Genome Annotation Submission Cover Sheet

Pre-QC Phage Genome Annotation Checklist

Phage Name: Bartholomew

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Additional emails:
(For correspondence)

Please check each box indicating completion of each task. Annotation Guide section #'s indicated

- [x] 1. Does the genome sequence in your final contain the same number of bases and is it the same as the posted sequence on phagesdb.org?
- [ ] 2. Are all the genes "valid" when you click the "validate" button? *Section 9.3.2*
- [x] 3. Have the genes been renumbered such that they go sequentially from 1 to the highest number? *Section 9.3.3*
- [x] 4. Have all old BLAST hits been cleared, and all gene features reBLASTed? *Section 9.3.4*
- [x] 5. Are the locus tags the phage name? *Section 9.3.3*
- [x] 6. Has the Documentation been recreated to match the information in the feature table? *Section 1.4*
- [ ] 7. Have tRNA ends been adjusted with web-based Aragorn and/or tRNAscan SE? *Section 9.5.3-4*

8. For the items below, generate a genome profile, and review the following. *Section 11.3*

For the YourPhageName_CompleteNotes.dnam5 file:

- [x] a. Have any duplicate genes (or any with the same stop coordinate?) been removed?
- [x] b. Does every gene have **one and only one** complete set of Notes (see fig 12.2 in the Annotation Guide)?
- [x] c. Do the functions in the Notes match the official function list?
- [x] d. Is the function field EMPTY for all features?
- [x] e. Do the notes contain the initial Glimmer/GeneMark data from the autoannotation?

For the YourPhageName .dnam5 file:

- [ ] a. Have any duplicate genes (or any with the same stop coordinate?) been removed?
- [ ] b. Is the Notes field empty for all the features with no known function?
- [ ] c. Do the function names in the Notes match the official function list, when applicable?
- [ ] d. Is the function field EMPTY for all features?

9. Describe any issues or specific genes that you were unable to satisfactorily resolve, and warrant further inspection in the Quality Control review.

The frameshift did not come up as valid but all other genes did. I am not sure what the last .dnam5 file listed is referring to as we followed the instructions in the manual and sent in the 'complete notes' and 'final' files.

Here is a list of genes that may warrant looking over:

Genes 15 and 16 are part of a translational frameshift

Gene 31 has possible DNA binding domain but not sure how to annotate it- ‘ winged-helix DNA binding protein ’ - did not give it a function in the Final file

Gene 44 has exonuclease domain and match to RecE- listed the function as exonuclease on final file and gene 45 matched RecT