

## **Overview of SARS-CoV-2 and COVID-19 Vaccine**

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The COVID-19 pandemic has devastating effects the world over imprudently. Developing a safe and effective vaccine is the key to fight the disease. This review aims to epitomize the vaccines development processes, suitable and potential vaccine candidates and their trail studies. The vaccine development started earlier in January 2020 after the genomic sequence of coronavirus was revealed. The most pronounced and successful vaccine candidates, trials of which have been conducted worldwide include BNT-162b2 (Pfizer, BioNTech), mRNA-1273 (Moderna), NVX-CoV2373 (Novavax), and AZA-1222 Ad-5-CoV (AstraZeneca). Many other injectable and noninjectable vaccines are under trails, and the struggle for most suitable vaccine for market launch is going on. The foremost challenges related to vaccine development are its logistic and storage complications, and scientists are working tirelessly to overcome these challenges.

**Key words:** COVID-19, SARS-CoV-2, Vaccine, Efficacy, Safety

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