

Name: Chiara

Date: 9/20/19

Goal:

1. Monitor transformed S. Micro from 9/19/19

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1. Count the number of transformed S. Micro from 9/19/19 using hemacytometer

Protocol:

1. Inserted 10 μL of algal culture into the hemacytometer and counted the number of cells in 5 different squares.
2. Calculated the average number of cells per square by dividing the total cell count by 5.
3. Multiply this number by a factor of 10^5 to get the final concentration of algal cells in one mL

Results:

There is not a single cell in any of the samples collected. Samples from varying depths of the cultures were taken, and the results were the same.

Conclusion:

The cells were present immediately after the electroporation. This must mean that something is happening to the cells during the recovery period. When the EDTA is added and the cells are resuspended in glycerol, all the salt is supposed to be removed from the solution. The algae may be returning to homeostasis by expelling some of its own salts into the environment. When we then recover them in ASP-8A, a salty solution, the cells may not have time to acclimate again and shrink as a result of osmotic shock.

We should redo this transformation protocol but recover the cells in a diluted version of ASP-8A. After some time, we should then add enough ASP-8A to reach its optimal concentration.