**Week 6: Oral Presentations, Design for v2 Promoter**

Learning Objectives for Promoter Discovery

*Skills*

* Present quantitative data in context of biology
* Generate coherent PPT presentation
* Extract sequence information from paper for promoter v2 design

*Cognitive*

* Synthesize data and procedures to build comprehensive analysis of promoter function
* Design a new promoter based on published research paper

**Pre-Lab**

1) Prepare presentation, rehearse all four parts

2) You will be emailed which part you are presenting 1 hour before presentation

3) Answer each of these four questions in two sentences or less.

A) Was the sequence you tested in the paper you read about your promoter?

B) What can you do to improve the function of your assigned promoter?

C) How can you build a new promoter? What design constraints must you consider?

D) How can you make promoter v2 clone directionally into a new pClone Red?

Challenge to be discussed in lab groups: Using the information in the 4 questions above, choose a new promoter sequence to test. How will you build the promoter so that we can use GGA to clone your promoter v2 into a new J119137 plasmid?

**Information: Quantify Phenotype and Start Genotyping**

In Lab

1) Give your oral presentation. While listening to others, take notes on what you think they did well and what they could improve upon. One person from each group will use iBOP Bingo to score the other groups.

2) SKIM the associated paper and look for your promoter sequence. Find the results that show which promoter version worked best if there is more than one. Compare the your v1 sequence to the sequence you found. Are they the same?

3) Make a list of all the design considerations when building a new promoter dsDNA. How can you design new oligos that incorporate all these constraints?

4) Email your instructor the research proposal (Word file) for grading.

5) Complete CATME.