**Review for Exam One, BSC 182**

Please note that this review does not cover ALL of the material discussed in the lecture notes. *It is meant as a guide only*. Exam questions will come from the lecture material, not this review. Please be familiar with all of the topics we discussed in lecture.

1. Discuss Local Hormones versus Systemic Hormones

Be familiar with

* + 1. Autocrine
    2. Paracrine

1. Compare/Contrast Endocrine to Exocrine
2. Be familiar with target cells and their receptor locations
3. What are the two categories of hormones.

Compare/Contrast the

* + 1. Receptor locations
    2. Solubility
    3. Effects
    4. Building materials

1. Discuss what a second messenger system is, and give examples of some compounds that are used as second messengers.
2. What are the main types of stimuli for endocrine glands?

For each the hormones that are discussed in lecture, try to determine

* + - 1. Where does it come from (be specific about the cell type for the anterior pituitary hormones.)
      2. Where does it go? (Where are the target cells located?)
      3. What is the function?
      4. Which substance stimulates/inhibits the release of this hormone?
    1. Ex: FSH Follicle Stimulating Hormone
       1. Comes from gonadatropic cells of the anterior pituitary gland
       2. Target: Gonads, Ex: Follicle within ovary of female
       3. Function: stimulates follicle growth and the maturation of the oocyte
       4. Stimulated by GnRH from hypothalamus, inhibited by high estrogen levels

1. What are the names and regions of the pituitary gland?
2. Describe the relationship of the pituitary gland to the hypothalamus.
   1. Compare Portal to Tract
3. How does anterior differ from posterior?
   1. Which hormones are released?
4. Discuss the effects of hypersecretion or hyposecretion of the hormones (If we covered it in the notes)
5. What is the relationship between PTH and vitamin D?
6. Which hormone has a relationship with light?
7. Be familiar with the causes of an elevated or decrease hematocrit
8. What are the functions of blood?
9. What are the dissolved plasma proteins and their functions?
10. How does the structure of the RBC affect its function?
11. Where do blood cells form in an embryo? In an adult?
12. Identify the stem cell for red blood cells and be familiar with the division process that leads to an erythrocyte.
13. Identify and discuss the different types of anemias.
14. Define diapedesis
15. Be able to visually identify the white blood cells. Know the functions of each.
16. Identify the stem cell for leukocytes and be familiar with the division process for each of them.
17. Know “chronic” versus “acute” for leukemia
18. What events are necessary for coagulation? For a platelet plug?
19. Review the hemostatic (bleeding) disorders
20. Compare a transfusion to an infusion
21. Where are antigens located? Antibodies?
22. What are the antigen/antibody combo do you find with each ABO blood type? With the Rh groups?
23. Know universal donor and universal recipient

Review the images on the following pages









