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Specialization: Microbiology

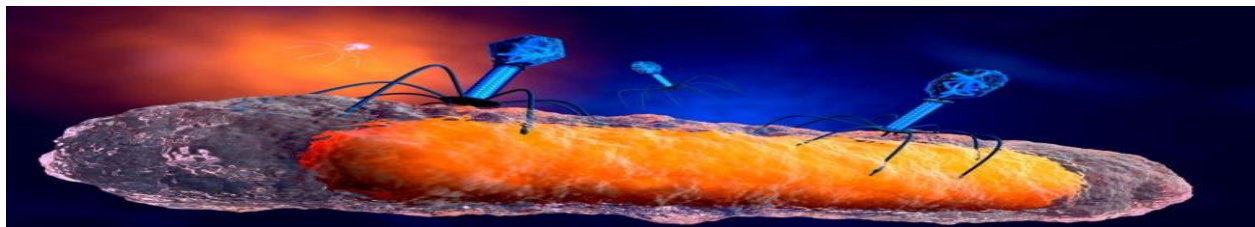
Research interest: epidemiology of antimicrobial resistance, the prevention and transmission dynamics of these pathogens

Goal: To use local resources to better our health

Current Research Interest and ongoing projects

Phage therapy

Phages are reported as the most abundant organisms on earth and are ubiquitous in the nature. In addition to normal environments, Kenya has a rich diversity of favorable environments in the form of mixed



waste management sites. In environments of mixed waste management, viruses of and bacteria interact freely and these are the conditions that unique viruses with specific affinity to bacterial pathogens can be isolated. This study will focus on isolation of phages with good pathogen activity, characterization to show that the phages may have utility in phage therapy, and results of a study and discussion with phage researchers in industry and academia.

Quorum quenching compounds

The gap between the emergence of antibiotic resistance and new antibiotic development is fuelling the search for antibiotic alternatives. Research efforts have been focusing on natural products to inhibit quorum sensing, without encouraging drug-resistant microbes. There is a scarcity of information on the presence of quorum quenching compounds from wild mushroom species. Therefore, the study was looking for quorum quenching compounds from mushrooms to address the urgent need of antibiotic resistance interference and microbial infections treatment.

Anti-Quorum Sensing Activity of the Mushroom Extracts

❖ Qualitative Anti-Quorum Sensing Activity of the Extracts

✓ Violacein production of CV026 was inhibited without any antibacterial effect of the extracts.

