

Week 10 Notebook

August 3, 2015 - August 7, 2015

August 3, 2015

Kayla/Julie

- Prepared 5 mL liquid cultures of EMG2:Kλ, 26C,Cf27, Ch27, Dc27, Ep27, Ga, Ga27, IAFGP27, Lp, Ma, Ma27, Mp27, Pp, Ri, Ri27, Ti, Ti27, and Ze
- Added crystal violet to biofilm plates from 7/30/15
- Ran 2 15% polyacrylamide gels
 - Gel 1=Ladder, 26C, Ga, Ga27, Ma, Ma27, Ri, Ri27, Ti, T27
 - Gel 2=Ladder, 26C, Lp, Pp, and Ze

Chloe/Charlotte

The first part of a freeze survival assay was conducted using 15-17C, 15-23C (Tm), 15-36C (Mo), Ep27, Ri27, Ma27, IAFGP27, and Lp27.

Dave/Eddie

- Transformed 23, 32, 36, 37, and 41 which were confirmed on friday.
- Also transformed 32, 34, and 41 untagged into the EMG2Kλ strain for Kayla and Julie.
- All were transformed directly into liquid cultures and left in the shaker to grow overnight.
- Transformed 15-40C #2 from the 29th and 15-40C #11 from the 31st (henceforth to be known as 15-40C X and 15-40C Y) into both strains and plated it for growth overnight. These are two clones of IAFGP that each only had part of the sequence.

August 4, 2015

Kayla/Julie

- Poured 2 18% polyacrylamide resolving gels with 4% polyacrylamide gels stacking gels on top
- Prepared and plated 1:100 dilutions of EMG2:Kλ, 26C,Cf27, Ch, Ch27, Dc27, Ep, Ep27, Ga, Ga27, IAFGP27, Ma, Ma27, Mp27, Pp, Ri, Ri27, Ti, Ti27, and Ze
 - Plate 1=EMG2:Kλ, 26C,Cf27, Ch, Ch27, Dc27, Ep, Ep27, Ga, Ga27, and IAFGP27
 - Plate 2=EMG2:Kλ, 26C, Ma, Ma27, Mp27, Pp, Ri, Ri27, Ti, Ti27, and Ze
- Prepared 5 mL liquid cultures of EMG2:Kλ, 26C, Cf27, Ch, Ch27, Dc, Dc27, Ep, Ep27, Ga27, IAFGP, IAFGP27, Ma 27, Mp27, Pp, Ri27, and Ti27

Chloe/Charlotte

The second part of a freeze survival assay was conducted using 15-17C, 15-23C (Tm), 15-36C (Mo), Ep27, Ri27, Ma27, IAFGP27, and Lp27. Another freeze survival assay was started.

MTS Freeze Assay Results (OD ₆₀₀) 8/4					average	avg - blank
Assay C						
17C Pre-freeze	0.316	0.394	0.372	0.347	0.35725	0.07675
17C After -20 freeze	0.349	0.309	0.354	0.317	0.33225	0.04575
17C After -80 freeze	0.302	0.341	0.347	0.355	0.33625	0.05675
15-23C (Tm) Pre-freeze	0.345	0.326	0.374	0.391	0.359	0.0785
15-23C (Tm) After -20 freeze	0.309	0.164	0.289	0.352	0.2785	-0.008
15-23C (Tm) After -80 freeze	0.349	0.374	0.322	0.277	0.3305	0.051
15-36C (Mo) Pre-freeze	0.362	0.367	0.404	0.365	0.3745	0.094
15-36C (Mo) After -20 freeze	0.312	0.303	0.334	0.316	0.31625	0.02975
15-36C (Mo) After -80 freeze	0.316	0.311	0.349	0.328	0.326	0.0465
Ep27 Pre-freeze	0.453	0.34	0.349	0.381	0.38075	0.10025
Ep27 After -20 freeze	0.343	0.446	0.308	0.316	0.35325	0.06675
Ep27 After -80 freeze	0.344	0.318	0.316	0.441	0.35475	0.07525
Ri27 Pre-freeze	0.392	0.442	0.473	0.414	0.43025	0.14975
Ri27 After -20 freeze	0.299	0.294	0.327	0.309	0.30725	0.02075
Ri27 After -80 freeze	0.302	0.302	0.324	0.331	0.31475	0.03525
Ma27 Pre-freeze	0.316	0.449	0.425	0.454	0.411	0.1305
Ma27 After -20 freeze	0.303	0.332	0.35	0.329	0.3285	0.042
Ma27 After -80 freeze	0.362	0.314	0.364	0.342	0.3455	0.066
IAFGP27 Pre-freeze	0.34	0.364	0.369	0.319	0.348	0.0675
IAFGP27 After -20 freeze	0.344	0.344	0.323	0.349	0.34	0.0535
IAFGP27 After -80 freeze	0.325	0.326	0.305	0.327	0.32075	0.04125
Lp27 Pre-freeze	0.421	0.334	0.393	0.365	0.37825	0.09775
Lp27 After -20 freeze	0.348	0.344	0.337	0.335	0.341	0.0545
Lp27 After -80 freeze	0.332	0.347	0.331	0.371	0.34525	0.06575
Blank Pre-freeze	0.283	0.278			0.2805	
Blank After -20 freeze	0.293	0.28			0.2865	
Blank After -80 freeze	0.277	0.282			0.2795	

