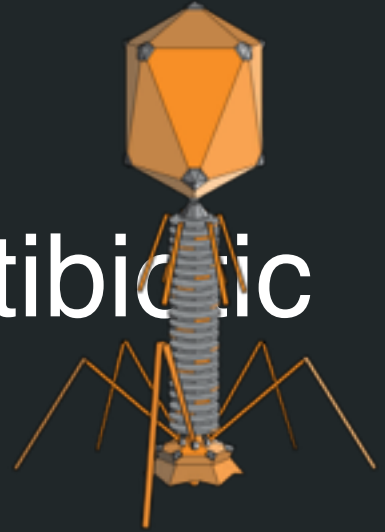


# Bacteriophages as an Antibiotic Alternative

(initiative)



---

Jeremy Clemente, Neha Paragi

# Method

## [Bacteriophage therapy video](#)

### Steps

Create a thorough plan of action and timeline with Mrs. Peterson's advisory assistance

Acquire laboratory equipment

Run trials, document process and results

If initial runs go well, take expand on original plan and go deeper into the research

Compile all data and methods and attempt publication

# Purpose and Goals

Run research on the method of bacteriophage therapy as an antibiotic alternative

Do trials using existing strains of both bacteria and phages

If things go well, possibly engineering our own genome for bacteria and creating a bacteriophage to kill it

Adding to the scientific community's current knowledge on this method through publication and distribution

# Mentorship

Enlist the help and laboratory access of Mrs. Peterson of the science department

Mrs. Peterson has a background in microbiology and an interest in this subject and research

We both have background in labs from internships

# Community and Impact

Impact of the research as a whole is to substitute bacteriophages in for antibiotics to combat antibiotic resistant superbugs

Adding data to the scientific community

Showing that high school students are capable of such a difficult, cutting-edge scientific research endeavor

Advance the school's standing in the community

# Budget

Around \$300-400 for

Microbiology equipment (general)

Live strains

CRISPR/Cas system materials if experimentation goes that far

Budget depends on how smoothly things run, does not account for mistakes

Bulk of cost lies in purchasing the actual organisms and viruses