FONDAZIONE PER LA RICERCA FARMACOLOGICA GIANNI BENZI onlus

COVID-19 authorised vaccines

The **Human Medicines Committee (CHMP) at EMA** assessed the use of the following vaccines against COVID-19

Vaccine	Description	Status	Target population	Date of approval	More information
Comirnaty	Comirnaty contains the genetic material (mRNA) encoding for the spike protein and it is covered in small lipid particles that prevent the mRNA from being degraded. The human cells will read the genetic material and temporarily produce the spike protein. The immune system will then treat this protein as foreign and produce antibodies and T cells against it. The mRNA from the vaccine is broken down shortly after vaccination. If, later on, the person comes into contact with SARS-CoV-2 virus, the immune system will recognise it and be ready to defend the body against it	Positive CHMP opinion recommending conditional marketing authorisation, granted by the European Commission	People aged 16 years and older	December 2020	• https://www.ema.europa.eu/en/news/ema-recommends-first-covid-19-vaccine-authorisation-eu • https://ec.europa.eu/commission/presscorner/detail/en/IP_20_2466
COVID-19 Vaccine Moderna (mRNA-1273)	COVID-19 Vaccine Moderna contains a molecule called messenger RNA (mRNA) which has instructions for making the spike protein. This is a protein on the surface of the SARS-CoV-2 virus which the virus needs to enter the human cells.	Positive CHMP opinion recommending conditional marketing authorisation, granted by the	People aged from 18 years and older	January 2021	• https://www.ema.europa.eu/en/news/ema-recommends-covid-19-vaccine-moderna-authorisation-eu

	When a person is given the vaccine, the cells will read the mRNA instructions and temporarily produce the spike protein. The person's immune system will then recognise this protein as foreign and produce antibodies and T cells to attack it. If, later on, the person comes into contact with the virus, their immune system will recognise it and be ready to defend the body against it. The mRNA from the vaccine is broken down shortly after vaccination.	European Commission			• https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3 • https://www.ema.europa.eu/en/medicines/human/paediatric-investigation-plans/emea-002893-pip01-20