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Genome Annotation of a C1 Mycobacteriophage Isolated from Central Illinois Soil

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Presenter and Advisor Information Catlin Arrington; Elyse Borchik; Ethan Gelke; Ryan Holden; Sam Sorenson; Brenden Wall; Da V Anthony Bohner; Julie Anne Canter; Drew Cullet; Crystal Diaz; Kati Forman; Munia Mustafa; L Awdziejczyk; Stephen Whitfield; David Bollivar, Faculty Advisor; and Loni Walker, Faculty Advi	.auren

Poster Presentation P3

GENOME ANNOTATION OF A C1 MYCOBACTERIOPHAGE ISOLATED FROM CENTRAL ILLINOIS SOIL

<u>Catlin Arrington, Elyse Borchik, Ethan Gelke, Ryan Holden, Sam Sorenson,</u> Brenden Wall, <u>Da Wang, Anthony Bohner, Julie Anne Canter, Drew Cullet, Crystal Diaz, Kati Forman, Munia Mustafa, Lauren Awdziejczyk, Stephen Whitfield, and David Bollivar* and Loni Walker*</u>

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In order to contribute more information on the genomic structure of mycobacteriophage, fifteen distinct phages were isolated from soil samples. The DNA of one phage, Shrimp, was sequenced at the University of Pittsburgh and analyzed with the computer programs DNA Master, HHpred, Phamerator, Glimmer, and GeneMark. These programs were crucial in the characterization process to analyze the coding sequence, gene number, and protein function(s). Through the characterization of Shrimp's 155,714 base pairs and 235 genes, the genome showed a close resemblance to the C1 cluster. However, the functions of many genes within Shrimp's genome have yet to be identified. The complete annotation of the genome will be submitted to the GenBank database.