CONSIDER FOR TALK

2022 SEA Symposium Abstract

Western Kentucky University

Bowling Green KY

Corresponding Faculty Member: Chandrakanth Emani (chandrakanth.emani@wku.edu)



Coral E Ghrist



Callie I Stempa

Characteristics of Mycobacteriophage Rosmarinus (K1) and Topper (K1)

Coral E Ghrist, Chezney S Boothe, Drake A Calhoon, Breanna C Childress, Dipak V Darbar, Elise M Demers, Eron M Dowling, Ethan C Easterday, Lucas B Freeman, Austin E Greenwell, Will F Spruill, Callie I Stempa, Mackenzie F Strode, Keely J Thompson, Will F Spruill, Jaida N Tooley, Callie I Stempa, Mackenzie F Strode, Keely J Thompson, Jaida N Tooley, Lindsay N Tucker, Lauren N Walker, Hunter W Wilken, Claudia M Witcher, Rodney A King, Naomi S Rowland, Claire A Rinehart, Chandrakanth Emani

The *Rosmarinus* phage was isolated from *M. smegmatis* mc155. The annotations were done with the PECAAN program. The phage came from an area sheltered under a bridge on the Western Kentucky University campus in Bowling Green, Kentucky. The name originated from the spice rosemary and is similar to the bacteriophage as it is composed of several small pieces. The *Rosmarinus* genome is 59, 696 bp long and has 96 protein-encoding genes and 1 tRNA. *Rosmarinus* is related to the K cluster phages *Dalmuri*, *Jarvi* and *Inky*.

The *Topper* phage was isolated from *M. smegmatis* mc155. The annotations were done with the PECAAN program. The phage came from an area on the Western Kentucky University campus in Bowling Green, Kentucky. The *Topper* genome is 59, 708 bp long and has 96 protein-encoding genes and 1 tRNA. *Topper* is related to the K cluster phages *Dalmuri*, *Belladona* and *Jarvi*, and has 59694 identical base matches out of 59708 bases in the *Dalmuri* phage genome. There are only about 14 base differences between the two genomes.