

Covid-19 Vaccines in Development and Use

Sept. 20, 2021 by Andrii Buvailo, Irina Bilous

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which is a positive sense, single-stranded RNA beta coronavirus, a member of Beta-CoV lineage B (subgenus Sarbecovirus).

Here is a list of approved vaccines and vaccines in development. This data is for informational purposes only, not medical advice.

Table 1. Vaccines In Use

Candidate	Status/clinical trials	Sponsor/Producer	Number of countries vaccine being used	Efficacy, %
Vaxzevria (CoviShield)	Phase III NCT04516746	AstraZeneca, University of Oxford	184	63.0 https://www.who.int/news-room/feature
AZD1222 (ChAdOx1) Viral vector	Phase I/II NCT04568031 NCT04686773			
Comirnaty BNT162b2 mRNA vaccine	Phase III NCT04713553 (completed) NCT04848584	BioNTech in collaboration with Pfizer	124	95.0 https://www.who.int/en/news-room/feature
Spikevax mRNA-1273 mRNA vaccine	Phase III NCT04860297 NCT04847050 NCT04283461 NCT04785144	NIAID in collaboration with Moderna Therapeutics	71	94.1 https://www.who.int/publications/i/item
BBIBP-CorV Inactivated virus	Phase I/II NCT04993560	Sinopharm-Beijing	68	86.0 https://gulfnews.com/uae/health/uae-m
JNJ-78436735 (Ad26.COV2.S) Viral vector	Phase III NCT04505722	Johnson & Johnson	48	66.9 https://www.who.int/news-room/feature

	Phase I/II clinical trial			
Sputnik V	in Russia			
Gam-COVID-Vac,	NCT04436471	Gamaleya Research	46	94.0
Gam-COVID-VacLyo	NCT04437875	Institute		https://www.thelancet.com/journals/lan
Viral vector	Phase III			
	NCT04530396			
	Phase III clinical trial			
CoronaVac	in	Sinovac,		
Inactivated virus	BrazilNCT04456595	ButantanInstitute	41	51
	Phase IV			
	NCT04789356			
Covaxin	Phase I/II			
BBV-152	NCT04471519	Bharat Biotech	7	-
Inactivated virus	Phase III			
	NCT04641481			
Recombinant	Phase II	CanSino Biologics	5	-
Coronavirus vaccine	NCT04313127	Inc.		
	NCT04341389			

Table 2. Vaccines in development

Candidate	Vaccine type	Status/clinical trials	Sponsor/Producer
AdimrSC-2f	protein subunit	Phase I Clinical Trials in Taiwan NCT04522089	Adimmune Corporation
siRNA	RNA	Preclinical development	Alnylam and Vir Biotechnology
ZF2001	protein subunit	Phase III	AnhuiZhifei Longcom
ARCT-021	RNA	Phase II NCT04728347	Arcturus Therapeutics
BBV-154	viral vector	Phase I NCT04751682	Bharat Biotech
SCB-2019	protein subunit	Phase I NCT04932824	Clover Biopharmaceuticals
COVI-VAC	live-attenuated	Phase I NCT04619628	Codagenix
UB-612	multitope peptide-based vaccine (MPV)	Phase I NCT04545749	COVAXX, United Biomedical

CVnCoV	mRNA	Phase III NCT04860258	Curevac
Vaccine adjuvant		Phase III NCT05012787	Dynavax Technologies Corp
CpG1018		Preclinical development	Geovax
Coronavirus vaccine		Preclinical development	
Vaccine adjuvant		(adjuvant to S-Trimer vaccine)	GlaxoSmithKline
Self-assembling vaccine (SAV)		Preclinical development	HaloVax (Hoth Therapeutics + Voltron Therapeutics)
Coronavirus vaccine		Preclinical development	Heat Biologics Inc.
INO-4800		Phase I/II Clinical Trials	
DNA-based vaccine	DNA	NCT04447781	Inovio Pharmaceuticals
		NCT04336410	
ReCoV	protein subunit	Phase I	Jiangsu Rec-Biotechnology Co Ltd
MVC-COV1901	protein subunit	Phase I/II NCT04487210	Medigen
		NCT04951388	
mRNA-1283	mRNA	Phase I NCT04813796	NIAID in collaboration with Moderna Therapeutics
NVX-CoV2373		Preclinical development	Novavax Inc
Coronavirus vaccine	protein subunit		
CoVepiT (OSE13E)	protein subunit	Phase I NCT04885361	OSE Immunotherapeutics
TAK-019 (Novavax formulation)	protein subunit	Phase I/II NCT04712110	Takeda
adjuvanted recombinant protein vaccine		Phase II/III NCT04762680	Sanofi Pasteur with GSK