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2024 SEA Symposium Abstract

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Characterization of Arthrobacter phages BenchScraper (AY) and Kovu (AL)

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In the fall semester, we isolated 10 phages infecting *Arthrobacter globiformis* and 8 infecting *Microbacterium foliorum*. Two *Arthrobacter* phages - BenchScraper and Kovu - were sequenced for annotation. BenchScraper is similar to other Cluster AY phages. However, different regions of its genome are more closely related to different phages, suggesting some level of recombination. Kovu falls into Cluster AL, but is likely to constitute a new subcluster. Orphams comprise 34% of the predicted genes in Kovu. Each of our phages will be tested against 13 species of *Microbacterium* and six species of *Arthrobacter* in host-preference experiments. We will also pilot using an Oxford Nanopore to sequence each of these phages.