HTA Austria
Austrian Institute for
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GmbH

# Covid-19

HSS/ Horizon Scanning
Living Document **V02 May** 2020
Appendix – Part 2

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# Covid19

HSS/ Horizon Scanning
Living Document **V02 May** 2020
Appendix – Part 2

Vienna, April 2020

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# Appendix 1 Vaccines (n=79)

*Table A 1: Covid19 vaccines in development (all)*

| Company/Institution | Estimated Timeline | Technology | | Stage/Funding | Source |
|---|---|---|---|---|---|
| | | Platform | Type of candidate vaccine | | |
| Moderna Therapeutics—US National Institute of Allergy | Early stage (phase 1), clinical trial in US | RNA | LNP-encapsulated mRNA | Phase1 (NCT04283461) Funding by CEPI | [1-3], GÖG |
| CanSino Biological Inc. and Beijing Institute of Biotechnology | Clinical evaluation ongoing | Non-Replicating Viral Vector | adenovirus Type 5 Vector | Phase 1 ChiCTR2000030906/ NCT04313127 | [2, 4], GÖG |
| Inovio Pharmaceuticals | Human testing in the next few months | DNA | DNA plasmid vaccine Electroporation device | Preclinical Funding by CEPI, up to $9 million | [1, 2], GÖG |
| Novavax | 3 months | Protein Subunit | VLP-recombinant protein nanoparticle vaccine + Matrix M | Preclinical | [1, 2], GÖG |
| University of Queensland/GSK/Dynavax | 6 months | Protein Subunit | Molecular clamp stabilized Spike protein | Preclinical Funding by CEPI | [1, 2], GÖG |
| Vir Biotechnology | Not available | Anti-coronavirus monoclonal antibodies. Additionally, using "whole-genome CRISPR-based screening capabilities to identify the host receptor for Wuhan coronavirus" | | Preclinical | [1] |
| Chinese Centre for Disease Control and Prevention (CDC) | At least 1 month for development, 2–3 years before availability for use | Not available Inactivated virus vaccine (postulated, not verified) | | Preclinical; virus successfully isolated, currently selecting strain | [1] |
| Shanghai East Hospital (Tongji University) — Stermirna Therapeutics | <40 days for manufacture of vaccine samples | RNA | mRNA | Preclinical | [1, 2] |
| Johnson & Johnson | 1 year to market | Adenovirus—vectored technology used for Ebola vaccine (and Zika and HIV vaccine candidates) | | Preclinical | [1] |
| University of Hong Kong | Months for animal testing, At least 1 year for clinical trials on humans | Replicating Viral Vector | Influenza vector expressing RBD | Preclinical | [1, 2] |

| | | | | | |
|---|---|---|---|---|---|
| University of Saskatchewan (VIDO-InterVac) | Target for animal testing in 6–8 weeks, human trials in at least a year | Protein Subunit | Subunit | Preclinical | [1, 2] |
| University of Saskatchewan | Not available | Protein Subunit | Adjuvanted microsphere peptide | Preclinical | [2] |
| GeoVax—BravoVax | Not available | Non-Replicating Viral Vector | MVA encoded VLP | Preclinical | [1, 2] |
| Clover Biopharmaceuticals Inc./GSK/Dynavax | Not available | Protein Subunit | Native like Trimeric subunit Spike Protein vaccine | Preclinical | [1, 2] |
| CureVac | Not available | RNA | mRNA | Preclinical; Phase 1 studie will start in June/July 2020 | [1, 2] GÖG |
| Baylor College of Medicine | Not available | Protein Subunit | S1 or RBD protein | Not available | [1, 2] |
| Codagenix/ Serum Institute of India | Not available | Live Attenuated Virus | Deoptimized live attenuated vaccines | Preclinical | [1, 2] |
| Takis/Applied DNA Sciences/Evvivax | Not available | DNA | DNA | Preclinical | [2], GÖG |
| Zydus Cadila | Not available | DNA | DNA plasmid vaccine | Preclinical | [2] |
| Zydus Cadila | Not available | Replicating Viral Vector | Measles Vector | Preclinical | [2] |
| Sinovac | Not available | Inactivated | Inactivated + alum | Preclinical | [2] |
| Beijing Institute of Biological Products/Wuhan Institute of Biological Products | Not available | Inactivated | Inactivated | Preclinical | [2] |
| Janssen Pharmaceutical Companies | Not available | Non-Replicating Viral Vector | Ad26 (alone or with MVA boost) | Preclinical | [2] |
| DZIF – German Center for Infection Research | Not available | Non-replicating viral vector | MVA-S encoded | Preclinical | [2], GÖG |
| University of Oxford | Not available | Non-Replicating Viral Vector | ChAdOx1 | Preclinical (Phase I/II study planned: NCT04324606; estimated completion: May 2021) | [2, 4] SPS Coronavirus HS report (UK), GÖG |
| Altimmune | Not available | Non-Replicating Viral Vector | Adenovirus-based NasoVAX expressing SARS2-CoV spike protein | Preclinical | [2] |
| Greffex | Not available | Non-Replicating Viral Vector | Ad5 S (GREVAX™ platform) | Preclinical | [2] |
| Vaxart | Not available | Non-Replicating Viral Vector | Oral Vaccine platform | Preclinical | [2] |

| | | | | | |
|---|---|---|---|---|---|
| AdaptVac | Not available | Protein Subunit | Capsid-like Particle | Preclinical | [2], GÖG |
| ExpreS2ion | Not available | Protein Subunit | Drosophila S2 insect cell expression system VLPs | Preclinical | [2] |
| WRAIR/USAMRIID | Not available | Protein Subunit | S protein | Preclinical | [2] |
| Vaxil Bio | Not available | Protein Subunit | Peptide | Preclinical | [2] |
| Flow Pharma Inc | Not available | Protein Subunit | Peptide | Preclinical | [2] |
| AJ Vaccines | Not available | Protein Subunit | S protein | Preclinical | [2] |
| Generex/EpiVax | Not available | Protein Subunit | Ii-Key peptide | Preclinical | [2] |
| EpiVax/Univ. of Georgia | Not available | Protein Subunit | S protein | Preclinical | [2] |
| Sanofi Pasteur | Not available | Protein Subunit | S protein (baculovirus production) | Preclinical | [2] |
| Heat Biologics/Univ. Of Miami | Not available | Protein Subunit | gp-96 backbone | Preclinical | [2] |
| iBio/CC-Pharming | Not available | Protein Subunit | Subunit protein, plant produced | Preclinical | [2], GÖG |
| OncoGen | Not available | Protein Subunit | Synthetic Long Peptide Vaccine candidate for S and M proteins | Preclinical | [2] |
| Institute Pasteur/Themis/Univ. of Pittsburg Center for Vaccine Research | Not available | Replicating Viral Vector | Measles Vector | Preclinical | [2] |
| DZIF – German Center for Infection Research | Not available | Live attenuated virus | Measles Virus (S, N targets) | Preclinical | [2] |
| Tonix Pharma/Southern Research | Not available | Replicating Viral Vector | Horsepox vector expressing S protein | Preclinical | [2] |
| IAVI/Batavia | Not available | Replicating Viral Vector | VSV vector expressing S protein | Preclinical | [2] |
| Fudan University/ Shanghai JiaoTong University/RNACure Biopharma | Not available | RNA | LNP-encapsulated mRNA cocktail encoding VLP | Preclinical | [2] |
| Fudan University/ Shanghai JiaoTong University/RNACure Biopharma | Not available | RNA | LNP-encapsulated mRNA encoding RBD | Preclinical | [2] |
| Arcturus/Duke-NUS | Not available | RNA | mRNA | Preclinical | [2] |
| BioNTech/Fosun Pharma/Pfizer | Not available | RNA | mRNA | Preclinical; Mar 20: Clinical testing of this m-RNA vaccine to start in April | [2, 3], GÖG |

