

Abbreviated COVID19 Pipeline Q4 2021



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COVID-19 Competitive Landscape

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Asset	Company	Phase	Highest Phase	Other Indication(s)	MOA
Remdesivir	Gilead Sciences	Marketed	Marketed	Ebola virus infections, Neurological disorders	RNA replicase inhibitors
Favipiravir*	FUJIFILM Toyama Chemical / Appili Therapeutics (NA)	Marketed (limited)	Marketed	Viral infections	RNA replicase inhibitors
Peginterferon alpha 2b biosimilar	Zydus Cadila	Marketed (limited)	Marketed	Hepatitis C, Hepatitis B, Condylomata acuminata	Interferon alpha-2 replacements
Astodimer	Starpharma	Marketed (limited)	Marketed	Bacterial vaginosis, viral infections	Anion transport protein modulators, Surface antigen modulators
Tocilizumab	Roche	Registered	Marketed	Drug hypersensitivity, Giant cell arteritis, Giant lymph node hyperplasia, Rheumatoid arthritis, Systemic scleroderma	Interleukin 6 receptor antagonists
Baricitinib	Incyte Corporation	Registered	Marketed	Atopic dermatitis, Rheumatoid arthritis, Alopecia areata, Juvenile rheumatoid arthritis, Systemic lupus erythematosus, Uveitis	Janus kinase 1 inhibitors, Janus kinase-2 inhibitors, TYK2 kinase inhibitors
Bamlanivimab	Abcellera / Eli Lilly	Registered	Registered	N/A	Neutralising mAb
Etesevimab	Shanghai Junshi Biosciences / Eli Lilly	Registered	Registered	N/A	Neutralising mAb
Dexamethasone oral dissolvable film	AcuCort	Registered	Registered	Croup, Chemotherapy-induced nausea and vomiting, Hypersensitivity	Glucocorticoid receptor agonists, Immunosuppressants
Aviptadil	NRx Pharmaceuticals	Registered	Registered	Pulmonary sarcoidosis	Vasoactive intestinal peptide replacements, Virus replication inhibitors
Regdanvimab	Celltrion	Registered	Registered	N/A	Virus internalisation inhibitors

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Regdanvimab	Celltrion	Registered	Registered	N/A	Virus internalisation inhibitors
Sotrovimab	Vir Biotechnology /GlaxoSmithKline	Registered	Registered	N/A	Virus internalisation inhibitors
Molnupiravir	Ridgeback Biotherapeutics /Merck	Registered	Registered	Viral infections	Virus replication inhibitors
Levilimab	Biocad	Registered	Registered	Rheumatoid arthritis	Interleukin 6 receptor antagonists
Proxalutamide	Suzhou Kintor Pharmaceuticals	Registered	Registered	Prostate cancer, Breast cancer	ACE modulators, Androgen receptor antagonists
Casirivimab/ imdevimab	Regeneron Pharmaceuticals	Registered	Registered	N/A	Neutralising mAb
2 deoxy D glucose	Dr Reddys Laboratories	Registered	Registered	N/A	Virus replication inhibitors
Fostamatinib	Rigel Pharmaceuticals	Preregistration	Marketed	Idiopathic thrombocytopenic purpura, Autoimmune haemolytic anaemia	Syk kinase inhibitors
Anakinra	Swedish Orphan Biovitrum	Preregistration	Marketed	Rheumatoid arthritis, Cryopyrin-associated periodic syndromes, Adult-onset Still's disease, Juvenile rheumatoid arthritis, Autoimmune disorders	Interleukin 1 receptor antagonists
Cilgavimab + tixagevimab	AstraZeneca	Preregistration	Preregistration	N/A	Virus internalisation inhibitors
PF 07321332 plus ritonavir	Pfizer	Preregistration	Preregistration	N/A	Coronavirus-3C-like-proteinase inhibitors, Cytochrome P 450 enzyme system inhibitors
Nitric oxide	SaNOTize Research and Development	Preregistration	Preregistration	Tinea pedis, Sinusitis	Immunomodulators
BRII 196	Brii Biosciences	Preregistration	Preregistration	N/A	Virus internalisation inhibitors

