

COLOR CODING KEY

Spectrophotometry Measurements

Construct Group

Plasmid Group

Interlab

Cell Culture/Plating

Biobrick Group

Cyanobacteria Transformation Group

Experimental Verification

Plasmid & Construct Design Group

Week 1

June 6, 2018

Cell Culture/Plating (Jenn/Priya/Steph)

- Received our cyanobacteria culture from Dr. Jackie Collier
- Set up our cyanobacterial culture:
 - Split liquid culture (UTEX 5/19) twice and supplemented with BG-11 to get all flasks to 50 mL
 - Set incubator at 25°C and 100 rpm
 - Noticed heating issue (temperature rose to over 30 °C)

June 7, 2018

Spectrophotometry Measurements (Natalie)

- Designed growth experiment to compare effect of 1 sheet to 3 sheets of paper in our light setup
- Measured 1500 µL of cyanobacterial samples at 800 nm (wavelength was given by Dr. Collier)
 - 1000 µL of BG-11 and 500 µL of culture
 - UTEX 5/19 culture @ Room Temp $A = 0.117$
 - 6/6/18 10 mL cyanos/100 BG left incubator - 1 pc paper $A = 0.033$
 - 6/6/18 10 mL cyanos 5/19 C - right incubator 3 pc paper $A = 0.018$
 - 6/6/18 redone 5/28 C - right incubator 3 pc paper $A = 0.004$
- Began daily spectrometry measurements of cyanobacteria in the incubators
 - covered with one piece of paper vs. covered with three pieces of paper

June 8, 2018

Spectrophotometry Measurements (1.5 mL diluted) (Natalie)

- Continued measuring spectrometry measurements for the 1 sheet vs 3 sheet experiment
- Measured at 800 nm (wavelength was given by Dr. Collier)
- 1000 µL of BG-11 and 500 µL of culture (1.5 times diluted)
 - UTEX 5/19 culture @ Room Temp $A = 0.165$
 - 6/6/18 10 mL cyanos/100 BG left incubator - 1 pc paper $A = 0.040$
 - 6/6/18 10 mL cyanos 5/19 C - right incubator 3 pc paper $A = 0.016$

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- 6/6/18 redone 5/28 C - right incubator 3 pc paper A= -0.004
- Removed one sheet of paper on the incubators with 3 pieces of paper