**Cover Sheet**

Larenn Genome Submission Notes

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Gene 29 start was called different than Glimmer and GeneMark because they called a start site that overlapped the previous gene by 27 bp.

Gene 34 start was called different than Glimmer and GeneMark because the SD score for the adjacent start codon was much higher, 504 vs 390 and represented only a 3 bp overlap with the previous gene.

Gene 43 start was called longer than the Glimmer and GeneMark start because the SD was higher and it fit other phage ORF 1:1.

Gene 49 start was called longer than the Glimmer and GeneMark start because the longest ORF and it fit other phage ORF Q:S sites 1:1.

Gene 61 start was called different than Glimmer and GeneMark. The start at 41019 was called by Glimmer and GeneMark It contains all of GenemarkMsmeg coding potential and has the highest SD score of 525. This start has an 85 bp gap with the upstream gene 62. There is another start site with an SD score of 435 upstream at 41103 that would create a gap of 51. When looking at potential secondary structure that can form in the RNA it looks like the SD site for the start at 41019 could be involved in a stem structure formation where the SD site for the start at 41103 would be in a free loop region. That is why the start at 41103 was proposed.

Gene 65 start was called by GeneMark to 42704 and Glimmer to be 42707. The SD score for the GeneMark start is 483 while the Glimmer site is 283. Therefore GeneMark was chosen.

Gene 78 was called different than Glimmer and GeneMark start at 47168. The called start at 47156 has a higher SD score 483 vs 189 and also only overlaps the previous gene by 1 vs 12 for the Glimmer/GeneMark site.

The visual evidence for the Larenn annotations can be found as a series of powerpoint slides. We use BitTorrent Sync (<http://www.bittorrent.com/sync/downloads> ) for peer to peer file sharing which avoids the size limits of some other file sharing programs. After downloading and installing BitTorrent Sync, add a folder and enter the secret key:

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into the Shared Secret field and choose a folder that you would like this material to be synced into. Press OK and your folder should begin to sync and pull the evidence powerpoint slides. If no syncing occurs, it is probably because no machine is on to sync with. I usually keep one running so that it can sync anytime. Just drop me a message at Claire.rinehart@wku.edu and I will get my computer turned back on. –enjoy.