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BRII 198	Brii Biosciences	Preregistration	Preregistration	N/A	Virus internalisation inhibitors
Leronlimab	CytoDyn	Preregistration	Registered	Breast cancer, HIV infections, COVID-19 pneumonia, GvHD, Solid tumours, NASH	CCR5 receptor antagonists, Virus internalisation inhibitors
Ethyl eicosapentaenoic acid	Amarin Corporation	Phase III	Marketed	Hypertriglyceridaemia, Liver metastases, Colorectal cancer	Phospholipase A2 inhibitors, Platelet aggregation inhibitors, Diacylglycerol O acyltransferase inhibitors
Lanadelumab	Takeda	Phase III	Marketed	Hereditary angioedema	Plasma kallikrein inhibitors
Dapagliflozin	AstraZeneca	Phase III	Marketed	Diabetes, Chronic heart failure, Cardiovascular disorders, Renal failure	Sodium-glucose transporter 2 inhibitors
Enoxaparin sodium	Sanofi	Phase III	Marketed	Thrombosis, Unstable angina pectoris, Thromboembolism, Myocardial infarction, Embolism	Factor Xa inhibitors, Thrombin inhibitors
Canakinumab	Novartis	Phase III	Marketed	Cryopyrin-associated periodic syndromes, Juvenile rheumatoid arthritis, Familial autosomal dominant periodic fever, Adult-onset Still's disease, Familial Mediterranean fever, Gouty arthritis, Peroxisomal disorders	Interleukin 1 beta inhibitors
Artesunate/pyronaridine	Shin Poong Pharmaceutical	Phase III	Marketed	Malaria	Free radical stimulants, Hemozoin inhibitors
Remestemcel-L	Mesoblast	Phase III	Marketed	Graft-versus-host disease, Epidermolysis bullosa, Crohn's disease, Back pain	Cell replacements
Siltuximab	EUSA Pharma	Phase III	Marketed	Giant lymph node hyperplasia, Multiple myeloma	Interleukin 6 inhibitors
Immune globulin 10%	Octapharma	Phase III	Marketed	Idiopathic thrombocytopenic purpura, Dermatomyositis, Chronic inflammatory demyelinating polyradiculoneuropathy	Immunostimulants, Amyloid beta-protein inhibitors

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Ciclesonide	Covis Pharma	Phase III	Marketed	Asthma, Allergic rhinitis, Seasonal allergic rhinitis, Perennial allergic rhinitis	Immunosuppressants, Glucocorticoid receptor agonists
Glutathione/inosine	BAM	Phase III	Marketed	Hepatitis B, Hepatitis C	Immunomodulators, Nerve growth factor stimulants, Virus replication inhibitors
Nitazoxanide	Romark Laboratories	Phase III	Marketed	Protozoan infections, Helminthiasis, Giardiasis, Cryptosporidiosis	Oxidoreductase inhibitors, HN protein inhibitors, Receptor protein-tyrosine kinase modulators, EIF-2 kinase modulators
Cadi 05	Cadila Pharmaceuticals	Phase III	Marketed	Leprosy, Non-small cell lung cancer	Heat-killed mycobacterim indicus pranii
AT 527	Atea Pharmaceuticals	Phase III	Phase III	N/A	DNA-directed RNA polymerase inhibitors, Hepatitis C virus NS 5 protein inhibitors
Bucillamine	Revive Therapeutics	Phase III	Phase III	Gout, Cystinuria	Chelating agents, Immunomodulators, Virus internalisation inhibitors
Metformin glycinate	Laboratorios Silanes	Phase III	Phase III	Type 2 diabetes mellitus	AMP activated protein kinase stimulants, Gluconeogenesis inhibitors
Sabizabulin	Veru Healthcare	Phase III	Phase III	Prostate cancer	Tubulin inhibitors, Tubulin polymerisation inhibitors
Interferon beta 1a	Synairgen	Phase III	Phase III	COPD	Immunostimulants, Interferon beta-1a replacements
C 21	Vicore Pharma	Phase III	Phase III	Idiopathic pulmonary fibrosis, Raynaud's disease	Angiotensin type 2 receptor agonists
Tocilizumab biosimilar	AryoGen Pharmed	Phase III	Phase III	Rheumatoid arthritis	Immunosuppressants, Interleukin 6 receptor antagonists
IMM 101	Immodulon Therapeutics	Phase III	Phase III	Pancreatic cancer, Melanoma, Colorectal cancer, Cancer	Dendritic cell stimulants