| | | | | | |
|---|---|---|---|---|---|
| | | | | 2020 | |
| Imperial College London | Not available | RNA | saRNA | Preclinical | [2] |
| Medicago Inc. | Not available | VLP | Plant-derived VLP | Preclinical | [2], GÖG |
| Karolinska Institute | Not available | Unknown | Unknown | Preclinical | [2] |
| ReiThera | Not available | Unknown | Unknown | Preclinical | [2] |
| BioNet Asia | Not available | Unknown | Unknown | Preclinical | [2] |
| ImmunoPrecise | Not available | Unknown | Unknown | Preclinical | [2], GÖG |
| MIGAL Galilee Research Institute | Not available | Unknown | Unknown | Preclinical | [2], GÖG |
| Doherty Institute | Not available | Unknown | Unknown | Preclinical | [2] |
| Tulane University | Not available | Unknown | Unknown | Preclinical | [2] |
| Shenzhen Geno-Immune Medical Institute | Not available | Lentiviral Minigene Vaccine (LV-SMENP) of Covid-19 | | Preclinical (NCT04276896; recruiting) | [4] |
| Shenzhen Geno-Immune Medical Institute | Not available | Pathogen-specific antigen presenting cells (APC). Modify artificial APC (aAPC) and to activate T cells. | | Preclinical (NCT04299724; recruiting) | [4] |
| Anges Inc, Osaka University | Not available | DNA | unknown | Preclinical | GÖG |
| Cambridge Infectious Diseases Research Centre | Not available | Not available | Not available | Preclinical | GÖG |
| Institute for Biological Research, Israel | Not available | Not available | Not available | Preclinical | GÖG |
| University of Texas | Not available | Not available | Not available | Not available | GÖG |
| Washington University School of Medicine in St. Louis | Not available | Not available | Not available | Not available | GÖG |
| Alpha-O Peptides | Animal testing upcoming | Protein Subunit | SAPN | Not available | [5] |
| SK Bioscience | Animal trial started, Clinical trials in September 2020 | Not available | Not available | Preclinical | [5] |
| Sanofi/Translate Bio | Human testing toward the end of 2020 or in early 2021 | RNA | MRNA | Preclinical | [5] |
| Konsortium Universtiätsspital Zürich/Inselspital und Universtität Bern/Unternehmen Saiba | Animal testing ongoing, availability till end of 2020 | Protein Subunit | RBD | Preclinical | [5] |
| Kentucky BioProcessing (British American Tobacco) | Animal testing ongoing | Not available | Not available | Preclinical | [5] |

| | | | | | |
|---|---|---|---|---|---|
| US Army Medical Research and Development Command (USAMRDC) | Not available | Not available | Not available | Not available | [5] |
| Osaka University/ BIKEN/ NIBIOHN | Not available | Inactivated | TBD | Preclinical | [6] |
| National Institute of Infectious Disease, Japan | Not available | Protein Subunit | S protein+Adjuvant | Preclinical | [6] |
| Osaka University/ BIKEN/ National Institutes of Biomedical Innovation, Japan | Not available | Protein Subunit | VLP-recombinant protein + Adjuvant | Preclinical | [6] |
| Univ. of Pittsburgh | Not available | Protein Subunit | microneedle arrays S1 subunit | Preclinical | [6] |
| Biological E Ltd | Not available | Protein Subunit | Adjuvanted protein subunit (RBD) | Preclinical | [6] |
| Saint-Petersburg scientific research institute of vaccines and serums | Not available | Protein Subunit | Recombinant protein, nanoparticles (based on S-protein and other epitopes) | Preclinical | [6] |
| Innovax/Xiamen Univ./GSK | Not available | Protein Subunit | COVID-19 XWG-03 truncated S (spike) proteins | Preclinical | [6] |
| University of Tokyo/ Daiichi-Sankyo | Not available | RNA | LNP-encapsulated mRNA | Preclinical | [6] |
| Imophoron Ltd and Bristol University's Max Planck Centre | Not available | VLP | ADDomerTM multiepitope display | Preclinical | [6] |

Notes: n=80; further BCG vaccines will be assessed for its ability to mitigate the prevalence and severity of COVID-19 symptoms (see BRACE trial & EudraCT2020-000919-69) [4]

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# Appendix 2 Therapeutics (n = ca. 155)

