

- (a) Read Ben Hulbert's blog post titled *Reverse Engineering the source code of the BioN-Tech/Pfizer SARS-CoV-2 Vaccine* (<https://berthub.eu/articles/posts/reverse-engineering-source-code-of-the-biontech-pfizer-vaccine/>).
- (b) Download *pfizer.fasta* and *moderna.fasta* from the course website. Perform sequence alignment of Pfizer and Moderna vaccine sequences using EMBOSS Water (https://www.ebi.ac.uk/Tools/psa/emboss_water/) or your favorite sequence aligner. Annotate the alignment result yourself, clearly showing the sequence elements (5'-UTR, cap, etc.) discussed in the blog post. Briefly discuss the similarities and differences between two vaccine sequences.