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Peginterferon lambda 1a	Eiger BioPharmaceuticals, Inc.	Phase III	Phase III	Hepatitis D	Interleukin 29 receptor agonists
Traneurocin	NeuroActiva	Phase III	Phase III	Alzheimer's disease	Neurogenesis stimulants
Brensocatib	AstraZeneca	Phase III	Phase III	Bronchiectasis, Chronic obstructive pulmonary disease, Cystic fibrosis	Dipeptidyl peptidase I inhibitors
Zilucoplan	UCB	Phase III	Phase III	Myasthenia gravis, Amyotrophic lateral sclerosis	Complement C5 inhibitors
Sarconeos	Biophytis	Phase III	Phase III	Muscular atrophy, Duchenne muscular dystrophy	Proto-oncogene protein c-mas-1 agonists
XC 221	Pharmenterprises	Phase III	Phase III	Respiratory tract infections, Influenza virus infections	Undefined mechanism
Oplunofusp	Ansun Biopharma	Phase III	Phase III	Parainfluenza virus infections, Influenza virus infections	Virus internalisation inhibitors
Vilobelimab	InflaRx	Phase III	Phase III	Hidradenitis suppurativa, Squamous cell cancer, Pyoderma gangrenosum	Complement C5a inhibitors
SAB 185	SAB Biotherapeutics	Phase III	Phase III	N/A	IgG from immunized bovine
Eicosapentaenoic acid	SLA Pharma	Phase III	Phase III	Familial adenomatous polyposis, Ulcerative colitis, Colorectal cancer	Arachidonic acid modulators
TY 027	Tychan	Phase III	Phase III	N/A	Neutralizing mAb
Ensovibep	Molecular Partners AG	Phase III	Phase III	N/A	Tri-specific DARPin
CM 4620	CalciMedica	Phase III	Phase III	Pancreatitis	CRAC calcium channel inhibitor
Mavrilimumab	Kiniksa Pharmaceuticals	Phase III	Phase III	Inflammation, Giant cell arteritis	Granulocyte-macrophage colony stimulating factor receptor antagonists
Novaferon	Genova Biotech Company	Phase III	Phase III	Colorectal cancer	Interferon replacements
Nafamostat	Chong Kun Dang	Phase III	Phase III	N/A	Serine endopeptidase inh.

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Tradipitant	Vanda Pharmaceuticals	Phase III	Phase III	Motion sickness, Gastroparesis, Atopic dermatitis	Neurokinin 1 receptor antagonists
COVID-2019 immune globulins	Emergent BioSolutions	Phase III	Phase III	N/A	Polyclonal IgG
Camostat mesilate	Daewoong Pharmaceutical	Phase III	Phase III	N/A	Peptide hydrolase inhibitors, Virus internalisation inhibitors
Reparixin	Dompe Farmaceutici	Phase III	Phase III	Delayed graft function, Breast cancer, Fatigue, Liver transplant	Interleukin 8A/B receptor antagonists
Anti-SARS-CoV-2 hyperimmune globulin therapy	Grifols	Phase III	Phase III	N/A	Polyclonal antibodies
Pamapimod/pioglitazone	Kinarus AG	Phase III	Phase III	Wet age-related macular degeneration, Idiopathic pulmonary fibrosis	P38 mitogen-activated protein kinase inhibitors, PPAR gamma agonists
Carrimycin	Shenyang Tonglian Group	Phase III	Phase III	Head and neck cancer	Protein 50S ribosomal subunit inhibitors
Anti-COVID-2019 immune globulins	Kowsar Biotechnology	Phase III	Phase III	N/A	Rabbit polyclonal antibody
Lenzilumab	Humanigen	Phase III	Preregistration	Cytokine release syndrome, Chronic myelomonocytic leukaemia, Drug hypersensitivity, B-cell lymphoma	Granulocyte macrophage colony stimulating factor antagonists
Plitidepsin	PharmaMar	Phase III	Registered	Multiple myeloma, Non-Hodgkin's lymphoma, T-cell lymphoma,	Cyclic depsipeptide binding eEF1A2, inhibits VEGF, trigger cytochrome c
Sargramostim	Partner Therapeutics	Phase II/III	Marketed	Neutropenia, Bone marrow disorders, Acute radiation syndrome, Pneumococcal infections, Stem cell mobilisation,	Granulocyte macrophage colony stimulating factor
Alteplase	Boehringer Ingelheim	Phase II/III	Marketed	Myocardial infarction, Pulmonary embolism, Stroke, Catheter thrombosis	Fibrinolytic agents, Plasminogen activator stimulants, Plasminogen activators
Metenkefalin/tridecactide	Farmacija	Phase II/III	Marketed	Multiple sclerosis, Asthma	Alpha melanocyte stimulating hormone derivatives