*Table A 2: Covid19 medicines in development (all)*

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **Antiviral drugs** | | | | | |
| **Remdesivir (GS-5734; GS 5734) Nucleoside Inhibitor Not Licensed** | | | | | |
| **Remdesivir**<br><br>Sponsor: Capital Medical University | NCT04252664 | Hubei, China | Phase III randomised, double-blind, placebo-controlled multicenter study: hospitalized adult patients with mild and Moderate 2019-nCoV Respiratory Disease randomised to Remdesivir, or Placebo (N=308) | Time to Clinical Recovery defined as the time (in hours) from initiation of study treatment (active or placebo) until normalisation of fever, respiratory rate, and oxygen saturation, and alleviation of cough, sustained for at least 72 hours. | Recruiting;<br><br>Estimated study completion: April 27, 2020 |
| **Remdesivir**<br><br>Sponsor: Capital Medical University | NCT04257656 | Beijing, China | A Phase 3 Randomised, Double-blind, Placebo-controlled, Multicenter Study<br><br>N= 453 Hospitalized Adult Patients With Severe 2019-nCoVRespiratory Disease ranomised to Remdesivir, or placebo | Time to Clinical Improvement (TTCI), two steps in a Six-category ordinal scale:1 (discharged) to 6 (death), censoring at day 28 | Recruiting;<br><br>Estimated study completion: May 1, 2020 |
| **Remdesivir**<br><br>Sponsor: National Institute of Allergy and Infectious Diseases (NIAID) | NCT04280705<br><br>EudraCT number: 2020001052-18 | Up to 50 sites globally; Maryland, Nebraska, Texas, Washington,US; Korea<br>Denmark | Phase 2 Multicenter, Adaptive, Randomised Blinded Controlled Trial<br>N=440 Hospitalized Adults with covid- 19 randomised to Remdesivir, or placebo | Percentage of subjects reporting each severity rating on the 7-point ordinal scale (death – not hospitalized), timeframe day 15 | Recruiting;<br><br>Estimated study completion: April 2023 |
| **Remdesivir**<br><br>Sponsor: Gilead Sciences | NCT04292730<br><br>EudraCT number: 2020-00084115 | China, France, Germany, Hong Kong, Italy, Japan, Korea, Netherlands, Republic of Singapore, Spain, Sweden, Taiwan, UK, US | Phase 3 open label randomised controlled trial.<br>N=600 with moderate covid-19 randomised 1:1:1 to Remdesivir 100 mg for 5 days,<br>Remdesivir 100 mg for 10 days, or standard of care | Proportion of participants in each group discharged by day 14. | Recruiting;<br><br>Estimated study completion :May 2020 |
| **Remdesivir**<br><br>Sponsor: Gilead Sciences | NCT04292899<br><br>EudraCT number: 2020-00084232 | China, France, Germany, Hong Kong, Italy, Japan, Korea, Netherlands, Republic of Singapore, Spain, Sweden, Taiwan, UK, US | Phase 3 open label randomised controlled trial.<br>N=400 with severe covid-19 randomised to Remdesivir 100 mg for 5 days, or Remdesivir 100 mg for 10 days. | Proportion of Participants With Normalization of Fever and Oxygen Saturation Through Day 14 | Recruiting,<br><br>Estimated study completion May 2020 |
| **Remdesivir** | NCT04315948 | EU: France, Spain, UK, | Adaptive, randomised open clinical trial to | Subject clinical status (on a 7-point | Recruiting; |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | Germany, Belgium, Netherlands, Luxembourg, Norway N=3200<br><br>Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand<br>More countries are expected to join | one of 4 treatments | ordinal scale) on Day 15 | Estimated study completion: March 2023 |
| **Lopinavir + Ritonavir (Kaletra)<br>Protease inhibitors HIV infection** | | | | | |
| **Lopinavir+ Ritonavir**<br><br>Sponsor: Tongji Hospital | NCT04255017 | Tongji Hospital, Hubei, China | Phase 4 single blinded, Prospective, Randomised Controlled Cohort Study to Compare the Efficacy of Three Antiviral Drugs (Abidol Hydrochloride (Umifenovir), Oseltamivir and Lopinavir/Ritonavir) in the Treatment of 2019-nCoV Pneumonia.<br>N=400 patients with CT manifestation of viral pneumonia + mCoV positive randomised to Abidol hydrochloride, Oseltamivir, or Lopinavir/ritonavir | Rate of disease remission (Time Frame: two weeks)<br><br>Time for lung recovery (Time Frame: two weeks) | Recruiting;<br><br>Estimated study completion: July 1, 2020 |
| **Lopinavir + Ritonavir** | NCT04315948 | EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway N=3200<br><br>Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand, more countries are expected to join | Adaptive, randomised open clinical trial to one of 4 treatments | Subject clinical status (on a 7-point ordinal scale) on Day 15 | Recruiting;<br><br>Estimated study completion: March 2023 |
| **Lopinavir + Ritonavir** in combination with Interferon-beta | NCT04315948 | EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway N=3200<br><br>Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand more countries | Adaptive, randomised open clinical trial to one of 4 treatments | Subject clinical status (on a 7-point ordinal scale) on Day 15 | Recruiting;<br><br>Estimated study completion: March 2023 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | are expected to join | | | |
| **Lopinavir + Ritonavir**<br><br>Sponsor: Darrell Tan | NCT04321174 | Canada, Ontario | Post exposure prophylaxis. Open label randomised trial<br>N=1220 High risk close contact with a confirmed COVID-19 case | Microbiologic evidence of infection [ Time Frame: 14 days | Not yet recruiting;<br>Estimated Primary Completion: March 31, 2021 |
| **Lopinavir + Ritonavir** vs Interferon 1β vs Low-dose Corticosteroids vs Hydroxychloroquine.<br><br>Sponsor: University of Oxford | EudraCT 2020-001113-21 | UK | Adaptive, open label randomised controlled trial.<br>N=2000 hospitalised patients with covid-19 are randomised to 1 of 5 treatment arms in addition to usual standard of care: No additional treatment, Lopinavir-Ritonavir, Interferon 1β, Low-dose Corticosteroids, or Hydroxychloroquine. | In-hospital death, discharge, and need for ventilation.<br>Time frame 28 days | Ongoing |
| **Lopinavir + Ritonavir** | ChiMCTR2000002940 | Wuhan, China | N=60 randomised to traditional Chinese medicine, Lopinavir/ritonavir, or traditional Chinese medicine + lopinavir/ritonavir | The rate of remission | Not Recruiting;<br>Estimated study completion: Dec 31, 2020 |
| **Lopinavir + Ritonavir**<br><br>Sponsor: Guangzhou 8th People's Hospital | NCT04252885 | Guangdong, China | Open label,<br>125 patients Randomised 2:2:1 to Lopinavir /Ritonavir Tablets, Arbidol, or ordinary treatment | The rate of virus inhibition | Recruiting;<br>Estimated study completion: July 31, 2020 |
| **Lopinavir + Ritonavir** | NCT04276688 | Hong Kong | Phase 2 study<br>Open-label randomised controlled trial among adult patients hospitalized and confirmed covid-19 infection<br><br>N=70 hospitalised patients with confirmed covid 19 infection randomised to Lopinavir/ritonavir, Ribavirin, or Interferon Beta-1B | Time to negative nasopharyngeal swab (NPS) 2019-n-CoV coronavirus viral RT- PCR | Recruiting;<br><br>Estimated study completion: July 31,2022 |
| **Lopinavir + Ritonavir**<br><br>Sponsor: First Affiliated Hospital of Zhejiang | NCT04261907<br><br>ChiCTR2000029603 | Zhejiang University, China | Randomised, Open-label, Multi-centre Clinical Trial<br>N=160 patients with pneumonia caused by covid-19 randomised to | The incidence of composite adverse outcome (time frame 14 days) | Recruiting (according to Chinese website that was updated )<br><br>Estimated study completion: June 30, 2020 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| University | | | ASC09/ritonavir or lopinavir/ritonavir | | |
| **Lopinavir + Ritonavir** | NCT04291729<br><br>ChiCTR2000030472 | China, Jiangxi | 50 patients with covid 19 randomised 1:1:1:1:1 to<br>Ganovo+ritonavir with or without interferon atomization;<br>Pegasys;<br>Novaferon atomization;<br>Lopinavir+ritonavir;<br>Chinese medicines +interferon atomization | Rate of composite adverse outcomes (Time frame: 14 days) | Recruiting;<br>Estimated study completion: April 30, 2020 |
| **Lopinavir + Ritonavir** + interferon +/- ribavirin | ChiCTR2000029387 | Chongqing, China | N= 108 patients with mild or moderate covid-19 randomised to<br>Ribavirin + Interferon alpha-1b, lopinavir / ritonavir + interferon alpha- 1b, or<br>Ribavirin + LPV/r+Interferon alpha-1b; | The time to 2019-nCoV RNA negativity in patients; | Recruiting<br>Study execute time: From 2020-01-25 to 2021-01-25 |
| **Lopinavir + Ritonavir**<br><br>Sponsor: Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology | ChiCTR2000029539 | Tongji, Hubei, China | Open label study.<br><br>N=328 Patients with mild covid-19 or unexplained viral pneumonia randomised 1:1 to<br>conventional standardized treatment + Lopinavir/Ritonavir, or<br>conventional standardized treatment | The incidence of adverse outcome within 14 days after admission: Patients with conscious dyspnea, SpO2 = 94% or respiratory frequency = 24 times / min in the state of resting without oxygen inhalation; | Recruiting;<br><br>From 2020-02-03 To 2021-02-02 |
