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	Clinical Trials for Other Diseases	Developer/Researcher	Current Stage of Development	Funding Sources	Clinical Trials for COVID-19	Anticipated Next Steps Timing	Published Results	Sources
ANTIBODIES										
1	TAK-888, anti-SARS-CoV-2 polyclonal hyperimmune globulin (H-IG)*	N/A		Takeda	Pre-clinical			Begin Phase 1 trials in late spring. To patients between December 2020 and December 2021		PhRMA Wall Street Journal Pink Sheet
2	Antibodies from mice, REGN3048-3051, against the spike protein	N/A		Regeneron	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)		Start Phase 1 June 2020		Stat News MarketWatch Reuters Bloomberg News FierceBiotech FiercePharma
3	Antibodies from recovered COVID-19 patients	N/A		Celltrion	Pre-clinical			Start Phase 1 in July 2020		Korea Herald UPI
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			Start Phase 1 ~ July 2020		Stat News Vir Biotech 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

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Updated April 3, 2020, at 2:30 p.m.

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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		NCT04275414 (Qilu Hospital of Shandong University) pilot study NCT04305106 (Qilu Hospital of Shandong University) investigational study			BioCentury
8	PD-1 blocking antibody; Thymosin	Unknown		Numerous trials with Chinese research sponsors	Clinical		NCT04268537 ChiCTR2000030028	Phase 2 primary trial ends April 30, 2020		BioCentury
9	leronlimab (PRO 140), a CCR5 antagonist	N/A	Treatment of HIV/ AIDS, Graft versus Host Disease, Non-Alcoholic Steatohepatitis, and numerous cancers	CytoDyn	Clinical					Clinical Trials Arena CytoDyn CytoDyn CytoDyn CytoDyn
10	AiRuiKa (camrelizumab), anti-programmed cell death protein (PD-1) antibody	N/A	Treatment of certain cancers	Wuhan Jinyintan Hospital	Clinical		ChiCTR2000029806			Hengrui Medicine
11	Kevzara (sarilumab), interleukin-6 receptor antagonist	FDA-approved since 2017, approved to treat rheumatoid arthritis		Sanofi/Regeneron	Clinical		NCT04315298	Started Phase 2/3 in March 2020		FiercePharma Wall Street Journal Seeking Alpha Regeneron

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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		Numerous trials with global research sponsors; Roche	Clinical		NCT04317092 (National Cancer Institute, Naples) NCT04320615 (Roche) NCT04310228 (Peking University First Hospital) (also tocilizumab + favipiravir); ChiCTR2000030894 NCT04306705 (Tongji Hospital) (Cytokine Release Syndrome) ChiCTR2000030442 (The Second Affiliated Hospital of Xi'an Jiaotong University) (combination of Tocilizumab, IVIG and CRRT) ChiCTR2000029765 (The First Affiliated Hospital of University of Science and Technology of China [Anhui Provincial Hospital])	Roche studies begin April 2020	ChinaXiv	Wall Street Journal FiercePharma Genentech
13	Gimsilumab, anti-granulocyte-macrophage colony stimulating factor monoclonal	N/A		Roivant Sciences	Clinical					Roivant
14	TJM2 (TJ003234), anti-granulocyte-macrophage colony stimulating factor antibody	N/A		I-Mab Biopharma	Clinical					i-Mab Biopharma

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15*	lenzilumab, anti-granulocyte-macrophage colony stimulating factor antibody*	N/A*	Prevent cytokine storm with CAR-T cancer therapy; prevention/ treatment of acute graft versus host disease; chronic myelomonocytic leukemia; eosinophilic asthma*	Humanigen Inc.*	Clinical / Compassionate Use*					BioWorld* Humanigen* Humanigen* Humanigen*
16*	Sylvant (siltuximab), interleukin-6 targeted monoclonal	FDA-approved since 2014, approved to treat multicentric Castleman disease		EUSA Pharma/The Papa Giovanni XXII Hospital	Clinical		NCT04322188 (A.O. Ospedale Papa Giovanni XXIII)	Initial data March 2020	EUSA Pharma*	EUSA Pharma
17*	Soliris (eculizumaab), complement inhibitor	FDA-approved since 2007, approved to treat Paroxysmal Nocturnal Hemoglobinuria, Atypical Hemolytic Uremic Syndrome, Generalized Myasthenia Gravis, and Neuromyelitis Optica Spectrum Disorder		Alexion	Expanded access					Alexion
18*	Ilaris (canakinumab), interleukin-1beta blocker	FDA approved since 2009, approved to treat periodic fever syndromes and systemic juvenile idiopathic arthritis		Novartis	Clinical					Reuters
19*	Gamifant (emapalumab), anti-interferon gamma antibody	FDA-approved since 2018, approved to treat primary hemophagocytic lymphohistiocytosis		Swedish Orphan Biovitrum	Clinical		NCT04324021 (Swedish Orphan Biovitrum), (Emapalumab; Anakinra)			
20*	Antibody	N/A		Erasmus MC/Utrecht University	Pre-clinical					Erasmus Magazine bioRxiv
21*	Antibodies	Unknown		ImmunoPrecise Antibodies	Pre-clinical					Clinical Trials Arena

