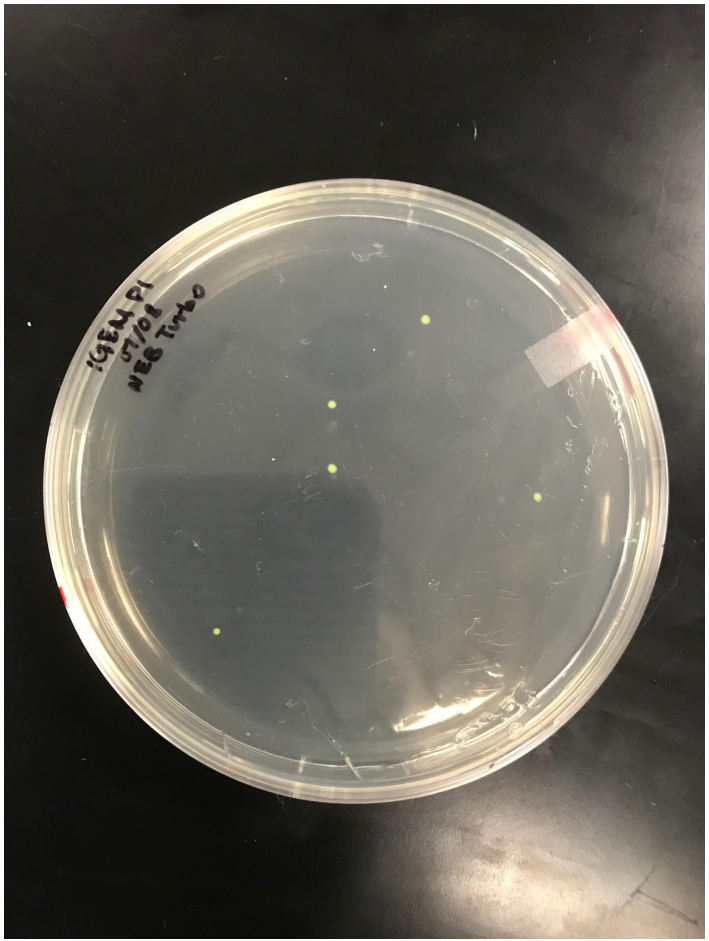
Week 4
7/1/19 - 7/5/19

Urooj Amir
Kayla Carter
Mark Liu
Jack Owen
Candace Pang

Lab Work

Gibson Assembly & Transformation



- Culture grew successfully
- Was green even without deliberate UV damage
  - Signifying that the UvrA regulation was not tight
  - Possibility that promoter was leaky

Miniprep & Sequencing

Dilution calculation: $C_1V_1 = C_2V_2$

- Submitted to NU Core

	C1 (ng/uL)	C2 (ng/uL)	V2 (uL)		V1 (uL)	water
1	326.3	20	20		1.225865768	18.77413423
2	1	20	20		400	-380
3	1	20	20		400	-380
4	1	20	20		400	-380
5	231.8	20	20		1.725625539	18.27437446

Next Steps

- Clone the constitutive plasmid
- Compare sequencing results with our desired insert
- Test our transformed cells by exposing them to UV
    - Develop an assay
- Make uvrA expression more tightly regulated

Collaboration

University of Nebraska-Lincoln

- Project: Using E. coli to target methicillin-resistant *Staphylococcus aureus*, or MRSA

- Collaboration: Characterize pBAD + GFP promoter
  - Induced by arabinose

Other

Questions/Concerns

- Final product design
  - How do we rehydrate freeze-dried whole cells (time needed, maintenance)
  - Would parks & rec staff be able to handle these *E. coli* products
- Human practices
  - Survey park districts
- Baseline expression of GFP
  - Expression is very high - how to work around this problem
- Labs with UV rays/detectors?
- Regular meeting times? Same place, same time?