**Cell Biology and Physiology Lab**

**Cell Signal Poster Project**

1. Choose a cell signal pathway. You may want to start with a disease that interests you and see if it is caused by a defect in a cell signal pathway or possibly treated by manipulation of the receptor of that pathway. You can look in your lecture textbook as well as the Immunology textbook for ideas as well.
2. I would make a draft drawing of the pathway on a piece of paper before starting on your poster.
3. As you draw the pathway, look up key players of the pathway to research their role.
4. In your drawing, be sure to answer the following questions (you can write in the answers to these questions alongside the drawing, see poster example):
   1. On what cells do you find the receptor for this pathway?
   2. What is the ligand for this pathway?
   3. What does this pathway control?
   4. What is the end result of this pathway (i.e. transcription of certain genes?)?
   5. What disease(s) are associated with this pathway? Are there treatments to upregulate or downregulate the pathway for treatment?
   6. Is this an example of a receptor associated kinase pathway, a cystolic kinase pathway, a protein subunit disassociation pathway, or a protein cleavage pathway?
   7. Label all molecules associated with this pathway. List their function (if known).
   8. At the bottom, include citations on where you found this information (might be your textbook, a website, etc.)
5. Draw all of this out on a regular size poster board. Use color (see example)

