Overview of planned and ongoing clinical studies of vaccines for COVID-19

Table of contents

RNA vaccines	3
mRNA-1273, Moderna	3
BNT162, BioNTech	4
RNA vaccine, Imperial College London	5
CVnCoV, CureVac	6
People's Liberation Army (PLA) Academy of Military Sciences/Walvax Biotech.	ε
LUNAR-COV19, Arcturus Therapeutics and Duke-NUS	6
DNA vaccines	7
INO-4800, Inovio	7
GX-19, Genexine	7
DNA plasmid vaccine, Cadila Healthcare Limited	
AG0301-COVID19, Osaka University/AnGes/Takara Bio	8
Non-replicating viral vector	9
Ad5-nCoV, CanSino	9
AZD1222, ChAdOx1 nCoV-19, Oxford and Astra-Zeneca	10
Gam-COVID-Vac Lyo, Gamaleya	13
Ad26.COV2-S, JnJ	14
Inactivated virus	15
Wuhan Institute of Biological Products, Sinopharm	
Beijing Institute of Biological Products, Sinopharm	
Chinese Academy of Medical Sciences	
Coronavac, Sinovac	
BBV152, Bharat Biotech	19
Protein subunit	20
NVX-CoV2373, Novavax	20
Native like Trimeric subunit Spike Protein vaccine, Clover/GSK/Dynavax	20
Adjuvanted recombinant protein (RBDDimer), Anhui Zhifei Longcom Biologic Pharmacy Co., Ltd	21
COVAX19, Recombinant spike protein with Advax™ adjuvant, Vaxine Pty Ltd/Medytox	
Molecular clamp stabilized Spike protein with MF59 adjuvant	22
KBP-COVID-19, Kentucky Bioprocessing, Inc	22
Virus Like Particles	23
Plant derived VLP, Medicago Inc./Université Laval	23
Other vaccine studies, not yet recruiting	24
Other vaccines	25
BCG vaccine	25
Measles-Mumps-Rubella Vaccine	

RNA vaccines

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
mRNA-1273, Moderna Sponsor: National institute of Allergy and Infectious diseases; Moderna Therapeutics; Lonza	NCT04283461	United States, Washington	Phase 1 open label dose ranging study of the safety and immunogenicity of 2019 nCoV vaccine (mRNA1273) in healthy adults N=155, several doses are being tested: 10 mcg, 25 mcg, 50 mcg, 100 mcg, 250 mcg	Relevant safety outcomes; 12 months follow-up	Recruiting Estimated primary completion: November 2021	High
mRNA-1273 Sponsor: ModernaTX, Inc. NIAID Lonza	NCT04405076 Early news. https://time.com/58 35785/moderna- coronavirus-vaccine- phase-2/ https://investors.mo dernatx.com/news- releases/news- release- details/moderna- receives-fda-fast- track-designation- mrna-vaccine-mrna https://investors.mo dernatx.com/news- releases/news- releases/news- release- details/moderna- announces-positive- interim-phase-1- data-its-mrna- vaccine	United states (multiple sites)	Phase 2a, randomized, observerblind, placebo controlled, doseconfirmation study to assess the safety, reactogenicity, and immunogenicity of 2 dose levels of mRNA-1273 SARS-COV-2 vaccine in adults 18 years of age or older. N=600 randomized to 50 mcg mRNA-1273 or 100 mcg mRNA-1273. Each participant will receive two shots The randomisation is stratified by age. 300 individuals 18-54 years and 300 individuals 55+ years	1. Solicited local and systemic adverse reactions [Time Frame: 7 days post-vacc] 2. Unsolicited adverse events [Time Frame: 28 days post-vacc] 3. Medically-attended adverse events [Time Frame: Month 0 through Month 13] 4. Serious adverse events [Time Frame: Month 0 through Month 13] 5. Change in the measure of clinical safety laboratory values in Cohort 2 from baseline [Time Frame: Through 1 month after last vacc] 6. Number and percentage of participants with abnormalities in blood pressure, temp, HR or respiratory rate [Time Frame: Through 1 year after last vacc] 7. Number and percentage of participants with abnormalities in physical examinations [Time Frame: Through 1 year after last vaccination] 8. Evaluate immunogenicity of mRNA-1273 by titer of SARS-CoV-2-specific binding antibody (bAb) measured by enzyme-linked immunosorbent assay (ELISA) [Time Frame: Through 1 year after the final dose]	Active, not recruiting Estimated Primary Completion Date: March 2021	High

mRNA-1273	NCT04470427	Multicenter study in US	A Phase 3, Randomized, Stratified,	Number of Participants with a	Including patients from	High
	Early news		Observer-Blind, Placebo-Controlled	First Occurrence of COVID-19	July 27, 2020 onwards	
Sponsor:	https://investors.mo		Study to Evaluate the Efficacy, Safety,	Starting 14 Days after Second		
Moderna Moderna	dernatx.com/news-		and Immunogenicity of mRNA-1273	Dose of mRNA-1273 [Time	Estimated Primary	
	releases/news-		SARS-CoV-2 Vaccine in Adults Aged	Frame: Day 29 (second dose)	Completion Date: October	
Collaborators:	release-		18 Years and Older	up to Day 759 (2 years after	<mark>27, 2022</mark>	
Biomedical Advanced	details/moderna-		N=30,000	second dose)]		
Research and	advances-late-stage-		Participants will receive 1	Number of Participants with		
Development Authority	development-its-		intramuscular (IM) injection of 100	Adverse Events (AEs) or		
National Institute of	vaccine-mrna-1273/		microgram (ug) mRNA-1273 or	Medically Attended AEs		
Allergy and Infectious			placebo on Day 1 and on Day 29.	(MAAEs) Leading to		
Diseases (NIAID)				Withdrawal [Time Frame: Up		
				to Day 759 (2 years after		
				second dose)]		
				Number of Participants with		
				Solicited Local and Systemic		
				Adverse Reactions (ARs) [Time		
				Frame: Up to Day 8 (7 days		
				after first dose) and up to Day		
				36 (7 days after second dose)]		
				Number of Participants with		
				Unsolicited AEs [Time Frame:		
				Up to Day 57 (28 days after		
				each dose)]		