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22*	Antibody	N/A		Harbour BioMed/Mount Sinai Health System	Pre-clinical					Mount Sinai and Harbour BioMed press release
23*	Antibodies	Unknown		AstraZeneca	Pre-clinical					PhRMA
24*	Antibody	Unknown		Distributed Bio	Pre-clinical					Distributed Bio
25*	Antibodies	Unknown		Chelsea and Westminster Hospital, Imperial College London	Pre-clinical	UK Government				UK Government
26*	Antibody	N/A		Vanderbilt Vaccine Center	Pre-clinical	Defense Advanced Research Projects Agency		Phase 1 trial begins in summer 2020		Nashville Post
27*	Human plasma product (COVID-HIG) and horse plasma product (COVID-EIG)	N/A		Emergent BioSolutions	Pre-clinical	UK Government		Phase 2 trials begin ~ August 2020		TechCrunch Emergent Biosolutions Pink Sheet
28*	Convalescent plasma (blood plasma from recovered patients)	N/A		Multiple global research sponsors, including New York State Department of Health	Clinical		NCT04321421 (Foundation IRCCS San Matteo Hospital) NCT04292340 (Shanghai Public Health Clinical Center) NCT04316728 (Centro Studi Internazionali, Italy)	New York State Department of Health trial begins March 2020	medRxiv JAMA Network	Politico
29*	Antibodies from recovered COVID-19 patients	N/A		Tsinghua University / Third People's Hospital of Shenzhen / Brii Biosciences	Pre-clinical			Phase 1 trial begins Q3 2020		Tsinghua University press release End Points News
30*	Antibodies from recovered COVID-19 patients	N/A		Grifols	Pre-clinical					Grifols
31*	Antibodies from recovered COVID-19 patients*	N/A*		Amgen / Adaptive Biotechnologies*	Pre-clinical*					Amgen*
32*	Non-viral gene therapy to produce monoclonal antibodies	N/A		Generation Bio / Vir Biotechnology	Pre-clinical					Generation Bio

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33*	rCIG (recombinant anti-coronavirus 19 hyperimmune gammaglobulin), polyclonal antibodies	N/A		GigaGen	Pre-clinical					FierceBiotech
ANTIVIRALS										
34*	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		NCT04303299 (Rajavithi Hospital) (Various Combination of Protease Inhibitors, Oseltamivir, Favipiravir, and Hydroxychloroquine) NCT04310228 (Peking University First Hospital) (also tocilizumab + favipiravir) ChiCTR2000029548 (The First Affiliated Hospital, Zhejiang University School of Medicine) (Baloxavir Marboxil, Favipiravir, and Lopinavir-Ritonavir) ChiCTR2000029496 (Hu'nan Haiyao hongxingtang Pharmaceutical Co., Ltd) (Novaferon, Kaletra, Novaferon+Kaletra) ChiCTR2000029544 (The First Hospital Affiliated to Zhejiang University's Medical School) (Baloxavir Marboxil, Favipiravir)			World Health Organization Clinical Trials Arena Pharmaceutical Technology BioCentury Guardian

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35*	Kaletra/Aluvia (lopinavir/ritonavir), HIV-1 protease inhibitor	FDA-approved since 2000, approved to treat HIV-1 infection		Global hospital testing (AbbVie); World Health Organization SOLIDARITY trial (studying lopinavir/ritonavir with and without interferon beta); University of Oxford	Clinical	UK Government (University of Oxford RECOVERY trial)	NCT04303299 (Rajavithi Hospital) (Various Combination of Protease Inhibitors, Oseltamivir, Favipiravir, and Hydroxychloroquine) NCT04255017 (Tongji Hospital) (Abidol Hydrochloride, Oseltamivir and Lopinavir/Ritonavir) ChiCTR2000029548 (The First Affiliated Hospital, Zhejiang University School of Medicine) (Baloxavir Marboxil, Favipiravir, and Lopinavir-Ritonavir) ChiCTR2000029539 (Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology) EudraCT 2020-000936-23, INSERM study (lopinavir/ritonavir; Rebif; remdesivir) NCT04307693 (Asan Medical Center) (Lopinavir/Ritonavir or Hydroxychloroquine) NCT04315948 (Institut National de la Santé Et de la Recherche Médicale, France) (remedsivir, lopinavir/ritonavir, interferon beta-1a, hydroxychloroquine) NCT04252885 (Guangzhou Eighth People's Hospital) (Lopinavir Plus Ritonavir; Arbidol) NCT04276688 (The University of Hong Kong) (Lopinavir/ritonavir; ribavirin; interferon beta-1B)		New England Journal of Medicine medRxiv Chinese Journal of Infectious Diseases	PhRMA Wall Street Journal Wall Street Journal Wall Street Journal Stat News UK Government

