



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	Anticipated Next Steps Timing*	Sources
ANTIBODIES								
1	TAK-888, antibodies from recovered COVID-19 patients	N/A		Takeda	Pre-clinical		To patients between September 2020 and September 2021	PhRMA Wall Street Journal
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 September 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		Start Phase 1 ~ July 2020*	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		Numerous trials with Chinese research sponsors*	Clinical		Phase 2 primary trial ends April 30, 2020	BioCentury ClinicalTrials.gov

Number	Type of Product - Treatment	FDA-Approved Indications (Treatments)	Clinical Trials Ongoing for Other Diseases	Developer/Researcher	Current Stage of Development	Funding Sources	Anticipated Next Steps Timing*	Sources
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		*	Hengrui Medicine
11	Kevzara (sarilumab), interleukin-6 receptor antagonist	FDA-approved since 2017, approved to treat rheumatoid arthritis		Sanofi/Regeneron	Clinical		Started Phase 2/3 in March 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		Numerous trials with global research sponsors; Roche*	Clinical		Roche studies begin April 2020	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
15	Sylvant (siltuximab), interleukin-6 targeted monoclonal	FDA-approved since 2014, approved to treat multicentric Castleman disease		EUSA Pharma/The Papa Giovanni XXII Hospital	Clinical		Initial data March 2020	EUSA Pharma
16*	Soliris (eculizumab), 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*

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17	Antibody	N/A		Erasmus MC/Utrecht University	Pre-clinical			Erasmus Magazine bioRxiv
18	Antibodies	Unknown		ImmunoPrecise Antibodies	Pre-clinical			Clinical Trials Arena
19	Antibody	N/A		Harbour BioMed/Mount Sinai Health System	Pre-clinical			Mount Sinai and Harbour BioMed press release
20	Antibodies	Unknown		AstraZeneca	Pre-clinical			PhRMA
21	Antibody	Unknown		Distributed Bio	Pre-clinical			Distributed Bio
22*	Antibodies*	Unknown*		Chelsea and Westminster Hospital, Imperial College London*	Pre-clinical*	UK Government*		UK Government*
23*	Convalescent plasma (blood plasma from recovered patients)*	N/A*		Multiple global research sponsors, including New York State Department of Health*	Clinical*		New York State Department of Health trial begins March 2020*	Politico*
ANTIVIRALS								
24*	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

* Indicates updated or new field

Number	Type of Product - Treatment	FDA-Approved Indications (Treatments)	Clinical Trials Ongoing for Other Diseases	Developer/Researcher	Current Stage of Development	Funding Sources	Anticipated Next Steps Timing*	Sources
25*	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)*		PhRMA Wall Street Journal Wall Street Journal Wall Street Journal Stat News
26*	remdesivir, nucleotide analog	N/A	Treatment of Ebola	Gilead; World Health Organization SOLIDARITY trial	Clinical*		Gilead Phase 3 trial results expected April 2020	PhRMA Wall Street Journal PhRMA post on LinkedIn Stat News
27*	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
28*	galidesivir	N/A	Treatment of yellow fever	BioCryst Pharmaceuticals	Pre-clinical			Reuters BioCryst
29*	Combination of ebastine, lopinavir, and interferon alpha	N/A		Mianyang Central Hospital*	Clinical		Primary trial ends March 31, 2020	BioCentury Chinese Clinical Trial Registry
30*	Ganovo (danoprevir), hepatitis C virus NS3 protease inhibitor; ritonavir; interferon, approved in China to treat Hepatitis C	N/A		Ascletris/Numerous trials with Chinese research sponsors	Clinical			BioCentury ClinicalTrials.gov
31*	ASC09, HIV protease inhibitor	N/A	Treatment of HIV/AIDS	Ascletris Pharma	Clinical		Primary trial ends May 2020	ClinicalTrials.gov Nature Biotechnology Ascletris Pharma
32*	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

