CONSIDER FOR TALK

2025 SEA Symposium Abstract

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Toxicity of Tails and Tape Measure in TChen?

Jessie K Holsombeck, Amanda D Ledford

The goal of this research was to better understand the function of genes encoded by the bacteriophage TChen. TChen genes 15 and 18 are predicted, through genome annotation, to encode the tape measure protein and a minor tail protein, respectively. During this project, we cloned these genes into the pExtra plasmid and expressed them in M. smegmatis. Our results suggest that the gene product of gene 15 is non-toxic, while the gene product of gene 18 is cytotoxic. Additional studies are being conducted to determine whether expression of these genes provides defense against TChen infection.