Poster Presentation P5

THE ISOLATION AND CHARACTERIZATION OF NOVEL BACTERIOPHAGES FROM CENTRAL ILLINOIS

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Members of the Illinois Wesleyan University General Biology Science Education Alliance (SEA) laboratory isolated and characterized a number of distinctive mycobacteriophages. Each student collected soil samples from the central Illinois area then used streak assays and titrations to isolate unique phages that infect *Mycobacterium smegmatis*. Transmission electron microscopy (TEM) and DNA restriction enzyme digests were used to determine the morphology and tentative cluster placement of each phage. By the end of the semester, fifteen novel phages were isolated with a wide range of characteristics, despite the small sampling area. This data was submitted to the Mycobacteriophage DataBase. After analysis and class discussion, the DNA from three different phages were sent to the University of Pittsburgh for genome sequencing.