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2024 SEA Faculty Meeting Abstract

Universidad Autonoma de Sinaloa

Culiacán

Corresponding Faculty Member: Jesús Ricardo Parra Unda (ricardoparraund@uas.edu.mx)

Evaluation of lytic bacteriophages against ESKAPE bacteria

Andres Borquez Castro, María Elena E Baez flores, Yesmi Ahumada Santos, Daril Livan L Gonzalez Chiquete, Pedro Hiram H Valenzuela Cortez, Ricardo Parra Unda

Antibiotic resistance is a major problem in actuality. The emergence of groups of bacteria that can evade all treatments is alarming, even more so if we consider that most of the infection by bacteria is caused in hospital environments, making the prospect of treatment for the health. Bacteriophages are one of the most promising treatments for the infection of MDR bacteria, due to their high specificity to their host and the ability to infect MDR bacteria. This study has as its purpose to isolate different bacteriophages from the environment that can infect the ESKAPE group, evaluate their morphology, and analyze if they can generate a cross-infection. As a result, we obtained 13 plates with lytic spots on the agar plate. We also found that the samples contained bacteriophages that have activity against Klebsiella, Escherichia, and Shigella, bacteria of the ESKAPE group. Further purification and studies must be done to analyze all the phages obtained.