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33*	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
34*	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
35*	azvudine, reverse transcriptase inhibitor	N/A		Numerous trials with Chinese research sponsors	Clinical			World Health Organization Chinese Clinical Trial Registry
36*	ISR-50	N/A		ISR Immune System Regulation	Pre-clinical			ISR Immune System Regulation
37*	Antiviral compounds	N/A		Cocrystal Pharma	Pre-clinical			Cocrystal Pharma
CELL-BASED THERAPIES								
38*	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
39*	Mesenchymal stem cells	Unknown		Numerous trials with global research sponsors*	Clinical			BioCentury Chinese Clinical Trial Registry
40*	Ryoncil (remestemcel-L), allogenic mesenchymal stem cells	N/A		Mesoblast	Pre-clinical			FierceBiotech
41*	MultiStem, bone marrow stem cells		Acute Respiratory Distress Syndrome; Stroke	Athersys	Clinical			BioSpace
42*	Allogeneic T-cell therapies	N/A		AlloVir/Baylor College of Medicine	Pre-clinical			AlloVir FierceBiotech
RNA-BASED TREATMENTS								
43*	RNAi - testing 150 RNAs	N/A		Sirnaomics	Pre-clinical			NPR
44*	siRNA candidates	N/A		Vir Biotech/Alnylam Pharmaceuticals	Pre-clinical			Clinical Trials Arena
45*	Ampligen; (rintatolimod)	N/A		AIM ImmunoTech/National Institute of Infectious Diseases in Japan	Pre-clinical			AIM Immunotech press release

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46*	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								
47*	Scanning library of antiviral compounds	N/A	N/A	Janssen Pharmaceutical Companies	Pre-clinical	Biomedical Advanced Research and Development Authority (BARDA)		Johnson & Johnson PhRMA
48*	Scanning compounds to repurpose	N/A	N/A	Novartis	Pre-clinical			PhRMA
49*	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
50*	Scanning compounds to repurpose	N/A	N/A	Merck	Pre-clinical			Wall Street Journal
51*	Repurposing antiviral drug candidates	N/A	N/A	Materia Medica/Cyclica	Pre-clinical			Cyclica press release
52*	Screening new drugs + library of antiviral compounds	N/A	N/A	Enanta Pharmaceuticals	Pre-clinical			FierceBiotech Enanta Pharmaceuticals
53*	Screening drug compounds	N/A	N/A	Southwest Research Institute	Pre-clinical			Clinical Trials Arena
54*	Scanning compounds to repurpose	N/A	N/A	Takeda	Pre-clinical			PhRMA
55*	Scanning compounds to repurpose*	N/A*	N/A*	Queens University Belfast*	Pre-clinical*	UK Government*		
OTHERS								
56*	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)*	Primary study ends April 2020 (Peking) / June 2020 (Tongji)	World Health Organization ClinicalTrials.gov ClinicalTrials.gov

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57*	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 Oxford; IHU-Méditerranée Infection and others; World Health Organization SOLIDARITY trial (chloroquine); New York State Department of Health (hydroxychloroquine with zithromax)	Clinical			World Health Organization ClinicalTrials.gov BioCentury Endpoints News ClinicalTrials.gov Google Doc Stat News ClinicalTrials.gov
58*	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
59*	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
60*	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
61*	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

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62*	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
63*	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
64*	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
65*	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
66*	BXT-25; glycoprotein	N/A		Bioxytran	Pre-clinical			Clinical Trials Arena
67*	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
68*	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*
69*	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		Primary trial ends July 2020	ClinicalTrials.gov
70*	WP1122, glucose decoy prodrug (and related drug candidates)	N/A		Moleculin Biotech/University of Texas Medical Branch	Pre-clinical			FierceBiotech Moleculin
71*	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			Merck KGaA press release

