The COVID-19 pandemic has caused widespread disruption to the world with businesses and events being cancelled. To combat the virus, scientists and researchers are searching for effective treatments and vaccines. mRNA vaccines are one of the most promising findings in this area as they trigger an immune response by using a small piece of genetic material called messenger RNA (mRNA) to instruct cells in the body to produce a protein that is found on the surface of the COVID-19 virus. Clinical trials have found mRNA vaccines to be highly effective at preventing infection and reducing the severity of symptoms in those who do become infected. It also has the added benefit of being able to quickly adapt to new variants of the virus. This makes mRNA technology a powerful tool in the ongoing fight against COVID-19 and other infectious diseases.