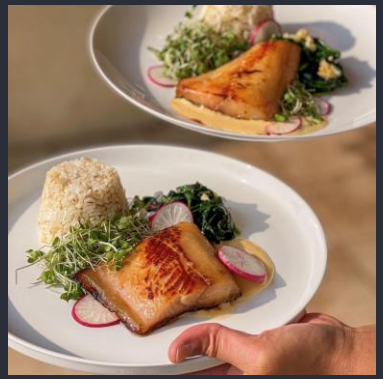
ALIDA BIOSCIENCES

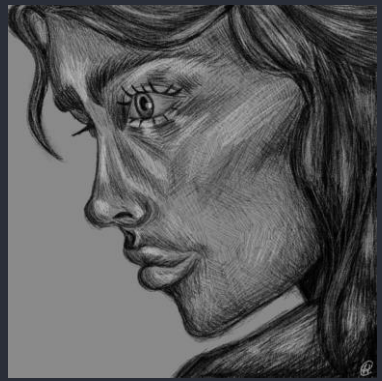
HYELIN CHOI

Research Associate/Associate Scientist Applicant

Hyelin Choi

- Hometown: Albuquerque, NM
- Senior in MCDB at CU Boulder
- Enjoy cooking & drawing





RELEVANT EXPERIENCES

2020

Lab Technician at OIT CU Boulder

Boulder, CO

2021

Teaching Assistant for MCDB 1171

Boulder, CO

2021 - Present

Lab Assistant at TriCore Research Laboratory

ABQ, NM

2021 - Present

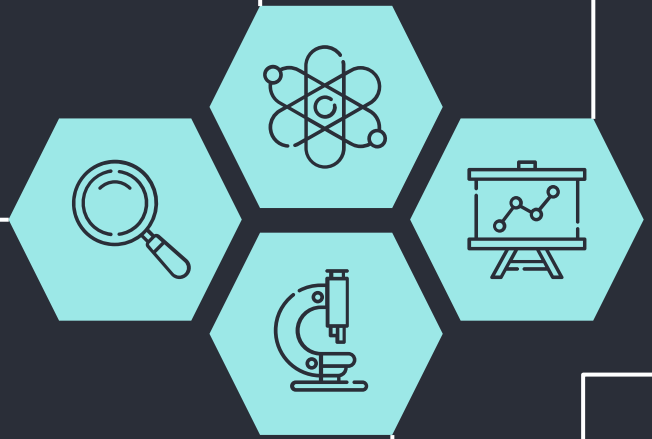
Undergraduate Researcher

Living Matter Lab at CU Boulder

VOLUNTEER WORK

Program Assistant
Designing with Alganyl Workshop

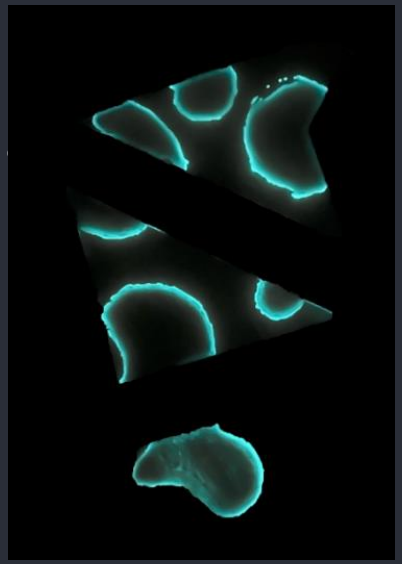
Scholar Ambassador
Daniels Fund

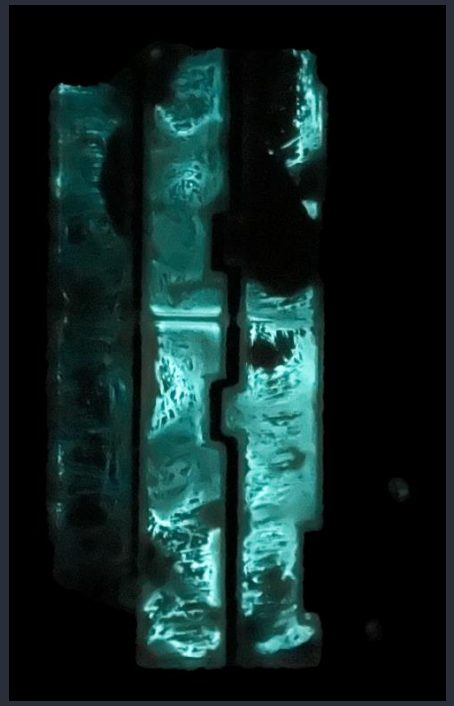


Project Lead
Design for America @ CU Boulder

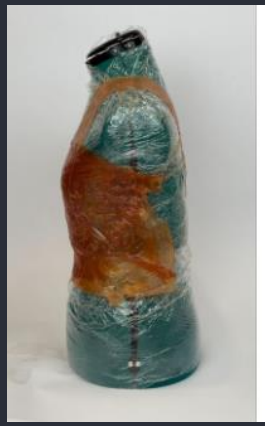
MCDB Mentors
Career panels and faculty talks