| **Lopinavir + Ritonavir** | ChiCTR2000030187 | Hubei, China | N=60 randomised to lopinavir/ritonavir, or Routine symptomatic support treatment | Endotracheal intubation rate, time frame: 14 days<br>Mortality, time frame: 14 days | Not yet recruiting;<br><br>From2020-02-25 To 2020-03-10 |
| **Lopinavir + Ritonavir** vs Chloroquine | NCT04307693 | Seoul, Republic of Korea | Multicenter, open labelled, randomized clinical trial<br>N=150 with mild covid-19 Randomised to Lopinavir/Ritonavir, Hydroxychloroquine, or<br>Conventional treatment | Viral load (Time Frame 18 days) | Recruiting;<br>Estimated study completion: May 2020 |
| **Lopinavir + Ritonavir** vs Arbidol vs ASC09/ Ritonavir (ASC09F) | ChiCTR2000029759 | Chongqing | A multicenter, randomised, open label, controlled trial<br>60 patients randomised to<br><br>Lopinavir / Ritonavir (Kaletra) + IFN aerosol inhalation,<br>Abidol and IFN aerosol inhalation, or<br>ASC09/ Ritonavir (ASC09F) and IFN aerosol inhalation | Time to recovery. | From 2020-02-15 To 2020-05-01 |
| **Lopinavir + Ritonavir** vs Carrimycin; | NCT04286503 | Beijing YouAn Hospital and other hospitals in | A Multicenter, Randomised, Open-controlled Study, | Fever to normal time (day) (Time Frame: 30 days) | Not yet recruiting; |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Carrimycin is licenced in China<br><br>Sponsor: Beijing YouAn Hospital | ChiCTR2000029867 | China | N=520 patients stratified by severity, Randomised 1:1 to carrimycin or lopinavir/ritonavir or arbidol or chloroquine phosphate | Pulmonary inflammation resolution time (HRCT) (day) (Time Frame: 30 days)<br><br>Negative conversion (%) of 2019-nCOVRNA in gargle (throat swabs) at the end of treatment (Time Frame: 30 days | Estimated study completion, Feb 28, 2021 |
| **Lopinavir + Ritonavir** + emtritabine /Tenofovir alafenamide fumarate | ChiCTR2000029468 | Sichuan, China | Single arm study with historical controls Patients with covid-19 N=60 in the intervention arm N=60 historical controls | Patient survival rate | Not yet recruiting;<br><br>From 2020-02-01 To 2020-06-30 |
| **Lopinavir + Ritonavir** vs pinavir + ritonavir vs ritonavir | ChiCTR2000030218 | Jiangxi, China | Randomised trial, blinding not stated; N=80 with mild or moderate covid-19 treated with Pinavir / ritonavir tablets combined with Xiyanping injection, or Ritonavir, or Lopinavir/ritonavir combined with Xiyanping injection | Clinical recovery time; Pneumonia Severity Index (PSI) score | Recruiting;<br><br>From2020-01-22 To 2020-06-25 |
| **Favipiravir/Favilavir (Avigan) (T-705 or favilavir) Experimental antiviral drug.** | | | | | |
| Pyrazinecarboxamide derivative viral RNA polymerase inhibitor; Licenced for influenza in Japan | ChiCTR2000029548 | Zhejiang, China | N=30, Randomised 1:1:1 to BaloxavirMarboxil, Favipiravir, or Lopinavir-Roitonavir; ritonavir | Primary outcome: time to negative PCR and time to clinical improvement | Not recruiting;<br><br>Estimated study completion: June 2020 |
| **Favipiravir** (or T-705 or Avigan) | ChiCTR2000029544 | Zhejiang, China | N= 30 with Coronavirus pneumonia Randomised 1:1:1 to antiviral treatment + Baloxavir, antiviral treatment + Marboxil, or antiviral treatment | Primary outcome: time to negative PCR Time to clinical improvement | Not recruiting;<br><br>Estimated study completion: June 2020 |
| **Favipiravir** | ChiCTR2000030113 | Guangdong, China | N=30 with corona pneumonia with poorly responsive ritonavir Randomised to ritonavir or favipiravir | Blood routine tests, Liver function examination, Renal function examination, Blood gas analysis, Chest CT examination | Recruiting;<br><br>Estimated study completion: May 31, 2020 |
| **Fapilavir** Approved by China for covid-19 treatment by February 17, 2020. | ChiCTR2000029996 | Beijing, China | Randomised, open label, controlled trial. N=60 patients with covid-19 of ordinary type randomised to low, middle or high dose fapilavir for 10 days | Time to Clinical Recovery defined as normal body temperature and cough relief | Recruiting |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **Favipiravir + bromhexine** | NCT04273763 | China, Zhejiang | Open label<br>N=60 with mild corona pneumonia randmised 1:1 to<br>favipiravir + interferon-alfa + arbidol hydroglhoride + interferon alfa2b, or<br>arbidol hydroglhoride + interferon alfa2b | Time to clinical recovery after treatment | Enrolling by Invitation<br><br>Estimated study completion: April 30, 2020 |
| **Farpiravir** | ChiCTR2000030254 | Hubei, China | Randomised, open label, controlled trial.<br>N=240 with covid-19 randomised to<br>farpiravir or<br>abidole | Pulse oxygen saturation,<br>Respiratory support,<br>nucleic acid test of novel coronavirus | Recruiting;<br><br>From 2020-02-20 To 2020-03-20 |
| **Favipiravir** + Tocilizumab<br><br>Sponsor: Peking University First Hospital | NCT04310228 | Anhui, Beijing, Hubei, China | Open label randomised controlled trial<br>N=150 randomised to<br>Favipiravir + Tocilizumab, Favipiravir, or Tocilizumab | Clinical cure rate [ Time Frame: 3 months ] | Recruiting<br><br>Estimated completion date: May 2020 |
| **Darunavir + cobicistat+ chloroquine** | | | | | |
| **Antiretroviral, protease inhibitor**. Used with low doses of cobicistat to increase bioavailability and half-life;<br>Approved for HIV | NCT04304053 | Barcelona, Spain | Phase 3, Open label cluster randomised trial<br>N= 3040 participants Randomised to antiviral and prophylaxis:<br>darunavir 800 mg / cobicistat 150 mg and chloroquine<br><br>Contacts will be offered a prophylactic regimen of chloroquine<br><br>Active comparator: no intervention | Incidence of secondary COVID-19 cases | Not yet recruiting; Estimated study completion: July 15, 2020 |
| **Darunavir** and Cobicistat | ChiCTR2000029541 | Hubei, China | Randomised, open label study<br>N=100 patients with covid-19 randomised to darunavir/cobicistat, lopinavir/ritonavir combined, or<br>conventional treatment | Time to conversion of 2019-nCoV RNA result from RI sample | Dec 01, 2020 |
| **Darunavir** and Cobicistat | NCT04252274 | China, Shanghai | Phase 3, randomised, open label N=30 patients with covid-19 randomised to Darunavir and Cobicistat or Conventional treatment | The virological clearance rate of throat swabs, sputum, or lower respiratory tract secretions at day 7 [ Time Frame: 7 days after randomization ] | Estimated primary completion date/ Estimated study completion:<br>August 31, 2020/<br>December 31, 2020 |
| **Oseltamivir (Tamiflu ®)** | | | | | |
| **Oseltamivir** vs ASC09F + Oseltamivir vs Ritonavir + Oseltamivir | NCT04261270 | Tongji Hospital, China | 60 patients with covid-19 randomised to ASC09F + Oseltamivir, Ritonavir + Oseltamivir, or Oseltamivir | Rate of comprehensive adverse outcome (Time Frame: 14 days) defined as low Oxygen saturation and high respiration rate | Not yet recruiting;<br><br>Estimated study completion: July 1, 2020 |
| **Umifenovir (Arbidol ®)** | | | | | |
| **Umifenovir** + interferon | NCT04254874 | Tongji Hospital, China | Phase 4 Open, Prospective, Randomised | Rate of disease remission (Time | Not yet recruiting; Estimated |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
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| (PegIFN-α-2b) | | | Controlled Cohort Study<br><br>N=100 randomised to arbidol Hydrochloride (Umifenovir), or Arbidol Hydrochloride Combined With Interferon Atomization | Frame: two weeks)<br><br>Time for lung recovery (Time Frame: two weeks) | study completion date: July 1, 2020 |
| **Umifenovir** | ChiCTR2000029621 | Shanghai, China | Multicenter, randomised, open-label, controlled trial<br>N= 380 patients with mild or moderate covid-19 | Virus negative conversion rate in the first week | Recruiting;<br><br>From 2020-01-01 To 2020-12-31 |
| **Umifenovir**, Novaferon, lopinavir/litonavir | ChiCTR2000029573 | Zhejiang, China | N=600 randomised 1:1:1:1:1:1: to arbidol, Novaferon + arbidol, Lopinavir/litonavir, Arbidol,<br>Novaferon, lopinavir/litonavir, or Novaferon + arbidol | 2019-nCoV nucleic acid test confirmed negative; | Not yet recruiting<br>From2020-02-05 To 2020-06-30 |
| **Umifenovir** | NCT04260594 | Jieming QU, Ruijin Hospital | Phase 4 Randomised, Open, Multicenter Study<br>N=380 with covid-19 randomised to arbidol or basic treatment | Virus negative conversion rate in the first week | Not recruiting yet;<br>Estimated primary completion date/<br>Estimated study completion: July 1, 2020/December 30, 2020 |