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
BNT162, BioNTech BioNTech mRNA vaccine BNT162a1	EudraCT Number: 2020-001038-36 NCT04380701	Germany	Phase I/II, multi-site, non- randomized, open-label trial investigating the safety and immunogenicity of four prophylactic SARS-CoV-2 RNA vaccines against	Solicited local reactions at the injection site (pain, tenderness, erythema/redness, induration/swelling) recorded up to 7±1 days after each	Ongoing; Estimated Primary Completion Date: August 2020	High
BNT162b1 BNT162b2	U1111-1249-4220		COVID-2019 using different dosing regimens in healthy adults.	immunization.		
BNT162c2	BNT162-01		N=200	2. Solicited systemic reactions (nausea, vomiting, diarrhea,		
Pharmaceuticals GmbH +	https://investors.bio		The trial has two parts.	headache, fatigue, myalgia, arthralgia, chills, loss of		
Pfizer Inc.	ntech.de/news- releases/news- release- details/biontech-		Part A: a dose-finding part with four dose cohorts for each vaccine and one pre-defined and one optional dose level for a de-escalation	appetite, malaise, and fever) recorded up to 7±1 days after each immunization.		
	and-pfizer-announce- regulatory-approval- german		approach BNT162a1 (i.m., escalating dose levels)	3. The proportion of subjects with at least 1 unsolicited treatment emergent adverse event (TEAE): [Time Frame: 21		

			- BNT162b1 (i.m., escalating dose levels) - BNT162b2 (i.m., escalating dose levels) - BNT162c2 (i.m., single dose) Part B: dedicated to recruit expansion cohorts with dose levels which are selected from data generated in Part A.	days following dose administration] 4. The proportion of subjects with at least 1 unsolicited treatment emergent adverse event (TEAE): [Time Frame: 28 days following dose administration]		
BNT162 BioNTech mRNA vaccine BNT162a1 BNT162b1 BNT162b2 BNT162c2 Sponsor: Biontech SE	NCT04368728 Same vaccine as 2020-001038-36	Multicenter, Germany, United States	Phase 1/2, observer-blinded, placebo-controlled, randomized dose-finding trial to Describe the Safety, Tolerability, Immunogenicity, and Potential Efficacy of Covid-19 RNA Vaccine Candidates Against COVID-19 in Healthy Adults N = 7600 healthy adults in age groups: 18-55, 65-85 and 18-85. Randomized to receive single dose of low-, medium- or high-dose or two doses of low-, medium- or high-dose of BNT162a1, BNT162b1, BNT162b2, BNT162c2 or placebo injection (21 arms)	Percentage of participants reporting: - Local reactions - Systemic events - (Serious) Adverse events Percentage of sentinel cohort participants with grading shifts and abnormal hematology and laboratory values	Recruiting Estimated primary Completion Date: June 28, 2021	High

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
RNA vaccine, Imperial	https://www.imperia	<mark>UK</mark>	In total, Phase I will enrol		Planned to start mid June	<mark>High</mark>
College London	I.ac.uk/covid-19-		approximately 120 adult volunteers		and last for 2 months	
	vaccine-trial/		across the UK.		Interim results available	
LNP-nCoVsaRNA					end of August	
	ISRCTN17072692					

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
CVnCoV, CureVac Sponsor: Curevac, CEPI	NCT04449276	Germany	A Phase 1, Partially Blind, Placebo- controlled, Dose-escalation, First-in- human, Clinical Trial to Evaluate the Safety, Reactogenicity and Immunogenicity After 1 and 2 Doses of the Investigational SARS-CoV-2 mRNA Vaccine CVnCoV Administered Intramuscularly in Healthy Adults	Safety	Recruiting; Estimated primary completion: August 2021	High

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
People's Liberation Army	ChiCTR2000034112	Zhejiang and Guangxi	A Phase I clinical trial to evaluate the	IgG antibody, Neutralizing	From 2020-06-25 To 2021-	<mark>High</mark>
(PLA) Academy of		Zhuang Autonomous	safety, tolerance and preliminary	antibody, cellular immunity	<mark>12-31</mark>	
Military Sciences/Walvax		Region, China	immunogenicity of different doses of			
Biotech.			a SARS-CoV-2 mRNA vaccine in			
			population aged 18-59 years and 60			
			years and above			
1			N=168			

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
LUNAR-COV19, Arcturus	NCT04480957	<mark>Singapore</mark>	A Phase 1/2 Randomised, Double	Incidence, severity and dose-	Estimated primary	<mark>High</mark>
Therapeutics and Duke-			Blinded, Placebo Controlled,	relationship of AEs [Time	completion:	
NUS			Ascending Dose Study to Assess the	Frame: 56 days]	July 2020	
			Safety, Tolerability, and			
			Immunogenicity of ARCT-021 in			
			Healthy Adult Subjects			
			N=85 randomised to 3 different			
			doses and 2 different dosing regimen			

DNA vaccines

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
INO-4800, Inovio	NCT04336410	United States, Kentucky,	Phase 1 Open-label Study to Evaluate	Safety and efficacy	Recruiting;	<mark>High</mark>
Device: CELLECTRA® 2000		Missouri and	the Safety, Tolerability and	Time frame week: 52	Estimated Primary	
		Pennsylvania Pennsylvania	Immunogenicity of INO-4800 for a		Completion:	
<mark>Sponsor: Inovio</mark>			Novel Coronavirus (COVID-19) in		<mark>July 2021</mark>	
Pharmaceuticals			Healthy Volunteers			
			N=40			
			Two different doses will be tested			
INO-4800	NCT04447781	Not stated yet	A Phase I/IIa, Dose-Ranging Trial to	Safety and efficacy	Not yet recruiting;	High
			Evaluate Safety, Tolerability and	Time frame week: 52	roc yet rear arm.g/	·B
Sponsor:			Immunogenicity of INO-4800	Time traine week. 32	Estimated primary	
International Vaccine Insti					completion: February 22,	
tute			N=160 participants		2022	
			- 200 participanto			
I						

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
GX-19, Genexine Sponsor: Genexine, Inc.	NCT04445389	Korea	A Phase 1/2a, Multi-center, Randomized, Double-blind, Placebo- controlled Study to Investigate the Safety, Tolerability, and Immunogenicity of GX-19 N=190	Incidence of solicited adverse events [Time Frame: Through 1 year post vaccination] Incidence of unsolicited adverse events [Time Frame: Through 1 year post vaccination] Incidence of serious adverse events [Time Frame: Through 1 year post vaccination]	Recruiting; Estimated Primary Completion: May 17, 2021	High

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
DNA plasmid vaccine,	CTRI/2020/07/02635	<mark>India</mark>	A prospective, randomized, adaptive,	Phase I: To evaluate the safety	Recruiting;	<mark>High</mark>
Cadila Healthcare	<mark>2</mark>		phase I/II clinical study to evaluate	of Novel Corona Virus-2019-	Estimated Primary	
Limited			the safety and immunogenicity of	nCov Vaccine Candidate of M/s	Completion:	
			Novel Corona Virus -2019-nCov	Cadila Healthcare Limited by	May 17, 2021	
			vaccine candidate	intradermal route in healthy		
			N=1048	subjects. (day 0 and day 84)		
				Phase II: To evaluate the		
				immunogenicity of Novel		
				Corona Virus-2019-nCov		
				Vaccine Candidate of M/s		
				Cadila Healthcare Limited by		
				intradermal route in healthy		
				subjects compared to placebo.		
				(day 0 and day 224)		