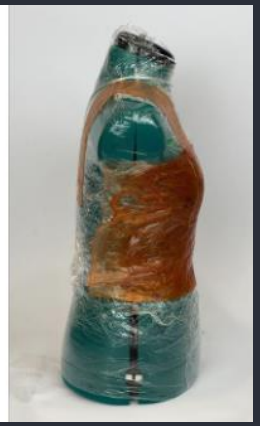
BIODESIGN RESEARCH





Albiivirbio fischeri





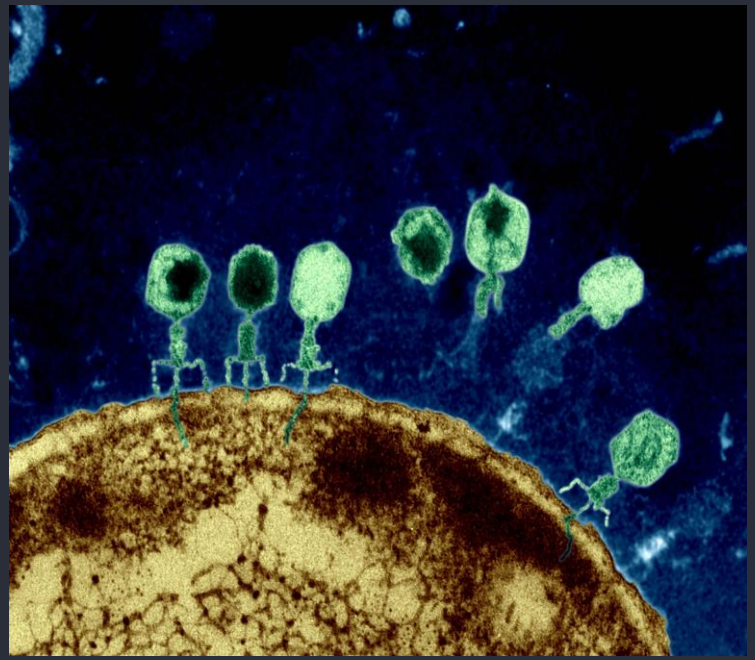
RESEARCH

Living Matter Lab @ CU Boulder

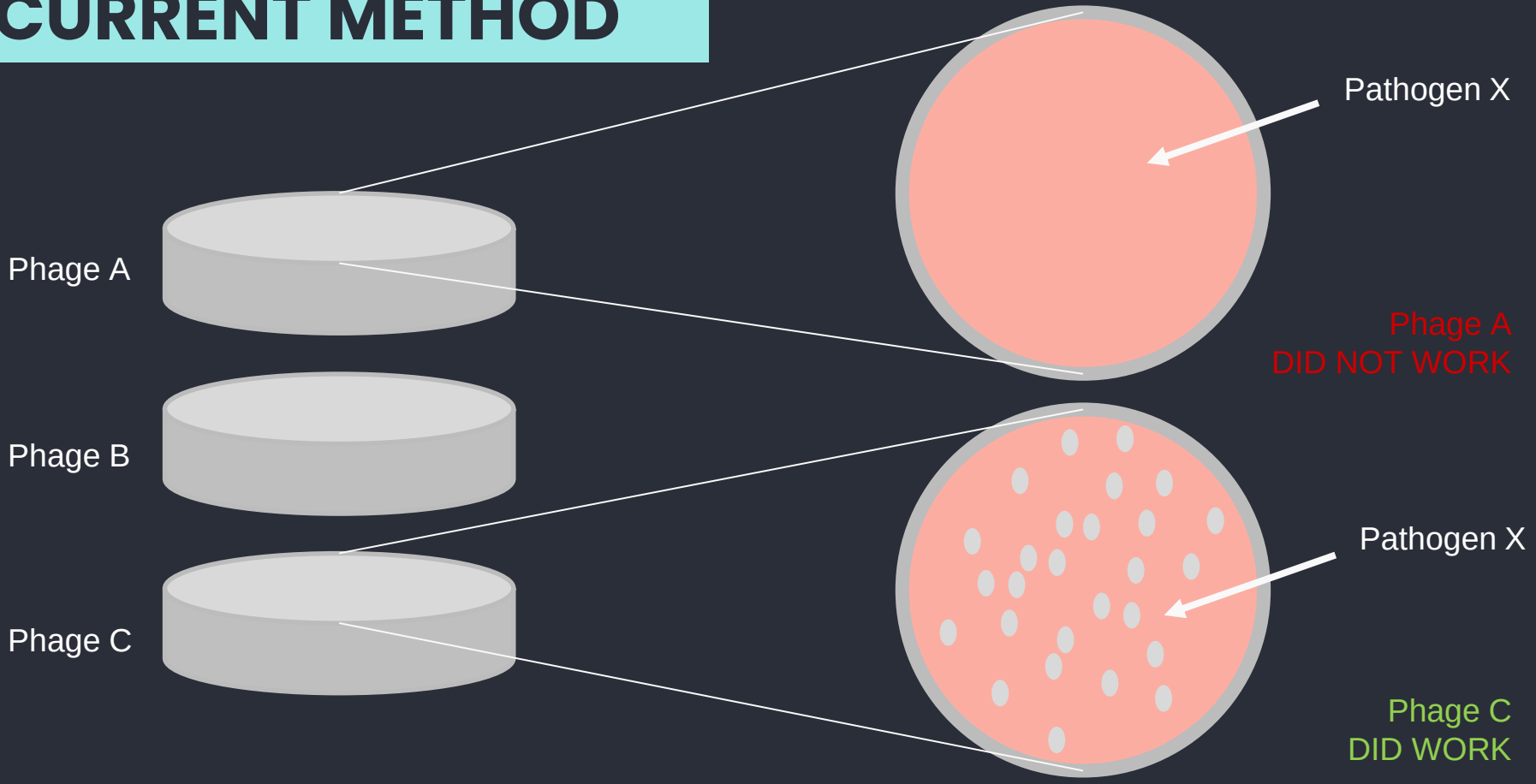
ENRICHSEQ

Finding Therapeutic Phages using Enrichment

- Based on Dedrick et al 2019 antibiotic resistance
- Computation method to create efficient alternative to 1 by 1 phage testing
- Theory – most virulent phages aggressively overgrow with target bacteria