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Goflikicept	TRPHARM	Phase II/III	Phase II/III	Pericarditis	Interleukin 1 beta inhibitors
BI 767551	Boehringer Ingelheim	Phase II/III	Phase II/III	N/A	Neutralizing mAb
ADG 20	Adagio Therapeutics	Phase II/III	Phase II/III	N/A	Spike targeting mAb
Emvododstat	PTC Therapeutics	Phase II/III	Phase II/III	N/A	Dihydroorotate dehydrogenase inhibitors
EDP 1815	Evelo Biosciences	Phase II/III	Phase II/III	Psoriasis, Atopic dermatitis	Microbiome modulators, Immunomodulators
Vidofludimus calcium	Immunic	Phase II/III	Phase II/III	Multiple sclerosis, Ulcerative colitis, Crohn's disease, Primary sclerosing cholangitis	Dihydroorotate dehydrogenase inhibitors
BDB 1	Beijing Defengrei Biotechnology	Phase II/III	Phase II/III	Hidradenitis suppurativa	Complement C5a inhibitors
TRV 027	Trevena	Phase II/III	Phase II/III	Blood coagulation disorders	Angiotensin type 1 receptor antagonists
Angiotensin 1 7	Constant Therapeutics	Phase II/III	Phase II/III	Preclinical only	Proto-oncogene protein c-mas-1 agonists
Meplazumab	Pacific Meinuoke Bio-pharmaceutical	Phase II/III	Phase II/III	Preclinical only	CD147 targeting mAb
RESP 301	Thirty respiratory	Phase II/III	Phase II/III	Respiratory tract infections	Sustained nitric oxide
Sulforafan alfadex	Evgen Pharma	Phase II/III	Phase II/III	Breast cancer, Subarachnoid haemorrhage	Histone deacetylase inhibitors, NrF-2 stimulants, Wnt signalling pathway modulators
S 217622	Shionogi	Phase II/III	Phase II/III	N/A	Coronavirus-3C-like-proteinase inhibitors
FP 025	Foresee Pharmaceuticals	Phase II/III	Phase II/III	Asthma	Matrix metalloproteinase 12 inhibitors
Sargramostim inhalation	Nobelpharma	Phase II/III	Phase II/III	N/A	Granulocyte colony stimulating factor stimulants,