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
AG0301-COVID19, Osaka	JapicCTI-205328	Osaka City University	Phase 1	Incidence of Treatment-	Recruiting	<mark>High</mark>
University/AnGes/Takara		Hospital, Japan	A Non-randomized, Open-label, Non-	Emergent Adverse Events	Estimated primary	
Bio	https://www.clinicalt		controlled Phase I/II Study to Assess	[Safety and Tolerability]) [Time	completion date:	
	rials.jp/cti-		Safety and Immunogenicity of Two	Frame: Week 1 through Week	September 26, 2020	
	user/trial/ShowDirec		Doses of Intramuscular AG0301-	<mark>9]</mark>		
	t.jsp?clinicalTrialId=3		COVID19 (1mg/2mg) in Healthy		Duration: 25.6.2020-	
	<u>0761</u>		Adults Adults		<mark>31.7.2021</mark>	
				Immunogenicity [Time Frame:		
	NCT04463472		N=30	Weeks 3, 5, 7, 9]		

Non-replicating viral vector

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Ad5-nCoV, CanSino Recombinant Novel Coronavirus Vaccine, Adenovirus Type 5 Vector Sponsor: CanSino Biologics Inc.	ChiCTR2000030906 NCT04313127	Hubei, China	A single-center, open and dose- escalation phase I clinical trial for recombinant novel coronavirus (2019-COV) vaccine (adenoviral vector) N=108 Healthy adults treated with 3 different doses	Adverse reactions 7 days post injection	Active, not recruiting Estimated primary completion: Dec 30 2020	High
Ad5-nCoV Institute of Biotechnology, Academy of Military Medical Sciences, PLA of China CanSino Biologics Inc.	NCT04341389 ChiCTR2000031781	China, Hubei	A Randomized, Double-blind, Placebo-controlled Phase II Clinical Trial to Evaluate the Safety and Immunogenicity of the Recombinant Novel Coronavirus Vaccine (Adenovirus Vector) in Healthy Adults Aged Above 18 Years N=500 healthy individuals randomised to 1×10^11vp of Ad5-nCoV 5×10^10vp of Ad5-nCoV Placebo	Occurrence of adverse reactions [Time Frame: 0-14 days post vaccination] Anti SARS-CoV-2 S antibody response(ELISA) [Time Frame: 28 days post vaccination] Neutralizing antibody response to SARS-CoV-2 [Time Frame: 28 days post vaccination]	Active, not recruiting; Estimated Primary Completion: January 31, 2021	High
Ad5-nCoV Sponsor and collaborators: CanSino Biologics Inc. Institute of Biotechnology, Academy of Military Medical Sciences. PLA of China Canadian Center for Vaccinology	NCT04398147 Early news https://thesamikhsya.com/exclusive/canada-approves-first-clinical-trial-for-potential-covid-19-vaccine	Canada	Phase I /II adaptive clinical trial to evaluate the safety, tolerability and the Immunogenicity of Ad5-nCoV in healthy adults from 18 to <55 and 65 to <85 years of age with the randomized, observer-blind, dose-escalation design. N=96 will be included in the dose-escalating study (phase I) 5E10vp and 10E10vp, Of each of the 2 doses, single dose and 2 doses will be tested. N=600 will be included in the phase 2 trial	Solicited AE in all groups [Time Frame: 0-6 days after each vaccination] Unsolicited AE in all groups [Time Frame: 0-28 days after each vaccination] Serious adverse events (SAE) in all groups [Time Frame: 6 months after the final vaccination]	Not yet recruiting; Estimated Primary Completion: March 2021	High

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
AZD1222, ChAdOx1 nCoV-19, Oxford and Astra-Zeneca	NCT04324606 2020-001072-15	UK	A Phase I/II Study Single-blinded, randomised, placebo controlled, multi-centre study	Number of virologically confirmed (PCR positive) symptomatic cases of COVID-	Active, not recruiting	High
Based on adenovirus vaccine vector with SARS-CoV-2 spike protein. ChAdOx1 nCoV-19 is an adenoviral vector-based vaccine that consists of genetic material from SARS-CoV-2 inserted into a weakened common cold virus. The idea is that after a person has been vaccinated, the spike protein on the surface of the Covid-19 virus is produced, thereby preparing the immune system to attack it. University of Oxford Astra-Zeneca	http://www.ox.ac.uk /news/2020-03-27- oxford-covid-19- vaccine-programme- opens-clinical-trial- recruitment		N: 510 Healthy volunteers aged 18-55 Number of study participants has been increased to 1112.	Occurrence of serious adverse events (SAEs) throughout the study duration	Estimated primary Completion: May 2021	
AZD1222, ChAdOx1 nCoV-19	NCT04400838 2020-001228-32 Early news: http://www.ox.ac.uk /news/2020-05-22- oxford-covid-19- vaccine-begin-phase- iiiii-human-trials	<u>UK</u>	Phase II/III study to determine the efficacy, safety and immunogenicity of the ChAdOx1 nCoV-19 in healthy UK volunteers. A randomised, single blinded trial. 10,260 adults and children Phase 2 study: from 5 years of age Phase III study: from 18 years Comparator: Menveo or Nimenrix (meningococcal vaccines)	Assess the efficacy of the candidate ChAdOx1 nCoV-19 against COVID-19 in adults aged 18 years and older. [Time Frame: 6 months]: Number of virologically confirmed (PCR positive) symptomatic cases of COVID-19 Assess the safety of the candidate vaccine ChAdOx1 nCoV-19 in adults and children [Time Frame: 6 months]: Occurrence of serious adverse events (SAEs) throughout the study duration.	Not yet recruiting; Estimated primary completion: August 2021	High

