

Life Saving Links


Summer 2023	
LandingPageSummer23VDS Journal Club papers JournalClubSumm23	Week 1 , Week 2 , Week 3 , Week 4 , Week 5 , Week 6 , Week 7
DailyScheduleVDSSumm23 (this doc) HRIWorkFlowCurriculumVirtualCures v.2 - HRI Virtual Cures Slide Deck -	Targets - TargetSelectionFormSumm2023
UNIFIEDLabSched_VDSSumm23 - Google Sheets	qPCR Machine Schedule SquawkSheet VDScalss Google Drive
ConflictsStudentsVDSSumm23 - Google Sheets	Summer 2022 DailyScheduleVDSSumm22 UNIFIEDLabSched_VDSSumm22 ShareBackSlides_VDS_Su22
HSRA: - Remind -	

[ProtocolsVDSs](#)
[ProtocolLinks_VDSs](#)
[KnownDNASequencesVDS](#)

Research Pages [VDSshared_ResearchPage](#) [SHAREBACKS](#) (old link)

VDSers, Put your links to Research Pages here

 [Summ23_eg38464_EleazarGonzalez_ResearchPageVDS](#)

Arnav -  [Summ23_ap59383_ArnavPatil_ResearchPageVDS](#)

Michelle -

 [Summ23_maj4247_MichelleJimenez_ResearchPageVDS](#)

Olivia: [Summ23_osf98_OliviaFowler_ResearchPageVDS](#)

Aira-  [Summ23_ab77754_AiraBalasubramanian_ResearchPageVDS](#)

 [Summ23_hob247_HalimotBadmus_ResearchPageVDS](#)

 [A. Mugerza VDSshared_ResearchPage](#)

Tip: use the document outline at the left to navigate.

ARI - VDS (to be updated as needed)[+ ARI-VDS Summer 2023 Schedule](#)[+ ARI-VDS Student Plasmid Archive](#)[+ DSF Template](#) ***Make a copy of this and edit that**OVERVIEW**

Choose Targets, make plates, make LB,

Transform, Plasmid archive

Transform, Express, Purify, Characterize, DSF

NDM-Variants work

- SDM cloning a new variant
- Express, purify characterize

Clone something new - FRI, HSRA

VR headsets for those that didn't get to it

- Who didn't get to VR in spring?:
 - FRI
 - Halimot
 - Arnav
 - Lucy
 - Aira
 - ARI:??
 -
 - ...

VS Phosphatase revisit

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Online labnotebooks/research pages, paper notebooks

Do something fun/social

Sharebacks - Monday or Friday? - maybe Friday since a few Mondays are out?

HSRA specific

- P&A,
- HRI Project
 - w/ iCn3D
- Buffer Titration, Beer's law
- PyMOL
- Clone target - PIPE cloning

- Protein E, P, C - on EhPTP?

WEEKLY LINKS and Dates:

[LINK TO THIS WEEK](#) 2023

[Week 1](#) Jun-5 Monday

Intro, Unboxing!, buy supplies at store, make plates, LB

Transform,

Create Research Pages online

Start notebooks (paper)

[Week 2](#) Jun-12 Monday

HSRA starts

Shadow a Scientist - Middle Schoolers (Wed)

Sharebacks

[Week 3](#) Jun-19 Monday

Shadow a Scientist - Middle Schoolers (Wed)

Sharebacks

[Week 4](#) Jun-26 Monday

Shadow a Scientist - Middle Schoolers (Wed)

Sharebacks

[Week 5](#) Jul-3 Monday

Shadow a Scientist - Middle Schoolers (Wed)

Sharebacks

[Week 6](#) Jul-10 Monday

Shadow a Scientist - Middle Schoolers (Wed)

Final Sharebacks

[Week 7](#) - July-17 Monday

End

[LINK TO TOP](#)

NDM-1 Variants Project

[Notes NDM-1 variants](#) [NDM-1 variants](#) folder [NDM-1 Variants Sheet](#) [NDM-1 Info Sheet \(Fast Lab\)](#) [NDM-1 DNA Sequence Protocol Steps For Determining A Good Mutant](#) [VDS-ARI HRI v3.3](#)

Link to [Overall Plan & Targets](#) (on this page)

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Results & Data

Upload shared files to these folders. Post 'highlights' for each protocol or procedure that you do.

Instructions for Updates to online Research Page:

Protocols

- Save a google docs copy of the protocol, modify the protocol according to what you do, and then **save a pdf of that protocol** to put into student folder or link on the research page for the day
 - Alternatively: Download the protocol as a pdf and save into student research folder and link the PDF onto your own research page

YEAR_MONTH_DATE_PROTOCOLNAME - name your pdf protocols according to this format
Add direct links here once made on the Research Pages page of VDS Portal.

[Research Pages](#) - on VDS Portal [VDSshared_ResearchPage](#) - possibly remote work

[2023_ARI](#) - FOLDER LINK

Student-Researcher Pages

[Kat](#) [Michael](#) [Minh](#) [Madison](#) [Aidan Madi](#) [Zach](#) [Nevan](#)

2023_FRI - FOLDER LINK (TBD) change to VDSStaff account - FRI Student-Researchers

- *Folders: Type your name and then link your folder*
- Pages: links go here (put yours here - yes, you. Thx, Dr. B)
 - VDS Club: ??

HSRA Folks: ????????? - or just paper and one shared type of doc?

Miscellaneous

-OLD: Target Teams (FRI 2020) [NotesPaDXP - Google Docs](#) [Notes FtFBA - Google Docs](#) [NotesInhA - Google Docs](#) [Notes_VcUPh - Google Docs](#) [Notes SpUGD - Google Docs](#)

THIS WEEK**WEEK 6 - Jul-10 Monday****OVERALL ITEMS FOR WEEK 6 (by group)****ALL**

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment
- **JC3 - WEEK 6**
 - Prasannan, P.; Suliman, H. S.; Robertus, J. D., Kinetic analysis of site-directed mutants of methionine synthase from *Candida albicans*. *Biochem Biophys Res Commun* **2009**, 382 (4), 730-4.
 - [PrasannanPriya_MetSynthaseKinetic_RobertusBiochemBiophysResComm2009.pdf](#)
- Documentary Viewing (Friday ?)

ARlers

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FRlers

- Enzyme assay on EhPTP
- DSF on Target protein (or EhPTP)
- Re-express Target protein - wait on this ?
- Plasmid Stock Depositions (if haven't done)
- PIPE Cloning Attempt on Cloning Targets

HSRA

- Make posters

MENTORS:

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DAY TO DAY ITEMS

Monday - DATE July 10th, 2023 —————

ALL

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FRlers

- Make a separate tube of EhPTP for Dr. Govea (talk to Dr. B)

- Purify Target proteins
 - Nanodrop results - [Target Plasmid Nanodrop FRI Summer 23](#)
 -
- Characterize - EhPTP protein
-
- VPipe continue until working
-
-
- VR headsets - Part D (visualize your docked ligands and protein)
- Virtual Club (optional) - work via SLACK channel

HSRA

- GBlock dilution
- Dilute tail primers ?
 - Need to pick up in core
- Characterization of proteins
- Poster preparation time

ARlers**MENTORS:**

- **Fold BioMolViz framework handouts for Dr. B**
 - **Need 50-60**
- **Pick up IDT primers**
- **Practice VR headsets so that you know how to do Part D in the VR Protocol**
- Side project - Quoc and Hubert
 - **Design EhPTP + GBR22 plasmid**
 - For PIPE cloning
 - [EhPTP + pGBR22](#)
 -

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

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Tuesday—

ALL

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FRIers

- Characterize EhPTP
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- iPipe - attempt
 - Need Diluted tail primers first from HSRA

- RE digest of pGBR22 (could save this for Wed)
 - Need 4,500 ng for all 3 tubes in the experiment. Calculate how much pGBR22 you have. Then pair up to run the experiments.
 - Check if we have the enzymes..... - yes
 - [ProtocolRestrictionEnzymeDigestVDS](#)
- Check PGBR22 Sequencing Results and deposit
 - https://docs.google.com/document/d/19xu6PMRz6mE9_BXsli-3w-J51q_YUG2OM5HJaclssh/edit?usp=sharing
 -
 -
 -
- VR headsets - Part D (visualize your docked ligands and protein)
- Virtual Club (optional) - work via SLACK channel

HSRA

- GBlock dilution - check instructions
 - Make dilution in original tube, then take ½ to a new tube, store in the box with the tail primers.
- Characterization of proteins
 - Destain and drying
 - May have to destain overnight.
- iPipe PCR - done
- Repeat VPipe? - wed
- Make SOSC discs
- Maybe make more AMP and Tazo?
- Antibiotic resistance test.
 - What to do here?
 - Check Harsha's PDF for results from other day - Dr. B
 - AMP
 - TEM-1b no iptg - w. T, A, T+A discs
 - Omkar
 - TEM-1b w/ IPTG - 100 mM (IPTG added to plate) w. T, A, T+A discs
 - Simon
 - TEM-1b w/ IPTG - 500 mM (IPTG added to plate) w. T, A, T+A discs
 - Max
 - TEM-1b w/ IPTG - 1 M (IPTG added to plate) w. T, A, T+A discs
 - Harsha
 -
 - CEFDINIR
 - TEM-1b no iptg - w. T, C, T+C discs
 - Anu
 - TEM-1b w/ IPTG - 100 mM (IPTG added to plate) w. T, C, T+C discs

- Sadie
- TEM-1b w/ IPTG - 500 mM (IPTG added to plate) w. T, C, T+C discs
 - Triyatha
- TEM-1b w/ IPTG - 1 M (IPTG added to plate) w. T, C, T+C discs - Kayla

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- Poster preparation time

ARlers

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MENTORS:

- AddGene plasmid depositions -
- Take cell phone pics of HRI lab equipment and upload to Slide Deck with labels (captions)
 - [HRI Virtual Cures Slide Deck](#)
- 'Wipe' one of the headsets and do a fresh install (talk to Dr.B)

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

ARI-VDS

Wednesday-----

2-3:50 - Middle schoolers visit ??

