

BioE131

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Final Project Report

Jbrowse2 Viewer for Coronavirus Family

For the final project I elected to focus on the Coronavirus family of viruses. As the Coronavirus family swept across the world it resulted in a large amount of data collection on the virus. Thus, I believed this family of viruses would be a great focal point for research on differences in genomes and how that affects aspects such as pathogeny, therapeutic targets, immune responses, and more. To provide a starting point for researchers to have access to visualizations between different taxon in the Coronavirus family I loaded the genomes of Middle East Respiratory Syndrome, SARS CoV2, and Human Coronavirus Oc43 onto the Jbrowse2 viewer. The ability to open different genome views at the same time allows you to visually look for key differences in the genomes of different taxon.

References:

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Goyal R, Gautam RK, Chopra H, Dubey AK, Singla RK, Rayan RA, Kamal MA. Comparative highlights on MERS-CoV, SARS-CoV-1, SARS-CoV-2, and NEO-CoV. EXCLI J. 2022 Sep 29;21:1245-1272. doi: 10.17179/excli2022-5355. PMID: 36483910; PMCID: PMC9727256.