113 Lab Learning Objectives

Week 6: synthetic lab #5

Learning Objectives for Promoter Discovery

Skills

- Properly manipulate bacterial cultures to maintain clonality of cells.
- Practice colony PCR to screen colonies to determine DNA ligation outcome.
- Modify data in RFP database.
- Perform gel electrophoresis from colony screening

Cognitive

- Employ a scientific approach to answering biological questions and test hypotheses.
- Analyze experimental data and reach logical conclusions.
- Organize the information you have learned about promoter functional testing.

Week 6: Information and Natural Selection lab #2

Learning Objectives for Environmental Information and Natural Selection

Skills

- Utilize online resources to determine genetic basis for PTC tasting.
- Isolate genomic DNA from hair follicle.
- Start PCR amplification of TAS2R38 locus.

Cognitive

- Employ a scientific approach to answer biological questions and test hypotheses.
- 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.