DO NOT CONSIDER FOR TALK

2022 SEA Symposium Abstract

Queensborough Community College

Bayside NY

Corresponding Faculty Member: Urszula Golebiewska (ugolebiewska@qcc.cuny.edu)

Analysis of the Streptomyces Phage Angela and its tRNAS

Bushra Khan, Urszula P Golebiewska

Angela was isolated from Steptomyces griseus ATCC 10137 in University of Evansville, IN from an enriched soil sample by Angela Jones. Queensborough SEA Phages students were very grateful for the opportunity to adopt Angela. Angela belongs to the family Siphoveridae with a large head and long non-contractile tail and forms small circular plaques. The objective of this research was to annotate and analyze the genome of Angela. We used DNA master, Pharmerator, HHpred, BLAST, and other programs. Angela has a genome length of 133582 bp, 236 predicted protein coding ORFs, 44 tRNAs, and 1 tmRNA. This genome belongs to the cluster BE, and the sub-cluster BE1, and has a lytic cycle. The closest relatives to Angela are Mulchmansion and LilMartin. Sub-Cluster BE1 has relatively low GC content of 49.8%, average genomes of 133,088bp and includes large number of tRNAs – 44.3.