AZD1222, ChAdOx1 nCoV-19	NCT04444674 PACTR202006922165 132	Multicentre study in South Africa	An Adaptive Phase I/II Randomized Placebo-controlled double-blinded Trial to Determine Safety, Immunogenicity and Efficacy of Non- replicating ChAdOx1 SARS-CoV-2 Vaccine in South African Adults Living Without HIV; and Safety and Immunogenicity in Adults Living With HIV N=2000	Assess the incidence of adverse events (intervention-related and intervention-unrelated) in HIV-negative adults aged 18-65 year receiving candidate ChAdOx1 nCoV-19 vaccine or placebo (safety) [Time Frame: Up to 12 months post enrollment] Determine if there is a reduction of severe and non-severe COVID-19 disease in HIV-negative adults who receive candidate vaccine ChAdOx1 nCoV-19 compared to placebo recipients (efficacy) [Time Frame: Up to 12 months post enrollment] Assess the incidence of adverse events (intervention-related and intervention-unrelated) in HIV-positive adults aged 18-65 year receiving candidate ChAdOx1 nCoV-19 vaccine or placebo (safety) [Time Frame: Up to 12 months post enrollment] Assess cellular Immunogenicity of ChAdOx1 nCoV-19 in people living with HIV (immunogenicity) [Time Frame: Up to 12 months post enrollment] Assess humoral immunogenicity of ChAdOx1 nCoV-19 in people living with HIV [Time Frame: Up to 12 months post enrollment]	Not yet recruiting; Estimated Primary Completion: October 2020	High
ChAdOx1 nCoV-19 vaccine vs MenACWY vaccine	ISRCTN89951424	<mark>Brazil</mark>	A phase III randomized controlled trial to determine safety, efficacy, and immunogenicity of the non-replicating ChAdOx1 nCoV-19 vaccine Single-blind	Virologically confirmed (PCR positive) symptomatic cases of COVID-19 over the course of 12 months.	Ongoing Study duration May 2020 to July 2021	High

All participants will be invited
Participants will be randomised (1:1 to follow-up visits at day 28,
using block randomisation) to receive 90, 182 and 364 and
either ChAdOx1 nCoV-19 or participants will be asked to
MenACWY (licensed control vaccine). contact the study team if they
Participants will also be advised to develop symptoms suggestive
take paracetamol for 24 hours after of COVID-19 at any point
vaccination if there are no during the trial. Symptomatic
contraindications to doing so. participants will be asked to
present for a visit to test for
SARS-CoV-2 PCR.
N=2000

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Gam-COVID-Vac Lyo, Gamaleya Gamaleya Research Institute of Epidemiology and Microbiology, Health Ministry of the Russian Federation Adenovector virus	NCT04437875	Moscow, Russian Federation	An open, prospective, two-stage, non-randomized, first-phase study involving healthy volunteers N=38 3 arms: rAd26 Component, 1 vaccination Component 1 consists of a recombinant adenovirus vector based on the human adenovirus type rAd5 Component, 1 vaccination Component 2 consists of a vector based on the human adenovirus type sof a vector based on the human adenovirus type 5, containing the SARS-CoV-2 S protein gene. Prime-boost: Day 1 rAd26 Component Day 21 rAd5 Component	The changing of antibody levels against the SARS-CoV-2 glycoprotein S at 42 days [Time Frame: at days 0, 14, 21, 28, 42] Number of Participants With Adverse Events [Time Frame: through the whole study, an average of 180 days]	Estimated primary Completion: August 5, 2020	High
Gam-COVID-Vac Gamaleya Research Institute of Epidemiology and Microbiology, Health Ministry of the Russian Federation Adenovector virus	NCT04436471	Moscow, Russian Federation	An open, prospective, two-stage, non-randomized, first-phase study involving healthy volunteers N=38 3 arms: rAd26 Component, 1 vaccination Component 1 consists of a recombinant adenovirus vector based on the human adenovirus type rAd5 Component, 1 vaccination Component 2 consists of a vector based on the human adenovirus type sakes of a vector based on the human adenovirus type 5, containing the SARS-CoV-2 S protein gene. Prime-boost: Day 1 rAd26 Component Day 21 rAd5 Component	Changing ofantibody levels against the SARS-COV-2 glycoprotein S in 42 days [Time Frame: at days 0,14, 21, 28, 42] Number of Participants With Adverse Events [Time Frame: through the whole study, an average of 180 days]	Recruiting Estimated primary Completion: August 5, 2020	High

Version of 22.07.2020

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
Ad26.COV2-S, JnJ	https://www.janssen	US and Belgium	The randomized, double-blind,		Is expected to commence	<mark>High</mark>
	.com/johnson-		placebo-controlled Phase 1/2a study		in second last half of July	
Sponsor: Johnson &	johnson-announces-		will evaluate the safety,		<mark>2020</mark>	
<mark>Johnson</mark>	acceleration-its-		reactogenicity (response to			
	covid-19-vaccine-		vaccination), and immunogenicity			
	candidate-phase-		(immune response) of the			
	12a-clinical-trial-		investigational SARS-CoV-2 vaccine,			
	<mark>begin</mark>		Ad26.COV2-S, recombinant in 1045			
			healthy adults aged 18 to 55 years, as			
			well as adults aged 65 years and			
			older. The study will take place in the			
			U.S. and Belgium.			

Inactivated virus

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
Wuhan Institute of	ChiCTR2000031809	China, He'nan , Jiaozuo	Randomized, double-blind, placebo	Incidence of adverse	From 2020-04-11 To 2021-	<mark>High</mark>
Biological Products,			parallel-controlled phase I/II clinical	reactions/events	<mark>11-10</mark>	
Sinopharm			trial for inactivated Novel Coronavirus			
			Pneumonia vaccine (Vero cells)			
Inactivated vaccine (Vero						
<mark>cells)</mark>			Healthy volunteers, from 6 years of			
Henan Provincial Center			age			
for Disease Control and			Multiple doses			
Prevention						
Funding:						
Ministry of Science and						
Technology, China						

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
Beijing Institute of	ChiCTR2000032459	China, He'nan, Shangqiu	A phase 1/2 randomized, double-	Incidence of adverse	From 2020-04-28 To 2021-	<mark>High</mark>
Biological Products,			blind, placebo parallel-controlled	reactions/events	<mark>11-28</mark>	
Sinopharm			clinical trial to evaluate the safety and			
			immunogenicity of inactivated novel			
Inactivated novel			coronavirus (2019-CoV) vaccine (Vero			
coronavirus (2019-CoV)			cells)			
vaccine (Vero cells)						
			N = 2128???			
Sponsor: Henan Provincial			Healthy volunteers from 3 years of			
Center for Disease			age			
Control and Prevention			Multiple doses			
Funding:						
Ministry of Science and						
Technology, China						
and Sinopharm						

Version of 22.07.2020

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
Primary sponsor:	ChiCTR2000034780	Abu Dhabi, UAE	Randomized, Double Blind, Parallel	Protective efficacy against	Recruiting;	<mark>High</mark>
China National Biotec			Placebo Controlled, Phase III Clinical	COVID 19 measured 14 after		
Group Co.Ltd			Trial to Evaluate the Safety and	full course of vaccination	Duration: 2020-07-16 To	
			Protective Efficacy of Inactivated		<mark>2021-07-15</mark>	
Secondary sponsors:			SARS-CoV-2 Vaccine in Healthy			
Beijing Institute of			Population Aged 18 Years and above			
Biological Products Co.,			·			
LTD.,			15000 subjects randomized 1:1:1 to			
Wuhan Institute of			two different treatment groups or			
Biological Products co.,			placeno			
LTD.			pidelie			
<mark>Shaikh Khalifa Medical</mark>						
City Dialysis Center						