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EB 05	Edesa Biotech	Phase II/III	Phase II/III	Rheumatoid arthritis	Toll-like receptor 4 antagonists
Opaganib	RedHill Biopharma	Phase II/III	Phase II/III	Prostate cancer, Cholangiocarcinoma, Multiple myeloma	Sphingosine kinase inhibitors
MAD 0004J08	Toscana Life Sciences	Phase II/III	Phase II/III	N/A	Neutralizing mAb
INM 005	Inmunova	Phase II/III	Phase II/III	N/A	Equine serum antibodies
XAV 19	Xenothera	Phase II/III	Phase II/III	N/A	Polyclonal antibodies
Upamostat	RedHill Biopharma	Phase II/III	Phase II/III	Pancreatic cancer, Breast cancer,	Serine endopeptidase inhibitors, Urokinase-type plasminogen activator inhibitors
AB 201	ARCA biopharma Inc	Phase II/III	Phase II/III	Preclinical only	Angiogenesis inhibitors, Tissue factor-factor VIIa complex inhibitors
Niclosamide capsules	ANA Therapeutics	Phase II/III	Phase II/III	N/A	Mitochondrial oxidative phosphorylation uncouplers,
Nangibotide	Inotrem	Phase II/III	Phase II/III	Septic shock	TREML1 protein inhibitors
BGP 15	Mitochon Technologies	Phase II/III	Phase II/III	Insulin resistance, Sinus tachycardia	JNK mitogen-activated protein kinase inhibitors
SCTA 01	Sinocelltech	Phase II/III	Phase II/III	N/A	Antibody-dependent cell cytotoxicity
ABP 300	Abpro Therapeutics	Phase II/III	Phase II/III	N/A	Neutralizing mAb
Tempol	Adamis Pharmaceuticals	Phase II/III	Phase III	Radiodermatitis	Antioxidants
Invimestrocel	Athersys	Phase II/III	Phase III	Stroke, GvHD, Myocardial infarction, ARDS, Multiple organ failure	Cell replacements
Zavegepant	Biohaven Pharmaceuticals	Phase II/III	Phase III	Migraine, Allergic asthma	Calcitonin gene-related peptide receptor antagonists
Olokizumab	R-Pharm	Phase II/III	Phase III	Rheumatoid arthritis	Interleukin 6 inhibitors

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Apabetalone	Resverlogix Corporation	Phase II/III	Phase III	Low HDL cholesterol, Acute coronary syndromes, Atherosclerosis, COVID 2019 infections, Prediabetic state	Bromodomain and extraterminal domain protein inhibitors
Pamrevlumab	FibroGen	Phase II/III	Phase III	Duchenne muscular dystrophy, Idiopathic pulmonary fibrosis, Pancreatic cancer	Connective tissue growth factor inhibitors
Sodium pyruvate	Emphycorp	Phase II/III	Phase III	Interstitial lung diseases, Influenza virus infections	Reactive oxygen species inhibitors, Interleukin 6 inhibitors
DMI 9523	Ampio Pharmaceuticals	Phase II/III	Phase III	Osteoarthritis	Cytokine inhibitors, Immunomodulators, Inflammation mediator inhibitors
Ravidasvir	Presidio Pharmaceuticals	Phase II/III	Registered	Hepatitis C	Hepatitis C virus NS 5 protein inhibitors

Select COVID-19 Program Failures

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Asset	Company	Phase	Notes	MOA
Ravulizumab	Alexion Pharmaceuticals	Phase III	Lack of efficacy at interim	Complement C5 inhibitors
Ruxolitinib	Incyte Corporation	Phase III	Did not meet primary endpoint	Janus kinase 1 inhibitors, Janus kinase-2 inhibitors
Apremilast	Amgen	Phase II	Discontinued for futility	Type 4 cyclic nucleotide phosphodiesterase inhibitors
Sarilumab	Regeneron Pharmaceuticals	Phase III	Did not meet primary or secondary endpoints	Interleukin 6 receptor antagonists
Mupadolimab	Corvus Pharmaceuticals	Phase III	Discontinued for business reasons	CD73 targeting mAb
MK 7110	Oncolmmune / Merck	Phase III	Discontinued for business reasons	NF-kappa B inhibitors, Immunomodulators, SIGLEC10 protein inhibitors
Losmapimod	Fulcrum Therapeutics	Phase III	Discontinued for business reasons	P38 mitogen-activated protein kinase inhibitors, DUX4 protein inhibitors
CoVlg 19	Takeda	Phase III	Did not meet endpoints	Polyclonal antibodies from serum
ABX 464	Abivax	Phase II/III	Did not display efficacy	RNA cap-binding protein modulators
Pacritinib	CTI Biopharma	Phase II	Did not achieve statistical significance	JAK2 and FLT3 inhibitor
Piclidenoson	Can-Fite Biopharma	Phase II	Discontinued for business reasons	A3AR agonist
Acalabrutinib	Acerta Pharma/ AstraZeneca	Phase II	Discontinued due to lack of efficacy	BTK inhibitor
Merimepodib	ViralClear Pharmaceuticals	Phase II	Discontinued due to safety concerns	Inosine monophosphate dehydrogenase inhibitor





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