

## Abstract:

Due to increasing antibiotic resistance among human pathogens, there is a need for novel therapies that are effective against these microbes. Antimicrobial peptides (AMPs) are part of the innate immunity of many organisms and research is being conducted to use AMPs and their derivatives for medical purposes; Maximin-3 is one such AMP. Maximin-3 peptide is isolated from the skin secretions of the toad *Bombina maxima* and causes toxicity through interactions with the plasma membranes of various bacterial, fungal, and viral microbes. This work focuses on characterizing the interaction between Maximin-3 and liposomes of bacterial composition. Fluorescence leakage assays were performed to characterize membrane disruption due to Maximin-3 binding. Fluorescence anisotropy was also used to quantify the degree of peptide binding to the bacterial liposomes.