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Chinese Academy of Medical Sciences Inactivated SARS-CoV-2 vaccine; Sponsors and Collaborators: Chinese Academy of Medical Sciences, West China Second University Hospital, Yunnan Center for Disease Control and Prevention	ChiCTR2000032459 NCT04412538	China, Sichuan	Randomized, double-blinded, and placebo-controlled phase la/lla clinical trial N =942 healthy volunteers from 18-59 years of age: N=192 in the phase I trial, and N=750 in the phase II trial. Multiple doses, 2 different schedules	Incidence of adverse reactions/events Serum conversion rate of neutralizing antibodies and IgG antibodies in the phase II trial at day 14 and 28	Recruiting; Estimated primary completion date: September 2020	High
Chinese Academy of Medical Sciences Sponsors and Collaborators Chinese Academy of Medical Sciences West China Second University Hospital Yunnan Center for Disease Control and Prevention	NCT04470609	China, Sichuan	A Randomized, Double-blind, Placebo-controlled, Phase Ib/IIb Trial of an Inactivated SARS-CoV-2 Vaccine in Healthy People Aged ≥60 Years N=471 ranodmised to 1 of 3 doses or placebo. 1 dose at day 0 and 1 dose at day 28	Adverse reactions/events rate [Time Frame: 7 days after vaccination] Adverse reactions/events rate [Time Frame: 28 days after vaccination] Seroconversion rate of Neutralizing antibodies against SARS-CoV-2 Phase IIb [Time Frame: 28 days after vaccination] Seroconversion rate of IgG antibodies against SARS-CoV-2 Phase IIb [Time Frame: 28 days after vaccination]	Enrolling by invitation Estimated Primary Completion Date: November 2020	High

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Coronavac, Sinovac Formalin-inactivated and alum-adjuvanted Sinovac Research & Development Co., Ltd	NCT04352608	China, Jiangsu	Randomized, double-blinded, and placebo controlled phase I/II clinical trial of the SARS-CoV-2 inactivated vaccine. Healthy adults aged 18-59 Years. N (estimated) = 744	1.Safety indexes of adverse reactions [Time Frame: up to 28 days after the whole schedule vaccination] 2.Neutralizing-antibody seroconversion rates for the emergency vaccination schedule (0 and 14) [Time Frame: The 14th day after two doses of vaccination] 3.Neutralizing-antibody seroconversion rates for the routine vaccination schedule (day 0,28) [Time Frame: The 28th day after two doses of vaccination]	Recruiting; Estimated Primary Completion Date: August 13, 2020	High
Coronavac Inactivated SARS-CoV-2 vaccine (Vero Cell) Sponsor: Sinovac Research and Development Co., Ltd.	NCT04383574	China, Hebei	Phase 1/2, double-blinded, placebo- controlled, randomized trial on Inactivated Vaccine for Prevention of Covid-19 infection N = 422 (72 in phase 1 and 350 in phase 2), age ≥ 60, healthy, randomized to two doses of low, medium or high dosage or placebo	Safety index-incidence of adverse reactions [Time Frame: Day 0-28 after each dose vaccination]	Not yet recruiting Estimated Primary Completion Date: July 20, 2020	High
Coronavac Sponsor: Sinovac Research and Development Co., Ltd. Collaborator: Butantan Institute	NCT04456595	Brazil	Double-Blind, Randomized, Placebo- Controlled Phase III Clinical Trial to Evaluate Efficacy and Safety in Healthcare Professionals of the Adsorbed COVID-19 (Inactivated) Vaccine Manufactured by Sinovac N= 8870	Incidence of COVID-19 cases after two-doses immunization schedule [Time Frame: Two weeks after second dose up to one year after first dose] Number of virologically-confirmed symptomatic COVID-19 two weeks after second dose of vaccine Frequency of adverse events up to seven days after immunization [Time Frame: Seven days after each immunization] Frequency of adverse reaction in the seven days following each immunization per age group	Not yet recruiting; Estimated primary completion date: September 2021	High

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
BBV152, Bharat Biotech Whole-Virion Inactivated SARS-CoV-2 Vaccine	CTRI/2020/07/02630 0 NCT04471519	India	Phase 1, followed by Phase 2 Randomized, Double-blind, Multicenter Study to Evaluate the Safety, Reactogenicity, Tolerability and Immunogenicity of the Whole- Virion Inactivated SARS-CoV-2 Vaccine (BBV152) in Healthy Volunteers. Whole-Virion Inactivated SARS-CoV-2 vaccine (BBV152) with three formulations, BBV152A, BBV152B and BBV152C. Dose: 0.5ml, Route of administration: Intramuscular injection, Frequency: Two doses at Day 0 and Day 14 N=1125	Phase 1: 1. The occurrence of immediate adverse events within two hours of vaccination 2. The occurrence of adverse events within 7 days of vaccination.3. The occurrence of any adverse events throughout the study duration 4. The occurrence of serious adverse events (SAEs) Phase 2: Primary 1. To evaluate the immunogenicity in terms of GMT and four-fold seroconversion rate amongst the two selected BBV152 vaccine formulations	Recruiting; Estimated Primary Completion Date: July 2021	High

Protein subunit

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
NVX-CoV2373, Novavax	to website NCT04368988	Australia (multiple sites)	A 2-Part, phase 1/2, randomized,	1. Subjects with solicited AEs -	Recruiting	High
		riastrana (martipie sites)	observer-blinded study to evaluate	Phase 1 [Time Frame: 28	1 Tool area of	
SARS-CoV-2 Recombinant	https://ir.novavax.co		the safety and immunogenicity of a	ridae i [rime ridine: 20	Expected to start mid-May	
Spike Protein	m/news-		SARS-CoV-2 recombinant spike	2. Safety Laboratory Values	2020	
Nanoparticle Vaccine	releases/news-		protein nanoparticle vaccine (SARS-	(serum chemistry, hematology)		
(SARS-CoV-2 rS)	release-		CoV-2 rS) with or without MATRIX-	- Phase 1 [Time Frame: 28	Estimated Primary	
(3AN3 COV 213)	details/novavax-		M™ Adjuvant in healthy subjects.	days]	Completion Date:	
Sponsor:	identifies-		Adjuvant in fleating subjects.	auys j	December 31, 2020	
Novavax	coronavirus-vaccine-		N=131 healthy subjects ≥ 18 to 59 age	3. Serum IgG antibody levels	December 31, 2020	
IVOVAVAX	candidate-		randomized to placebo or SARS-CoV-	specific for the SARS-CoV-2 rS	Sharing of results in July	
CEPI funding	accelerates		2 rS - 25 μg without Matrix-M or	protein antigen(s) - Phase 1	2020	
CETTRAIGH	decererates		SARS-CoV-2 rS - 5 µg with 50 µg	Time Frame: 35 days]	2020	
			Matrix-M or SARS-CoV-2 rS - 25 μg	Time Trame. 33 days j		
			with 50 µg Matrix-M or SARS-CoV-2			
			rS - 25 μg with 50 μg Matrix-M			
			followed by Placebo.			
			Tollowed by Placebo.			
			In Part 1, at least 1 and up to two			
			SARS-CoV-2 rS constructs will be			
			The state of the s			
			evaluated in up to 2 cohorts, which			
			may be enrolled in parallel. An			
			interim analysis of Part 1 safety and			
			immunogenicity data will be			
ı			performed prior to an optional			
			expansion to Part 2.			

