1163-92-342 **Tamar Schlick*** (schlick@nyu.edu), Department of Chemistry, 100 Washington Square, Silver Building, New York University, New York, NY 10003. *In silico drug discovery targeting the SARS-CoV-2 Frame Shifting RNA Element.*

With the rapid rate of Covid-19 infections and deaths, urgently needed are treatments and cures besides hand washing, social distancing, masks, isolation, and quarantines. The treatments and vaccines rely on the basic biophysics of the complex viral apparatus. While proteins are serving as main drug and vaccine targets, the 30,000 nucleotide RNA viral genome also defines important targets. Using mutation and tertiary analysis of a small gene region in the SARS-Cov-2 RNA genome, we define key residues of the virus as targets for anti-viral drugs and gene editing approaches within the frame-shifting element. These leads are pursued for virtual drug screening as an approach for discovering potential anti-viral therapies from known chemical libraries. (Received September 03, 2020)