| **Umifenovir**<br><br>Sponsor:<br>Union Hospital, Tongji Medical College, Huazhong University of Science and Technology | ChiCTR2000029592 | Hubei China | Post exposure prophylaxis Observational study<br><br>High-risk population including medical staff on duty during the outbreak of 2019-nCoV.<br>N=1000<br>2 cohorts treated with Arbidol or no Arbidol | 2019-nCoV RNA;2019-nCoV antibody;Chest CT; | Not yet recruiting;<br><br>From 2020-02-05 To 2020-08-31 |
| **Other** | | | | | |
| **Oseltamivir** (Tamiflu®), lopinavir, ritonavir, favipiravir, darunavir, chloroquine | NCT04303299 | Bangkok, Thailand | A 6 Week Prospective, Open Label, Randomized, in Multicenter Study N=80 stratified by severity:<br>Mild COVID19:<br>Oseltamivir Plus Chloroquine, Lopipinavir/ Ritonavir Plus Oseltamivir, Lopipinavir/ Ritonavir Plus Favipiravir, or Conventional qurantine<br>Moderate to Critically Ill COVID19:<br>Lopipinavir/ Ritonavir Plus Oseltamivir, Favipiravir Plus Lopipinavir / Ritonavir, Darunavir/ Ritonavir Plus Oseltamivir Plus Chloroquine, | SARS-CoV-2 eradication time | Not yet recruiting;<br><br>Estimated study completion: November 30, 2020 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | Favipiravir Plus Darunavir, Ritonavir Plus Chloroquine | | |
| **Azvudine**, nucleoside reverse transcriptase inhibitor Currently investigated in phase 3 studies for the treatment of HIV | ChiCTR2000029853 | He'nan, China | Randomised, open label N=20 randomised to Azvudine or conventional treatmet | Several of primary clinical endpoints. | Recruiting, From 2020-02-16 To 2020-04-16 |
| **Azvudine** | ChiCTR2000030424 | He'nan, China | Single arm study N=30 treated with azvudine | conversion rate | Not yet recruiting From 2020-03-02 To 2022-05-02 |
| **Azvudine** | ChiCTR2000030041 | | Single arm study of 20 patients with common or severe type covid-19 treated with azvudine on top of conventional treatment | The novel coronavirus nucleic acid negative rate | Not yet recruiting; From 2020-02-21 To 2020-06-30 |
| **Azvudine** | ChiCTR2000030487 | He'nan, China | Single arm, N=10 treated with azvudine | Conversion time | Recruiting From 2020-03-04 To 2020-05-04 |
| **Triazavirin** Developed in Russia has been investigated for the treatment of influenza and other virus infections. Sponsor: Health commission of Heilongjiang province | ChiCTR2000030001 | Heilongjiang, China | A multicenter, randomised, double blinded, placebo-controlled trial N=240 randomised to Triazavirin or conventional treatment | Time to Clinical recovery | Recruiting; From 2020-02-15 To 2020-05-28 |
| **Novaferon** New antiviral drug developed in China | ChiCTR2000029496 | Huhan, China | Randomised controlled trial. N=90 with covid-19 randomised to Novaferon, Kaletra, or Novaferon+ Kaletra | Time to negative testing | Recruiting |
| **Galidesivir** (BCX4430, Immuncillin-A) | NA | NA | Current Phase I clinical study. | NA | NA |
| **Emtricitabine** + tenofovir (Truvada licensed for HIV) | NA | NA | Current clinical trials | NA | NA |
| **Ganovo® (Danoprevir) + Ritonavir** combination therapy Sponsor: Ascletis Pharma Inc. | https://www1.hkexnews.hk/listedco/listconews/sehk/2020/0310/2020031000340.pdf | Hangzhou, China | One of the treatment groups in this study is the group receiving oral Ganovo® and Ritonavir combination therapy, in which 10 Novel Coronavirus Pneumonia patients were planned to be enrolled, and 11 patients actually enrolled. As of the date of this announcement, all 11 patients receiving oral Ganovo® and Ritonavir combination therapy have been discharged as they are satisfied with the | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | discharge standards under the "Diagnosis and Treatment Program for Novel Coronavirus Infection (Trial Version 6)" 《(新型冠狀病毒肺炎診療方案(試行第六版)》) issued by the National Health Commission of the People' s Republic of China. | | |
| **ATR-002**<br>MEK inhibitor<br><br>Sponsor: Atriva Therapeutics GmbH | https://pharmaintelligence.informa.com/resources/product-content/atriva-fast-tracks-antiviral-candidate-as-coronavirus-arrives-in-germany | Germany | Successfully completed Phase I safety trials for seasonal influenza<br>Preliminary lab tests of the drug | NA | NA |
| **Brilacidin**<br>a defensin mimetic<br><br>Sponsor: Innovation Pharmaceuticals | http://www.ipharminc.com/pressrelease/2020/3/12/innovation-pharmaceuticals-announces-testing-procedures-of-brilacidin-against-coronavirus-covid-19 | USA | NA | Evaluation of Brilacidin's potential inhibitory efficacy against SARS-CoV-2 in lung epithelial cell lines, as well as its potential inhibitory effect in viral replication of the alphavirus (with Venezuelan Equine Encephalitis Virus [VEEV] as a prototype) in different cell lines. | Testing is scheduled to begin the week of March 16. |
| **Danoprevier** | Chen et al., medRxiv, DOI: 10.1101/2020.03.22.2003401 | NA | Case series | NA | NA |
| **Baloxavir** marboxil (Xofluza) polymerase acidic endonuclease inhibitor FDA-approved since 2018, approved to treat influenza<br><br>Sponsor: Roche/The First Affiliated Hospital of Zhejiang University Medical School | ChiCTR2000029544<br>ChiCTR2000029548 | NA | Clinical trials | NA | NA |
| **Vicromax,** broad spectrum antiviral<br><br>Sponsor: ViralClear Pharmaceuticals | NA | NA | Pre-clinical | NA | NA |
| **Antiviral compounds**<br><br>**Sponsor:** Cocrystal Pharma | NA | NA | Pre-clinical | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **Immune modulating drugs** | | | | | |
| **Glucocorticoids** | | | | | |
| **Glucocorticoid** | NCT04244591 | China, Beijing | Phase 2 and 3: open label, randomised controlled trial<br><br>N=80 with severe disease (ICU admission) randomised to methylprednisolone 40 mg x2 for 5 days | Lower Murray lung injury score (Time Frame: 7 days and 14 days after randomization) | Recruiting; Estimated primary completion date/ Estimated study completion:<br>April 25, 2020/<br>December 25, 2020 |
| **Methylprednisolone** | NCT04263402 | Tongji Hospital | Phase 4 open label, Prospective, Randomised Controlled Cohort Study<br><br>N=100 patients with severe pneumonia randomised to <40 mg methylprednisolone/day, or 40-80 mg/day | Rate of disease remission rate and time of entering the critical stage | Not yet recruiting; Estimated study completion: July 1, 2020 |
| **Methylprednisolone** | NCT04273321 | China, Hubei | Open label, randomised trial<br><br>N=400 patients<br>Randomised to Methylprednisolone 1mg/kg/day ivgtt for 7 days or? | The incidence of treatment failure in 14 days | Recruiting;<br>Estimated primary completion/estimated study completion: May 1, 2020/may 30, 2020 |
| **Methylprednisolone** | ChiCTR2000029386 | Chongqing, China | Randomised Controlled Trial<br><br>N=40 with severe covid-19 randomised to methylprednisolone or conventional treatment | Mortality 12 weeks, 4 weeks and clinical improvement | Recruiting<br><br>From 2020-01-29 to 2021-01-29 |
| **Corticosteroids** | ChiCTR2000029656 | Hubei, China | Open label randomised controlled trial.<br>N=100 patients with Covid-19 randomised to methylprednisolone or standard treatment | ECG, chest imaging, complications | Not yet recruiting.<br><br>From 2020-02-14 To 2020-04-14 |
| **Corticosteroids** | ChiCTR2000030481 | Hubei, China | Parallel study, blinding unknown;<br>N=200 corticosteroid therapy timing early timing, medium timing, or conventional treatment | The time of duration of COVID-19 nucleic acid RT-PCR test results of respiratory specimens (such as throat swabs) or blood specimens change to negative. | Recruiting;<br><br>From 2020-03-01 To 2020-04-30 |
| **ISR-50**<br><br>Sponsor: ISR Immune System Regulation | NA | NA | Pre-clinical | NA | NA |
| **Immunoglobulins** | | | | | |
| **Anti-SARS-CoV-2 virus inactivated plasma**<br><br>Sponsor: Wuhan Jinyintan | ChiCTR2000030010 | Hubei | Randomised double blinded parallel-controlled trial<br>Patients with severe covid-19. N=100 randomised to | Improvement of clinical symptoms (Clinical improvement is defined as a reduction of 2 points on the 6-point scale of the patient's | Not yet recruiting;<br><br>From 2020-02-19 To 2020-05-31 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Hospital (Wuhan Infectious Diseases Hospital) | | | Anti-SARS-CoV-2 virus inactivated plasma, or conventional treatment | admission status or discharge from the hospital) | |
| **PLX cell product, placenta-based cell therapy**<br><br>Sponsor: Pluristem Therapeutics/BIH Center for Regenerative Therapy/Berlin Center for Advanced Therapies | NA | NA | Pre-clinical | NA | NA |
