

113 Lab Learning Objectives

Week 8: synthetic lab #7

Learning Objectives for Promoter Discovery

Skills

- Produce graphical data for oral and written presentations.

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.

Week 8: Information and Natural Selection lab #4

Learning Objectives for Environmental Information and Natural Selection

Skills

- Read DNA sequence and search for SNPs using ApE software.
- Determine your PTC tasting phenotype and compare with prediction.

Cognitive

- Analyze experimental data and reach logical conclusions.
- Connect environmental information to evolution using lab experiment as example.
- Explain what TAS2R38 has to do with taste and natural selection.
- Predict PTC tasting capacity and test experimentally

Week 8: Information and Evolution Lab #1

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.