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36*	remdesivir, nucleotide analog	N/A	Treatment of Ebola	Gilead; World Health Organization SOLIDARITY trial	Clinical / Expanded Access		NCT04257656 (Capital Medical University), China study in patients with severe disease NCT04252664 (Capital Medical University), China study in patient with mild/moderate disease NCT04292730, Gilead study in patients with moderate disease NCT04292899, Gilead study in patients with severe disease NCT04280705, NIAID study EudraCT 2020-000936-23, INSERM study NCT04315948 (Institut National de la Santé Et de la Recherche Médicale, France) (remedsivir, lopinavir/ritonavir, interferon beta-1a, hydroxychloroquine) NCT04302766 (Intermediate-size population Expanded Access)	Gilead Phase 3 trial results expected April 2020		PhRMA Wall Street Journal PhRMA post on LinkedIn Stat News Seeking Alpha Gilead Endpoints News

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37*	Prezcobix (darunavir, HIV-1 protease inhibitor/cobicistat, CYP3A inhibitor)	FDA-approved since 2015, approved to treat HIV-1 infection		Chinese hospital testing (Janssen)	Clinical		ChiCTR2000029541 (Zhongnan Hospital of Wuhan University) (darunavir/cobicistat; lopinavir/ritonavir + thymosin a1) NCT04252274 (Shanghai Public Health Clinical Center) NCT04303299 (Rajavithi Hospital) (Various combination of protease inhibitors, Oseltamivir, Favipiravir, and Hydroxychloroquine) NCT04304053 (Fundacio Lluita Contra la SIDA) (prevention, darunavir/cobicistat or hydroxychloroquine)	Primary study ends August 2020		World Health Organization Wall Street Journal
38*	galidesivir	N/A	Treatment of yellow fever	BioCryst Pharmaceuticals	Pre-clinical					Reuters BioCryst
39*	Combination of ebastine, lopinavir, and interferon alpha	N/A		Mianyang Central Hospital	Clinical		ChiCTR2000030535 (Mianyang Central Hospital)	Primary trial ends March 31, 2020		BioCentury
40*	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		NCT04291729 (The Ninth Hospital of Nanchang)		medRxiv	BioCentury ClinicalTrials.gov

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41*	ASC09, HIV protease inhibitor	N/A	Treatment of HIV/AIDS	Ascletis Pharma	Clinical		NCT04261907 (The First Affiliated Hospital of Zhejiang University) (ASC09/Ritonavir and Lopinavir/Ritonavir) NCT04261270 (Tongji Hospital) (ASC09F+Oseltamivir; Ritonavir+Oseltamivir; Oseltamivir)	Primary trial ends May 2020		Nature Biotechnology Ascletis Pharma
42*	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		ChiCTR2000029468 (Sichuan Academy of Medical Sciences & Sichuan Provincial People's Hospital)			World Health Organization
43*	Arbidol (umifenovir), licensed in Russia and China for treatment of respiratory viral infections	N/A		Pharmstandard/numerous trials with Chinese research sponsors	Clinical		NCT04252885 (Guangzhou Eighth People's Hospital) (Lopinavir Plus Ritonavir; Arbidol)		medRxiv Chinese Journal of Infectious Diseases	World Health Organization BioCentury
44*	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		ChiCTR2000029544 (The First Hospital Affiliated to Zhejiang University's Medical School) (Baloxavir Marboxil, Favipiravir) ChiCTR2000029548 (The First Affiliated Hospital, Zhejiang University School of Medicine) (Baloxavir Marboxil, Favipiravir, and Lopinavir-Ritonavir)*			World Health Organization
45*	azvudine, reverse transcriptase inhibitor	N/A		Numerous trials with Chinese research sponsors	Clinical		ChiCTR2000030487 (He'nan Sincere Biotechnology Co., Ltd) ChiCTR2000030424 (He'nan Sincere Biotechnology Co., Ltd) ChiCTR2000029853 (People's Hospital of Guangshan County)			World Health Organization