ALL

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FRlers

- Finish Characterization of EhPTP
- Make SDS-Page gels
- Characterize - Target protein
- Enzyme Assay of EhPTP - save for THURSDAY
 - [ProtocolEnzymeTest_Phosphatase_VDS_Fall13_varyEnzyme](#) look over protocol today though and ask questions.
- For [ADDGENE Depositions](#)
 - Login: VDS, virtual214
 - Descriptive Title: Expression vector containing gene for XXXX

- Distribute pending QC
- Determine full sequence of your Target plasmid
 - Use the CDS from DNA sequencing + the pNIC-bsa4 backbone
 - We have the pNIC backbone on the Protocol Links, so, paste your CDS into this to make complete circle. We will upload these to AddGene for deposition along with a sample.
 - Link full sequence Here: (as a google doc link)
 - YpDalaDala*Kim H, Sarah A*
 - SaDalaDala)-*Halimot B*
 - YpFabV *Aira B*
 - SaDHFR *Michelle J, Andrea (Lucy) M*
 - PfFabG *Eleazar (Eli) G, Arnav P*
- NDM variant PCR - SDM PCR (can let this run in machine overnight)
 - Dilute NDM variant primers first
- VR headsets - Part D (visualize your docked ligands and protein)
- Virtual Club (optional) - work via SLACK channel
 - 4pm virtual club Zoom

HSRA

- Check plates from yesterday
 - Add labels to plate as needed for images
 - Assemble images into PDF for Dr. B
- Make SOSC discs - need to do (Thurs)
- SOSC Antibiotic Resistance test
 - SOSC (replicate for different SOSCs) -
 - TEM-1b no iptg - w. T, SOSC, T+SOSC discs
 - TEM-1b w/ IPTG - 1 M (IPTG added to plate) w. T, SOSC, T+SOSC discs
- Characterize EhPTP
- Agarose check check of iPipe
 - Triyatha did not work, Sadie did, Kayla did, Max did
 - Want to rerun Triyatha, Anu, Simon, Omkar, Harsha on Thurs
- Antibiotic Resistance Test - Done need to check
 - AMP vs. TEM1b
 - TEM-1b no iptg - w. T, A, T+A discs
 - Harsha
 - TEM-1b w/ IPTG - 10 mM (IPTG added to plate) w. T, A, T+A discs
 - Simon

- TEM-1b w/ IPTG - 50 mM (IPTG added to plate) w. T, A, T+A discs
 - max
- TEM-1b w/ IPTG - 200 mM (IPTG added to plate) w. T, A, T+A discs
 - Omkar
- AMP vs. TEM1
 - TEM-1 no iptg - w. T, A, T+A discs
 - Anu
 - TEM-1 w/ IPTG - 10 mM (IPTG added to plate) w. T, A, T+A discs
 - Kayla
 - TEM-1 w/ IPTG - 50 mM (IPTG added to plate) w. T, A, T+A discs
 - Sadie
 - TEM-1 w/ IPTG - 200 mM (IPTG added to plate) w. T, A, T+A discs
 - Triyatha
- Repeat iPipe
- Repeat VPipe?
 - Push to tomorrow (Thurs)
- Poster preparation time

ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

Thursday-----

ALL

- **Documentary Viewing (Thursday) @ 12pm**
 - In PAI 3.02 - lecture hall on 3rd floor of Painter
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FRlers

- iPipe PCR, prepare gel for it to check at end of day.
- Enzyme Assay of EhPTP - save for THURSDAY
 - [ProtocolEnzymeTest_Phosphatase_VDS_Fall13_varyEnzyme](#) look over protocol today though and ask questions.

- For [ADDGENE Depositions](#) - see previous day
-
- VR headsets - Part D (visualize your docked ligands and protein)
- Virtual Club (optional) - work via SLACK channel

HSRA

- Rerun Vpipe gel and rerun Ipipe samples from 2nd gel- Sylvia
- Need to make more plates for the SOSC test- Sylvia
 - Should probably triple the amount (12 plates total)
- Poster preparation time

ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

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Friday —————

ALL

- *Lab notebook checks*
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FRlers

- SHAREBACKS & Journal Club 1:30 pm : [SHAREBACKS](#)
 - **GEA 403**
- VR headsets - Part D (visualize your docked ligands and protein)
- Virtual Club (optional) - work via SLACK channel

HSRA

- SHAREBACKS & Journal Club 1:30 pm : [SHAREBACKS](#)
 - **GEA 403**
- **Poster Submissions due (Dr. B uploads?)**

**Poster Submission – Action Required by 12 pm on Friday,
July 14.**

- **Each unique poster design should be saved as separate pdf file using the following filename format:**
 - **LabName_PosterDesign#_Number of Copies (*students will each get a poster to take home*).**
 - **Examples:**
 - **VirtualCures_HSRAPoster1_Name1Name2Name2...pdf**

■ VirtualCures_HSRAPoster2_Name1Name2Name2...pdf

●

File Submission: Faculty Lead or DI should fill out the form and submit all unique posters (there is an upload option on the form) by 12pm on Friday, July 14 to the link here: <https://forms.gle/YWh2Gv9s3MMAsT9u5>

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ARlers

- SHAREBACKS & Journal Club 1:30 pm : [SHAREBACKS](#)
- **GEA 403**

MENTORS:

Pick up primers in MBB - IDT primers for EhPTP-pGBR22

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- FRI:
- HSRA:
- ARI:

Saturday

Sunday

DELIVERABLES BY END OF WEEK 6

ALL

+++++LINK TO TOP

WEEK 7 - July-17 Monday

-NOTE: Wed July 19th - Final Day for HSRA - poster session

OVERALL ITEMS FOR WEEK 7 (by group)

ALL

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment

ARlers

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FRlers

- VR headsets - Part D (visualize your docked ligands and protein)

HSRA

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MENTORS:

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DAY TO DAY ITEMS

Monday - DATE July 17th —————

ALL

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FRlers

- VR headsets - Part D (visualize your docked ligands and protein)

HSRA

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ARlers**MENTORS:**

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

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Tuesday—————

ALL

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FRlers

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HSRA

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ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

ARI-VDS

Wednesday -----

ALL

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FRlers

- Last day - attend HSRA poster session

HSRA

- HSRA Last day - poster session

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ARlers

- Last day - attend HSRA poster session

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

Thursday-----

ALL

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ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

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Friday -----

No research

+++++[LINK TO TOP](#)

OLD STUFF BELOW HERE _ to be updated

4/21/23

Results & Data

Upload shared files to these folders. Post 'highlights' for each protocol or procedure that you do. Add direct links here once made on the Research Pages page of VDS Portal.

[Research Pages](#) - on VDS Portal [VDSshared_ResearchPage](#) - possibly remote work

2022_ARI - ARI Student-Researchers Folders

- Research Pages: [Anish](#) [Holden](#) [Hafsah](#) [Jose](#) [Griffin](#) [Hriman](#) [Varsha](#)
[Shreyaa](#) [Humberto](#) [Lorena](#)

2022_FRI - FRI Student-Researchers

- Folders: [Rachel](#) [Rida](#) [Quoc](#) [Valeria](#) [Hubert](#) [Sylvia](#) [Mia](#)
 - [Krista](#) [Naturi](#)
- Pages: [Rida-Page](#) [Su2022_sl2779_SylviaTanguma_ResearchPageVDS](#)
[Valeria-Page](#) [Su2022_qdn227_QuocNguyen_ResearchPageVDS](#)
[Su2022_hj7654_HubertJaegy_ResearchPageVDS](#)
[Su2022_mlt3375_MiaTernus_ResearchPageVDS](#)
 - VDS Club: ??

HSRA Folks: ????????

Miscellaneous

-OLD: Target Teams (FRI 2020) [NotesPaDXP - Google Docs](#) [Notes FtFBA - Google Docs](#) [NotesInhA - Google Docs](#) [Notes_VcUPh - Google Docs](#) [Notes SpUGD - Google Docs](#)

Instructions for Updates to online Research Page:

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 - Alternatively: Download the protocol as a pdf and save into student research folder and link the PDF onto your own research page
- *YEAR_MONTH_DATE_PROTOCOLNAME* - name your pdf protocols according to this format

+++++ [LINK TO TOP](#)

THINGS TO DO WHEN EXTRA TIME:

Go to BioScience Storeroom (stockroom) to buy stuff

- Give receipt to Dr. B or place in the black receipts basket (can place in box outside office also)

After we get sharpies - Claim your sharpie!

- Write your name on your sharpie & make it look unique with some tape colors/patterning.

