popliteal artery |  |
|  | post. tibial artery |  |  |
|  | dorsalis pedis artery |  |  |

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| Lab Exercise 42 & 43: The Cardiac Cycle  |
| Cardiac Conduction System | EKG = ECG = electrocardiogram |
|  | sinoatrial (SA) node  |  | P wave |
|  | atrioventricular (AV) node |  | QRS complex |
|  | atrioventricular (AV) bundle (of His) |  | T wave |
|  | left bundle branch |  |  |
|  | right bundle branch |  | bradycardia |
|  | Purkinje fibers |  | tachycardia |
|  |  |  | fibrillation |

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| Lab Exercises 38, 39, & 40 |
| Blood cells | Tests & Analysis |
| erythrocyte (RBC) | hematocrit - packed cell vol. (PCV) |
| leukocytes (WBC) | Tallqvist hemoglobin test\* |
|  | granulocytes |  |
|  |  | neutrophil (PMN) | blood typing  |
|  |  | eosinophil |  | antigens  |
|  |  | basophil |  | antibodies |
|  | agranulocyte |  |  |
|  |  | monocyte (macrophage) |  |  |
|  |  | lymphocyte |  |
| thrombocyte (platelet) |  |

**\* not in lab manual – check text, website, or other source**

#### Lab Ex. 46 & 47 Blood Vessels of Systemic Circulation

## Arteries

## Neck, Head, and Brain

 Aorta

 Brachiocephalic Trunk (R)

 Subclavian a.

 Vertebral a. (R/L)

 Basilar a.

 Common carotid a. (R/L)

 External carotid a. (R/L)

 Temporal a. (R/L)

 Facial a. (R/L)

 Internal carotid a. (R/L)

 Anterior cerebral a. (R/L)

 Middle cerebral a. (R/L)

 Posterior cerebral a. (R/L)

## Shoulder and Upper Limb

 Axillary a. (R/L)

 Brachial a. (R/L)

 Ulnar a. (R/L)

 Radial a. (R/L)

Palmar (volar) arches (R/L)

 Digital a. (R/L)

## Thoracic and Abdominal Walls

 Intercostal a.

 Phrenic a.

 Suprarenal a. (R/L)

 Celiac trunk

 Gastric a.

 Splenic a.

 Hepatic a.

 Renal a. (R/L)

 Superior mesenteric a.

 Inferior mesenteric a.

## Pelvis and Lower Limb

 Common iliac a. (R/L)

 Internal iliac a. (R/L)

 External iliac a. (R/L)

 Femoral a. (R/L)

 Popliteal a. (R/L)

 Anterior tibial a. (R/L)

 Posterior tibial a. (R/L)

 Dorsalis pedis a. (R/L)

# Veins

## Head, Neck, and Brain

Superior Vena Cava

 Brachiocephalic v. (R/L)

 Vertebral v. (R/L)

 Internal jugular v. (R/L)

 External jugular v. (R/L)

 Subclavian v. (R/L)

## Shoulder and Upper Limb

 Subclavian v. (R/L)

 Cephalic v. (R/L)

 Axillary Vein (R/L)

Basilic v. (R/L)

Median cubital v. (R/L)

Brachial Vein (R/L)

 Radial v. (R/L)

 Ulnar v. (R/L)

### Inferior Vena Cava (L5 - rt. Atrium)

# Abdominal Viscera

 Hepatic v.

 Suprarenal v. (R/L)

 Renal v. (R/L)

## Lower Limb and Pelvis

 Common iliac v. (R/L)

 Internal iliac v. (R/L)

 External iliac v. (R/L)

Femoral v. (R/L)

 Great Saphenous v. (R/L)

 Popliteal v. (R/L)

 Anterior tibial v. (R/L) Posterior tibial v. (R/L)

 Dorsalis pedis v. (R/L)

**Also review the Circle of Willis, the pulmonary circuit, & the hepatic portal system**.