The COVID-19 pandemic has caused severe disruption to the world, with shuttered businesses and canceled events changing our lives. Scientists and researchers are working hard to find ways to combat the virus, with mRNA vaccines proving to be a highly promising area. mRNA vaccines work by using a small piece of genetic material called messenger RNA to instruct cells to produce a protein found on the surface of the virus. This triggers an immune response, helping the body to build up defenses against the virus. The effectiveness of mRNA vaccines has been proven in clinical trials, and they have the potential to be quickly adapted to target new variants of the virus. This makes them a powerful tool in the ongoing fight against COVID-19 and other infectious diseases.