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46*	Vicromax, broad spectrum antiviral			ViralClear Pharmaceuticals	Pre-clinical					AP
47*	ISR-50	N/A		ISR Immune System Regulation	Pre-clinical					ISR Immune System Regulation
48*	Tamiflu (oseltamivir), neuraminidase inhibitor	FDA-approved since 1999, approved to treat and prevent influenza		Roche	Clinical		NCT04303299 (Rajavithi Hospital) (Various Combination of Protease Inhibitors, Oseltamivir, Favipiravir, and Hydroxychloroquine)* NCT04255017 (Tongji Hospital) (Abidol Hydrochloride, Oseltamivir and Lopinavir/ Ritonavir)* NCT04261270 (Tongji Hospital) (ASC09F+Oseltamivir; Ritonavir+Oseltamivir; Oseltamivir)*			
49*	Antiviral compounds	N/A		Cocrystal Pharma	Pre-clinical					Cocrystal Pharma
CELL-BASED THERAPIES										
50*	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

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51*	Mesenchymal stem cells	Unknown		Numerous trials with global research sponsors	Clinical		ChiCTR2000029990 (Institute of Basic Medicine, Chinese Academy of Medical Sciences) NCT04315987 (Azidus Brasil) (NestCell®) NCT04302519 (CAR-T [Shanghai] Biotechnology Co., Ltd.) (Dental Pulp Mesenchymal Stem Cells) NCT04288102 (Beijing 302 Hospital/VCANBIO CELL & GENE ENGINEERING CORP.,LTD, China) NCT04313322 (Stem Cells Arabia) (Wharton's Jelly-Mesenchymal Stem Cells) NCT04273646 (Wuhan Union Hospital, China/Wuhan Hamilton Bio-technology Co., Ltd, China) (Human Umbilical Cord Mesenchymal Stem Cells)			BioCentury
52*	Ryoncil (remestemcel-L), allogenic mesenchymal stem cells	N/A		Mesoblast	Pre-clinical					FierceBiotech
53*	MultiStem, bone marrow stem cells		Acute Respiratory Distress Syndrome; Stroke	Athersys	Clinical					BioSpace
54*	Allogeneic T-cell therapies	N/A		AlloVir/Baylor College of Medicine	Pre-clinical					AlloVir FierceBiotech
55*	Natural killer cell-based therapy	N/A		GC LabCell / KLEO Pharmaceuticals	Pre-clinical			Begin Phase 1 by end of 2020		UPI Korea Biomedical Review

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56*	CYNK-001, allogeneic, natural killer cell therapy*	N/A*	Various hematologic cancers and solid tumors*	Celularity*	Clinical*			Phase 1/2 study to start in April 2020*		Celularity press release*
RNA-BASED TREATMENTS										
57*	RNAi - testing 150 RNAis	N/A		Sirnaomics	Pre-clinical					NPR
58*	siRNA candidates	N/A		Vir Biotech/Alnylam Pharmaceuticals	Pre-clinical					Clinical Trials Arena Celularity press release*
59*	Ampligen; (rintatolimod)	N/A		AIM ImmunoTech/National Institute of Infectious Diseases in Japan	Pre-clinical					AIM Immunotech press release
60*	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										
61*	Scanning library of antiviral compounds	N/A	N/A	Janssen Pharmaceutical Companies	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)				Johnson & Johnson PhRMA
62*	Scanning compounds to repurpose	N/A	N/A	Novartis	Pre-clinical					PhRMA
63*	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
64*	Scanning compounds to repurpose	N/A	N/A	Merck	Pre-clinical					Wall Street Journal
65*	Repurposing antiviral drug candidates	N/A	N/A	Materia Medica/Cyclica	Pre-clinical					Cyclica press release
66*	Screening new drugs + library of antiviral compounds	N/A	N/A	Enanta Pharmaceuticals	Pre-clinical					FierceBiotech Enanta Pharmaceuticals
67*	Screening drug compounds	N/A	N/A	Southwest Research Institute	Pre-clinical					Clinical Trials Arena
68*	Scanning compounds to repurpose	N/A	N/A	Takeda	Pre-clinical					PhRMA

