



Endolysins Active Against *Bacillus* Bacteria, Pharmaceutical Compositions, And Methods Relating Thereto

Unmet Need: The bacterial species of *Bacillus* genus are a widespread collection of aerobic organisms that can cause opportunistic infections in humans. It can be virtually impossible to eliminate pathogenic bacilli from the environment as bacterial endospores remain dormant for a long periods of time. *B. cereus*, *B. thuringiensis*, and *B. anthracis* species can cause a variety of diseases ranging from mild food poisoning, cutaneous manifestations to a pulmonary disease. Multiple drug-resistant strains have also been documented, creating a growing need for non-antibiotic treatments.

Solution: The US Navy, through the Naval Medical Research Command and in partnership with the University of Maryland, College Park, has developed methods of treating infectious diseases by administering a bacteriophage-encoded peptidoglycan hydrolases, i.e. an endolysins. It has been found that recombinant endolysins applied exogenously to susceptible Gram-positive bacteria can lyse bacterial cell wall in the absence of bacteriophage and cause bacterial apoptosis and death.

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

IP or IP Status: This technology is embodied in US Patent US 11,890,330 B2 ([US Patent 11,890,330 B2](#)).

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