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72*	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
73*	A number of synthesized nanoviricide drug candidates	N/A		NanoViricides	Pre-clinical			Clinical Trials Arena NanoViricides Inc.
74*	losartan	FDA-approved since 1995, approved to treat hypertension and diabetic nephropathy		University of Minnesota	Clinical			ClinicalTrials.gov KARE TV
75*	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 Anschutz Medical Campus, and Denver Health (Genentech)*	Compassionate Use*			MIT News*
DORMANT/DISCONTINUED								
1*	Washed microbiota transplantation*	Unknown*		The Second Hospital of Nanjing Medical University*	Clinical*		Primary trial ends April 2, 2020*	BioCentury* ClinicalTrials.gov*

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VACCINES

Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Anticipated Next Steps 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		Zyodus 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 November 2020*	World Health Organization Johnson & Johnson Johnson & Johnson FierceBiotech
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*

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	

* Indicates updated or new field

Updated March 26, 2020, at 11:30 a.m.

Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Anticipated Next Steps Timing*	Sources
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	Pre-clinical			World Health Organization Vaxart press release
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*		Phase 1 ends December 2020*	World Health Organization Chinese Clinical Trial Registry FiercePharma ClinicalTrials.gov*
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; li-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	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
22	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
23	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

Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Anticipated Next Steps Timing*	Sources
24	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 *
25	Protein subunit; S1 or RBD protein	Same platform as vaccine candidates for SARS	Baylor College of Medicine	Pre-clinical			World Health Organization
26	Protein subunit; Subunit protein, plant produced		iBio/CC-Pharming	Pre-clinical			World Health Organization
27*	Protein subunit*		VIDO-InterVac, University of Saskatchewan*	Pre-clinical*			World Health Organization *
28*	Protein subunit, adjuvanted microsphere peptide*		University of Saskatchewan*	Pre-clinical*			World Health Organization *
29	Replicating viral vector; measles vector		Zyudus Cadila	Pre-clinical			World Health Organization
30	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 *
31	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
32	RNA; LNP-encapsulated mRNA cocktail encoding VLP		Fudan University/Shanghai JiaoTong University/RNACure Biopharma	Pre-clinical			World Health Organization
33	RNA; LNP-encapsulated mRNA cocktail encoding RBD		Fudan University/Shanghai JiaoTong University/RNACure Biopharma	Pre-clinical			World Health Organization
34	RNA; mRNA		China CDC/Tongji University/Stermina	Pre-clinical			World Health Organization
35	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, study ends June 2021*	World Health Organization Wall Street Journal MarketWatch ClinicalTrials.gov *

Number	Type of Vaccine	Related Use/Platform	Developer/Researcher	Current Stage of Development	Funding Sources	Anticipated Next Steps Timing*	Sources
36	RNA; mRNA	Same platform as vaccine candidates for multiple candidates	Arcturus/Duke-NUS	Pre-clinical			World Health Organization Arcturus Therapeutics
37	RNA; saRNA	Same platform as vaccine candidates for EBOV, LASV, MARV, Inf (H7N9), RABV	Imperial College London	Pre-clinical			World Health Organization
38	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*
39	RNA; BNT162		BioNTech/Fosun Pharma/Pfizer	Pre-clinical		Start Phase 1 late April 2020	FierceBiotech Endpoints News World Health Organization*
40*	RNA; mRNA*	Same platform as vaccine candidates for cancer*	BIOCAD*	Pre-clinical*		Animal studies begin in April 2020*	BIOCAD*
41*	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*
42	Gene-encoded antibody vaccine, non-viral nanoparticle delivery*		SmartPharm Therapeutics/Sorrento Therapeutics*	Pre-clinical*			SmartPharm Therapeutics*
43	ISR-50*		ISR Immune System Regulation*	Pre-clinical*		Animal study results expected in Q2 2020, Phase 1 begins Q4 2020*	ISR Immune System Regulation*
44	Unknown		ImmunoPrecise	Pre-clinical			World Health Organization
45	Unknown		MIGAL Galilee Research Institute	Pre-clinical			World Health Organization
46	Unknown		Doherty Institute	Pre-clinical			World Health Organization
47	Unknown		Tulane University	Pre-clinical			World Health Organization Clinical Trials Arena