GOLF PhD TOP UP SCHOLARSHIP 2020 (SPONSORED BY CFWA)
Project title: Investigating an alternative therapeutic agent for the treatment of bacterial infections with kids with cystic fibrosis
Project update for CFWA:

Bacteriophages are viruses that can infect and kill some of the common bacterial species that cause persistent infections in persons with Cystic Fibrosis (CF). One of these bacteria, *Staphylococcus aureus (S. aureus),* has become resistant to almost every type of antibiotic currently in use to treat these infections.

Over the past couple of years, we have managed to successfully isolate, purify, and name a number of these bacteriophages from local sources. One of these bacteriophages, named Koomba-kaat 1, has demonstrated broad ranges of activity towards the more dangerous variants of *S. aureus*.

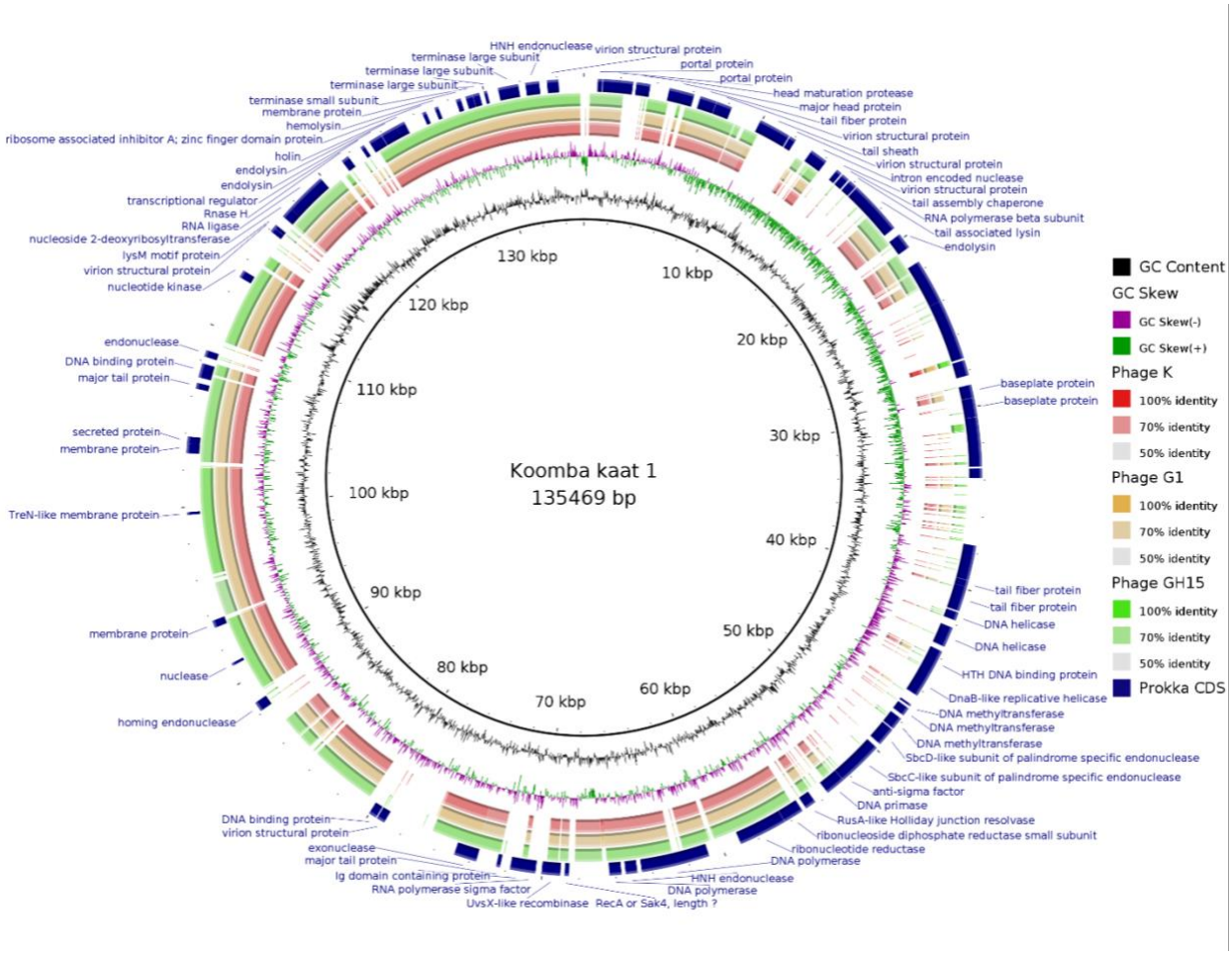

Figure 1: This is the genome for Koomba-kaat 1, it has many tools (genes labelled in blue) which enable it to infect and destroy a large range of antibiotic resistant *S. aureus* (MRSA).

Recently we demonstrated, that Koomba-kaat 1, has no genes associated with virulence, boosting our confidence in its safety. This year we plan to continue our safety experiments and clarify whether this phage could be used as a potential adjunct therapy for people with resistant MRSA infections.

- Joshua J Iszatt

22/2/23