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
Native like Trimeric	NCT04405908	<mark>Australia</mark>	This is a randomized, double blind,	Incidence of solicited adverse	Recruiting;	<mark>High</mark>
subunit Spike Protein			placebo controlled, first-in-human	events (AEs) after vaccination [
vaccine,			study to assess safety, reactogenicity,	Time Frame: 7 days after the	Estimated primary	
Clover/GSK/Dynavax			and immunogenicity of SCB-2019 at	first or second vaccination.]	completion: October 20,	
			multiple dose levels, administered as	Incidence of unsolicited AEs	<mark>2020</mark>	
SCB-2019 with and			2 injections IM in healthy subjects.	after vaccination [Time Frame:		
without adjuvant (AS03			Each study vaccine dose level will be	Day 1 to Day 50]		
or CpG 1018 plus Alum			evaluated with and without adjuvant.	Immunogenicity(Anti-SCB-2019		
adjuvant)				Antibody Titers) [Time Frame:		
			N=150 healthy volunteers stratified	Day 1 to Day 184]		
			by age, randomised to 1 of 3 doses (3,	Geometric mean titer (GMT).		
			9 or 30 microgram with or without	Geometric mean ratio (GMR).		
Sponsor: Clover			adjuvant)	Seroconversion rate (SCR).		
Biopharmaceuticals						
Inc./GSK/Dynavax						

Incidence of serious AEs (SAEs)	
and adverse events of special	
interest (AESIs) [Time Frame:	
Day 1 to Day 184]	

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Adjuvanted recombinant protein (RBDDimer), Anhui Zhifei Longcom Biologic Pharmacy Co., Ltd. Collaborators: The Second Affiliated Hospital of Chongqing Medical University Beijing Chao Yang Hospital	NCT04445194	China, Chongqing	A Multi-center, Double-blind, Randomized, Placebo Parallel Controlled, Safety and Tolerability Phase I Clinical Trial of Recombinant Novel Coronavirus Vaccine (CHO Cells) in Healthy People Between 18 and 59 Years of Age. N=50	The number of adverse events after intramuscular injection [Time Frame: Up to one year after the last vaccination]	Recruiting; Estimated primary completion: July 21, 2021	High
Sponsor: Anhui Zhifei Longcom Biologic Pharmacy Co., Ltd.	NCT04466085		A Randomized, Blinded, Placebocontrolled Trial to Evaluate the Immunogenicity and Safety of a Recombinant New Coronavirus Vaccine (CHO Cell) With Different Doses and Different Immunization Procedures in Healthy People Aged 18 to 59 Years N=900 randomised to Low dose, high dose or placeboinjected as 2 doses or 3 doses	Neutralizing antibody positive conversion rate [Time Frame: 30 days after inoculation]	Not yet recruiting; Estimated Primary Completion Date; September 15, 2021	High

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
COVAX19, Recombinant spike protein with Advax™ adjuvant, Vaxine Pty Ltd/Medytox	NCT04453852	Australia, South Australia	A Randomised, Controlled, Phase 1 Study to Evaluate the Safety and Immunogenicity of a Candidate Adjuvanted Recombinant Protein SARS-COV-2 Vaccine in Healthy Adult Subjects. N=40	Incidence of Adverse Events [Time Frame: 1 weeks post immunisation] COVID19 neutralizing antibody titers [Time Frame: 2 weeks post second immunisation]	Recruiting; Estimated primary completion: July 1, 2021	High
				COVID19 T cell immunogenicity [Time Frame: 3 weeks post second immunisation]		

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Molecular clamp stabilized Spike protein	ACTRN12620000674 932p	Australia	A Phase 1 Randomised, Double-Blind, Placebo-Controlled, Dosage-	Safety and tolerability	Recruiting;	High
with MF59 adjuvant University of			Escalation, Single Centre Study To Evaluate The Safety And Immunogenicity Of An Adjuvanted		Estimated primary completion: July 1, 2021	
Queensland/CSL/Seqirus			SARS-CoV-2 Sclamp Protein Subunit Vaccine (COVID-19 vaccine) In			
			Healthy Adults Aged 18 To 55 Years Old			
			N=120			

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
KBP-COVID-19, Kentucky	NCT04473690	Not stated yet	A Phase I/II, First-in-human,	Solicited Administration site	Not yet recruiting;	<mark>High</mark>
Bioprocessing, Inc			Observer-blinded, Randomized,	reactions [Time Frame: 7 days		
			Placebo-controlled, Parallel Group	after vaccination]	Estimated primary	
RBD-based vaccine			Study to Evaluate the Safety and	Occurrence of Adverse Events	completion: December 3,	
			Immunogenicity of KBP-COVID-19		2020	
			Vaccine in Healthy Seronegative	Solicited systemic events [
			Adults Aged 18-49 and 50-70.	Time Frame: 7 days after		
			Two doses will be tested.	vaccination]		
			N=180			

Virus Like Particles

Vaccine, Sponsor	Study identifier/link	Location	Study design	Primary outcome	Status of trial	Importance
	to website					
Plant derived VLP,	NCT04450004		A Randomized, Partially-Blinded,	Safety measures + Neutralizing	Recruiting;	<mark>High</mark>
Medicago Inc./Université			Dose-Ranging Phase 1 Study to Assess	antibody [Time Frame: 21		
Laval			the Safety, Tolerability, and	days]	Estimated primary	
			Immunogenicity of a Recombinant	Specific Th1 cell-mediated	completion: September	
			Coronavirus-Like Particle COVID 19	immunity (CMI) response [<mark>12, 2020</mark>	
			Vaccine in Adults 18-55 Years of Age	Time Frame: 21 days]		
			N=180	Specific Th2 cell-mediated		
				immunity (CMI) response [
				Time Frame: 21 days]		

