Bacterial Transformation
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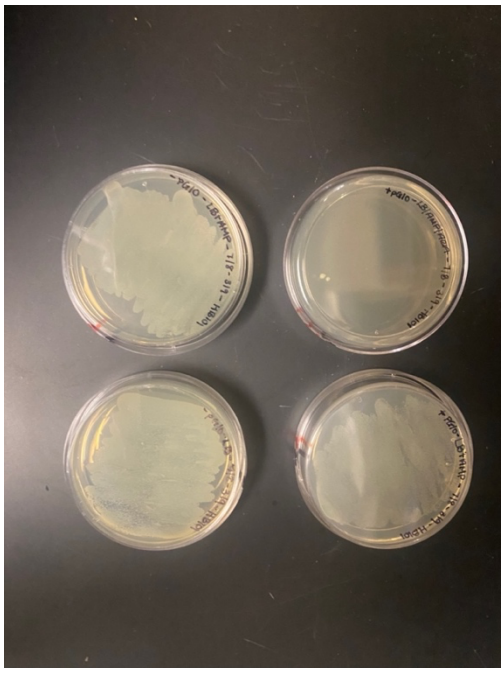
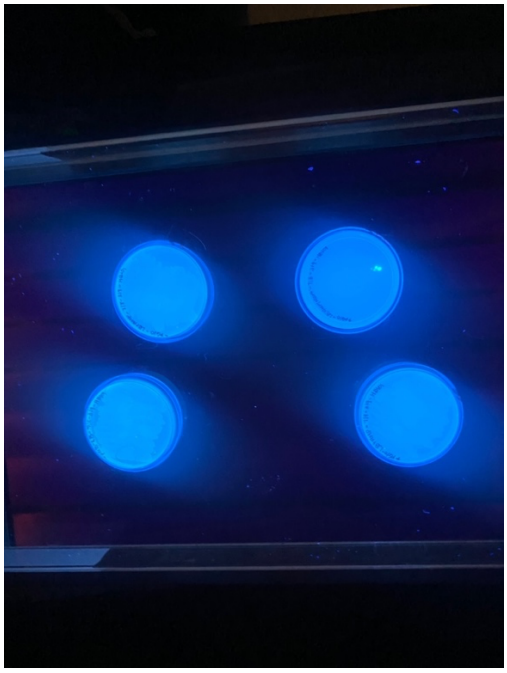
The experimental results were successful in all plates except in the plate where there is no pGLO, LB, and Amp. The results predicted were 0 because the ampicillin antibiotic would not provide an environment for growth without the presence of pGLO, but the experiment resulted in colonies too numerous to count (TNTC) because of non-functional ampicillin.

Plates Characteristics	Plasmid added	Colony number	Colony fluorescence
-, LB,	No	TNTC	no
-, LB, Amp	No	TNTC	no
+, LB, Amp	Yes	TNTC	no
+, LB, Amp, Ara	Yes	2	Yes





- **DNA plasmid concentration: 0.05 µg/µl**
- **Cells incubated with 400 µl $CaCl_2$ transformation solution and split into two tubes**
- **5 µl pGLO plasmid solution to the tube of +pGLO**
- **200 µl LB broth**
- **100 µl cells spread on agar**
- **2 colonies of transformants on the LB/amp plate**

Total amount of pGLO DNA used (0.5 pts) = 0.25 ug
Fraction of DNA used (0.5 pts) = 0.2469
Micrograms of DNA spread on the plates (0.5 pts) = 0.06173 ug
Transformation efficiency (0.5 pts) = 32.4 transformants/ug