

COVID-19 Treatment and Vaccine Tracker

This document contains an aggregation of publicly available information from validated sources. It is not an endorsement of one approach or treatment over another but simply a list of all treatments and vaccines currently in development.

TREATMENTS

Number	Type of Product - Treatment	FDA-Approved Indications (Treatments)	Clinical Trials Ongoing for Other Diseases	Developer/ Researcher	Current Stage of Development	Funding Sources	Anticipated Timing	Sources
ANTIBODIES								
1	TAK-888, antibodies from recovered COVID-19 patients	N/A		Takeda	Pre-clinical		To patients in 6-18 months	PhRMA Wall Street Journal
2	Antibodies from mice, REGN3048-3051	N/A		Regeneron	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)	Start Phase 1 late summer 2020	Stat News MarketWatch Reuters Bloomberg News
3	Antibodies from recovered COVID-19 patients	N/A		Celltrion	Pre-clinical		Start Phase 1 ~ Sept 2020	Korea Herald
4	Antibodies from recovered COVID-19 patients	N/A		Kamada	Pre-clinical			BioSpace AbbVie
5	Antibodies from recovered COVID-19 patients	N/A		Vir Biotech/WuXi Biologics/Biogen	Pre-clinical			Stat News Vir Biotech
6	Antibodies from recovered COVID-19 patients	N/A		Lilly/Ab-Cellera (NIH Vaccines Research Center)	Pre-clinical		Start Phase 1 in late July 2020	Endpoints News
7	Avastin (bevacizumab), vascular endothelial growth factor inhibitor	FDA-approved since 2004, approved to treat certain types of cancer		Numerous trials with Chinese research sponsors; Roche	Clinical			BioCentury ClinicalTrials.gov
8	PD-1 blocking antibody; Thymosin	Unknown		Southeast University, China	Clinical		Phase 2 primary trial ends April 30, 2020	BioCentury ClinicalTrials.gov Seeking Alpha ClinicalTrials.gov ClinicalTrials.gov Gilead
9	leronlimab (PRO 140), a CCR5 antagonist	N/A	Treatment of HIV/AIDS; treatment of breast cancer	CytoDyn	Pre-clinical			Clinical Trials Arena CytoDyn CytoDyn CytoDyn
10	AiRuiKa (camrelizumab), anti-programmed cell death protein (PD-1) antibody	N/A	Treatment of certain cancers	Southeast University, China	Clinical		Primary trial ends April 2020	ClinicalTrials.gov Hengrui Medicine

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11	Kevzara (sarilumab), interleukin-6 receptor antagonist	FDA-approved since 2017, approved to treat rheumatoid arthritis		Sanofi/Regeneron	Clinical		Start Phase 2/3 in March/April 2020	FiercePharma Wall Street Journal Seeking Alpha
12	Actemra (tocilizumab), interleukin-6 receptor antagonist	FDA-approved since 2010, approved to treat various type of arthritis, including rheumatoid arthritis, and cytokine release syndrome		First Affiliated Hospital of the University of Science and Technology of China	Clinical			Wall Street Journal
13	Antibody	Unknown		Swiftscale Biologics	Pre-clinical			Medium
14	Antibody	N/A		Erasmus MC/Utrecht University	Pre-clinical			Erasmus Magazine bioRxiv
15	Antibodies	Unknown		ImmunoPrecise Antibodies	Pre-clinical			Clinical Trials Arena
16	Antibodies	Unknown		AstraZeneca	Pre-clinical			PhRMA
ANTIVIRALS								
17	Favilavir/Favipiravir/T-705/ Avigan, licensed in Japan to treat influenza	N/A		Fujifilm Toyama Chemical/Zhejiang Hisun Pharmaceuticals/numerous trials with Chinese research sponsors	Clinical			World Health Organization Clinical Trials Arena Pharmaceutical Technology Chinese Clinical Trial Registry ClinicalTrials.gov BioCentury Guardian Chinese Clinical Trial Registry Chinese Clinical Trial Registry Chinese Clinical Trial Registry Chinese Clinical Trial Registry Chinese Clinical Trial Registry Chinese Clinical Trial Registry Chinese Clinical Trial Registry Chinese Clinical Trial Registry
18	Kaletra/Aluvia (lopinavir/ ritonavir), HIV-1 protease inhibitor	FDA-approved since 2000, approved to treat HIV-1 infection		Chinese hospital testing (AbbVie)	Clinical			PhRMA Wall Street Journal Wall Street Journal Wall Street Journal
19	remdesivir, nucleotide analog	N/A		Gilead	Clinical and expanded access		Phase 3 trial results expected April 27, 2020	PhRMA Wall Street Journal PhRMA post on LinkedIn
20	Prezcobix (darunavir, HIV-1 protease inhibitor/cobicistat, CYP3A inhibitor)	FDA-approved since 2015, approved to treat HIV-1 infection		Chinese hospital testing (Janssen)	Clinical		Primary study ends August 2020	World Health Organization Wall Street Journal Chinese Clinical Trial Registry ClinicalTrials.gov

