



COLOR CODING KEY

Characterization

Construct

Data Collection/Analysis

Improvement of Biobrick

Plant-Care

Plasmid

Plasmid/Construct Design

Preparatory Work

Sunday July 7th

- Minipreped KAN inoculations
 - Nanodropped PCR, had some contamination
 - Used Qiagen Purification kit to get rid of the contamination
 - This reduced yield, but got rid of the contamination
 - PreLim backbone was verified with gel electrophoresis
 - Redid PCR for construct
 - Used Monarch purification kit to get better results
 - Viewed TMV on leaf using UV light
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Monday July 8th

- Minipreped leftover liquid inoculations
 - Performed RE digest for construct
 - Streaked agrobacterium plates
 - Ran a gel on PCR fragments, PCR were valid
 - Ran PCR on PreLim construct
 - Purified PCR products
 - Research iGEM GFP proteins from distribution kit
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Tuesday July 9th

- Researched collaboration with UCDavis to test accuracy of Opentrons
- Made plates of E. Coli

- Poured new LB plates
 - PCR of fragments for PreLim plasmid, promoter, and main project construct
 - Made Excel sheet to track plants
 - Thinned two batches planted on 7/2
 - Redid numbering system for plants
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Wednesday July 10th

- PCR of terminator for main project
 - Miniprep and nanodrop PreLim and main project backbones
 - Performed RE digest on backbones
 - Did PCR on terminator, main project construct, and fluorescent protein
 - Ran gel on all PCR pieces
 - Everything was good except for fluorescent protein mCherry
 - Ordered sequences for characterization
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Thursday July 11th

- Made three gels for future experiments
 - Performed PCR for mCherry
 - Ran a gel for the PCR
 - Two bands at an incorrect place, possible that primers were annealing to another part of the sequence
 - Performed gel extraction of mCherry
 - Ran another PCR on mCherry to compare on nanodrop
 - PCR mCherry was good, while gel extraction mCherry was poor
 - Finishing up protocols for agroinfiltration and sap inoculation
 - Visualized TMV in plants using UV light
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Friday July 12th

- Miniprep liquid inoculations for PreLim
 - RE digest was done on the backbones for both the PreLim and the main project
 - Ran a gel on RE digest and PCR product of mCherry
 - Gel extraction was done for mCherry
 - Liquid inoculation of PreLim and main project bacteria
 - Made chloramphenicol solution
 - Poured chloramphenicol plates
 - Inoculated plants with TMV
 - Imaged plant with TMV to see how future data collection would be
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Saturday July 13th

- Miniprep liquid inoculations from previous day
 - Performed RE digest of backbones for PreLim
 - Performed PCR purification of RE digest
 - Made four gels for future experiments
 - Organized the 4 degree fridge
 - Performed HiFi assembly of main project construct
 - Transformed bacteria with HiFi product
 - Streaked plates with bacteria containing HiFi materials
 - Growth is stunted on plants with TMV
 - Inoculated leaves are now compromised (including vasculature)
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