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69*	Scanning compounds to repurpose	N/A	N/A	Queens University Belfast	Pre-clinical	UK Government				
70*	Scanning compound libraries	N/A	N/A	COVID-19 Therapeutics Accelerator (15 companies shared their compound libararies including BD, bioMérieux, Boehringer Ingelheim, Bristol-Myers Squibb, Eisai, Eli Lilly, Gilead, GSK, Johnson & Johnson, Merck [known as MSD outside the US and Canada], Merck KGaA, Novartis, Pfizer, and Sanofi)	Pre-clinical	Gates Foundation/ Wellcome/ Mastercard Impact Fund				Novartis press release Gates Foundation
OTHERS										
71*	Methylprednisolone / corticosteroids	FDA-approved since at least the 1950s, approved to treat many diseases, including anti-inflammatory conditions and some cancers		Numerous trials with research sponsors in China; University of Oxford	Clinical	UK Government (University of Oxford RECOVERY trial)	NCT04244591 (Peking Union Medical College Hospital) (methylprednisolone) NCT04263402 (Tongji Hospital) (Methylprednisolone) NCT04273321 (Beijing Chao Yang Hospital) (Methylprednisolone) ChiCTR2000029656 (Wuhan Pulmonary Hospital) (methylprednisolone) ChiCTR2000029386 (Chongqing Public Health Medical Center) (Methylprednisolone)	Primary study ends April 2020 (Peking) / June 2020 (Tongji)	NCT04261517 (Shanghai Public Health Clinical Center) (Hydroxychloroquine) IHU-Méditerranée Infection	World Health Organization UK Government

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MILKEN INSTITUTE

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72*	Chloroquine/ Hydroxychloroquine, antimalarial	FDA-approved since 1949, approved to treat malaria (chloroquine), FDA-approved since at least 1955, approved to treat malaria, rheumatoid arthritis, and lupus (hydroxychloroquine)		Numerous trials with global research sponsors; University of Minnesota; University of Washington/New York University (hydroxychloroquine); University of Oxford; IHU-Méditerranée Infection and others; World Health Organization SOLIDARITY trial (chloroquine); New York State Department of Health (hydroxychloroquine with zithromax); Mahidol Oxford Tropical Medicine Research Unit (hydroxychloroquine and chloroquine)	Clinical / FDA issued an Emergency Use Authorization on March 28, 2020 (oral formulations of chloroquine phosphate and hdoxychloroquinine sulfate donated to the Strategic National Stockpile to treat adolescent and adult hospitalized patients with COVID-19 when a clinical trial is not available or feasible)	COVID-19 Treatment Accelerator (University of Washington/ NYU trial and Mahidol Oxford Tropical Medicine Research Unit trial)	NCT04261517 (Shanghai Public Health Clinical Center) (Hydroxychloroquine) NCT04303507 (University of Oxford) (chloroquine prevention study) NCT04303299 (Rajavithi Hospital) (Various combination of protease inhibitors, Oseltamivir, Favipiravir, and Hydroxychloroquine) NCT04304053 (Fundacio Lluita Contra la SIDA) (prevention, darunavir/cobicistat or hydroxychloroquine) NCT04304053 (Fundacio Lluita Contra la SIDA) (prevention, darunavir/cobicistat or hydroxychloroquine) NCT04307693 (Asan Medical Center) (Lopinavir/Ritonavir or Hydroxychloroquine) NCT04316377 (University Hospital, Akershus) (Hydroxychloroquine) NCT04315948 (Institut National de la Santé Et de la Recherche Médicale, France) (remedsivir, lopinavir/ritonavir, interferon beta-1a, hydroxychloroquine) Over 22 trials registered in China	Results from the University of Washington/NYU trial expected in summer 2020	NCT04261517 (Shanghai Public Health Clinical Center) (Hydroxychloroquine) IHU-Méditerranée Infection Journal of ZheJiang University (Medical Sciences) medRxiv*	World Health Organization BioCentury Endpoints News Stat News Politico Sandoz University of Washington Mastercard press release FDA

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73*	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		NCT04321096 (University of Aarhus)			Nature Biotechnology bioRxiv Thailand Medical News Cell
74*	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		ChiCTR2000029580 (Department of Hematology, Tongji Medical College, Huazhong University of Science and Technology) (ruxolitinib in combination with mesenchymal stem cells)			World Health Organization
75*	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
76*	Novaferon, Nova, interferon, licensed in China for Hepatitis B	N/A		The First Affiliated Hospital of Zhejiang University Medical School	Clinical		ChiCTR2000029573 (The First Affiliated Hospital of Medical College of Zhejiang University) (antiviral therapy, Chinese medicine treatment, and Novaferon atomization) ChiCTR2000029496 (Hu'nan Haiyao hongxingtang Pharmaceutical Co., Ltd) (Novaferon, Kaletra, Novaferon+Kaletra)			World Health Organization