Unboxing

Clean glassware

Clean up the sinks

Empty biohazard buckets

Make more Nanopure water

Make 70% EtoH spray bottle

Make Alconox spray bottle

Make more plates as needed



[ProtocolLaminatorAlligatorVDS](#)

- VDSers each laminate a piece of paper with 'whiteboard - VDS' written on top for use as a writing surface for calculations, etc in lab. Place on benchtops

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Clarification on 'Output' documents for Summer 2022

FRI and ARI

1. Research Page- Student

- PURPOSE: This is for you to have a centralized document to keep track of your work that is a running log of your work
- in chronological or reverse chronological order, can have data and analysis in it or
- Exists within your Student Folder where you can store your files and copies of protocols
- Granular protocol steps should not be in this document - but in a copy of the protocol that you put in your folder.
- NOTE: if you are on a specific project with someone else - you might share a Labnotebook-Project in a separate folder. Just reference to this from your Labnotebook-Student

2. Individual student [ResearchPagesVDS_UT - Google Drive](#) : (hybrid/wet lab students only for now)

- PURPOSE: This is for reporting back progress to Dr. B and mentors
- To post each of your results of for the week with brief analysis

3. [ShareBackSlides_VDS_Su22](#)

- PURPOSE: 1-2 highlights for the week to share with all of VDS (this replaces the [VDS Shared Research Page](#) for this summer)

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Overall Plan & TARGETS

ARlers

Overall Goal - ARI

- Create an NDM-1 variant and assay it's functionality relative to NDM-1
- Identify novel inhibitors against and infectious disease target protein (Spring target usually)

Specific Aims - ARI

- Post Results to your individual pages and group pages
- Transform into BL21(DE3), express, purify, characterize a target
- Transform plasmid into DH5alpha, o/n large culture, midi-prep, DNA Sequencing, store verified plasmid in Plasmid Archive
- DSF or enzyme assay on target
- SDM

- Learn how to do large library screening in GOLD
- **Targets:**
 - For sequences of the gene see the : [KnownDNASequencesVDS](#)

ARI-VDS Summer 23 Targets

KEEP

Klebsiella pneumoniae carbapenemase-2 (KPC-2), *Klebsiella pneumoniae* - **Madison**

Plasmodium vivax 6-Phosphogluconate dehydrogenase (Pv6PGDH), *Plasmodium vivax*, **Michael**

Francisella tularensis Enoyl-ACP reductase FabI (FtFabI), *Francisella tularensis* - **Zach**

Methenyltetrahydrofolate Synthetase (MTHFS), *Mycoplasma pneumonia* - **Minh**

Wolbachia FabI, *Brugia malayi* - **Kat, Chris B**

Trypanosoma brucei 6-Phosphogluconate dehydrogenase (Tb6PGDH), *Trypanosoma brucei* - **Maaria, Nevan**

NDM-1 - **Aidan**

- **Maybe Maaria helps here**
- **Maybe Maaria works on Phosphatase**

DROPS

D-alanine-D-alanine ligase (YpDalaDala), *Yersinia pestis*

Fructose 1,6-bisphosphatase (FBPase), *Stenotrophomonas maltophilia* **Aidan**

Aldehyde Dehydrogenase (FtALDH), *Francisella tularensis* -

- **DROP: Trouble purifying, substrate ticky**
- *Mycobacterium tuberculosis* enoyl ACP reductase (MtInhA), *Mycobacterium tuberculosis*
 - Acetyl-coenzyme A synthetase II (ACS2), *Candida albicans*
- Francisella tularensis* Histidine acid phosphatase (FtHAP), *Francisella tularensis* -

(move Zach to Ft FabI)

- MPro - SARS-CoV-2 -
 - SEQUENCING RESULT: ? SDS-PAGE RESULT: ?
- HRV-3CP- NT* (protease for MPro) -
 - SEQUENCING RESULT: ? SDS-PAGE RESULT: ?
- Pv6PG - *Plasmodium vivax*
 - SEQUENCING RESULT: ? SDS-PAGE RESULT: ?
- Tb6PGDH - *Trypanosoma brucei*
 - SEQUENCING RESULT: ? SDS-PAGE RESULT: ?
- PfFagbG - *Plasmodium falciparum*
 - **Switch to PfDXR position A52**
 - SEQUENCING RESULT: **n/a** SDS-PAGE RESULT: **n/a**
- MabA(FabG) - *Mycobacterium tuberculosis* -
 - SEQUENCING RESULT: ? SDS-PAGE RESULT: ?
- FabV - *Yersinia pestis* -
 - SEQUENCING RESULT: FAIL SDS-PAGE RESULT: ?
- *Ag85B* ? - no plasmid yet
- *BpGMH* - *Burkholderia pseudomallei* GmhA (a.ka. BPSL2795)
D-sedoheptulose 7-phosphate isomerase
- AckA - *Mycobacterium marinum* (wet lab) Acetate kinase -
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- **ecDHFR**
- **MtPTPB**
- **L maj P. reductase**

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FRIers**Overall Goal - FRI**

- Create an NDM-1 variant and assay it's functionality relative to NDM-1
- Identify novel inhibitors against and infectious disease target protein (an existing target from the VDS stable of plasmids)
- Clone one of the 4 new targets:
 - Have GBlocks: Summer 22
 - YpDHFR: Mia and **Valeria**
 - SaDHFR: **Rida** and Rachel
 - Pf6PGDH: **Quoc**, Sylvia, and Hubert

- *PaDXR: If finish first*
 - **Sylvia** to dilute the Gblock
- Need GBlocks (to be designed): YpFabV
- Find VPIPE primers

Specific Aims - FRI

- Post Results to your individual pages and group pages
- Transform plasmid into DH5alpha, o/n small culture, mini-prep, DNA Sequencing, o/n large culture, midi-prep, store verified plasmid in Plasmid Archive
- Transform into BL21(DE3), express, purify, characterize a target
- DSF on Target,
- Clone new targets
-
- **Targets:**
 - WoFabI - Wolbachia endosymbiont of *Brugia malayi* - skip Summ 2022
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
 - FtFabI- *Francisella tularensis*
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
 - YpDalaDala- *Yersinia pestis* - **Sylvia**
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
 - SaDalaDala- *Staphylococcus aureus* - **Rachel**
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
 - Tb6PGDH - *Trypanosoma brucei* - **Hubert**
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
 - Pv6PGDH - *Plasmodium vivax* - **Rida**
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
 - BpGMH - *Burkholderia pseudomallei* GmhA (a.ka. BPSL2795)
D-sedoheptulose 7-phosphate isomerase - **Mia**
 - SEQUENCING RESULT:
 - SDS-PAGE RESULT: ?
 - FabG - *Plasmodium falciparum* - **Valeria**
 - SEQUENCING RESULT:
 - SDS-PAGE RESULT: ?
 - FabV - *Yersinia pestis* - **Quoc**

- SEQUENCING RESULT:
- SDS-PAGE RESULT: ?
- MtDalaDala- *Mycobacterium tuberculosis*- skip Summ 2022
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
- FtHAP - *Francisella tularensis* - - skip Summ 2022
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
- EhPTP - *Entamoeba histolytica* - - skip Summ 2022
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
- ecDHFR - *Eschericia coli* - - skip Summ 2022
 - SEQUENCING RESULT: ?
 - SDS-PAGE RESULT: ?
- MtlNhA (FabI) - *Mycobacterium tuberculosis* - - skip Summ 2022
 - SEQUENCING RESULT: ?
- SDS-PAGE RESULT: ?

HSRA

Overall Goal - HSRA

- Develop the HRI beta-lactamase plan
 - Test out different targets, IPTG, discs, etc
 - Try KPC-2, NDM-1 (maybe),
 - Try ecDHFR with trimethoprim
-
- Clone a new target YpFabG
- Identify novel inhibitors against and infectious disease target protein (an existing target from the VDS stable of plasmids)
 - EhPTP - express, purify, characterize, enzyme assay, DSF
 - Or maybe FtFabI
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- Clone make GBR22 + Target ?
 - Primary: EhPTP+GBR22

- Secondary: YpDalaDala+GBR22 , KPC-2+GBR22

Specific Aims - HSRA

- Design primers for cloning GBR22 into another plasmid
- Design primers for cloning YpFabG
 - Need GBlocks
-

+++++LINK TO TOP

PROTOCOL LINKS for Copying and Pasting

- Document: [ProtocolLinks_VDSs](#)
- Folder: [ProtocolsVDS](#)

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MENTORS RESEARCH PAGES FROM LAST YEAR

[StudentFoldersVDS_UT](#): To Be Updated for Su22

- FRI Folks: [Annmarie-StudentFolder](#), [Ahya-StudentFolder](#),
[Haily-StudentFolder](#), [Jasmine-StudentFolder](#), [Mahi-StudentFolder](#),
[Nathan-StudentFolder](#), [Maria-StudentFolder](#)
ARI Folks: [Chance -StudentFolder](#), [Annabelle -StudentFolder](#),
[Ethan-StudentFolder](#), [Sofia-StudentFolder](#), [Dr. Govea-Folder](#)

Labnotebook pages To Be Updated for Su22

- FRI: [Haily](#) [Maria](#) [Mahi](#) [Annmarie](#)
- ARI: [Chance](#), [Annabelle](#), [Ethan](#), [Sofia](#), [Dr. Govea](#)

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PAST WEEKS

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WEEK 1 - Monday June 5th - Friday June 9th, 2023

OVERALL ITEMS FOR WEEK (by group)

ALL

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment

ARlers

-

FRlers

- Make plates for HRI project
- Transform plates for HRI project - ? today or another day
- Start testing HRI project
- Unboxing
- Purchasing supplies

HSRA

- Not present Week 1

MENTORS:

- Make dilutions of DNA ladders - ask Dr. B
- Update locations column on Inventory: [InventorySuppliesChecklistVDS](#)