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21	galidesivir	N/A	Treatment of yellow fever	BioCryst Pharmaceuticals	Pre-clinical			Reuters BioCryst
22	Combination of ebastine, lopinavir, and interferon alpha	N/A		Wuhan Red Cross Hospital	Clinical		Primary trial ends March 31, 2020	BioCentury Chinese Clinical Trial Registry
23	Ganovo (danoprevir), hepatitis C virus NS3 protease inhibitor; ritonavir; interferon, approved in China to treat Hepatitis C	N/A		Ascletis/Numerous trials with Chinese research sponsors	Clinical			BioCentury ClinicalTrials.gov
24	ASC09, HIV protease inhibitor	N/A	Treatment of HIV/AIDS	Ascletis Pharma	Clinical		Primary trial ends May 2020	ClinicalTrials.gov Nature Biotechnology Ascletis Pharma
25	Truvada (emtricitabine and tenofovir, both HIV-1 nucleoside analog reverse transcriptase inhibitors)	FDA-approved since 2004, approved to treat and prevent HIV-1 infection		Gilead/Sichuan Academy of Medical Sciences & Sichuan Provincial People's Hospital	Clinical			World Health Organization Chinese Clinical Trial Registry
26	Arbidol (umifenovir), licensed in Russia and China for treatment of respiratory viral infections	N/A		Pharmstandard/numerous trials with Chinese research sponsors	Clinical			World Health Organization BioCentury ClinicalTrials.gov Chinese Clinical Trial Registry Chinese Clinical Trial Registry
27	Xofluza (baloxavir marboxil), polymerase acidic endonuclease inhibitor	FDA-approved since 2018, approved to treat influenza		Roche/The First Affiliated Hospital of Zhejiang University Medical School	Clinical			World Health Organization Chinese Clinical Trial Registry
28	azvudine, reverse transcriptase inhibitor	N/A		Henan Provincial People's Hospital	Clinical			World Health Organization
CELL-BASED THERAPIES								
29	PLX cell product, placenta-based cell therapy	Unknown		Pluristem Therapeutics/BIH Center for Regenerative Therapy/Berlin Center for Advanced Therapies	Pre-clinical			Pharmaceutical Technology Pluristem Therapeutics
30	Mesenchymal stem cells	Unknown		Numerous trials with Chinese research sponsors	Clinical			BioCentury Chinese Clinical Trial Registry
31	Ryoncil (remestemcel-L), allogenic mesenchymal stem cells	N/A		Mesoblast	Pre-clinical			FierceBiotech
RNA-BASED TREATMENTS								
32	RNAi - testing 150 RNAs	N/A		Sirnaomics	Pre-clinical			NPR
33	siRNA candidates	N/A		Vir Biotech/Alnylam Pharmaceuticals	Pre-clinical			Clinical Trials Arena

