DO NOT CONSIDER FOR TALK

2025 SEA Symposium Abstract

Chatham University

Pittsburgh PA

Corresponding Faculty Member: Colleen Barrett (c.barrett@chatham.edu)

Annotation and Analysis of the Arthrobacter globiformis FK Cluster Phage Gandionco

Caitlin Gandionco, Allison Venanzi, Ava Westrich

Throughout the fall semester, students of the BIO143 Lab at Chatham University participated in the SEA-PHAGES program to isolate, purify, and amplify found bacteriophages. After multiple attempts and struggles with contamination, a phage was successfully extracted, sampled, and sent to the Pittsburgh Bacteriophage Institute at the University of Pittsburgh to be sequenced. The phage, Gandionco, which infected *Arthrobacter globiformis* B-2979, was discovered to belong to the FK cluster of phages, a cluster in which three other phages have been discovered, and only two have been annotated. Once annotated, students determined that in addition to the phage’s structural and functional proteins, many of these genes could be only labeled as hypothetical proteins. To determine the specific characteristics of each gene’s protein, further research is needed to establish the definitive function of each protein.