Annotation of mycobacteriophage Nicholasp3

Our genes had consistent homology with Faith1 and Rumpelstiltskin throughout the entire genome. Nevertheless, and as expected, several genes of Nicholasp3 had no matches with the above mentioned bacteriophages.

One particularly challenging part of the genome is around gp125 (FWD 70592 – 71074). It is a lonely FWD gene surrounded by many RVS genes. We were hesitant to keep the gene originally called by Glimmer. There is one overlapping alternative RVS gene with clear BLAST matches, but choosing it would leave a large gap. The overlap between the two is far to great and we decided not to chose that possibility. Another ORF exists that would decrease the gap substantially but it has no BLAST hits at all.

Finally, we had some issues re-BLASTing the genes on DNA Master at the end of the revision. Upon deleting the current BLAST hits, we would perform another BLAST but the window would take long periods of time without showing any results.