Week 10 (Lab 10)                                      LESSON PLAN LB144 Fall 2024

(Luckie will be in lab for the first **Verbal Status Report Talk** but then do Prof Interviews during lab, you are in charge)

**Week 10 outline** -> One "Status Report" talk (bring coin, get clipboards), then ice buckets and regular PCR lab with just the first time for PCR experiments (no gels necessary) and last hand back "graded" Half-Drafts (grades actually on D2L in 24hrs as before), and do BUMP points. NOTE: PCR that begins in the first lab period will overlap into the second. Jamie and Jojo need to look at the timer when a team starts PCR and predict if it will be done by the appropriate time in next lab (with an hour left?). If not the group needs to adjust their cycle and hit start again.

**Prep**: Get stuff for PCR. Aliquot out samples so each group can have a tube in their ice bucket when requesting it (alert them the tube has far more liquid than they need and please return it). You will want to either show up earlier to do all the aliquoting in advance yourself before letting students into the room OR you could make each group perform the aliquoting themselves (might be helpful in learning LAs are not servants and science requires lots of prep).

Aliquot & label: 1000ul of sterile H2O into each of ten 1.5ml eppendorf tubes, 100ul of 10x PCR buffer into each of ten 1.5 ml eppendorf tubes, MgCl into eppendorf tubes, 20ul of SYBR dye into 200ul PCR tubes, bromophenol blue loading dye into tubes, and have LAs pipet the expensive stuff, dNTPs and Taq polymerase. Mention we will give you the primers IDT created for you at a precise 100uM concentration you should only need a tiny amount for each PCR its enough for a semester of experiments but be careful not to drop and spill it.

**\*\*Verbal Status Report Talk (one this week, one next week)**

At the very start of lab we will have one group give their 10min Verbal Status Report talk and do Q&A, then you will start the lab per usual with attendance & announcements (total 30 minutes).

**"OK, now the two students who go at (1-2pm or 4-5pm) slot head down to Luckie's office for your Prof Interview."**

**ATTENDANCE (learn names)**O   Take attendance– eventually, work on also using last names and thus learning how to pronounce them too

**ANNOUNCEMENTS**

1. We will place the graded Half-Drafts out on the cart for pickup when departing

2. Once you chalk out your PCR protocol for making the cocktail, and they are approved, here's info about stuff you need to pick up for PCR. Each group has two tubes of PCR primers you'll keep in your bullet box in the freezer when you are not using it. Today first you will need to aliquot out (maybe?) samples so each group can have a tube in their ice bucket when requesting it. NOTE each tube will have far more liquid than you need for today's experiment so please return it). You will want to ...etc

3. Mention "we will give you the primers IDT created for you at a precise 100uM concentration you should only need a tiny amount for each PCR its enough for a semester of experiments but be careful not to drop and spill it.

4. Remember to trifecta with PCR and gel notes now in your notebook since PCR notes are soon the only ones you can get BUMP points for. Geese are gone so no more BUMP points for geese observations.

(first lab may say MUST start PCR by Xpm so next lab can also use machines once your is done)

Groups can do: **PCR,** after which, if plenty of time, could try make gels again if failed last week

**"OK, now the two students who go at (3-4pm or 5-6pm) head down to Luckie's office for your Prof Interview." Likely this is signaled when prior students return from Luckie's office having completed their interviews.**

**DEPARTURE CHECKLIST** (**With 10-15 minutes remaining start these**)

Place the graded Half-Drafts out on the cart for pickup when departing

* + Make sure students clean up their lab areas.
  + **BUMP points time**