DAY TO DAY ITEMS

Monday - DATE June 5th, 2023 - link to [TOP](#)

ALL

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FRlers

- Welcome!
- Update Daily Conflict schedules on the Conflicts spreadsheet

- Update weekly/monthly conflicts on Landing Page as a comment
- Make plates for HRI project
- Unboxing
- Update locations for each item on the Inventory Spreadsheet
 - [InventorySuppliesChecklistVDS](#)
 - The Location (Primary) column
 -
- Purchasing supplies
- FRI E-mails:
 - milit,
- Wesland

HSRA**ARlers****MENTORS:**

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- Made 30 Kan Plates, 6 Amp Plates, 600 ml of LB (FRI)
- Unboxed supplies
- Purchased supplies (Only 1 of 2 5-alpha needed bought, 0 DNTP bought)

ARI-VDS

- Made LB Agar plates (30 - kan, 13 - amp)
- Autoclaved beakers, flasks, etc
- Made antibiotic stocks (5 of kan/2 of amp)

Tuesday**ALL**

- NOTE, technically for safety compliance, we need to wear long pants even at the front table in lab where we do 'office' stuff.
-

FRlers

- Make more liquid stock antibiotics (Amp + Kan)
 - Each person makes 10 ml of stock
 - 2 folks for AMP
 - Others make Kan

☰ Red_DH5aTransformation+Spindown_Protocol_VDS-FRI

- Transform NDM-1 parent plasmid into DH5a - Pick 2 folks for this: Eli and Sarah
 - Do the truncated version, not the lipidated version
 - For plasmid stock archive
 - For NDM variants

-
- Transform TEM-1 into DH5a (HRI project) - 2 folks
 - For plasmid stock archive
 - For HRI
- Transform EhPTP into DH5a - 2 folks
 - For plasmid stock archive
 - For HRI
 - For expression for enzyme assay testing
-
- Transform pNIC Bsa4 into dh5a - Pick 4 folks for this - 2 folks
 - For plasmid stock archive
 - For practice PCR
 - For cloning
-
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- Pick up primers
-
- Start glycerol stock Parent Plates - all
 - For HRI Project
 - [Making a Parent Plate Protocol HRI](#)
-
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HSRA

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ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

FRI-VDS

- Day 1 of Transformation: NDM-1 into DH5a - Eli and Sarah
- Day 1 of Transformation: TEM-1 into DH5a - Halimot and Kim
- Day 1 of Transformation: EhPTP into DH5a - Arnav and Michelle
- Day 1 of Transformation: pNIC Bsa4 into dh5a - ?

ARI-VDS

- DH5a and BL21 transformation of targets
- Plated d35 NDM-1 to miniprep thursday
- Autoclave flasks, bottles, tubes, etc.
- Assigned NDM variants (1st phase)

Wednesday - link to [TOP](#)

ALL

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FRlers

- Type notes into yesterday's section about who transformed what (see Eli's note)
- Start overnight cultures for miniprep (do this closer to end of the day)
- Start testing HRI project (Start week 2 day 1)
 - [HRIWorkFlowCurriculum v.2](#)
 - Spreading plates protocol
 - [Spreading Plates Protocol HRI](#)
 - Do we have enough plates for this? (teams of 3)
 - High density plate -
 - Medium density plates -
 - Low density plates -
- [SpreadingBacteriaPlates Cotton Swab v2](#) (2:20 min)
- [Antibiotic Discs application](#) (1:38 min)
- Make LB Agar + Kan plates : 6 per person
- ~~Transform TEM-1 into BL21~~ - no - have this as glycerol stock
 - Do we want someone to express and purify this?
- Transform plates for other projects - ?
-
- Primer dilution protocol
 - Each person takes one to dilute
- Purchase miniprep kit if needed @ BioSci storeroom
- Teach VDSers how to make colliroller prep tubes (6 per microcentrifuge tube)
-
- Scrape ice off Gregory - whoever finishes plates first
 - if have time, else carry over to tomorrow
- Practice PCR (? if time) -
 - pLIC-PCR - see
- VR (needs to be done)
 - See top of document

HSRA

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ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

FRI-VDS

ARI-VDS

- Make overnight cultures for miniprep (target and NDM-1), and for glycerol stock (target)
- Made sterile 80% glycerol for cell stocks
- Made 10X TAE buffer (1 Liter)
- Resuspended and Dilute P-Lic Primers
- Made Tris-HCl buffers (SDS-PAGE gels)
- Made purification buffers

Thursday - link to [TOP](#)

ALL

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FRlers

- Check TEM-1 Volume Test
 - Take pics
- Make Antibiotic disc - Amp, Tazo, Amp + Tazo
- Antibiotic Resistance test: Amp, Tazo, Amp + Tazo
 - WAIT ON THIS ? so discs can dry:
-
- Mini-prep, Nanodrop, Submit to DNA Sequencing
- [QIAprep® Spin Miniprep Kit](#)
- PCR pLIC-PCR
- VR

HSRA

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ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- Made antibiotic discs
- miniprep

Friday - link to [TOP](#)

ALL

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FRlers

- *Lab notebook check*
- Every one copy and paste the link to your ResearchPage at the Top
- Analyze DNA Sequence exercise - yes - done
- Target Disco
- **ASSIGN: SOSC**
- Make Antibiotic disc - Cef, Tazo, Cef + Tazo
- Antibiotic Resistance test: Cef, Tazo, Cef + Tazo
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HSRA

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ARlers

- *Lab notebook check*
-

MENTORS:

- *Lab notebook checks*
- Will TACC let us do tours? (TEXas Advanced Computing Center at Pickle)
 - <https://www.tacc.utexas.edu/about/tours/>

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- FRI:
- HSRA:
- ARI:

Saturday**Sunday** - link to [TOP](#)**DELIVERABLES BY END OF WEEK XXXXX****ALL**

- Upload files to: your Student Folder on Google drive or to your [Project](#) Folder
- Document your workflow in your paper Labnotebook
- Upload highlights to: [ResearchPages](#)
 - This should be several of your 'results' for the week (images, graphs, data)
- Prepare materials for Sharebacks next
 - [ShareBackSlidesSu21_FRI_ARI_HSRA](#)
 - This should be 1-2 slides of your highlight for the week

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WEEK 2 - Jun-12 Monday**OVERALL ITEMS FOR WEEK (by group)****ALL**

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment

ARlers

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FRlers

- Target Disco
- **ASSIGN: SOSC**
- Continue HRI project testing
 - Antibiotic Resistance test: Amp, Tazo, Amp + Tazo
 - Antibiotic Resistance test: Cef, Tazo, Cef + Tazo
- Grow up pGBR22 for RE digest
- PCR pLIC-PCR
- Plasmid Stock Depositions
 - Nanodrop
 - Submit to DNA Sequencing (new AGCT protocol)
- Start Target work

- GBlock design and ordering - FRI & HSRA (don't need to do this yet, since need to get V-PIPE working first)
 - Pick 2-4
- VR headsets for those that didn't get to it?
- VS Phosphatase revisit?

HSRA

- Anusri
- Sadie
- Harsha
- Kayla
- Maxim
- Omkar
- Simon
- Triyatha

GUIDELINES

- Note, 2 DI's present at all times with HSRA, Remind App can be used at anytime
- Email is only 8am-6pm M-F
- No SLACK, no GroupMe, no Social Media
- HSRA students can have their own communication group on these type of methods, but DI's can be a part of this
- Sign In & Sign out - but once you sign out for day, you cannot return to lab.
 - So no trips away from lab unless with 2 DIs (e.g. grabbing a coffee)
 - 5 min restroom breaks can be solo
- Wed afternoon talks each week
 - Need 2 DI escort to get there.
- No Google Docs
 - So must print protocols
 - UT Box is ok, Canvas is OK

MENTORS:

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DAY TO DAY ITEMS

Monday - DATE June 12th

ALL

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FRIers

- Target Disco?

- ASSIGN: SOSC

- Transform pGBR22, mini prep, use for RE digest - only 2 people need to transform (DH5alpha)
 - Next day, Make lots of tubes for miniprep since we need lots for RE digest
 - Alt: use pNIC-Bsa4, have HSRA do? - wait
- Plasmid Stock Depositions
 - Nanodrop
 - Submit to DNA Sequencing (new AGCT protocol)
-
- Continue HRI project testing
 - Antibiotic Resistance test: Amp, Tazo, Amp + Tazo
 - See [HRIWorkflowCurriculumVirtualCures v.2](#) for protocol
-

HSRA

- **HSRA Welcome event 1pm**
 - 1pm Welcome event, Dr. B and 2 DIs needed
- Show Turtle Pond as emergency (alternative is canoes)
- Sign in on sheet
- Lab Safety Walk Through - Sylvia, Quoc? (or Mia)?
- Participants should complete all EHS required UT Learn Training modules BEFORE they begin any lab work.
 - Dr. B to do:
 - [Attendance Sheets \(submit PDF scan of attendance sheet\)](#)
 - [Site-specific safety sheet\(s\) \(submit PDF scan of site-specific safety sheet\(s\)\)](#)
-
- Get notebooks
-
-

ARlers

- Whatever Jose and Lorena say

MENTORS:

- ToDo: mentors, pick one piece of super old equipment to decontaminate and send to surplus. Check with Dr. B which items are good.
 - Call EHS @ UTexas or look up on their webpage on how to decontaminate and discard
 - can work on this anytime this week
 - Enter your name and what you chose to decontaminate here:
 - MENTOR1:
 - MENTOR2:

