**Cell Biology and Physiology**

**Exam 2 Study Guide**

* Review Chapters and PowerPoints
* Know the steps of respiration. Know the details for each step that was discussed in the PowerPoint (for example: where does it occur?, what are the products of that particular step?, etc)
* What occurs in the absence of oxygen?
* Know the steps of photosynthesis. Know the details for each step that was discussed in the PowerPoint.
* What evidence supports the idea that mitochondria and chloroplasts arose from bacteria?
* What are allosteric enzymes? Which ones are involved in controlling glycolysis?
* What is the purpose of the complexes in the mitochondrial membrane?
* What is a target sequence?
* What is O-glycosylation? N-glycosylation?
* What is the purpose of glycosylation?
* What proteins are made in the cytoplasm but are transported into the nucleus?
* Why does the secretory pathway have the name it does? How are different coat proteins recruited to different sites within the cell?
* What are SNARE proteins? What is their function?
* What is receptor-mediated endocytosis?
* Is LDL the good or bad cholesterol?
* Be able to label and explain my diagram vesicle formation and trafficking.
* Be able to label the golgi apparatus