**Week 9: Determine v2 Phenotype, Start Genotyping**

Learning Objectives for Promoter Discovery

*Skills*

* Analyze fluorometry and spectrophotometry data
* Generate graphs in Excel to display quantitative data

*Cognitive*

* Integrate cell density and RFP fluorescence intensity to quantify promoter strength
* Summarize how plasmids are isolated from bacteria

**Pre-Lab**

1) Watch 2 videos from list for week 9 lab

2) Download the PPT file with photos of overnight cultures

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

A) How is the plasmid miniprep connected to what you learned in Chapter 1 about DNA as the heritable material?

B) How can DNA bind to the resin in the spin column? What chemical property permits this isolation?

C) What is the value of the three controls: positive; negative; and LB media?

D) Why did we include v1 X1 clone of your cells?

Challenge to be discussed in lab groups: Using the information in the 4 questions above, discuss the major steps involved required to phenotype your promoter. Do you predict that v2 will be any better than v1?

**Information: Quantify Phenotype and Start Genotyping**

In Lab

1) Revise your GGA PPT slides to add in the data from the Syngery machine readings today. You can use the notes space below the slides to add details in writing that you don’t want to clutter your visual slides.

2) Complete CATME today.