| **Immunoglobulin**<br><br>Sponsor: Peking Union Medical College Hospital | NCT04261426 | Tongji Hospital | Phase 2/3 randomised, Open-label, Controlled, Single-center Study<br><br>N=80 patients with severe or critically ill covid19 respiratory disease randomised to IV immunoglobulin or standard care | Clinical improvement based on the 7- point scale (discharged to death) [ Time Frame: 28 days after randomization ]<br>and 3. Lower murray lung injury score (day 7 and day 14) | Not recruiting yet;<br><br>Estimated primary completion date/ Estimated study completion:<br>April 30, 2020/ June 30, 2020 |
| **Immunoglobulin** | NCT04264858 | China, Hubei | An Exploratory Clinical Study<br><br>N=10 patients with severe covid19. Treatment: immunoglobulin From cured 2019-nCoV Pneumonia Patients Or gammaglobulin | Time to Clinical Improvement (decline of two categories a six-category ordinal scale of clinical status which ranges from 1 (discharged) to 6 (death).) | Not recruiting yet;<br><br>Estimated primary completion date/ Estimated study completion:<br>April 30, 2020/ May 31, 2020 |
| **Anti-SARS-CoV-2 Inactivated Convalescent Plasma** | NA | NA | Case-Only, observational study: The Efficacy and Safety of Anti-SARS-CoV-2 Inactivated Convalescent Plasma in the Treatment of Novel Coronavirus Pneumonia Patient (COVID-19)<br><br>N=15 | The virologic clearance rate | Recruiting;<br><br>Estimated study completion:<br>December 31, 2020 |
| **Convalescent plasma treatment** | ChiCTR2000029850 | Zhejiang, China | Prospective cohort study; N=20 with severe covid-19 | Fatality rate | Recruiting; From2020-02-15 To 2022-02-15 |
| **Convalescent plasma treatment** | ChiCTR2000030039 | Jiangsu | 90 patients with normal to critical covid-19.<br>N=30 treated with convalescent plasma<br>N=60 treated with conventional therapy | SARS-CoV-2 DNA,<br>And SARS-CoV-2 antibody levels | Recruiting,<br><br>Unknown end-date |
| **Anti-2019-nCoV inactivated convalescent plasma** | ChiCTR2000030046 | Hubei, China | Single arm study of 10 patients with Anti-2019-nCoV virus inactivated plasma | Several outcomes,<br>the changes of clinical symptom, laboratory and radiological data etc. | Recruiting;<br><br>From 2020-02-07 To 2020-04-07 |
| **Anti-SARS-CoV-2 inactivated convalescent plasma** | ChiCTR2000030381 | Hubei, China | Randomized, open-label, controlled and single-centre trial<br><br>N=40 patients with moderate covid-19 | Clinical symptom improvement rate: improvement rate of clinical symptoms<br>= number of cases with clinical | Not yet recruiting<br><br>From 2020-02-29 To 2020-05-31 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | | symptom improvement /number of enrolling cases * 100% | |
| **Anti-SARS-CoV-2 inactivated convalescent plasma** | ChiCTR2000030381 | Hubei, China | Single arm n=24 treated with anti-SARS-CoV-2 inactivated convalescent plasma | Clinical symptom improvement rate: improvement rate of clinical symptoms = number of cases with clinical symptom improvement /number of enrolling cases * 100% | NA |
| **Convalescent plasma** | ChiCTR2000030627 | He'nan, China | Randomised controlled trial. N=30 patients with severe or critical covid-19 randomised 1:1 to convalescent plasma or conventional treatment | Temperature, Virus nucleic acid detection | Recruiting; From 2020-02-01 To 2020-05-30 |
| **(COVID-HIG) and horse plasma product (COVID-EIG)** Sponsor: Emergent BioSolutions Funded by: UK government | NA | NA | Pre-clinical | NA | Phase 2 trials begin August 2020 |
| **Convalescent plasma (blood plasma from recovered patients)** Multiple global research sponsors, including New York State Department of Health | NCT04321421 NCT04292340 NCT04316728 | NA | Clinical trial | NA | NewYorkStateDepartmentof Health trialbegins March 2020 |
| **Hyperimmune Plasma** | NCT04321421 | Pavia, PV, Italy | Single arm treatment of 49 patients with moderate to severe COVID-19 undergoing mechanical ventilation or continuous positive airway pressure. | death [ Time Frame: within 7 days ] | Active, not recruiting; Estimated primary completion: May 31, 2020 |
| **Monoclonal antibodies** | | | | | |
| **Tocilizumab**(Roactemra®) Approved for rheumatoid arthritis Sponsor: The First Affiliated Hospital of University of science and technology of China (Anhui Provincial Hospital) | ChiCTR2000029765 | Anhui, China | Phase 4, Randomised controlled trial. Blinding not stated N=198 Severe cases of covid19 randomised to tocilizumab, or conventional treatment | Cure rate | Recruiting May 10, 2020 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **Tocilizumab**<br><br>Sponsor: Roche | NCT04320615 | Not stated yet | Randomised, Double-Blind, Placebo-Controlled, Multicenter Study<br><br>N=330 Patients With Severe COVID-19 randomised to Tocilizumab or placebo | Clinical Status Assessed Using a 7-Category Ordinal Scale [ Time Frame: Day 28 ] | Not yet recruiting<br><br>Estimated study completion: September, 2021 |
| **Tocilizumab** + ivig (human antibodies) + CRRT (continuous renal replacement therapy?) | ChiCTR2000030442 | Shaanxi, China | Single arm study of 100 patients with severe covid-19 | In hospital time | Not yet recruiting<br><br>From 2020-03-05 To 2020-05-15 |
| **Tocilizumab** TOCIVID-19 | EudraCT:2020- 001110-38<br>NCT04317092 | Italy, Multicentre | Multicenter single-arm, open-label, phase 2 study on the efficacy and tolerability of tocilizumab in the treatment of patients with COVID-19 pneumonia<br>Control: retrospective observational cohort<br>Sample size (estimated) N = 330 | Mortality rate one month after registration | Ongoing Estimated primary completion/estimated study completion Dec 2020/Dec 2022 |
| **Tocilizumab**<br><br>Sponsor: Tongji hospital | NCT04306705 | Tongji hospital, Hubei, China | A Retrospective Study<br>N=120 with cytokine release syndrome with Serum IL-6 ≥3 times the upper limit of normal<br>treated with<br>Tocilizumab or Continuous Renal Replacement Therapy | Proportion of Participants With Normalization of Fever and Oxygen Saturation Through Day 14 | Recruiting;<br><br>Estimated completion: June 2020. |
| **Tocilizumab**<br><br>Sponsor: Università Politecnica delle Marche | NCT04315480 | Ancona, AN, Italy | Single arm study<br>N=30 with severe covid-19 | Rate of patients with no need in increase of $FiO_2$ to maintain stable $SO_2$ and no need of intubation; improving in pulmonary function [ Time<br>Frame: 7 days] | Not yet recruiting; Estimated Study Completion May 2020 |
| **Sarilumab** (Kevzara) IL-6 blocking Mab<br><br>Sponsor: Regeneron + Sanofi | NCT04315298 | USA<br>Multicenter | RCT, double-blind, placebocontrolled, on top of supportive care.<br>Ph2<br>Ph3 (adaptive, depends on Ph2 results)<br>N=400<br>Adults hospitalized with serious complications from COVID-19 | Ph2: fever, $O_2$ need<br>Ph3: longterm outcomes (e.g. death, hospitalisation, ventilation, $O_2$ supply etc) | Recruiting – March 2020<br>Estimated completion March 2021 |
| **Sarilumab** (Kevzara) IL-6 blocking Mab<br><br>Sponsor: Sanofi | EudraCT: 2020-001162-12<br><br>Sarilumab COVID-19<br>Protocol number: EFC16844 | Canada France Germany Israel Italy Japan Russian Federation<br>Spain | An adaptive phase 2/3, randomized, double-blind, placebo-controlled study assessing efficacy and safety of sarilumab for hospitalized patients with COVID-19 (Sarilumab COVID-19).<br>Phase 2 n= 100 Phase 3 n= 200 | Ph2: resolution of fever or discharge Ph3: adaptive design. PEP depends on Ph2 results. | Ongoing |
| **Sarilumab** (Kevzara) | EudraCT: 2020-001246-18 | France | Randomised, open label trial. Moderate, | For patients not requiring ICU: Co | Not yet recruiting; |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| IL-6 blocking Mab vs tocilizumab (Roactemra)<br><br>Sponsor: Assistance Publique - Hôpitaux de Paris | NCT04324047 | | severe or critical COVID-19 N=1000 randomised to sarilumab, tocilizumab, or standard of care. | Primary Endpoints<br>Survival without needs of ventilator utilization at day 14.<br>Early end point: OMS progression scale < or = 5 at day 4<br>For patients requiring ICU: Co<br>Primary Endpoints<br>Cumulative incidence of successful tracheal extubation at day 14.<br>Early end point: OMS progression scale >7 at day 4 | March 26, 2021 |
| **Meplazumab**<br><br>Sponsor: Tang-Du Hospital | NCT04275245 | China, Shaanxi | Phase 1/2<br>Open label, single arm N=20 with pneumonia | Virological clearance rate (time frame 14 days) | Recruiting; Estimated study completion: Dec 31, 2020 |
| **Bevacizumab**; Approved for certain cancers;<br>Sponsor: Qilu Hospital of Shandong University | NCT04275414 | China, Shandong | Phase 2/3 single group assignment<br><br>N=20 severe and critical COVID-19 patients | Partial arterial oxygen pressure at 24 hours, 72 hours and 7 days | Recruiting;<br><br>Estimated study completion: May 2020 |
