**Week 7: Oral Report and Redesign Control Element v2.0**

Learning Objectives for DNA Control Element Discovery

*Skills*

* Present research results in oral format.
* Avoid common mistakes using iBOP Bingo as a resource.
* Revise DNA control element experiment based on past results.

*Cognitive*

* Employ a scientific approach to answering biological questions and test hypotheses.
* Analyze experimental data and reach logical conclusions.
* Synthesize experimental results for oral and written presentations.

**Pre-Lab**

Before you come to lab

1) Organize all your data from the synthetic biology module on DNA control element research.

2) Practice giving oral report; **your part will be randomly assigned one hour before lab.**

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

A) Did your DNA control element work as you expected? How can you be sure?

B) If you could start over, what would you do differently, and why?

C) What information would you want to know about your cloned DNA from v1.0 experiments?

D) Which control element is more important in gene expression, promoter or RBS, and why?

**Information: Present Results, Revise Experimental Design**

In Lab

4) Give oral presentation. You will not know which section you are presenting (Introduction, Materials and Methods, Results, Discussion) until one hour before lab. Therefore, you must be prepared to present any of the four sections.

5) Read feedback from peers.

6) Discuss which of the four DNA control elements you would like to redesign and test experimentally. You may choose to revise your own design, or revise an experimental DNA control element presented by another group. Map out a rough plan that you will refine next lab meeting. rClone teams should [consider mFold](http://unafold.rna.albany.edu/?q=mfold/RNA-Folding-Form) to examine mRNA structure. (<http://unafold.rna.albany.edu/?q=mfold/RNA-Folding-Form>)