

## Overview

While interning at Sandia National Laboratories in Livermore, California, I developed a molecular test to detect bacteriophage phi 6. Phi 6 is used as a safer model for infectious RNA viruses, including SARS-CoV-2, due to having a similar structure. I used an isothermal nucleic acid amplification technique because it is more robust and user-friendly than gold-standard polymerase chain reaction (PCR).

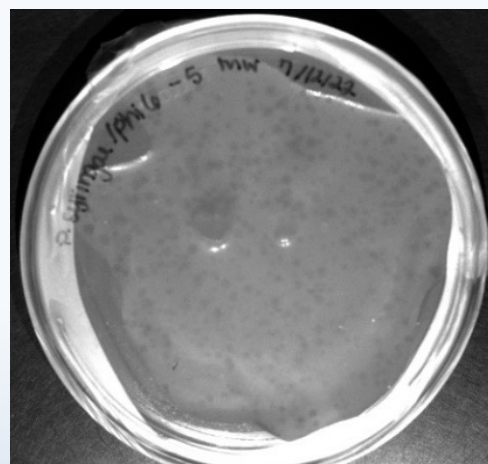


Fig. 1. Plate showing phi 6 growth.

## Outcomes

Sandia National Laboratories prioritizes using science to detect, mitigate, repel, and defeat threats to national security. This summer, in addition to learning new laboratory techniques, I've begun working on a manuscript highlighting some of my work and I had the chance to network with some of the technical staff at Sandia. Overall, this has been an enriching experience.

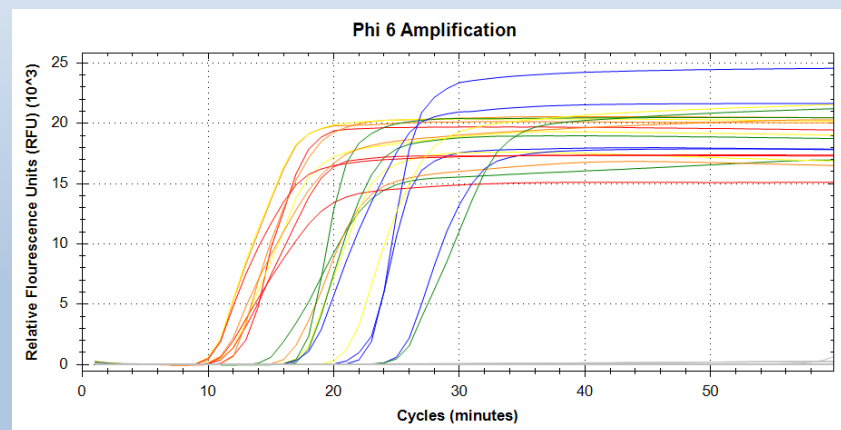


Fig. 2. Real-time amplification of various concentrations of phi 6 RNA.

*“This internship has given me insight on the goals of government research. I was able to work on projects focused on national security which gave me a sense of pride in my work.”*



**Myla D. Worthington**  
Sandia National  
Laboratories

Doctor of Philosophy, Bioenvironmental  
Sciences, Morgan State University