- MENTOR3:
- MENTOR4:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).. - Quoc

-

Tuesday

ALL

- **SHAREBACKS & Journal Club**
 - Note: these may adjust day from week to week

-

FRlers

- **SHAREBACKS & Journal Club**
- Check and image plates from HRI project testing
- Spin down overnight samples (in tubes) for miniprep later
- Bring in SOSC
- PCR pLIC-PCR
- Make new antibiotic discs

-

HSRA

- **SHAREBACKS & Journal Club**
- Sign in on sheet
- Upload lab safety training documentation to UTBox (maybe send to Dr. B)
- Precision & Accuracy Lab from Spring
-
- Make Parent Plate for TEM-1
 - Be sure we have some plates
- Look at this. Don't need to do anything yet:
 - [NEW! : HSRA Participant Poster Template for poster symposium on Wednesday, July 19.](#)

-

ARlers

- **SHAREBACKS & Journal Club**

-

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....- Quoc

- FRI: Made more antibiotic disks
 - Spun down backup cultures of their individual plasmids
 - Started small culture of PGBR22 for miniprep
 - Made autoinduction broth but havent autoclaved
 - miniprep ehptp

- Plasmid deposition of ehptp, ndm1, tem1
- Starter culture of ehptp bl21 (flasks and tube)
- Transformed tem1 into bl21
- Made 80% glycerol solution
- HSRA:
- ARI:

Wednesday

2-3:50 - Middle schoolers visit

ALL

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FRlers

- Make plates
- Spin down and MiniPrep of pGBR22
- Antibiotic Resistance Testing
 - Amp + Tazo
 - Spreading plates - e.g hi, med, lo
- Make Cefdinir Discs , Cef + Tazo, Tazo discs
- Making EhPTP overnight culture in 5ml of LB x 6 tubes of BL21(DE3)
 - For making glycerol stocks of EhPTP - as the control cell line for the HRI project
- Overnight cultures of pNIC Bsa4
- Target discovery

HSRA

- Sign in on sheet
- Sign in to REMIND app - Dr. B getting permissions
- Talk about HRI project
- LB Media protocol (HRI project way)
- Make plates (HRI project way)
- Make a glycerol stock of EhPTP (BL21DE3) - FRI is startin this today
-
- SAVE for later
 - Dilute primers pLic For pLic Rev
 - VPIPE or regular sequencing/cloning primers???
- SAVE for later
 - Transformation of pNIC-Bsa4
 - Transformation of TEM-1
-

ARlers**MENTORS:**

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow)..... - **Quoc**

- FRI: overnight culture of EhPTP and pNICBsa4.
 - Minipreped purple protein.
 - Antibiotic disk spreading for HRI
 - Made more disks
 - PCR DNA was prepared but not run yet.
- HSRA:
- ARI:

Thursday**ALL****FRlers**

- Run your PCR
- Make some extra plates - **punt to Friday**
- Check DNA Sequencing - **punt to Friday**
-
- Check Antibiotic resistance test plates of AMP, + Tazo discs - DONE
 - Image and analysis
- Antibiotic Resistance Testing
 - Cef + Tazo
 - Spreading plates - pick Lo or Med only
- Transform EhPTP into BL21 DE3 - yes, do this (Michelle, Aira)
- Grow 10x overnight cultures of EhPTP in Dh5alpha - Arnav
- Remake some AMP + Tazo discs using the sequential method (10 min AMP, then add TAZO drop, wait 10 more minutes) - **move to Friday**
-
- WAIT ON THESE:
 - Transform Targets into Dh5alpha and BL21 de3 ? - wait on this
 - Target Disco - wait on this til Friday?
 - iCN3d walkthrough?
 - Make Antibiotic disc - SOSC Hi, Med, Lo - wait til Friday
 - Antibiotic Resistance test: SOSC (?) - but need time for discs to dry?
-

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HSRA

- Sign in on sheet
- Make plates (HRI protocol) - repeat - DONE
- Glycerol Stock of control- EhPTP - use some of what FRI grew up - WIAT (can't do this yet because it didn't grow)
- Make LB Broth (HRI protocol) - DONE
- pNIC-Bsa4 Transformation in DH5a (half- use pre-made plates) - DONE
- Transform TEM-1 in DH5a (half, use pre-made plates) - DONE
- (If possible) make High, Medium, Low density plates (use plates made today)
- Parent plate EhPTP

ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow)..... - **Quoc**

- FRI:
- HSRA:
- ARI:

Friday**ALL**

- *Lab notebook checks*
- GBlock design and ordering - FRI & HSRA ?

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FRIers

- *Lab notebook checks*
- *Fill out [TargetSelectionFormSumm2023](#) if you haven't already*
- Finish making plates LB+agar + kan
- GBlock design and ordering - FRI & HSRA ?
 - [ProtocolPCR_GBlockDesign_VDS_v1](#)
 - For the 4 cloning [Targets](#)
- Spin down EhPTP Dh5alpha overnight cultures (Michelle)
 - Next week: Miniprep, submit to Sequencing, Plasmid Stock Deposition
- NOTE: the TEM-1 containing cells that we have MAY have kicked out the plasmid
 - This could explain our initial Antibiotic Resistance results
 - How to test, do a miniprep on them (I think we are doing this?)

- No, would need to do on BL21DE3 cells (from the glycerol stocks)
-
- Make more Amp + Tazo discs
- Re-do Antibiotic Resistance Testing with Amp + Tazo discs
 - Use HIGHER concentration of Tazo (since doesn't seem to work with current concentration)
- SAVE FOR NEXT WEEK
 - Agarose gel of PCR
 - Re-run PCR if failed
 - Prepare autoinduction media
 - Protein Expression of EhPTP
 - SOS test
 - V-Pipe cloning

HSRA

- Sign in on sheet
- *Lab notebook checks*
- Get plates out of incubator
- GBlock design and ordering - FRI & HSRA ?
- iCN3d walkthrough
- Dilute primers pLic For pLic Rev
 - VPIPE or regular sequencing/cloning primers???
- Analyze DNA Sequence Exercise ?
- Make Antibiotic Discs - Amp + Tazo (but we don't have new Tazo yet)

ARlers

- *Lab notebook checks*
-

MENTORS:

- *Lab notebook checks*
- Get **Site Specific Training sheet** for HSRA folks - get image and send to Dr. B to upload to HSRA
- Get image of **weekly sign in and sign out** and send to Dr. B

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow)..... - **Quoc**

- FRI:
- HSRA:
- ARI:

Saturday

Sunday

DELIVERABLES BY END OF WEEK XXXXX

ALL

+++++[LINK TO TOP](#)

WEEK 3 - Jun-19

HSRA off for Juneteenth

FRI - off

OVERALL ITEMS FOR WEEK 3 (by group)

ALL

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment

ARlers

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FRlers

- Overexpress EhPTP in BL21DE3 cells, purify, characterize
 - Use newly transformed plate (did we do this last Thursday?)
- Overexpress TEM-1 in BL21DE3 cells, purify, characterize
 - Use glycerol stock
- Start VPipe PCR for PCR cloning
- Plasmid Stock Depositions on first plasmids you grew up in week 1
 - Plasmid Stock Depositions on EhPTP (Michelle and Arnav are lead on this)
 - Plasmid Stock Depositions on TEM-1 (who is lead on this)
 - Plasmid Stock Depositions on pNIC-Bsa4 (who is lead on this)
- Transform Target Plasmids into DH5alpha and BL21(DE3)
- Start Plasmid Stock Depositions on Target Plasmid
- Make glycerol stock of EhPTP in BL21DE3 - for HRI project
- VR Goggles
- Virtual Club (optional)

HSRA

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MENTORS:

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DAY TO DAY ITEMS

Monday - DATE June 19th

ALL

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FRlers

- off for Juneteenth

HSRA

- HSRA off for Juneteenth

ARlers

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow)..... - Quoc

- FRI:
- HSRA:
- ARI:
-

Tuesday

ALL

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FRlers

- Discuss strategy for week w/ Dr. B
- Transformation of TEM-1 into BL21
- Make Autoinduction broth (media)
- Start Overexpress EhPTP in BL21DE3 cells, purify, characterize
 - [ProtocolAutoinductionARI_VDS](#)
 - Use newly transformed plate (did we do this last Thursday?)
 -
- ADDED: Miniprep of overnight cultures of EhPTP (not sure if Dh5alpha or BL21)
 -
- Agarose gel check of pLIC-PCR (MOVE THIS TO WEDNESDAY?)
 - Re-do if failed
- Make autoinduction broth (500 ml per person)
 - Need LB for starter culture (about 50 ml per person)

-
- Plasmid Stock Depositions on first plasmids you grew up in week 1
 - Plasmid Stock Depositions on EhPTP (Michelle and Arnav are lead on this)
 - Plasmid Stock Depositions on TEM-1 (Kim and Sarah?)
 - Plasmid Stock Depositions on pNIC-Bsa4 (Halimot and Aira?)
-
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-
- Start overnight cultures of 8 x EhPTP i BL21DE3 - for glycerol stocks
 -
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- VR Goggles (for a specific few)
 - Schedule a time with Xander or Libby
 - See top of document
- Virtual Club (optional) - times TBD

HSRA

- Transformation of TEM-1 into BL21
 - For HRI project
- STARTING tomorrow: Overexpress TEM-1 in BL21DE3 cells, purify, characterize
 - Use newly transformed
-
- Make antibiotic discs (Amp, Tazo, Amp+Tazo) - done
-
- Overnight culture of TEM-1 in DH5alpha for eventual miniprep
- Overnight culture of pNIC-Bsa4 in DH5alpha for eventual miniprep

ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

ARI-VDS

Wednesday

2-3:50 - Middle schoolers visit

ALL

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FRliers

- Autoclave Autoinduction broth (media)
- Near end of day, start large culture for EhPTP protein expression
-
- Transform Target Plasmids into DH5alpha and BL21(DE3) - wait til WED
 - Start Plasmid Stock Depositions on Target Plasmid

Box	Plasmid	Location
Students	YpDalaDala	A11
Archive Box A	PfFabG	A35 (Eli and Arnav also try to scrape cells from an old plate)
Students	SaDalaDala	A43
Go to ARI	YpFabV	Aira scraping cells from an old plate
Students	SaDHFR	A25

- make glycerol stocks of EhPTP in BL21DE3 for the HRI project
 - From the 8 tubes you grew up yesterday
- If 1st PCR worked? : Start VPipe PCR for PCR cloning
- Re-test new TEM-1 with Amp, Tazo, A+T, Cef, C+T
- Test EhPTP with Amp, Tazo, A+T, Cef, C+T
- SOSC stuff
- VR Goggles (for a specific few)
 - Schedule a time with Xander or Libby
 - See top of document
- Virtual Club (optional) - times TBD

HSRA

- Overexpress TEM-1 in BL21DE3 cells, purify, characterize -
 - Use newly transformed
- Make Basebroth
- Mini-prep yesterdays' overnight cultures
- Nanodrop of miniprep - option to wait on this
- Send to sequencing - option to wait on this
- iCn3D - probably Thursday or Friday

- Primer dilution
- pLIC-PCR - wait on this
- Dilute new TEM-1 plasmid (called TEM-1b) - wait til Thursday
- Transform into DH5alpha and BL21(DE3)

ARlers

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MENTORS:

- biowaste - submit a request for pickup? - Quoc assign to another mentor to do
- Unboxing
-

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

FRI- made 18 agar plates and 400 mL LB media

Made SOSC plates

- autoclaved autoinduction broth
- transformed target plasmids into DH5a
- overnight cultures of Ehptp (transformation tubes)
- antibiotic disks with experimental sharpie

Thursday**ALL**

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FRlers

- RESULT: we can do the dots for HRI project discs.
 - Because the controls showed no difference
- @ end of day - Continue EhPTP protein expression - Day 2
-
- Check Transformation of Target Plasmids into DH5alpha - wait til WED
 - Start Plasmid Stock Depositions on Target Plasmid
 - Start w/ o/n culture of DH5alpha x 6-8 tubes
- Transformation of Target Plasmids into BL21(DE3) -
- make glycerol stocks of EhPTP in BL21DE3 for the HRI project
 - From the 8 tubes you grew up yesterday?
- Agarose Gel check of 1st PCR
 - [Protocol Agarose Gel DSv3](#)

-
- If 1st PCR worked? : Start VPipe PCR for PCR cloning
- Start with primer dilution of VPipe primers
-
- SOSC stuff
- VR Goggles (for a specific few) - **Halimot, Arnav**
 - Schedule a time with Xander or Libby
 - See top of document
- Virtual Club (optional) - work via SLACK channel
-
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HSRA

- Overexpress TEM-1 in BL21DE3 cells, purify, characterize (did we start this? - no so - save til Week 4)
 - Use newly transformed plate
- Make Basebroth (for expression), autoclave it - (could save this for Friday or Monday)
- Move plates into fridge EhPTP and TEM-1 in BL21 cells
 - Do a test culture of these to make sure they grow (tube of 5ml of LB + kan)
- Miniprep
 - pNIC and TEM1
- Nanodrop of miniprep -
 - pNIC and TEM1
- Send to sequencing
- iCn3D - probably Thursday (afternoon) or Friday (afternoon)
-
-
- Dilute new TEM-1 plasmid (called TEM-1b) - wait til Thursday
 - Amount is 4 micrograms, want about 100 ng/ul.
 - What is the amount it should be diluted in? Show your calculations
 - Dilute in TE
 - Leave the original Stock in the Genscript blue/white box. We will make new sample for the plasmid archive.
- Transform new TEM-1b into DH5alpha and BL21(DE3)
 - Next day grow up o/n cultures for miniprep and plasmid stock archive
-
- pLIC-PCR

ARlers

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MENTORS:

@2:30 - Quoc (or other mentor - pick up hot plate from the electronics shop in Welch (that was repaired)

Each mentor - dispose of one old piece of equipment. Verify it w/ Dr. B first.

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- Transformation of targets into bl21
- Glycerol stock of ehptp in bl21
- Overnight culture starter of target plasmid in dh5a
- Made sugar mix
- Placed antibiotic disks in

Friday**ALL**

- SHAREBACKS & JOURNAL CLUB @1:00 pm
 - Postpone Journal Club - Hsp90 paper
- *Lab notebook checks*
-
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FRlers

- Go ahead and make sugar mix today and save it in fridge.
- Plasmid Stock Deposition of Target Plasmids
 - Check overnight cultures, spin down and miniprep (could save the miniprep part til monday), nanodrop and send to sequencing
- Nanodrop the pGBR22
- https://docs.google.com/document/d/1-rJdXzIjZL8cvAKC-LQwoB0y_RXLtoMGa_cmHaEcFEg/edit link of doc with pics of nanodrop
- Repeat PCRs if failed
 - If 1st PCR worked? :
-
- VR Goggles (for a specific few) - **Lucy, Aira**
 - Schedule a time with Xander or Libby
 - See top of document
- Virtual Club (optional) - work via SLACK channel
-
- MOVE TO NEXT WEEK (4)
 - Re-start EhPTP expression next week

- Target expression - stagger by 1 day (e.g. start Tuesday)
- If 1st PCR has worked, then do VPipe PCR for PCR cloning
 - Start with primer dilution of VPipe primers
- RE digest of pGBR22
- NDM Variants primers design

HSRA

- Overexpress TEM-1 in BL21DE3 cells, purify, characterize (did we start this? - no so - **save til Week 4**)
 - Use newly transformed plate
- Make Basebroth (for expression), autoclave it - (could save this for Friday or Monday) -
- RESULT: we have a few plates of TEM1b in BL21 cells
 - SYLIA AND QUOC are making a plate of TEM1b in Dh5alpha cells
- Move plates into fridge EhPTP and TEM-1 in BL21 cells
 - Do a test culture of these to make sure they grow (tube of 5ml of LB + kan)
- Nanodrop of miniprep - continue for others
 - pNIC and TEM1
- Send to sequencing
- iCn3D - Friday (afternoon)
- Grow up culture of TEM1b in BL21 for Glycersol Stokcs - SAVE FOR WEEK \$
-
- Transform new TEM-1b into DH5alpha and BL21(DE3)
 - Next day grow up o/n cultures for miniprep and plasmid stock archive
-
- pLIC-PCR - Save for Week 4
-

ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- FRI:
 - Nanodrop of pGBR22
 - Spin down of target plasmid in DH5a
 - Made sugar mix
 - Decanted spin down post centrifuging

- Aira miniprep target plasmid from DH5a
-
- HSRA:
- ARI:

Saturday

Sunday

DELIVERABLES BY END OF WEEK XXXXX

ALL

+++++ [LINK TO TOP](#)

WEEK 4 - Jun-26 Monday

OVERALL ITEMS FOR WEEK 4 (by group)

ALL

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment
- Journal Club #2 - shifted from last week

ARLers

-

FRlers

- EhPTP expression, purification to storage
- Target protein expression,
- PCRs practice then PIPE cloning PCRs (VPipe)
- NDM-variant primer design
- Tail Primer Design & Ordering
 - [ProtocolPCR_PrimerDesignTails_for_PIPE_CloningVDS](#)
- WEEK 5:
 - Make Homemade SDS-Page gels
 - EhPTP characterization,
 - EhPTP enzyme assay test
 - Target protein purification, characterization
 - NDM Variants PCR (Site Directed Mutagenesis - SDM)
 - Pipe PCRs and cloning

- Ultimate goal: deposit to AddGene ([Beckham depositions](#))

HSRA

- TEM-1b testing vs TEM-1 vs EhPTP
 - RESEARCH QUESTION: does the TEM-1b containing plasmid confer antibiotic resistance to AMP, Cefdinir, and those two plus Tazobactam? Does it require induction to do this?
- Express TEM-1 and TEM-1b - small scale ??
 - Do autoinduction
 - Do we have a TEM-1 BL21 plate?
- ~~- Express EhPTP - small scale~~
 - RESEARCH QUESTION: can we produce exogenous protein in good quantity and of the correct molecular weight.
- Practice PCR & Agarose gel
- Tail Primer Design & Ordering
 - [ProtocolPCR_PrimerDesignTails_for_PIPE_CloningVDS](#)
- WEEK 5:
 - TEM-1b testing vs TEM-1 vs EhPTP continued?
 - Try IPTG induction of TEM-1b vs TEM-1
 - Purify TEM-1 and TEM-1b, Characterize
 - PIPE cloning PCRs
 - RESEARCH QUESTION: can we synthesize a new inducible plasmid containing the target gene of interest
 - [Protocol pNIC-Bsa4_PIPEcloningVDS_v5b_wQ5](#)
 - [pNIC28-Bsa4.pdf](#) (info sheet on pNIC-Bsa4 plasmid)
 - Journal Paper: [PipeCloning.pdf](#)

MENTORS:

