

Title: Discovery of Bacteriophages and the Future Use for Therapeutic Methods
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In our current time, antibiotics are the most widely used method for combating bacteria known to man. Antibiotics indiscriminately attack all bacteria in the surrounding area. This encourages the selective propagation of drug-resistant bacteria, which has become a global threat in medicine and agriculture. In recent years, there have been efforts to implement the use of a unique bacteriophage, a type of virus that only attack specific bacteria, as an alternative method to combat bacterial infection. This method of bacterial control, hereinafter referred to as the Phage Therapy, offers high specificity, which allows us to eliminate a specific bacterial pathogen without inadvertently harming other beneficial microbes. One major challenge is to find a specific match between the phage and the target bacteria. The progress to find this match has been largely hampered by the lack of phage diversity known today. For this reason, there has been a recent global effort to isolate, characterize, and catalog phages from a wide array of environmental samples. In collaboration with the Science Education Alliance-Phage Hunters Advancing Genomic and Evolutionary Science (SEA-PHAGES) program, our research group has joined in the global hunt for bacteriophages, characterize the phages we isolate, and deposit them into a publicly-available phage repository for future research use. Results from our research group will aid the greater medical community to formulate a targeted therapy to curtail the spread of drug-resistant bacteria and save lives

Works Cited

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