



Method of Identifying Bacteriophages that can Infect and Kill Host Adapted Pathogenic Bacteria

Unmet Need: Multiple Drug Resistant (MDR) bacterial infections are becoming increasingly common following injuries, in both the military and civilian populations. Injuries sustained in combat or other traumatic injuries often require prolonged hospitalization, further increasing the risk of infection. Unfortunately, there is a paucity of antibiotic drugs in the pharmaceutical pipeline to address this increasing problem. Phage therapy is a potential alternative to antibiotics, however current phage libraries are limited, consigned to targeting specific bacterial strains or requiring personalization via culture enrichment or engineering. It is also a potential diagnostic tool, however the development of diagnostics or therapeutics phage modalities is inherently constrained by the limited number of phage libraries currently available.

Solution: The US Navy, through the Naval Medical Research Command (NMRC) has developed technologies to combat MDR infections. The present innovation addresses the problem of the scarcity of phage libraries by leveraging phage therapy using target bacteria cultured in multiple culture conditions in parallel to identify phages that are highly infectious and fatal to the phages.

Stage of Development: The technology is in the early stages of development.

IP or IP Status: This technology is embodied in US Patent Application 2022/0096576 ([US Patent Application 2022/0096576](#)).

- **Command:** NMRC
- **Categories:** Therapeutics
- **License Status:** Available for exclusive or non-exclusive licensing and collaborations
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