-

DAY TO DAY ITEMS

Monday - DATE June 26th, 2023

ALL

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FRlers

- Large scale protein expression - EhPTP - done
- Make more (2L) autoinduction broth for tuesday large scale protein expression
- 500 mL more sugar mix - done
- NDM Variants primers design ? - **comp lab - done in wet lab**
 - [SiteDirectedMutagenesisRegularPCR_Protocol_VDSv1](#)

- [Protocol_PrimerOrderingInstructionsVDS_v2b](#)
- [NDM-1 Variants Sheet](#)
- Plasmid Stock Deposition of Target Plasmids
 - nanodrop and send to sequencing (did Nanodrop)
- Nanodrop the pGBR22- use the DNA setting now. (does not need to happen today) - DONE
 - https://docs.google.com/document/d/1-rIJdXzIJzL8cvAKC-LQwoB0y_RXLt_oMGacmHaEcFEg/edit link of doc with pics of nanodrop
- pLIC pcr redo & agarose gel
 - If 1st PCR worked? :
 - If 1st PCR has worked, then do VPipe PCR for PCR cloning
 - Start with primer dilution of VPipe primers
 - [ProtocolPrimerDilutionVDS](#)
-
- VR Goggles - **Lucy**
 - Schedule a time with Xander or Libby
- Virtual Club (optional) - work via SLACK channel
-
- RE digest of pGBR22 (or wait?)
-

HSRA

- Make Basebroth (aka autoinduction media) (for expression), autoclave it
 - Make 500 ml - DONE
 - Use this as guide. Adjust volumes: [ProtocolAutoinductionARI_VDS](#)
- Make LB Agar + Kan plates, autoclave it - DONE
 - [ProtocolLBAgarKan+SucPlatesVDS](#)
- iCn3D - **comp lab** (Move to Tuesday?) - up to and including activity 2. Some started on 3.
 - [iCn3D Beta-lactam Protocol VDS - Google Docs](#)
- Make sugar mix, do NOT autoclave it - DONE ???
 - Make 100 ml
 - Use this as guide. Adjust volumes: [ProtocolAutoinductionARI_VDS](#)
- Do we have new plates of TEM-1, TEM-1b - yes
- Make glycerol stocks of **TEM-1, TEM1b , and EhPTP** - use BL21(DE3)
 - Start o/n cultures at end of day today - DONE
 - 2 tubes of each
- Make antibiotic discs (AMP, TAZO, AMP + TAZO) - could wait til Tues or Wed for this

- **NEED TO INCREASE TAZO amount (no, recommended is 30 ug/ml which is close to 50 ug/ml of AMP)**
- Start Small scale protein expression - TEM1 and TEM1b
 - Start in late afternoon
 - [LabProteinExpressionAutoVDS-FRI](#)
-
- Send to sequencing (pNIC and TEM1 from DH5alpha cultures that you miniprepped last week)
- Plasmid Stock Deposition for TEM1b - in Dh5alpha (MAYBE WE HAVE THESE MINIRPEPS already)
 - Grow up o/n cultures, miniprep, nanodrop, send to sequencing, deposit once confirmed. In Archive, in Stocks, in Dr. B's stash.
- pLIC-PCR ? (wait)
-

ARlers

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

-

Tuesday

ALL

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FRlers

- Continue protein expression EHPTP (large culture)
- Start protein expression - Target proteins
- pLIC pcr redo & agarose gel
 - If 1st PCR worked? :
 - If 1st PCR has worked, then do VPipe PCR for PCR cloning
 - Start with primer dilution of VPipe primers
 - nanodrop DH5a
 - https://docs.google.com/document/d/10xMgZ9Y5GQzDiINra_1GzbQ8rAJxrWWaGFwyuiMs_jY/edit
-
- Plasmid Stock Deposition of Target Plasmids
 - send to sequencing
- Virtual Club (optional) - work via SLACK channel
- VR Goggles - **Lucy**

- Schedule a time with Xander or Libby

HSRA

- OPTIONAL: undergrad Q&A panel for our HSRA students on Tuesday, June 27 from **11am-noon** in [POB 2.302](#). (we would need to provide 2 DI mentors to go with you)
- Continue - Small scale protein expression - TEM1 and TEM1b and EhPTP
 - Start large culture (small scale)
-
- Make glycerol stocks of **TEM-1, TEM1b , and EhPTP** - see protocol
- Make Parent plate of TEM1, TEM-1b, EhPTP in BL21DE3
 - Use the glycerol stocks
-
-
- Make antibiotic discs (AMP, TAZO, AMP + TAZO) - could wait til Wed for this
-

ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

FRI:

Glycerol stored target protein in BL21, nanodrop DH5a target and sent for sequencing, made large culture of EHPTP for autoinduction, made small culture of BL21 cells of target for autoinduction, PCR of vPIPE, masterplate of BL21 cells of FabV

ARI-VDS

Wednesday

2-3:50 - Middle schoolers visit

ALL

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FRlers

- Spin down EhPTP large culture
 - Sonicate and store o/n EhPTP (don't do HiSpeed spin down yet)
 - Collect ALL samples for gel
 - [BeckmanCentrifugeProtocol](#) (updated 10/20/22)
 - Video protocol:

- [Beckman Centrifuge Protocol Overview VDS \(w/ Speed charts\) - Dr.B](#)
~10min
- [ProtocolAutoinductionARI_VDS](#)
- [ProtocolSonication_VDS](#)
- Continue Target Protein expressions. (day 2)
- RE Digest pGBR22 ?
- If 1st PCR has worked, then do VPipe PCR for PCR cloning
 - Start with primer dilution of VPipe primers
 - [ProtocolPrimerDilutionVDS](#)
- VR Goggles - **Lucy**
 - Schedule a time with Xander or **Libby** (Done @ 3:30pm)
 - Still need to schedule w/ Halimot and Aira (probably Friday)
- Virtual Club (optional) - work via SLACK channel

HSRA

- Spin down for - Small scale protein expression - TEM1 and TEM1b and EhPTP
 - Make buffers for purification -
 - Use Buffers & Solutions -
 - [LabBuffersandSolutions](#)
 - Then use Purification protocol -
 - [LabProteinPurificationVDS](#)
- Volume test on TEM-1, TEM-1b, and EhPTP
 - Use the parent plates
 - n=1, divide up 1 person does TEM-1, one does TEM-1b, one does EhPTP
- [Sequencing ACGT ProtocoVDS](#) - check sequences
-
- iCn3D - continue Activity 3
 - [iCn3D Beta-lactam Protocol VDS - Google Docs](#)
- Check out some Video Protocols
 - <https://sites.google.com/site/vdsstream/vdsportal/videoprotocols?authuser=0>

ARlers

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

Thursday

ALL

- SHAREBACKS & Journal Club 1:30 pm
- [SHAREBACKS](#)
- FYI
 - **Fall Undergraduate Research Symposium (FURS)** September 23rd, 10:30am - 4:30pm:
RLP 0.1xx floor
 - Venue for student research talks - includes UT and non-UT students
 - Talks are generally short, 8 min. Preference for some data, but not essential
 - Science Slams are ~3 min research presentations for a more general audience
 - [Abstract submission information can be found here](#)
 - [Need judges \(and perhaps moderators\): Sign up here!](#) (bottom of the page)
 - Faculty, postdoc, grad, and undergrad judges needed
 - Sessions are generally 1 hr. So, you can be there for an hour, eat some pizza, and then leave... or you can stay the whole time and see...
 - Keynote speaker: Alexander Huth - "mind-reading AI"
<https://www.nature.com/articles/s41593-023-01304-9>
 - **FRI Fall Seminar Series will be back in 2023. Open to all FRI students+mentors to present to a friendly FRI audience**
 - [In 2022, had 10 sessions](#), featuring 40 speakers from 15 streams
 -

FRlers

- SHAREBACKS & Journal Club 1:30 pm : [SHAREBACKS](#)
-
- Sonicate and store o/n EhPTP (don't do HiSpeed spin down yet)
 - [ProtocolSonication_VDS](#)
- Spin down Target protein large culture (low speed spin down)
 - Save pellets in -80degC (in Ziploc or tube - not bottle)
- Check Target Sequencing Results
 - <https://docs.google.com/document/d/1quE98gnw5uPs7bYDAbgCA7Xpl9OGuTPNoeZQGEOuaro/edit?usp=sharing>
- Virtual Club (optional) - work via SLACK channel

HSRA

- SHAREBACKS & Journal Club 1:30 pm [SHAREBACKS](#)
-
- Start on posters (see Week 2 for link to template)

- Or Better Posters
 - <https://www.youtube.com/watch?v=SYk29tnxASs>
 - <https://osf.io/6ua4k>
 -
-
- Check out some Video Protocols
 - <https://sites.google.com/site/vdsstream/vdsportal/videoprotocols?authuser=0>

ARlars

- SHAREBACKS & Journal Club 1:30 pm [SHAREBACKS](#)
-

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

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Friday**ALL**

- *Lab notebook checks*
-

FRlars

-
- Add Overall Goal and Specific Aims for each project to your Research Pages
 - Copy template section from here:
[TEMPLATE YEAR UTEID NAME ResearchPageVDS](#)
 - And copy specific lines from Huberts' fall:
 - [Fall2022_hj7654_Hubert_ResearchPageVDS](#)
 -
- Sonicating,
- PROBABLY SAVE TIL NEXT WEEK: Hi Speed spin down, and Purification and glycerol store EhPTP
 - Collect ALL samples for gel
 - Nanodrop today or monday
- Make Homemade SDS-Page gels for next week?
- Tail Primer Design & Ordering
- Pick up NDM variant primers
- VR headsets? (Halimot, Aira)
- Virtual Club (optional) - work via SLACK channel

HSRA

- Need to make plates
- Dilute G blocks
- Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP

- [AntibioticResistanceTestingProtocol HRI](#)
- Use newly spread plates: pick either Hi, Med, or Low based on your results from yesterday
- Let them sit over Friday night - Sylvia or Dr. B will get them.
 - It's ok for these to sit. Even though they will be dried out - we won't re-grow from them .
- [Protocol pNIC-Bsa4_PIPEcloningVDS_v5b_wQ5](#)
 - [pNIC28-Bsa4.pdf](#) (info sheet on pNIC-Bsa4 plasmid)
 - Journal Paper: [PipeCloning.pdf](#)
- iCn3D - continue Activity 3
 - [iCn3D Beta-lactam Protocol VDS - Google Docs](#)
- Verify sequencing results
- NEXT WEEK: Purification - save til 4th of July Week
 - [LabProteinPurificationVDS](#)
- NEXT WEEK: Characterization: Prep samples for SDS-PAGE gel (maybe run it next week)
 - [LabProteinCharacterizationVDS](#)
-
-

ARlers

- Add Overall Goal and Specific Aims for each project to your Research Pages
-

MENTORS:

- Test and label internet ports on north wall. Label date and which ones work.

