DO NOT CONSIDER FOR TALK

2024 SEA Faculty Meeting Abstract

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PECAAN, Phage Evidence Collection And Annotation Network

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PECAAN is a readily accessible online resource that gathers evidence from several databases and programs, to assist in the annotation of phage genomes. Databases and programs that are accessed by PECAAN include: Glimmer, GeneMark, Aaragorn, tRNA Scan SE, Starterator, Phagesdb BLAST, HHPred, NCBI BLAST, Conserved Domain Database, Phamerator maps, and Deep TMHMM. The data is organized so that the data for each gene is displayed with checkboxes that allow users to mark evidence that they feel supports the gene function or start location. As annotators make changes, their choices are recorded in a log for each gene, so that annotators can view each other's work and communicate with each other through the 'Notes' field.
Each institution has a person with an Admin account that allows them to load phage genomes into PECAAN and set up User and other Admin accounts for their institution. All Users can see phage information from all other institutions but then can only make annotation changes to the phages from their own institution. Once annotation is complete and checked, the PECAAN database can be exported as a list of 'CDS Functions'. This can be entered into DNA Master and subsequently to the Phage Submission portal. Annotation logs and the list of users can also be exported for archival or grading purposes.