Other vaccine studies, not yet recruiting

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
DNA vaccine: bacTRL-Spike Plasmids containing synthetic DNA encoding spike protein from SARS- CoV-2 Sponsor: Symvivo Corporation (A Vancouver-based biotech company) Sponsor: Symvivo	NCT04334980	Canada, British Columbia Canada, Nova Scotia	A Phase 1, Randomized, Observer-Blind, Placebo-Controlled Trial to Evaluate the Safety, Tolerability and Immunogenicity of the bacTRL-Spike Oral Candidate Vaccine for the Prevention of COVID-19 in Healthy Adults N=84 3 different doses will be tested	Frequency of Adverse Events Each participant will remain in the trial for 12-13 month	Not yet recruiting; Estimated Primary Completion Date: August 31, 2021	High
Corporation Non-Replicating Viral Vector: Intranasal vaccine Single dose AdCOVID	Early news: Collaboration between University of Alabama at Birmingham and Altimune Inc. https://www.drugtargetreview.com/news/59182/biotech-and-academia-collaborate-on-intranasal-covid-19-vaccine-	USA	Phase I estimated to start Q3 2020	TBD	Not recruiting; Estimated study completion: Unknown	High
Dendritic Cell Vaccine Sponsor: Aivita Biomedical, Inc.	development/ NCT04386252	Not stated	A phase 1/2, randomized, double-blinded trial of a vaccine consisting of autologous dendritic cells loaded with antigens from SARS-CoV-2, with or without GM-CSF, to prevent COVID-19. Different doses N = 160 frontline healthcare providers and first responders.	Confirm safety [Time Frame: 6 months]	Not yet recruiting Estimated Primary Completion Date: October 2020	High
Drug: MicroRNA2911 Sponsor: Nanjing University	ChiCTR2000031432	China, Jiangsu	Phase 1, single center, randomized, open, dose-increasing, double-blind clinical study to evaluate the safety	Safety and tolerance	Not yet recruiting From 2020-04-01 To 2020- 08-31	Medium

			and tolerance of microRNA2911 plasmid in healthy people. N = 15 healthy adults enrolled in 1-5 dose group to receive 3 times of intravenous infusion for 10 minutes of MicroRNA2911 once a day or every other day.			
V-SARS Sponsor: Immunitor LLC	NCT04380532	Canada	Phase I/II, single group assignment, open-label trial to evaluate the safety and immunogenicity in healthy individuals administered once-daily pill of therapeutic vaccine made from heat-inactivated plasma from donors with COVID-19. N=20	Effect on CBC as per CTCAE v4.0 [Time Frame: 15 Days] Effect on biochemistry parameters as per CTCAE v4.0 [Time Frame: 15 Days]	Recruiting Estimated Primary Completion Date: May 15, 2021	Medium
			V-SARS administered po. once-per- day for 15 days			

Other vaccines

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
BCG vaccine Licensed for tuberculosis	NCT04327206 Early news: The BRACE trial https://www.mcri.ed u.au/BRACE https://www.clinicalt rialsarena.com/news /australia-bcg- vaccine-trial-covid-	Murdoch Children's Research Institute in Australia	Randomised, multi-center clinical trial to test the use of BCG vaccine against COVID-19 patients Will include 4.170 healthcare workers across AU, incl Melbourne Campus' Royal Children's Hospital	BCG will be assessed for its ability to mitigate the prevalence and severity of COVID-19 symptoms.	Recruiting; Estimated primary completion: October 30, 2020	High
BCG vaccine University Medical Center, Netherlands	EudraCT: 2020- 000919-69 NCT04328441 https://www.science mag.org/news/2020/	Netherlands	Randomised placebo controlled multi-center clinical trial to test the use of BCG vaccine as protection against COVID-19 Will include 1.000 healthcare workers across 8 Dutch hospitals	Study outcome: "unplanned absenteeism" as it will not be feasible to visit the sick professionals at home during the coronavirus pandemic	Ongoing; Estimated Primary Completion: October 25, 2020	High

	03/can-century-old- tb-vaccine-steel- immune-system- against-new- coronavirus		BCG often cause an injection site reaction which will unblind the person receiving BCG, but the researchers will remain blinded.	BCG will be assessed for its ability to mitigate the prevalence and severity of COVID-19 symptoms.		
BCG Vaccine VPM1002 Licensed for tuberculosis	Early news: http://www.mpiib- berlin.mpg.de/19900 61/news publication 14610776 transferr ed https://economictim es.indiatimes.com/in dustry/healthcare/bi otech/pharmaceutica Is/serum-institute-to- test-if-tb-vaccine- ypm1002-is- effective-against- covid- 19/articleshow/7480 0246.cms?from=mdr	Germany	Phase III, multi-centre clinical trial to test the use of BCG vaccine as protection against COVID-19 Likely to begin on 2.000 health-care workers in Germany and soon after in India as well.	Study outcome: BCG will be assessed on healthcare workers to see efficacy of the vaccine as a preventive against coronavirus, and on elderly patients to check efficacy in reducing clinical severity	Unknown	High
BCG vaccine BCG vaccine is the Copenhagen (Danish strain) Sponsor: Ain Shams University	NCT04350931	Egypt	Single blind, randomised, placebo controlled trial. N=900 healthcare workers will be randomly assigned to receive intradermal injection of either BCG vaccine or normal saline.	Incidence of confirmed COVID- 19 [Time Frame: 9 months] Estimate the incidence of confirmed COVID-19 among the healthcare workers in isolation hospitals Effectiveness of BCG vaccine [Time Frame: 9 months] Evaluate the effectiveness of BCG vaccine in protecting the healthcare workers in isolation hospitals against the risk of COVID-19 infection by detecting any positive cases among vaccinated healthscare workers	Not yet recruiting; Estimated Primary Completion: October 1, 2020	High
BCG Vaccine Sponsor: Andrew Dinardo	NCT04348370	United States: Massachusetts and Texas	Phase 4, randomized, double-blinded N=700 health care workers randomized 1:1 to BCG vaccine or placebo.	Incidence (measured by confirmed positive test) of SARS-CoV2 infection following BCG vaccination compared to placebo [Time Frame: Measured daily for up to 6 months]	Not yet recruiting Estimated Primary Completion Date: May 2021	High

