Shiga toxin-producing *Escherichia coli* (STEC) are important food-borne pathogens for humans that cause mild to severe bloody diarrhoea. Gaps still exist in our understanding of how STEC have emerged as pathogens. Dr Karama’s group is conducting *in vitro* studies, in which major STEC serotypes are used as a model to assess the capacity of antimicrobial growth promoters that are registered in South Africa to induce Stx-converting and/or other bacteriophages lysogenizing STEC. The bacteriophages induced in these investigations will be used in future studies that will involve genomic sequencing, proteomic and functional characterisation of bacteriophages. The data will advance our knowledge on the role that antimicrobial growth promoters have played in the emergence of Shiga toxin-producing *E. coli* and will promote future scientific discussions on the prudent use of antimicrobial growth promoters in animal husbandry in South Africa, and thus lead to more informed decision making by policy makers on antimicrobial use.

**Key Publications**


**Research**

Dr Musafiri Karama

Department of Paraclinical Sciences, Veterinary Science Faculty

Musafiri.Karama@up.ac.za