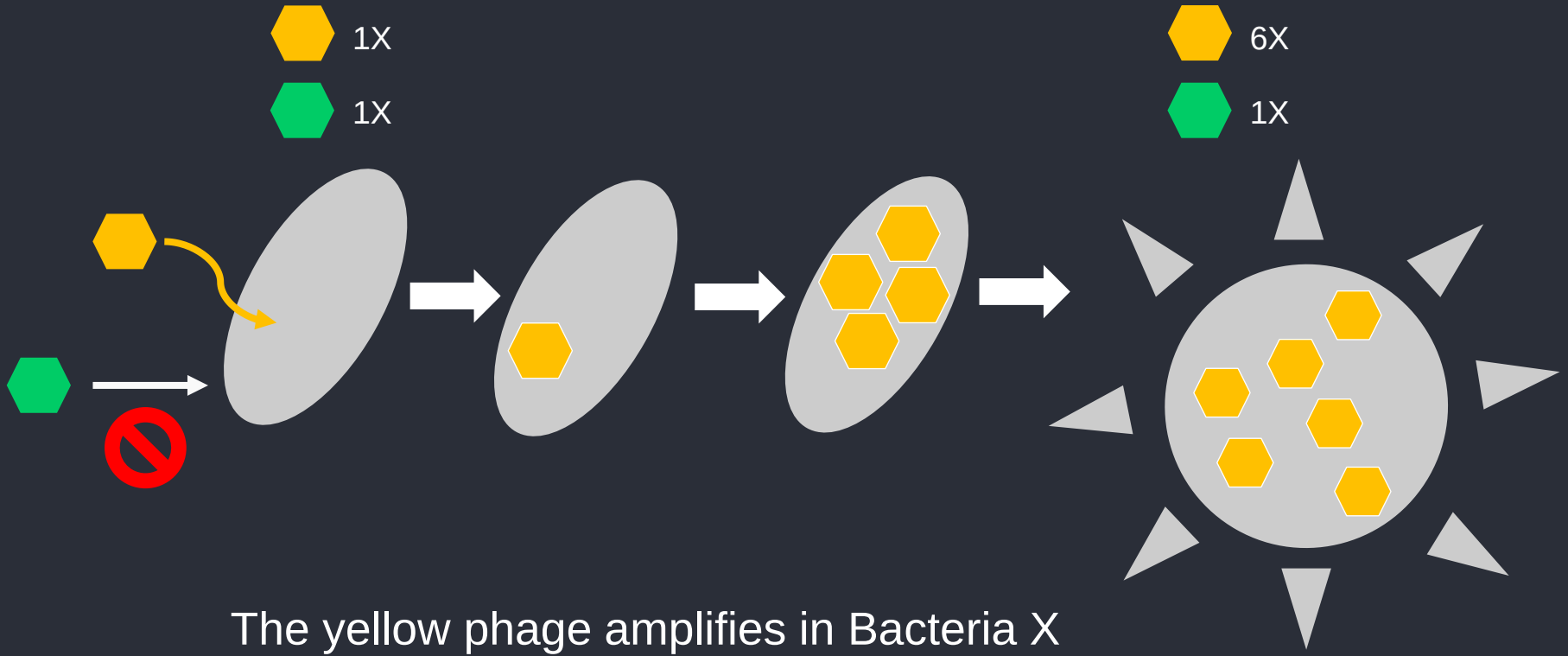


CURRENT METHOD



Problem: ad hoc 1 v 1 testing

THEORY MECHANISM



The yellow phage amplifies in Bacteria X

EnrichSeq Process

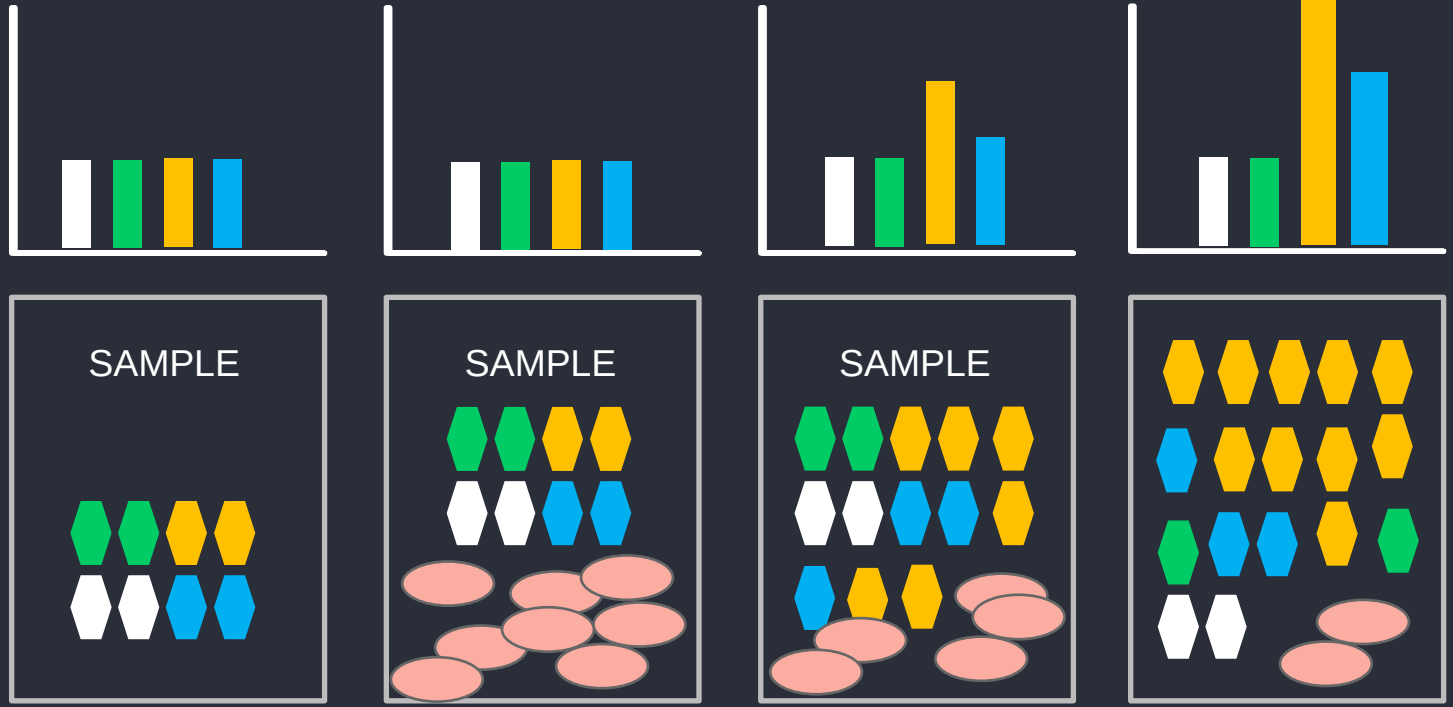
1st Add Phage

2nd Add Bacteria