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77*	SNG001, inhaled formulation of interferon beta-1a	N/A	Asthma patients with cold or flu infection; COPD patients with viral infections	Synairgen / University of Southampton	Clinical			Phase 2 began in March 2020		pharmaphorum
78*	Peginterferon lambda*		Hepatitis Delta*	Eiger BioPharmaceuticals, Inc.*	Clinical*			Phase 2 began in April 2020*		Eiger BioPharmaceuticals press release* Eiger BioPharmaceuticals*
79*	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
80*	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		Austrian Government*	Phase 2 began in April 2020*		Clinical Trials Arena Apeiron Biologics Apeiron Biologics Apeiron Biologics press release*
81*	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
82*	BXT-25; glycoprotein	N/A		Bioxytran	Pre-clinical					Clinical Trials Arena
83*	Peptides targeting the NP protein	Unknown		CEL-SCI/University of Georgia Center for Vaccines and Immunology	Pre-clinical					Clinical Trials Arena CEL-SCI Corporation press release FierceBiotech BioSpace
84*	BIO-11006, inhaled peptide	N/A	Acute Respiratory Distress Syndrome; Non-Small Cell Lung Cancer; Chronic Obstructive Pulmonary Disease (COPD)	Biomarck Pharmaceuticals	Clinical					Biomarck Pharmaceuticals
85*	Gilenya (fingolimod), sphingosine 1-phosphate receptor modulator	FDA-approved since 2010, approved to treat multiple sclerosis		The First Affiliated Hospital of Fujian Medical University/Novartis	Clinical		NCT04280588 (First Affiliated Hospital of Fujian Medical University)	Primary trial ends July 2020		

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86*	WP1122, glucose decoy prodrug (and related drug candidates)	N/A		Moleculin Biotech/University of Texas Medical Branch	Pre-clinical					FierceBiotech Moleculin
87*	Rebif (interferon beta-1a)	FDA-approved since 2002, approved to treat multiple sclerosis		Institut National de la Sante et de la Recherche Medicale (Merck KGaA)	Clinical		EudraCT 2020-000936-23, INSERM study (lopinavir/ritonavir; Rebif; remdesivir) NCT04315948 (Institut National de la Santé Et de la Recherche Médicale, France) (remedsivir, lopinavir/ritonavir, interferon beta-1a, hydroxychloroquine)			Merck KGaA press release
88*	nafamostat, approved in Japan to treat pancreatitis and other diseases	N/A		University of Tokyo/ National Center for Global Health and Medicine	Pre-clinical			Trial starts April 2020		Bloomberg News
89*	A number of synthesized nanoviricide drug candidates	N/A		NanoViricides	Pre-clinical					Clinical Trials Arena NanoViricides Inc.
90*	losartan	FDA-approved since 1995, approved to treat hypertension and diabetic nephropathy		University of Minnesota	Clinical		NCT04312009 (University of Minnesota) (Losartan for Patients With COVID-19 Requiring Hospitalization) NCT04311177 (University of Minnesota) (Losartan for Patients With COVID-19 Not Requiring Hospitalization)			KARE TV
91*	Activase (alteplase), tissue plasminogen activator (tPA)	FDA-approved since 1987, approved to treat stroke, myocardial infarction, and pulmonary embolism		Beth Israel Deaconess, the University of Colorado Anschultz Medical Campus, and Denver Health (Genentech)	Compassionate Use					MIT News

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92*	Leukine (sargramostim, rhu-Granulocyte macrophage colony stimulating factor)	FDA-approved since 1991, approved to shorten the time to neutrophil recovery and reduce the incidence of infections following chemotherapy, mobilize hematopoietic progenitor cells, accelerate myeloid reconstitution following bone marrow or cell transplantation, treat delayed neutrophil recovery or graft failure after bone marrow transplantation, and increase survival of radiation	Pulmonary conditions that affect alveolar macrophases (nebulized leukine); ARDS (IV leukine)	Partner Therapeutics	Clinical		NCT04326920 (University Hospital, Ghent)			Partner Therapeutics
93*	Kineret (anakinra), interleukin-1 receptor antagonist	FDA-approved since 2001, approved to treat rheumatoid arthritis and cryopyrin-associated periodic syndromes		Swedish Orphan Biovitrum	Clinical		NCT04324021 (Swedish Orphan Biovitrum) (Emapalumab; Anakinra)			
94*	AT-001, aldose reductase inhibitor*	N/A*	Diabetic cardiomyopathy*	Applied Therapeutics / numerous New York City hospitals*	Clinical / Compassionate Use*					Applied Therapeutics*
95*	Aplidin (plitidepsin), approved in Australia to treat multiple myeloma*			PharmaMar*	Clinical*					PharmaMar*

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DORMANT/DISCONTINUED										
1	Washed microbiota transplantation	Unknown		The Second Hospital of Nanjing Medical University	Clinical		NCT04251767 (The Second Hospital of Nanjing Medical University) (Washed Microbiota Transplantation for Patients With 2019-nCoV Infection)		Study stopped before recruitment	BioCentury
2	Recombinant ACE2 (angiotensin-converting enzyme 2)	Unknown		The First Affiliated Hospital of Guangzhou Medical University	Clinical		NCT04287686 (The First Affiliated Hospital of Guangzhou Medical University) (Recombinant Human Angiotensin-converting Enzyme 2 [rhACE2] as a Treatment for Patients With COVID-19)		Study stopped before recruitment	BioCentury

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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.

