

# 7/20/17

Thursday, July 20, 2017 9:14 AM

Who's in lab: Salma (9-10:30) , Martin, Qingxi, Nathan  
Completed Cell competency test

DH5a DNA concentration [pg/ $\mu$ l]	10	50	DNA concentration [pg/ $\mu$ l]	10	50
# of colonies	12	7	# of colonies	0	529
# of colonies	13	9	# of colonies	1	0
average # of colonies	12.5	8.0	average # of colonies	0.5	264.5
efficiency	1.57E+07	2.01E+06	efficiency	6.28E+05	6.64E+07

- The ideal efficiency range for competent cells is  $1.5 \times 10^8$  -  $6 \times 10^8$  cfu/ $\mu$ g
- Unfortunately not of our bacterial strains reached this level of efficiency and we consequently may consequently have to make new batches of competent cells
- All the plates from the incubation room were placed in the 4oC fridge on the right side of one of the top shelves

YCP Plate showed streaks of growth

- Streak plated the YCP to hopefully isolate single colonies
- Plate with heavy growth put in 4oC fridge as well (near the competent cell test plates)

Made new chemically competent cell after reviewing with Tyler and Courtney, with new updated procedures. DH5a cells were transformed with 1  $\mu$ l and 3  $\mu$ l pUC19 plasmid and BL21 cells were transformed with 1  $\mu$ l and 3  $\mu$ l pUC 19. Four plates were used to grow, located at 37oC room.

Performed DNA precipitation on the gel product extracted from 7/14/17, following procedures directed by Tyler. The procedures for DNA precipitation is in the "Protocol" page, and "DNA Extraction". Steps need to be continued on 7/21/17. 100  $\mu$ l DNA was available, so 11  $\mu$ l 3M NaOAc, 278  $\mu$ l ethanol were added. The eppendorf tubes are located in the -20oC to be incubated overnight.