

113 Lab Learning Objectives

Week 9: synthetic lab #8

Learning Objectives for Promoter Discovery

Skills

- Give effective oral presentation.
- Avoid common mistakes using iBOP Bingo as a resource.

Cognitive

- Employ a scientific approach to answering biological questions and test hypotheses.
- Analyze experimental data and reach logical conclusions.
- Generate overall conclusions of the multi-week laboratory module to identify new promoters that could be useful in synthetic biology research.

Week 9: Information and Natural Selection lab

none this week

Week 9: Information and Evolution Lab #2

Learning Objectives for Bacterial Evolution

Skills

- Pipet accurately.
- Work with bacterial cells using sterile technique.
- Make dilutions of stock solutions.

Cognitive

- Employ a scientific approach to answering biological questions and test hypotheses.
- Describe the big idea of evolution based on lab experiences.
- Explain how antibiotic resistant bacteria can appear quickly in the population.
- Design and perform first directed evolution experiment.