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34	Ampligen; (rintatolimod)	N/A		AIM ImmunoTech/National Institute of Infectious Diseases in Japan	Pre-clinical			AIM Immunotech press release
35	OT-101, a TGF-Beta antisense drug candidate	N/A	Various cancers	Mateon Therapeutics	Pre-clinical			Clinical Trials Arena Mateon Therapeutics
SCANNING COMPOUNDS TO REPURPOSE								
36	Scanning library of antiviral compounds	N/A	N/A	Janssen Pharmaceutical Companies	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)		Johnson & Johnson PhRMA
37	Scanning compounds to repurpose	N/A	N/A	Novartis	Pre-clinical			PhRMA
38	Scanning antiviral compounds previously in development	N/A	N/A	Pfizer	Pre-clinical		Screening completed March 2020, start Phase 1 by end of 2020	Pfizer PhRMA
39	Scanning compounds to repurpose	N/A	N/A	Merck	Pre-clinical			Wall Street Journal
40	Repurposing antiviral drug candidates	N/A	N/A	Materia Medica/Cyclica	Pre-clinical			Cyclica press release
41	Screening new drugs + library of antiviral compounds	N/A	N/A	Enanta Pharmaceuticals	Pre-clinical			FierceBiotech Enanta Pharmaceuticals
42	Screening drug compounds	N/A	N/A	Southwest Research Institute	Pre-clinical			Clinical Trials Arena
43	Scanning compounds to repurpose	N/A	N/A	Takeda	Pre-clinical			PhRMA
OTHERS								
44	Washed microbiota transplantation	Unknown		The Second Hospital of Nanjing Medical University	Clinical		Primary trial ends April 2, 2020	BioCentury ClinicalTrials.gov
45	Corticosteroids	FDA-approved since at least the 1950s, approved to treat many diseases, including anti-inflammatory conditions and some cancers		Peking Union Medical College Hospital	Clinical		Primary study ends April 25, 2020	World Health Organization ClinicalTrials.gov
46	Chloroquine/ Hydroxychloroquine, antimalarial	FDA-approved since at least 1949, approved to treat malaria		Numerous trials with research sponsors in China; University of Minnesota; University of Oxford	Clinical			World Health Organization ClinicalTrials.gov BioCentury Endpoints News
47	Camostat mesylate, transmembrane protease serine 2 (TMPRSS2) inhibitor, approved in Japan to treat multiple conditions including pancreatitis	N/A		Leibniz Institute for Primate Research/ University Göttingen and others	Pre-clinical			Nature Biotechnology bioRxiv Thailand Medical News Cell

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48	Jakafi/jakavi (ruxolitinib)	FDA-approved since 2011, approved to treat myelofibrosis, polycythemia vera, and acute graft-versus-host disease		Department of Hematology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology/Incyte Corp	Clinical			World Health Organization Chinese Clinical Trial Registry
49	PegIntron, Sylatron, IntronA (peginterferon alfa-2b)	PegIntron - FDA-approved since 2001, approved to treat Hepatitis C; Sylatron - FDA-approved since 2001, approved for the adjuvant treatment of melanoma; Intron A - FDA-approved since 1986, approved to treat Hepatitis C and certain cancers		Wuhan Jinyintan Hospital (Wuhan Infectious Diseases Hospital) (Schering)	Clinical			World Health Organization Chinese Clinical Trial Registry
50	Novaferon, Nova, interferon, licensed in China for Hepatitis B	N/A		The First Affiliated Hospital of Zhejiang University Medical School	Clinical			World Health Organization Chinese Clinical Trial Registry Chinese Clinical Trial Registry
51	Recombinant ACE2 (angiotensin-converting enzyme 2)	Unknown		The First Affiliated Hospital of Guangzhou Medical University	Clinical		Primary trial ends April 1, 2020	BioCentury ClinicalTrials.gov
52	Cerocal (ifenprodil), NP-120, an NDMA receptor glutamate receptor antagonist targeting Glu2NB	N/A	Idiopathic Pulmonary Fibrosis	Algernon Pharmaceuticals	Pre-clinical			Clinical Trials Arena Algernon Pharmaceuticals
53	APN01; recombinant soluble human Angiotensin Converting Enzyme 2	N/A	Acute lung injury, Acute respiratory distress syndrome, Pulmonary arterial hypertension	University of British Columbia/Apeiron Biologics	Clinical		In Phase 1 pilot in China	Clinical Trials Arena Apeiron Biologics ClinicalTrials.gov
54	Brilacidin, a defensin mimetic	N/A	Oral Mucositis; Ulcerative Proctitis/Ulcerative Proctosigmoiditis; Acute Bacterial Skin and Skin Structure Infection	Innovation Pharmaceuticals	Pre-clinical			Clinical Trials Arena Innovation Pharmaceuticals
55	BXT-25; glycoprotein	N/A		Bioxytran	Pre-clinical			Clinical Trials Arena
56	Peptides	Unknown		CEL-SCI	Pre-clinical			Clinical Trials Arena CEL-SCI Corporation press release
57	Gilenya (fingolimod)			The First Affiliated Hospital of Fujian Medical University/Novartis	Clinical		Primary trial ends July 2020	ClinicalTrials.gov
58	A number of synthesized nanoviricide drug candidates	N/A		NanoViricides	Pre-clinical			Clinical Trials Arena NanoViricides Inc.