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- FRI:
- HSRA:
- ARI:

Saturday

Sunday

DELIVERABLES BY END OF WEEK 4

ALL

+++++LINK TO TOP

WEEK 5 - Jul-3 Monday

HSRA off for July 3rd, and July 4th
FRI and ARI off as well on the 3rd and 4th.

OVERALL ITEMS FOR WEEK 5 (by group)

ALL

- Update Daily Conflict schedules on the Conflicts spreadsheet
- Update weekly/monthly conflicts on Landing Page as a comment
- No Sharebacks nor Journal club this week

ARlers

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FRlers

- VPipe continue
- iPipe - attempt
- Protein work

HSRA

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MENTORS:

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DAY TO DAY ITEMS

Monday - DATE July 3rd, 2023

ALL

- OFF FOR HOLIDAY

FRlers

- OFF FOR HOLIDAY

HSRA

- OFF FOR HOLIDAY

-

-

ARlers

- OFF FOR HOLIDAY

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

-

Tuesday

ALL

- OFF FOR HOLIDAY

-

FRlers

- OFF FOR HOLIDAY

HSRA

- OFF FOR HOLIDAY

-

ARlers

- OFF FOR HOLIDAY

-

MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

ARI-VDS

Wednesday —————

2-3:50 - Middle schoolers visit

ALL

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FRlers

- Add Overall Goal and Specific Aims for each project to your Research Pages
 - Copy template section from here:
[TEMPLATE_YEAR_UTEID_NAME_ResearchPageVDS](#)
 - And copy specific lines from Huberts' fall:
 - [Fall2022_hj7654_Hubert_ResearchPageVDS](#)
- Hi Speed spin down, and Purification and glycerol store EhPTP
 - [ProtocolProteinPurification_ARI-VDS_v4d](#)
 - Collect ALL samples for gel

- Nanodrop today or monday
- Make Homemade SDS-Page gels - if not done already
- Tail Primer Design & Ordering - if not done last week NOTE: not everyone did this - but HSRA designed all of them.
 - We may revisit next week so that all FRIers have the experience
-
- VPipe continue until working
-
- VR headsets?
- Virtual Club (optional) - work via SLACK channel
 - 4pm Virtual Club Zoom
- Sonicate, (Option to save in freezer), Hi-speed spin, purify - Target protein

HSRA

- Tail Primer Design & Ordering
 - [ProtocolPCR_PrimerDesignTails_for_PIPE_CloningVDS](#)
 - **Targets**
 -
- Agarose Gel of VPipe
 - [Protocol Agarose Gel DSv3](#)
- Purification - MOVE TO TOMORROW (Thursday)
 - [LabProteinPurificationVDS](#)
-
- Make Cefdinir (or use existing?) - USE EXISTING \$\$\$
- Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For Cefdinir, Tazo
- IPTG induced Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For AMP, Tazo
 - Added guidance for IPTG to the protocol
- IPTG induced Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For Cefdinir, Tazo
- Pick and bring in SOSC
- Check (and re-run?) VPipe PCR
 - [Protocol pNIC-Bsa4_PIPEcloningVDS_v5b_wQ5](#)
 - [pNIC28-Bsa4.pdf](#) (info sheet on pNIC-Bsa4 plasmid)
 - Journal Paper: [PipeCloning.pdf](#)
- iCn3D - continue Activity 3
 - [iCn3D Beta-lactam Protocol VDS - Google Docs](#)
- Verify sequencing results
- Plasmid Stock Deposition - TEM1, TEM1b, EhPTP(?)

ARLers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

Thursday —————

ALL

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FRlers

- Purification & storage - EhPTP
- Finish making SDS-Page gels
- Characterize - EhPTP ?
 - [ProtocolProteinCharacterization_ARI-FRI-VDS_v2c](#)
- Sonicate, (Option to save in freezer), Hi-speed spin, purify, glycerol store - Target protein
 - nanodrop
- Make more SDS-Page gels - for Target proteins
-
- Hi Speed spin down, and Purification and glycerol store EhPTP
 - [ProtocolProteinPurification_ARI-VDS_v4d](#)
 - Collect ALL samples for gel
 - Nanodrop today or monday
-
- EhPTP Plasmid Stock Deposition Sequencing Analysis
 - <https://docs.google.com/document/d/1rl44jtudWBtShMQFHJUB73mxte54cMRxDurWDRssR88/edit?usp=sharing>
-
- VPipe continue until working
-
- VR headsets?
- Virtual Club (optional) - work via SLACK channel
-

HSRA

- Purification -
 - [LabProteinPurificationVDS](#)
- Make Cefdinir (or use existing?) - USE EXISTING \$\$\$
- Make Discs: Cefdinir, Cef + Tazo, Tazo

- Make more Amp discs if needed, more A+T if needed
- Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For Cefdinir, Tazo
 - Note: these ones have no iptg
- IPTG induced Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For **AMP**, Tazo
 - Dr. B added guidance for IPTG to the protocol
- IPTG induced Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For **Cefdinir**, Tazo
- Pick and bring in SOSC
- Check (and re-run?) VPipe PCR
 - [Protocol pNIC-Bsa4 PIPEcloningVDS v5b wQ5](#)
 - [pNIC28-Bsa4.pdf](#) (info sheet on pNIC-Bsa4 plasmid)
 - Journal Paper: [PipeCloning.pdf](#)
- iCn3D - continue Activity 3
 - [iCn3D Beta-lactam Protocol VDS - Google Docs](#)
- Verify sequencing results
- Plasmid Stock Deposition - TEM1, TEM1b, EhPTP(?)
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ARlers

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MENTORS:

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

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Friday -----

ALL

- Read Journal Club for next week
- **JC3 - WEEK 6 (week after 4th of July week)**
- Prasannan, P.; Suliman, H. S.; Robertus, J. D., Kinetic analysis of site-directed mutants of methionine synthase from *Candida albicans*. *Biochem Biophys Res Commun* **2009**, 382 (4), 730-4.
- [PrasannanPriya_MetSynthaseKinetic_RobertusBiochemBiophysResComm2009.pdf](#)
-
- [Google Drive Folder of Journal Club Papers as PDFs for Summer](#)

FRIers

- Dilute NDM variant primers
-
- Plasmid Stock Deposition
 - Finish up this for your Targets and for pNIC, EhPTP, others ??
 - NDM1, TEM1, EhPTP, pNIC, Targets
-
-
- VR headsets?
- Virtual Club (optional) - work via SLACK channel

HSRA

-
- Characterization: Prep samples for SDS-PAGE gel (maybe run it next week)
 - [LabProteinCharacterizationVDS](#)
 - Use store bought gels
- Check antibiotic resistance test plates
- Pick and bring in SOSC
- Antibiotic Resistance Test of TEM-1, TEM-1b, EhPTP
 - For SOSC
 - With out without IPTG?
-
- Re-run VPipe PCR
-
- iCn3D - continue Activity 3
 - [iCn3D Beta-lactam Protocol VDS - Google Docs](#)
- Verify sequencing results
- Plasmid Stock Deposition - TEM1, TEM1b, EhPTP(?)
-

ARlers

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MENTORS:

- [Add Gene](#) depositions for FRI current Target plasmids
 - (YpDalaDala), *Yersinia pestis***Kim H, Sarah A**
 - (SaDalaDala)- *Staphylococcus aureus* -**Halimot B**
 - (YpFabV) - *Yersinia pestis* - **Aira B**
 - (SaDHFR)- *Staphylococcus aureus* - **Michelle J, Andrea (Lucy) M**
 - (PfFabG) - *Plasmodium falciparum* -..... **Eleazar (Eli) G, Arnav P**

- **Posters**

- Link posters from Forum, TAS, Longhorn Poster Session, etc onto the VDS Portal
 - Folder: [2023ForumPosters](#)
 - [VDSstream - Posters & Presentations](#)
 -
 -

ENTER WHAT WAS COMPLETED TODAY (so we can plan for tomorrow).....

- FRI:
- HSRA:
- ARI:

Saturday

Sunday

DELIVERABLES BY END OF WEEK 5

ALL

+++++LINK TO TOP

+++++LINK TO TOP