The COVID-19 pandemic has had a drastic impact on our lives, causing disruption to businesses, events and other aspects of life. In the search for treatments and vaccines, scientists and researchers are exploring mRNA vaccines as a promising approach to combat the virus. mRNA vaccines use small pieces of genetic material to instruct cells in the body to produce a protein found on the surface of the COVID-19 virus, triggering an immune response. Such technology has proven to be highly effective at preventing infection and reducing the severity of symptoms in those who do become infected. Furthermore, it can be quickly adapted to target new variants of the virus, making it a powerful tool in the ongoing fight against the virus and other infectious diseases.