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VACCINES

Number	Type of Vaccine	Related Use/Platform	Developer/ Researcher	Current Stage of Development	Funding Sources	Anticipated Timing	Sources
1	DNA plasmid; INO-4800	Same platform as vaccine candidates for Lassa, Nipah, HIV, Filovirus, HPV, cancer indications, Zika, and Hepatitis B	Inovio Pharmaceuticals/Beijing Advaccine Biotechnology	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)	Start Phase 1 in April 2020	World Health Organization MarketWatch
2	DNA		Takis/Applied DNA Sciences/Evvivax	Pre-clinical			World Health Organization
3	DNA plasmid		Zydus Cadila	Pre-clinical			World Health Organization
4	Inactivated (formaldehyde-inactivated + alum)		Sinovac	Pre-clinical			World Health Organization
5	Deoptimized live attenuated virus	Same platform as vaccine candidates for HAV, InfA, ZIKV, FMD, SIV, RSV, DENV	Codagenix/Serum Institute of India	Pre-clinical		Animal data in summer 2020	World Health Organization Indian Express
6	Non-replicating viral vector; MVA encoded VLP	Same platform as vaccine candidates for LASV, EBOV, MARV, HIV	GeoVax/BravoVax	Pre-clinical			World Health Organization
7	Non-replicating viral vector; Ad26 (alone or with MVA boost)	Same platform as vaccine candidates for Ebola, HIV, RSV	Janssen Pharmaceutical Companies/Beth Israel Deaconess Medical Center	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)	Start Phase 1 by end of 2020	World Health Organization Johnson & Johnson Johnson & Johnson
8	Non-replicating viral vector; ChAdOx1	Same platform as vaccine candidates for influenza, TB, Chikungunya, Zika, MenB, plague	University of Oxford	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)		World Health Organization
9	Non-replicating viral vector; adenovirus-based NasoVAX	Same platform as vaccine candidates for influenza	Altimune	Pre-clinical			World Health Organization
10	Non-replicating viral vector; Ad5 S (GREVAX™ platform)	Same platform as vaccine candidates for MERS	Greffex	Pre-clinical			World Health Organization
11	Non-replicating viral vector; Oral Vaccine platform	Same platform as vaccine candidates for InfA, CHIKV, LASV, NORV, EBOV, RVF, HBV, VEE	Vaxart	Pre-clinical			World Health Organization Vaxart press release

LEGEND

CCHF= Crimean-Congo Haemorrhagic Fever	HIV = Human Immunodeficiency Virus	NIPV = Nipah Virus	TB = Tuberculosis
CHIKV = Chikungunya Virus	HPV = Human Papilloma Virus	NORV = Norovirus	VEE = Venezuelan Equine Encephalitis Virus
DengV = Dengue Virus	Inf = Influenza	RABV = Rabies Virus	VZV = Varicella Vaccine (Chickenpox)
FMD = Foot and Mouth Disease	LASV = Lassa Fever Virus	RSV = Respiratory Syncytial Virus	YFV = Yellow Fever Virus
EBOV = Ebola Virus	MARV = Marburg Virus	RVF = Rift Valley Fever	ZIKV = Zika Virus
HAV = Hepatitis A Virus	MenB = Meningitis B	SARS = Severe Acute Respiratory Syndrome	
HBV = Hepatitis B Virus	MERS = Middle East Respiratory Syndrome	SIV = Simian Immunodeficiency Virus	