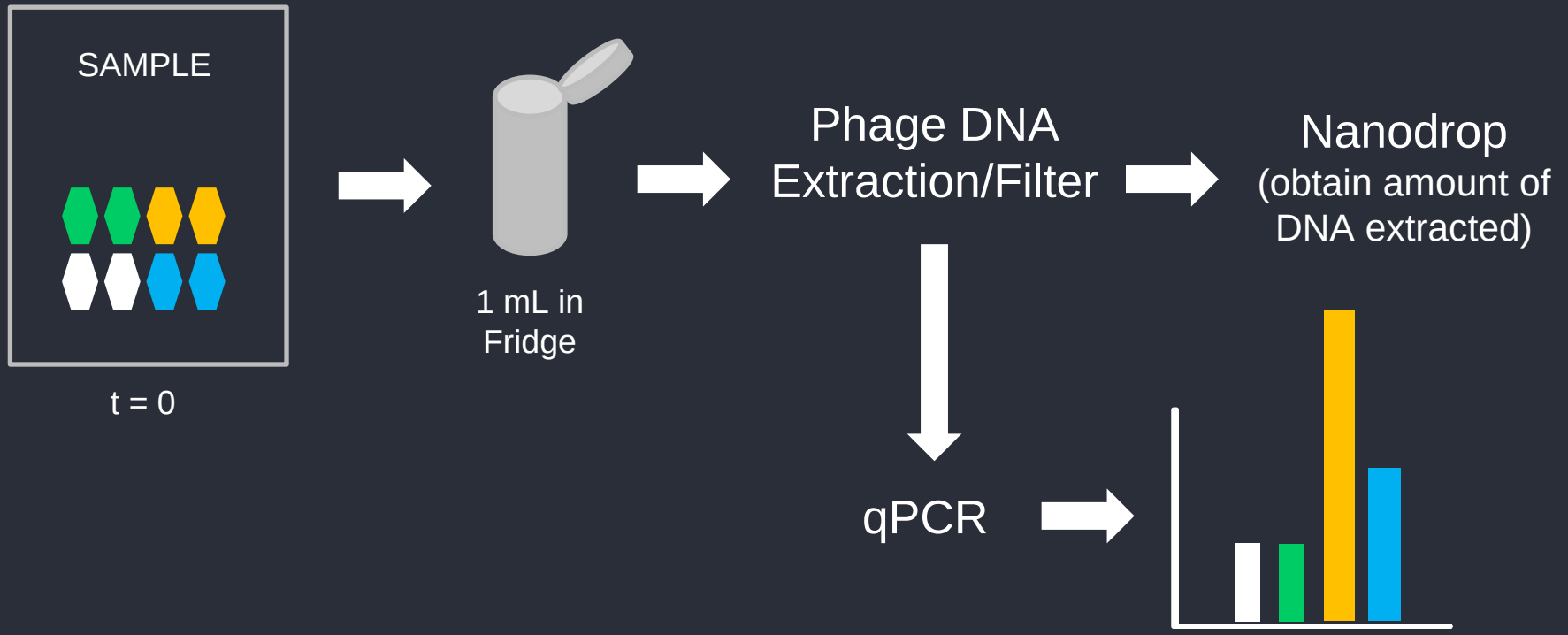
Bacteria X

3rd Sequence

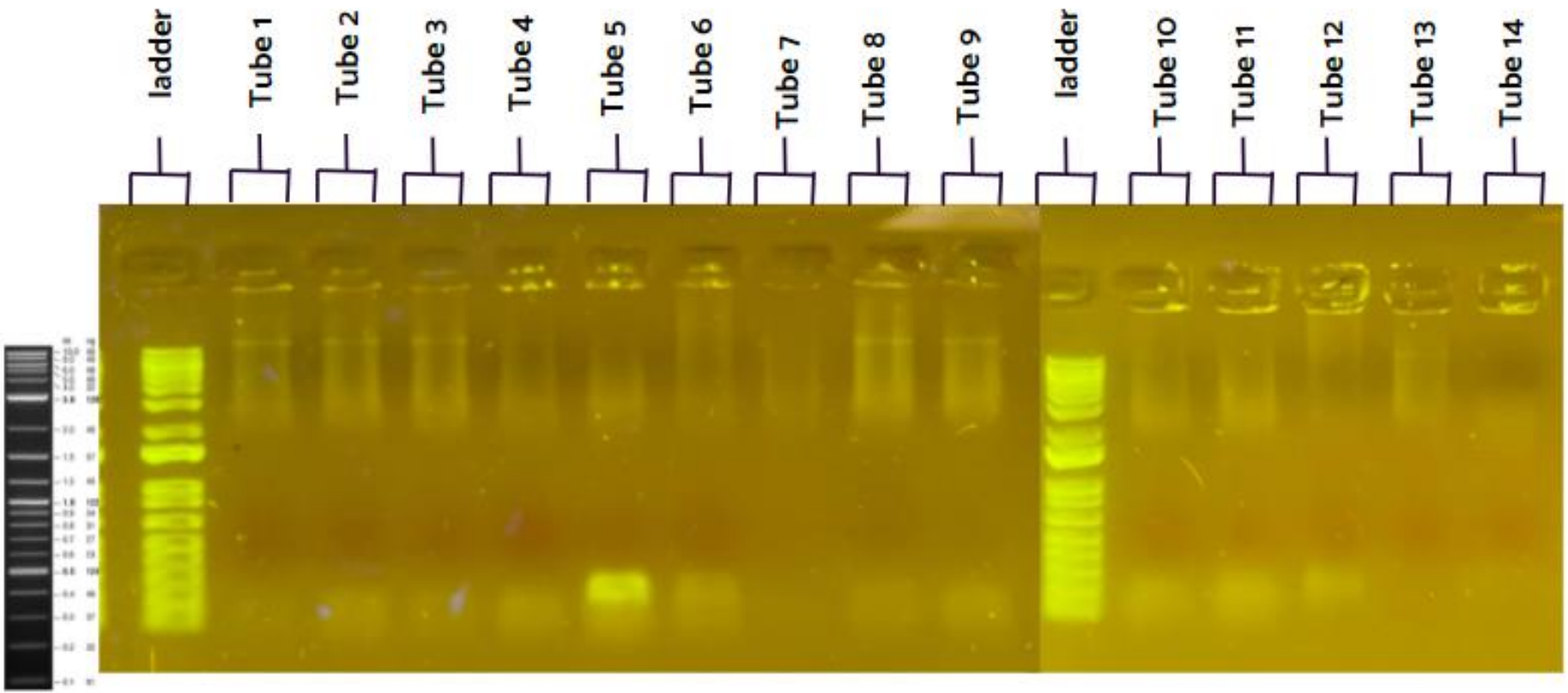
(1) t = 0
(2) t = final



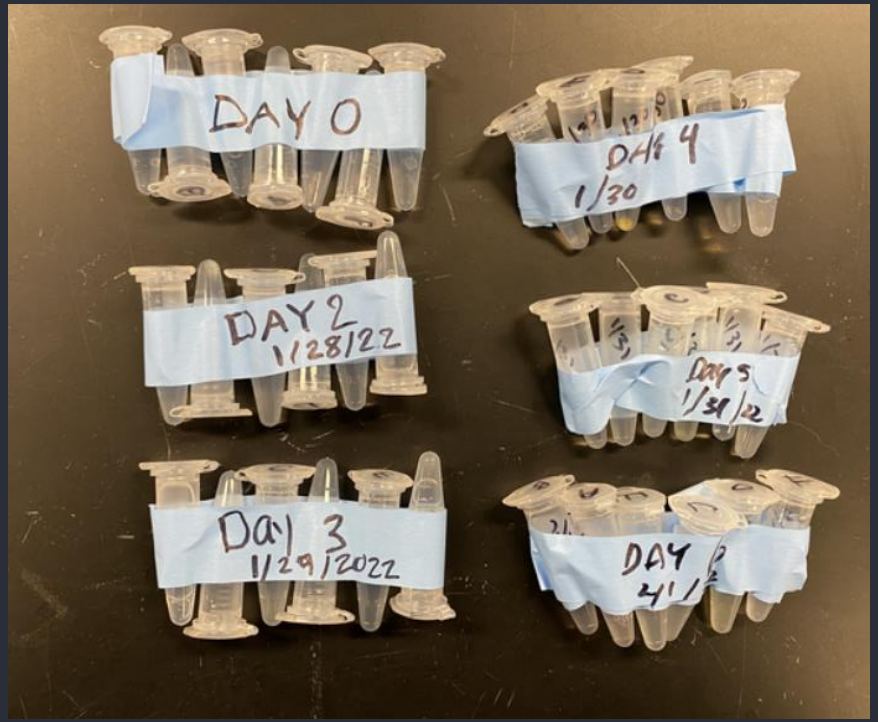
Validation & Iteration



Troubleshoot



Caveats



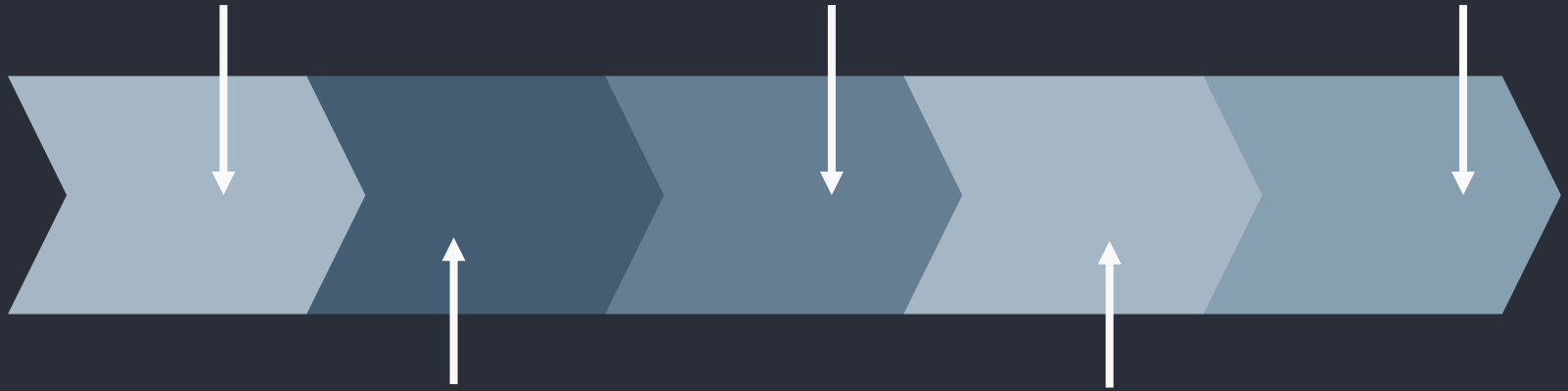
- No access to qPCR
- No consistent pos/neg controls
- No consistent M.Smeg
- Gel streaks/ unreliable results
- Human errors from two different researchers
- Time restriction due to week commitment for each enrichment

EnrichSeq Troubleshoot

Nanodrop test primers for concentration

Perform PCR on cocktail, lysates, M.Smeg

Use new Taq Polymerase



Reorder primers, possibly new phages

Going back in Lab Notebook: Taq could be dead, DNA needs better purification…

Thank you!

QUESTIONS?