BCG vaccine Sponsor: Universidad de Antioquia	NCT04362124	Columbia (multicenter)	Phase 3, double-blind, randomized, clinical trial to evaluate the BCG vaccination in healthcare workers to reduce the severity of SARS-COV-2 infection. N=1000 covid-19 negative health care workers randomized 1:1 to BCG vaccine or placebo.	Primary outcome [Time Frame: From date of randomization to 360 day of the study]	Not yet recruiting Estimated Primary Completion Date: June 2021	High
BCG vaccine of patients already positive for SARS-CoV-2 (non-specific effects) Sponsor: University of Campinas, Brazil	NCT04369794 (BATTLE)	<mark>Brazil</mark>	Phase 4, prospective, randomized, double-blind, multicentre study to evaluate to the impact of previous (priming effect, from the titer of anti-BCG interferon-gamma) or current BCG exposure (boost with intradermal vaccine) on 1) clinical evolution of COVID-19; 2) elimination of SARS-CoV-2 at different times and disease phenotypes; and 3) seroconversion rate and titration (anti-SARS-CoV-2 IgA, IgM, and IgG). N=1000 randomized to BCG vaccine or placebo.	1. Clinical evolution of COVID- 19 [Time Frame: 45 days of symptoms onset or diagnosis] 2. SARS-COV-2 elimination [Time Frame: 7 days of symptoms onset or diagnosis] 3. Seroconversion rate and titration [Time Frame: 7 days of symptoms onset or diagnosis	Not yet recruiting Estimated Study Completion Date: May 2022	High
BCG vaccine Sponsor: Bandim Health Project Collaborator: University of Southern Denmark	NCT04373291 2020-001888-90 BCG-DENMARK- COVID	<u>Denmark</u>	Using BCG vaccine to enhance nonspecific protection of health care workers during the COVID-19 pandemic. A randomised controlled multi-center trial. Phase 3, multi-center, randomized, double-blinded placebo-controlled trial using BCG Vaccine to enhance non-specific protection of health care workers during the COVID-19 pandemic. N=1500 hospital personal ≥18 years caring for covid-19 patients randomized 1:1 to BCG vaccine (0,1 mL dose of BCG-Denmark, AJ Vaccines) or placebo (0.1 ml dose sterile 0.9 % NaCl).	Number of days of unplanned absenteeism for any reason [Time Frame: 6 months]	Not yet recruiting Estimated Study Completion Date: January 2021	High
Bacille Calmette-Guérin (BCG) Sponsor: TASK Applied Science	NCT04379336	South Africa	A phase 3, randomized, double- blinded, placebo-controlled study to reduce morbidity and mortality in health care workers exposed to SARS- CoV-2 by enhancing non-specific	Incidence of HCWs hospitalized due to COVID-19 per arm [Time Frame: 52 weeks]	Recruiting Estimated Primary Completion Date: April 28, 2021	High

BCG vaccinaton Sponsor: Assistance Publique - Hôpitaux de Paris	NCT04384549	France	immune responses through bacillus calmette-guérin vaccination N = 500 healthcare workers Phase 3, single-blinded, placebocontrolled, randomized trial on the Efficacy of Vaccination With Bacillus Calmette and Guérin (BCG) in the Prevention of COVID-19 Via the Strengthening of Innate Immunity in	Incidence of documented COVID-19 among health care workers exposed to SARS CoV2 and vaccinated with BCG compared to placebo. [Time Frame: during the study period	Not yet recruiting Estimated Primary Completion Date: February 11, 2021	High
/PM1002 Mycobacterium bovis BCG∆ureC::hly, live 2-8 × L05 CFU)	NCT04439045		N = 1120 healthcare workers in direct contact with Covid-19 patients A Randomized, Double-blind, Placebo-controlled Phase 3 Study N03626	of 6 months]	Not yet recruiting Estimated Primary Completion: April 1, 2021	High
Previous Bacille Calmette- Guérin (BCG) vaccination Sponor: Assiut University	NCT04347876	Egypt	Observational, Case-Control study evaluating whether previous BCG vaccination can alter the outcome of COVID-19 cases. Based on Tuberculin Test. N = 100 COVID-positive patients admitted to hospital and ICU with positive Tuberculin Test compared to COVID-positive patients with negative Tuberculin Test.	Pneumonia severity index [Time Frame: 2 weeks] Need for ICU admission [Time Frame: 2 weeks]	Recruiting Estimated Study Completion Date: June 30, 2020	Low
/PM1002 (a further development of the BCG- /accine) Sponsor: /akzine Projekt Management GmbH	NCT04387409 VPM1002-DE- 3.06CoV	Germany	Phase 3, double-blind, randomized, placebo-controlled multicentre trial to assess the efficacy and safety of VPM1002 in reducing healthcare professionals' absenteeism in the SARS-CoV-2 pandemic by modulating the immune system. N=1200 health care professionals with high expected exposure to SARSCoV-2 infected patients randomized 1:1 to a single dose (0.1 ml) of either VPM1002 or placebo.	Number of days absent from work due to respiratory disease (with or without documented SARS-CoV-2 infection) [Time Frame: From day 0 to day 240]	Not yet recruiting Estimated Primary Completion Date: June 30, 2021	High
BCG vaccination	NCT04417335	Netherlandes	Single blinded, placebo-controlled adaptive multi-centre randomized controlled trial N=2014 randomised to BCG vaccination or placebo	SARS-CoV-2 related hospital admission [Time Frame: Maximum of 1 year]	Active, not recruiting; Estimated primary completion. May 2021	Medium

BCG vaccination	NCT04414267	Greece	A Randomized double blinded Clinical	Positive for the respiratory	Recruiting;	Medium
			Trial for Enhanced Trained Immune	questionnaire consisted of	Estimated primary	
			Responses Through Bacillus Calmette-	questions concerning the	completion: May 25, 2021	
			Guérin Vaccination to Prevent	appearance of symptoms		
			Infections by COVID-19: The	possibly, probably and/or		
			ACTIVATE II Trial	definitively related to COVID-		
				19 on visit 3. [Time Frame:		
			N=900 randomised to BCG or placebo	Visit 3 (90 +/- 5 days)]		

Vaccine, Sponsor	Study identifier/link to website	Location	Study design	Primary outcome	Status of trial	Importance
Measles-Mumps-Rubella Vaccine Sponsor: Kasr El Aini Hospital	NCT04357028	Egypt	Phase 3, randomized, single-blinded, placebo-controlled clinical trial to determine the benefit of measles vaccine in health care professional.	COVID-19 disease incidence [Time Frame: Time Frame: Measured over the 6 months following randomization]	Not yet recruiting Estimated Study Completion Date: November 1, 2020	Medium
Inactivated mycobacterium vaccine Sponsor: Guangxi medical university	ChiCTR2000030016 http://www.chictr.or g.cn/showproj.aspx? proj=49799	Guangxi Zhuang, China	N = 200 N=60 with Covid-19 patients randomized to mycobacterium vaccine or saline	viral negative-transforming time;30-day cause-specific mortality;30-day cause-adverse events;30-day all-cause mortality;co-infections;Time from severe and critical patients to clinical improvement;	Recruiting Dec 12, 2022	Medium

Link to WHO's list of vaccines in preclinical and clinical phases, updated July 21, 2020:

https://www.who.int/who-documents-detail/draft-landscape-of-covid-19-candidate-vaccines