| **Bevacizumab**<br><br>Sponsor: Qilu Hospital of Shandong University | NCT04305106 | China, Shandong | Double blinded multicentre randomised controlled trial<br>N=118 Severe or Critical Patients With COVID-19<br>Randomised to bevacixumab.<br>No comparator | Proportion of patients whose oxygenation index increased by 100mmhg on the 7th day after admission [ Time Frame: On the 7th day after admission ] | Not yet recruiting: Estimated study completion: May 31, 2020 |
| **Eculizumab** (Soliris);<br>Modulation of the complement system<br>EMA approved for<br>Paroxysmal nocturnal haemoglobinuria (PNH).<br>Atypical haemolytic uremic syndrome (aHUS)<br>Refractory generalized myasthenia gravis (gMG)<br>Neuromyelitis optica spectrum disorder (NMOSD)<br><br>Sponsor: Hudson Medical | NCT04288713 | US | The drug is being used in a protocol for the treatment of covid-19. Awaits FDA approval. | NA | NA |
| **vMIP (**viral macrophage inflammatory protein, chemokine); | ChiCTR2000029636 | Hubei, China | Single arm, case series. Moderate or severe covid-19 | 2019-nCoV nucleic acid turning negative time (from respiratory secretion), or the time to release isolation | Recruiting;<br><br>From 2020-02-07 To 2020-07-3 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Sponsor: Union Hospital, Tongji Medical College, Huazhong University of Science and Technology | | | | | |
| **Tozumab** + adamumab (adalimumab) | ChiCTR2000030580 | Hubei, China | Parallel intervention study,<br>N=60 patients with severe or critical covid-19 randomised to tozumab + adamumab | Several primary outcomes: chest CT, coronavirus detection, IL6 etc. | Recruiting;<br><br>From 2020-02-01 To 2020-04-30 |
| **Adalimumab** | ChiCTR2000030089 | Shanghai, China | A randomized, open-label, controlled trial<br>N= patients with severe or critical covid-19 | TTCI (Time to Clinical Improvement) | Not yet recruiting;<br><br>From 2020-02-28 To 2020-08-31 |
| **Siltuximab** (Sylvant®) IL-6 blocking Mab<br><br>Sponsor: EUSA Pharma | NCT04322188 | Italy, Bergamo | Retrospective case-control study (compassionate use vs matched controls)<br><br>Observational Case-control Study | reduction in the need of invasive ventilation, time spent in ICU or 30-day mortality | Recruiting<br><br>Estimated study completion date end of May 2020 |
| **Gamifant** (emapalumab) - (IFNγ) blocking antibody - FDA approved for primary haemophagocytic lymphohistiocytosis (HLH).<br><br>Kineret (anakinra) – IL-1 receptor antagonist<br>FDA + EMA approved for CAPS, Still's disease, FMF, RA | Eudra-CT: 2020-001167-93<br><br>NCT04324021 | Italy | Randomized, Open-label, Parallel Group, 3-arm, Multicenter Study N = 54<br>Active: Emapalumab (n=18) Active: Anakinra (n=18) Comparator: SOC (n=18)<br>Adult COVID-19 with respiratory distress | Treatment success [ Time Frame: Up to Day 15 ]<br>Defined as the proportion of patients not requiring invasive mechanical ventilation or Extracorporeal membrane oxygenation (ECMO) | Not yet recruiting (30- 03-2020)<br>Estimated study completion Sep 2020 |
| **Leronlimab** subcutaneous injection (PRO-140) | NA | NA | Phase II clinical study<br>https://www.cytodyn.com/newsroom/press-releases/detail/392/cytodyn-files-ind-and-protocol-for-phase-2-clinical-trial | NA | NA |
| **APN01** (Aperion) recombinant soluble human Angiotensin Converting Enzyme 2<br><br>Sponsor: University of British Columbia/ Apeiron Biologics<br><br>Funded by: Austrian Government | https://www.vfa.de/de/arzneimittel-forschung/woran-wir-forschen/therapeutische-medikamente-gegen-die-coronavirusinfektion-covid-19<br>Clinical Trials Arena<br>Apeiron Biologics Apeiron Biologics Apeiron Biologics press release* | NA | Phase 2 began in April 2020 | NA | NA |
| **Gimsilumab,** anti-granulocyte-macrophage colony stimulating factor | NA | NA | Pre-clinical | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| monoclonal<br><br>Sponsor: Roivant Sciences | | | | | |
| TJM2 (TJ003234), anti-granulocyte-macrophage colony stimulating factor antibody<br><br>Sponsor: I-Mab Biopharma | NA | USA | Pre-clinical | NA | NA |
| **IFX-1** monoclonal anti-human complement factor C5a antibody<br><br>Sponsor: InflaRx N.V. | https://www.inflarx.de/Home/Investors/Press-Releases/03-2020-InflaRx-Doses-First-Patient-in-Multicenter-Randomized-Clinical-Trial-in-Severe-Progressed-COVID-19-Pneumonia-in-Europe-upon-Receipt-of-Initial-Positive-Human-Data-with-InflaRx-s-anti-C5a-Technology.html | Jena, Germany | Randomized clinical trial | Safety and efficacy | Enrolement |
| **Interferons** | | | | | |
| **Interferon beta 1a**<br>SNG001 is an inhaled formulation of interferon-beta-1a<br><br>Not licensed Sponsor: Synairgen Research Limited | EudraCT: 2020-001023-14 | UK, at leading NHS respiratory medicine centres. | Phase 2 Randomised, double-blind, placebo-controlled trial.<br>Pilot phase with 100 COVID-19 patients In total 400 patients<br><br>Recruitment via WHO webpage. | Change in condition measured using the Ordinal Scale for Clinical Improvement during the dosing period.<br><br>The Ordinal Scale for Clinical Improvement is a World Health Organisation recommended scale for use in COVID-19 trials. | Ongoing<br><br>Estimated study completion: Unknown |
| **Rebif (interferon beta-1a)**<br><br>FDA-approved since 2002, approved to treat multiple sclerosis<br><br>Institut National de la Sante et de la Recherche Medicale (Merck KGaA)<br><br>Sponsored by: INSERM | NCT04315948 | France | NA | NA | Recruiting |
| **Interferon alfa1beta** | NCT04293887 | Tongji Hospital, China | Early phase 1 Multi-center, randomised, open, blank-controlled, multi-stage | Dyspnea, reduced SPO2, respiratory rate | Not yet recruiting; Estimated study completion date: June 30, 2020 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | clinical study.<br><br>N=328 patients with corona pneumonia | | |
| **Interferon alfa2beta** (PegIntron®, Sylatron®, IntronA®) | http://www.c hictr.org.cn/showprojen.aspx?proj=4868 4 | NA | Clinical trials | NA | NA |
| Interferon | ChiCTR2000029638 | Sichuan, China | Multicenter randomised controlled trial. N=100 patients with moderate to severe covid-19 randomised to nebulization of novel gene recombinant super compound interferon or nebulization of alpha-interferon | Clinical symptoms, blood routine etc. | Recruiting;<br><br>From 2020-02-03 To 2020-08-01 |
| **Cerrokin** (recombinant human interferon alpha 1beta) | ChiCTR2000030480 | Hubei, China | Randomized, open, blank controlled trial. N=332 with covid-19 randomised to cerrokin or conventional treatment | Incidence of side effects | Recruiting;<br><br>From 2020-03-03 To 2020-07-03 |
| **Recombinant human interferon alpha 1b spray** | ChiCTR2000030013 | Hubei, China | Preventive study N=450, highly exposed Medical staff treated with interferon (N=300) or nothing | Blood routine examination and chest CT. | Not yet recruiting;<br><br>From 2020-02-20 To 2020-06-30 |
| **Novaferon Recominant inteferon** | ChiCTR2000029496 | Huhan, China | Randomised, open label controlled trial. N=90 with covid-19 randomised to Novaferon, Kaletra, or Novaferon+ Kaletra | Time to negative testing | Recruiting |
| **Inhalation of IFN-κ** and TFF2 in treatment of nCo- V-infected patients. | ChiCTR2000030262 | Shanghai, China | Clinical study, design not described.<br><br>Intervention:<br>one day treatment of IFN-κ and TFF2 (n=10)<br>two day treatment of IFN-κ and TFF2 (n=10)<br>control (n=10) | Wide range of primary outcomes: viral load, clinical features, inflammation, pulmonary imaging | Recruiting |
| **rhIFNα** nasal drops and thyosin-alfa<br>Sponsor: Shanghai Jiao Tong University School of Medicine | NCT04320238 | China, Hubei | Open label non-randomised trial N=2933 medical staff devided into high risk or low risk group.<br>High risk: rhIFNα nasal drops and thyosin-alfa<br>Low risk: rhIFNα nasal drops | New-onset COVID-19 | Recruiting Estimated primary completion:<br>May 2020 |
| **Peginterferon lambda**<br><br>Sponsor: Eiger BioPharmaceuticals, Inc | NA | USA | Phase 2 began in April 2020 | Studies will assess a 180 mcg, once-weekly, subcutaneous dose of Lambda | NA |
| **Ilaris** (canakinumab), interleukin-1beta blocker FDA approved since 2009, | NA | NA | Clinical trial | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| approved to treat periodic fever syndromes and systemic juvenile idiopathic arthritis<br><br>Sponsor: Novartis | | | | | |
| **Other immune modulating drugs** | | | | | |
| **NK cells** | NCT04280224 | China, Henan | Phase 1<br><br>N=30 with covid19 randomised to NK cells, or<br>Conventional treatment | Improvement of clinical symptoms including duration of fever, and respiratory frequency<br><br>Adverse reactions | Recruiting; Estimated primary completion date/ Estimated study completion:<br>Sep 30, 2020/ Dec 30, 2020 |
