

Fermentation and Alteration of Biological Color

2 Liter PGlo Production

Solano College Biomanufacturing Program, Summer 2018

In this project, we fermented 2 liters of yeast cells to produce GFP protein.



GFP Mutagenesis Series

By using an overlap extension phusion polymerase-based cloning method, a series of PCRs were done by ARC-BAC collaborator Adam Telleen to create a shifting palette of variants of Green Fluorescent Protein. By engineering specific mutations into the beta barrel of the original GFP, new color emissions of blue (BFP), cyan (CFP) and yellow (YFP) were created. Myself and two other students assisted him in the summer of 2019 to recombine samples, creating further mutations and enhancing brightness. These variants were then plated on black agar and used in sectoring experiments.