VACCINES

Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Clinical Trials for COVID-19	Anticipated Next Steps Timing	Published Results	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)	Same platform as vaccine candidates for SARS	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	Live attenuated	Same platform as vaccine candidates for MERS	The University of Hong Kong	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)				World Health Organization Coalition for Epidemic Preparedness
7	Non-replicating viral vector; MVA encoded VLP	Same platform as vaccine candidates for LASV, EBOV, MARV, HIV	GeoVax/BravoVax	Pre-clinical					World Health Organization
8	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 in September 2020		World Health Organization Johnson & Johnson Johnson & Johnson FierceBiotech Johnson & Johnson press release

LEGEND

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

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Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Clinical Trials for COVID-19	Anticipated Next Steps Timing	Published Results	Sources
9	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)/UK Government		Animal trials begin March 2020, Phase 1 begins April 2020		World Health Organization Guardian Fierce Biotech
10	Non-replicating viral vector; adenovirus-based NasoVAX expressing spike protein	Same platform as vaccine candidates for influenza	Altimmune	Pre-clinical					World Health Organization
11	Non-replicating viral vector; Ad5 S (GREVAX™ platform)	Same platform as vaccine candidates for MERS	Greffex	Pre-clinical					World Health Organization
12	Non-replicating viral vector; Oral Vaccine platform	Same platform as vaccine candidates for InfA, CHIKV, LASV, NORV, EBOV, RVF, HBV, VEE	Vaxart/Emergent BioSolutions	Pre-clinical					World Health Organization Vaxart press release Emergent BioSolutions
13	Non-replicating viral vector; Adenovirus Type 5 vector (Ad5-nCoV)	Same platform as vaccine candidates for EBOV	CanSino Biologics/Beijing Institute of Biotechnology	Clinical		NCT04313127 (CanSino Biologics Inc.)	Phase 1 ends December 2020		World Health Organization FiercePharma
14	Protein subunit; Drosophila S2 insect cell expression system VLPs		ExpreS2ion	Pre-clinical					World Health Organization
15	Protein subunit; S protein		WRAIR/USAMRIID	Pre-clinical					World Health Organization
16	Protein subunit; S trimer	Same platform as vaccine candidates for HIV, RSV, Influenza	Clover Biopharmaceuticals Inc./GSK	Pre-clinical					World Health Organization
17	Protein subunit; peptide		Vaxil Bio	Pre-clinical					World Health Organization
18	Protein subunit; S protein		AJ Vaccines	Pre-clinical					World Health Organization
19	Protein subunit; Ii-Key peptide	Same platform as vaccine candidates for HIV, SARS-CoV, Influenza	Generex/EpiVax	Pre-clinical					World Health Organization
20	Protein subunit; S protein	Same platform as vaccine candidates for Inf H7N9	EpiVax/University of Georgia	Pre-clinical					World Health Organization
21*	PittCoVacc, Protein subunit*		University of Pittsburgh*	Pre-clinical*			Phase 1 to start as early as June 2020*		University of Pittsburgh press release* EBioMedicine*

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Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Clinical Trials for COVID-19	Anticipated Next Steps Timing	Published Results	Sources
22*	Protein subunit; S protein*	Influenza, Ebola*	University of Cambridge / DIOSynVax*	Pre-clinical*			Phase 1 to start as early as June 2020*		University of Cambridge*
23*	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
24*	Protein subunit; Full length S trimers/nanoparticle + Matrix M	Same platform as vaccine candidates for RSV, CCHF, HPV, VZV, EBOV	Novavax/Emergent BioSolutions	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)				World Health Organization Emergent BioSolutions
25*	Protein subunit (gp-96 backbone)	Same platform as vaccine candidates for cancer (NSCLC), HIV, malaria, Zika	Heat Biologics/University of Miami	Pre-clinical					World Health Organization Clinical Trials Arena
26*	Protein subunit; S protein clamp	Same platform as vaccine candidates for Nipah, influenza, Ebola, Lassa	University of Queensland/GSK/ Dynavax	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)/ Queensland Government/ Federal Government (Australia)/Paul Ramsay Foundation				World Health Organization ABC News Australia Dynavax
27*	Protein subunit; S1 or RBD protein	Same platform as vaccine candidates for SARS	Baylor College of Medicine	Pre-clinical					World Health Organization
28*	Protein subunit; Subunit protein, plant produced		iBio/CC-Pharming	Pre-clinical					World Health Organization
29*	Protein subunit		VIDO-InterVac, University of Saskatchewan	Pre-clinical					World Health Organization
30*	Protein subunit, adjuvanted microsphere peptide		University of Saskatchewan	Pre-clinical					World Health Organization
31*	Pan-coronavirus vaccine candidate, targeting COVID-19, SARS, and MERS, spike protein		VBI Vaccines / National Research Council of Canada	Pre-clinical			Start Phase 1 testing by end of 2020		VBI Vaccines press release
32*	Replicating viral vector; measles vector		Zydus Cadila	Pre-clinical					World Health Organization

