Lab 2: iTune Device

**Biological Materials:**
- Strain 2-R  NB424  reference output
- Strain 2-1  NB425  wk/wk
- Strain 2-2  NB426  wk/med
- Strain 2-3  NB427  wk/str
- Strain 2-4  NB428  med/wk
- Strain 2-5  NB429  med/med
- Strain 2-6  NB430  med/str
- Strain 2-7  NB431  str/wk
- Strain 2-8  NB432  str/med
- Strain 2-9  NB433  str/str

**Reagents:**
- ampicillin  e.g. Sigma, A0166  100 mg, use at final concentration of 100 mg/liter LB
- IPTG  e.g. Sigma, I6758  24 mg, use at final concentration of 24 mg/ml H2O
- ONPG  e.g. Sigma, N1127  40 mg, use at a final concentration of 4 mg/ml H2O

**Next steps (per student team):**
- Day 1: grow ONs in LB+A+1mM IPTG (10x2.5 ml cultures in 16x150mm test tubes with caps)
- Day 2: run b-gal assay
- Day 3: data analysis

**Teacher provides:**

**Consumables**
- Luria Broth (LB), 25 milliliters
- Sterile toothpicks, innoculating loops or sterile tips
- Sterile tubes (16x150mm)+ loose caps (10)
- Glass test tubes (13x100mm) (22)
- Cuvettes for the spectrophotometer, if needed (22)
- Pipet tips
- Latex or nitrile gloves
- Arm & Hammer baking soda (1g)
- Clear liquid dish soap, like SoftSoap (one squirt)
- Soda Ash, like what's used to tie dye T-shirts, (5.3g)
- 50 ml conical tubes for bicarb, soap and soda ash soln's (3)
- Distilled water, or bottled like Poland Spring

**Equipment**
- Roller drum or shaker at 37° for growing liquid overnights
- Spectrophotometer or turbidity stds*
- Vortex
- Pipets (5 ml) + bulbs or pipet-aids
- Pipetmen (P1000, P200, P20)
- Timer
- Sharpie pens
- Test tube rack for holding small tubes during rxn

*Turbidity stds require
- 1.75 ml BaCl₂
- 80 ml 1% H₂SO₄