Dave/Eddie

- Made minipreps of yesterday's transformants.
- Did various odd-jobs around the lab, dishes, pipetting for the others, making LB
- Finished uploading the last of the pages
 - pages still require trace and sequence files

August 5, 2015**Kayla/Julie**

- Ran samples in 18% polyacrylamide gels
 - 10 μ L Ladder, 26C, Ch, Ep, Ga, Ma, Pp, Ri, Ti, and Ze
 - Buffer dropped below the tops of the gels, so they could not be stained
- Set up new biofilm plate with 1:100 dilutions of EMG2:K λ , 26C, Cf27, Ch, Ch27, Dc, Dc27, Ep, Ep27, Ga27, IAFGPx, IAFGP γ , IAFGP27, Ma 27, Mp27, Pp, Ri27, and Ti27 liquid cultures
- Poured 2 new 18% polyacrylamide resolving gels with 4% stacking gels

Chloe/Charlotte

The second part of a freeze survival assay started yesterday was conducted. Another two freeze survival assays were started.

MTS Freeze Assay Results (OD ₆₀₀) 8/5 Assay D					average	avg - blank
17C Pre-freeze	0.374	0.415	0.416	0.405		
17C After -20 freeze	0.271	0.312	0.274	0.274		
17C After -80 freeze						
32C (Ch) Pre-freeze	0.344	0.419	0.369	0.359		
32C (Ch) After -20 freeze	0.272	0.277	0.269	0.267		
32C (Ch) After -80 freeze						
37C (Ap) Pre-freeze	0.341	0.294	0.433	0.392		
37 (Ap) After -20 freeze	0.261	0.259	0.268	0.278		
37C (Ap) After -80 freeze						
41C (Dc) Pre-freeze	0.291	0.288	0.257	0.279		

41C (Dc) After -20 freeze	0.241	0.244	0.251	0.258		
41C (Dc) After -80 freeze						
Ch27 Pre-freeze	0.381	0.401	0.405	0.419		
Ch27 After -20 freeze	0.262	0.272	0.268	0.275		
Ch27 After -80 freeze						
Dc27 Pre-freeze	0.424	0.416	0.370	0.310		
Dc27 After -20 freeze	0.283	0.275	0.29	0.27		
Dc27 After -80 freeze						
19C (Ze) Pre-freeze	0.373	0.356	0.364	0.423		
19C (Ze) After -20 freeze	0.252	0.25	0.262	0.27		
19C (Ze) After -80 freeze						
20C (Ga) Pre-freeze	0.408	0.440	0.402	0.438		
20C (Ga) After -20 freeze	0.265	0.286	0.271	0.292		
20C (Ga) After -80 freeze						
Ga27 Pre-freeze	0.425	0.423	0.386	0.385		
Ga27 After -20 freeze	0.265	0.286	0.271	0.292	0.301	0.424
Ga27 After -80 freeze						
Blank Pre-freeze	0.272	0.273				
Blank After -20 freeze	0.285	0.278				
Blank After -80 freeze						

Dave/Eddie

- Finished minipreps of IA X and IA Y, including glycerol stocks
- transformed and grew liquid cultures of 15-43C to make glycerol stocks
- Helped with the freeze assay

- Helped skype with the BU team about collaborating
 - no collaboration with BU
- Added sequencing files to the parts pages, emailed Vinoo about adding trace files.
- Worked on the AFP background

August 6, 2015

Kayla/Julie

- Poured a 18% polyacrylamide resolving gel with 4% polyacrylamide gel stacking gel on top
- Ran samples in 18% polyacrylamide gels
 - Yellow line appeared where dye was when dye ran to the bottom of the gel
- Attempted to silver stain gel, but no bands clearly developed
- Received samples from Harvard

Chloe/Charlotte

Completed freeze survival assays. Started another freeze survival assay.

Dave/Eddie

Worked on registry pages and data analysis.

August 7, 2015

Kayla/Julie

- Poured a 18% polyacrylamide resolving gel with 4% polyacrylamide gel stacking gel on top
- Stained biofilm plates from 8/5 with crystal violet
- Quantified stained biofilm plates from 8/4

Chloe/Charlotte

Completed remaining freeze survival assays.

Dave/Eddie

Worked on registry pages and data analysis.