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Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Clinical Trials for COVID-19	Anticipated Next Steps Timing	Published Results	Sources
33*	Replicating viral vector; measles vector	Same platform as vaccine candidates for West Nile, CHIKV, Ebola, Lassa, Zika, MERS	Institut Pasteur/Themis/University of Pittsburgh	Pre-clinical	Coalition for Epidemic Preparedness (CEPI)		Start animal testing in April 2020		World Health Organization University of Pittsburgh Medical Center Coalition for Epidemic Preparedness
34*	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
35*	RNA; LNP-encapsulated mRNA cocktail encoding VLP		Fudan University/Shanghai JiaoTong University/RNACure Biopharma	Pre-clinical					World Health Organization
36*	RNA; LNP-encapsulated mRNA cocktail encoding RBD		Fudan University/Shanghai JiaoTong University/RNACure Biopharma	Pre-clinical					World Health Organization
37*	RNA; mRNA		China CDC/Tongji University/Stermina	Pre-clinical					World Health Organization
38*	RNA; LNP-encapsulated mRNA (mRNA 1273)	Same platform as vaccine candidates for multiple candidates	Moderna/NIAID	Clinical	Coalition for Epidemic Preparedness (CEPI)	NCT04283461 (National Institute of Allergy and Infectious Diseases)	Phase 1 started March 2020, study ends June 2021		World Health Organization Wall Street Journal MarketWatch ClinicalTrials.gov
39*	RNA; mRNA	Same platform as vaccine candidates for multiple candidates	Arcturus/Duke-NUS	Pre-clinical					World Health Organization Arcturus Therapeutics
40*	RNA; saRNA	Same platform as vaccine candidates for EBOV, LASV, MARV, Inf (H7N9), RABV	Imperial College London	Pre-clinical					World Health Organization
41*	RNA; mRNA	Same platform as vaccine candidates for RABV, LASV, YFV, MERS, InfA, ZIKV, DengV, NIPV	CureVac	Pre-clinical	Coalition for Epidemic Preparedness (CEPI); European Commission		Start Phase 1 in June 2020		World Health Organization Labiotech.eu
42*	RNA; BNT162		BioNTech/Fosun Pharma/Pfizer	Pre-clinical			Start Phase 1 late April 2020		FierceBiotech Endpoints News World Health Organization
43*	RNA; mRNA	Same platform as vaccine candidates for cancer	BIOCAD	Pre-clinical			Animal studies begin in April 2020		BIOCAD

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Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Clinical Trials for COVID-19	Anticipated Next Steps Timing	Published Results	Sources
44*	RNA; mRNA		Sanofi Pasteur/ Translate Bio	Pre-clinical					Translate Bio
45*	VLP; plant-derived VLP	Same platform as vaccine candidates for flu, rotavirus, norovirus, West Nile virus, and cancer	Medicago Inc.	Pre-clinical					World Health Organization
46*	Gene-encoded antibody vaccine, non-viral nanoparticle delivery		SmartPharm Therapeutics/Sorrento Therapeutics	Pre-clinical					SmartPharm Therapeutics
47*	ISR-50		ISR Immune System Regulation	Pre-clinical			Animal study results expected in Q2 2020, Phase 1 begins Q4 2020		ISR Immune System Regulation
48*	Unknown		ImmunoPrecise	Pre-clinical					World Health Organization
49*	Unknown		MIGAL Galilee Research Institute	Pre-clinical					World Health Organization
50*	Unknown		Doherty Institute	Pre-clinical					World Health Organization
51*	Unknown		Tulane University	Pre-clinical					World Health Organization Clinical Trials Arena
52*	Unknown		SK Biosciences	Pre-clinical			Phase 1 begins as early as September 2020		UPI

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