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12	Non-replicating viral vector; Viral-vectored based		CanSino Biologics	Pre-clinical			World Health Organization
13	Protein subunit; Drosophila S2 insect cell expression system VLPs		ExpreS2ion	Pre-clinical			World Health Organization
14	Protein subunit; S protein		WRAIR/USAMRIID	Pre-clinical			World Health Organization
15	Protein subunit; S trimer	Same platform as vaccine candidates for HIV, RSV, Influenza	Clover Biopharmaceuticals Inc./GSK	Pre-clinical			World Health Organization
16	Protein subunit; peptide		Vaxil Bio	Pre-clinical			World Health Organization
17	Protein subunit; li-Key peptide	Same platform as vaccine candidates for HIV, SARS-CoV, Influenza	Generex/EpiVax	Pre-clinical			World Health Organization
18	Protein subunit; S protein	Same platform as vaccine candidates for Inf H7N9	EpiVax/University of Georgia	Pre-clinical			World Health Organization
19	Protein subunit; S protein, baculovirus production	Same platform as vaccine candidates for Influenza, SARS-CoV (FDA-approved vaccine)	Sanofi Pasteur	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)	Start Phase 1 March 2021	World Health Organization Sanofi Stat News MarketWatch
20	Protein subunit; Full length S trimers/nanoparticle + Matrix M	Same platform as vaccine candidates for RSV, CCHF, HPV, VZV, EBOV	Novavax	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)		World Health Organization
21	Protein subunit (gp-96 backbone)	Same platform as vaccine candidates for HIV, malaria, Zika	Heat Biologics/University of Miami	Pre-clinical			World Health Organization Clinical Trials Arena
22	Protein subunit; S protein clamp	Same platform as vaccine candidates for Nipah, influenza, Ebola, Lassa	University of Queensland/GSK	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)		World Health Organization
23	Protein subunit; S1 or RBD protein	Same platform as vaccine candidates for SARS	Baylor College of Medicine	Pre-clinical			World Health Organization
24	Protein subunit; Subunit protein, plant produced		iBio/CC-Pharming	Pre-clinical			World Health Organization
25	Replicating viral vector; measles vector		Zyudus Cadila	Pre-clinical			World Health Organization
26	Replicating viral vector; measles vector	Same platform as vaccine candidates for West Nile, CHIKV, Ebola, Lassa, Zika	Institut Pasteur	Pre-clinical			World Health Organization
27	Replicating viral vector; horsepox vector; TNX-1800	Same platform as vaccine candidates for smallpox, monkeypox	Tonix Pharma/Southern Research	Pre-clinical			World Health Organization Tonix Pharmaceuticals press release

Number	Type of Vaccine	Related Use/Platform	Developer/ Researcher	Current Stage of Development	Funding Sources	Anticipated Timing	Sources
28	RNA; LNP-encapsulated mRNA cocktail encoding VLP		Fudan University/Shanghai JiaoTong University/RNACure Biopharma	Pre-clinical			World Health Organization
29	RNA; LNP-encapsulated mRNA cocktail encoding RBD		Fudan University/Shanghai JiaoTong University/RNACure Biopharma	Pre-clinical			World Health Organization
30	RNA; mRNA		China CDC/Tongji University/Stermina	Pre-clinical			World Health Organization
31	RNA; LNP-encapsulated mRNA (mRNA 1273)	Same platform as vaccine candidates for multiple candidates	Moderna/NIAID	Clinical	Coalition for Epidemic Preparedness (CEPI)	Phase 1 started March 2020 at Kaiser Permanente Washington Health Research Institute in Seattle	World Health Organization Wall Street Journal MarketWatch
32	RNA; mRNA	Same platform as vaccine candidates for multiple candidates	Arcturus/Duke-NUS	Pre-clinical			World Health Organization Arcturus Therapeutics
33	RNA; saRNA	Same platform as vaccine candidates for EBOV, LASV, MARV, Inf (H7N9), RABV	Imperial College London	Pre-clinical			World Health Organization
34	RNA; mRNA	Same platform as vaccine candidates for RABV, LASV, YFV, MERS, InfA, ZIKV, DengV, NIPV	CureVac	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)	Start Phase 1 ~ May/ June 2020	World Health Organization
35	RNA; BNT162		BioNTech/Fosun Pharma/Pfizer	Pre-clinical		Start Phase 1 late April 2020	FierceBiotech Endpoints News
36	Unknown		University of Pittsburgh	Pre-clinical			World Health Organization
37	Unknown		University of Saskatchewan	Pre-clinical			World Health Organization
38	Unknown		ImmunoPrecise	Pre-clinical			World Health Organization
39	Unknown		MIGAL Galilee Research Institute	Pre-clinical			World Health Organization
40	Unknown		Doherty Institute	Pre-clinical			World Health Organization
41	Unknown		Tulane University	Pre-clinical			World Health Organization Clinical Trials Arena
42	Unknown		ImmunoPrecise Antibodies	Pre-clinical			Clinical Trials Arena
43	Unknown		AJ Vaccines	Pre-clinical			Clinical Trials Arena