EVALUATING THE ANTI-MICROBIAL EFFECTS OF MARINOPYRROLE A ON BACTERIA SPECIES

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Antibiotic resistance is one of the leading causes of concern for the world health community. Current antibiotic treatments are now becoming easier for bacteria to resist due to mutations and plasmids conferring resistance. One way to combat this problem is new drug discovery, which can help alleviate this concern. Marinopyrrole A, a compound once tested as an anti-cancer agent, is known to have efficacy against gram-positive bacteria species. We have tested this compound against a panel of gram-positive and negative bacteria and can confirm its efficacy against gram-positives as well as against a subset of gram-negative bacteria, including one identified as a priority pathogen by the WHO. We found this susceptibility of select gram-negative bacteria to be correlated with a difference in outer membrane structure. We are continuing to test to better understand the target species' range of marinopyrrole A, as well as its mechanism.