| **Umbilical cord blood CIK** (cytokine induced killer) and NK (natural killer) cells | ChiCTR2000030329 | Shaanxi, China | N=90 patients with mild to moderate covid-19 and poor immune function randomised 1:1:1 to<br>Umbilical cord CIK cells, Umbilical cord NK cells, or<br>Conventional treatment | Status of immune function<br>Time of nucleic acid turns to negative Length of hospital stay | Not yet recruiting<br><br>From 2020-03-01 To 2021-02-17 |
| **Type I macrophages therapy** | ChiCTR2000029431 | Liaoning, China | 3 arm intervention study. N=45 patients with covid-19 randomised to<br>Critical Treatment + Ankylosaurus, Critical Treatment + Ankylosaurus+M1 suppression therapy, or<br>Critical Treatment | CT of lung | Recruiting;<br>Study execute time: 2020-01-29 2021-12-<br>31 |
| **PD-blocking antibody**<br><br>Sponsor: Southeast University, China | NCT04268537 | China | Phase 2 randomised, open label<br><br>N=120 patients with severe covid19 randomised to<br>PD-1 blocking antibody,<br>Thymosin, or<br>standard treatment | Lung injury score [ Time Frame: 7 days ] | Not recruiting yet;<br><br>Estimated primary completion date/ Estimated study completion:<br>April 30, 2020/ Oct 31, 2020 |
| **PD-1 monoclonal antibody** | ChiCTR2000030028 | Hubei, China | Prospective comparative study in severe and critical patients with covid- 19.<br>N=20: PD-1 mAb<br>N=20: standard treatment | Several primary outcomes. | Not yet recruiting.<br><br>From 2020-02-24 To 2020-08-31 |
| **Fingolimod**<br><br>Sponsor: First Affiliated Hospital of Fujian Medical University | NCT04280588 | Wan-Jin Chen | Phase 2, not randomised, single arm N=30 with severe covid19 | The change of pneumonia severity on X- ray images | Recruiting;<br><br>Estimated study completion:<br>July 1, 2020 |
| **Pirfenidone** (Esbriet) EMA approved for pulmonary fibrosis | NCT04282902 | Hubei, China Tongji hospital | Phase 3 open label,<br><br>N=294 with severe or critical covid-19 | Lesion are of chest CT<br>Change in pulse oxygen from baseline | Recruiting; Estimated primary completion date/ Estimated study completion: |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Sponsor: Huilan Zhang | | | randomised to Pirfenidone, or standard treatment | | April 30, 2020/ June 1, 2020 |
| **Pirfenidone** | ChiCTR2000030333 | | A randomized, open-label controlled trial N=292 with severe or critical covid-19 randomised to pirfenidone 400 mg x 3 (n=147) for 4 weeks or conventional treatment (n=145) | Survey, pulse oxygen, chest CT, blood gas | Recruiting<br><br>From 2020-03-04 To 2020-07-07 |
| **Polyinosinic**: polycytidylic acid | ChiCTR2000029776 | Zhejiang | Open label study N=40, randomised to Polyinosinic:polycytidylic acid or ceonventional therapy | Time to Clinical recovery | Recruiting;<br><br>From 2020-02-11 To 2020-12-31 |
| **Tranilast,** novel NLRP Inflammasome inhibitor. Used for the prevention of scarring post glaucoma filtration surgery. Has previously been approved in Japan and South Korea for bronchial asthma, keloid and hypertrophic scar. | ChiCTR2000030002 | Anhui, China | Open label study;<br><br>N=60 randomised to tranilast or vonventional therapy | Cure rate | Recruiting;<br><br>From 2020-02-15 To 2020-07-30 |
| **Granulocyte** colony-stimulating factor<br><br>Sponsor: The First Affiliated Hospital of Guangzhou Medical University | ChiCTR2000030007 | Guangdong and Hubei, China | Randomised controlled trial, N=200 with mild to severe covid-19 and low white blood cell count and low lymphocyte count | Clinical symptoms | Not yet recruiting;<br><br>From 2020-02-03 To 2020-04-10 |
| **LEUKINE®** (sargramostim) A recombinant human granulocyte-macrophage colony stimulating factor (rhu GM-CSF) FDA approved drug. Sponsor: University Hospital Ghent | EudraCT: 2020-001254-22 | Belgium | A prospective, randomized, open-label, interventional study<br><br>N=80 COVID-19 patients with acute hypoxic respiratory failure randomised to Leukine or standard care. | Oxygenation after 5 DAYS through assessment of pretreatment (day 0) and post-treatment (day 5) ratio of PaO2/FiO2 and through measurement of the P(A-a) O2 gradient | Ongoing |
| **Recombinant human Interleukin-2** | ChiCTR2000030 | Hubei, China | Randomised, controlled trial. Blinding not stated. N=80 randomised to Recombinant Human Interleukin-2, or placebo | Fatality rate, and CD8+, CD4+ and NK cells | Not yet recruiting;<br><br>From 2020-03-02 To 2020-09-01 |
| **Ruxolitinib** + stem cell therapy | ChiCTR2000029580 | Tongji hospital, Hubei, China | A prospective, single-blind, randomised controlled trial N=70 High risk patients randomised to | Safety | Recruiting;<br><br>From 2020-01-31 To 2020-12-31 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | Ruxolitinib + stem cell therapy, or Conventional treatment | | |
| **Jakotinib** | ChiCTR2000030170 | Shanghai, China | Single arm treatment stratified by severity, N=16 | Time to clinical improvement / time to clinical recovery<br>Time window: 28 days | Recruiting;<br><br>From 2020-02-15 To 2020-07-31 |
| **Baricitinib**;<br>Anti-JAK acting against JAK1 and JAK2.<br><br>Sponsor: Hospital of Prato | NCT04320277 | Tuscany, Italy, | Phase 3 study<br>Non-randomised study with historical controls.<br>N=60 allocated to baricitinib.<br>Controls: patients admitted to hospital the previous 2 weeks who were treated with antiviral and/or hydroxychloroquine. | The percentage of ICU admission | Recruiting; Estimated Study Completion: May 30, 2020 |
| **CD24Fc**<br>A non-antiviral immunomodulator.<br>Has completed a phase 2 study for prophylactic treatment of graft-versus-host disease (GVHD) for leukemia patients undergoing hematopoietic stem cell transplantation<br>Sponsor: OncoImmune, Inc. | NCT04317040 | United States, Maryland | Phase 3 randomized, Double-blind, Placebo-controlled, Multi-site trial. N=230 with severe covid-19 or NIAID 7- point ordinal score 3 to 4 randomised to CD24Fc, or placebo | Time to improve in clinical status [ Time Frame: 14 days ]: time required from the start of treatment to the improvement of clinical status "severe" to "moderate/mild"; or improvement from "scale 3 or 4" to "scale 5 or higher" based on NIAID ordinal scales. | Estimated Primary Completion/ Estimated Study Completion: May 2021/May 2022 |
| **Thymosin**<br><br>AiRuiKa (camrelizumab), anti-programmed cell death protein (PD-1)<br><br>Sponsor: Wuhan Jinyintan Hospital (Wuhan Infectious Diseases Hospital) | ChiCTR2000029806 | | N=120 with severe covid-19 and lymphocytopenia randomised to PD-1 ( PD-1 and thymosin), thymosin, or conventional treatment | Proportion of patients with a lung injury score reduction of 1-point or more 7 days after randomization | Recruiting;<br><br>From 2020-01-01 To 2021-01-31 |
| **TAK-888,** anti-SARS-CoV-2 polyclonal hyperimmune globulin (H-IG)<br><br>Sponsor: Takeda | NA | NA | Begin Phase 1 trials in late spring. To patients between December 2020 and December 2021 | NA | NA |
| **rCIG** (recombinant anti-coronavirus 19 hyperimmune gammaglobulin), polyclonal antibodies)<br>(GigaGen) | NA | NA | Pre-clinical | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
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| Sponsor: FierceBiotech | | | | | |
| **Panaphix**<br>cytokine storm inhibitor<br><br>Sponsor: CRO Novotech | https://novotech-cro.com/news/novotech-wins-cro-contract-komipharm-coronavirus-covid-19-clinical-trial-south-korea | Seoul, Sout Korea | Clinical trials | Restrains the overproduction of immune cells and their activating compounds, cytokines. | NA |
| | | | **Stem cell therapy** | | |
| **Stem cell therapy**<br><br>Sponsor: Beijing 302 Hospital | NCT04288102 | Hubei, China | Phase 2 Prospective, double-blind, multicentre, randomised trial<br><br>N=60 severe Covid-19 patients randomised 2:1 to<br>3 intravenous doses of mesenchymal stem cells (MSCs)<br>or placebo (saline). | Improvement time of clinical critical treatment index within 28 days<br><br>Side effects in the MSCs treatment group | Recruiting;<br><br>Estimated primary completion date/ Estimated study completion: August 31, 2020/December 31, 2020 |
| **Stem cell therapy** | NCT04252118 | China | Phase 1 Open label, non-randomised intervention study<br><br>N=20 patients with covid19 Treatment:<br>N=10 treated with MSN<br>N=10 treated with conventional treatment | Size of lesion area by chest radiograph or CT (time frame day 28)<br>Side effects day (time frame day 180) | Recruiting;<br><br>Estimated primary completion date/ Estimated study completion:<br>Dec 2020/December, 2021 |
| **Stem cell therapy**<br>Allogenic Adipose Mesenchymal Stem Cells | NCT04276987 | China | Phase 1, open label pilot study<br><br>N=30 with severe covid19, Single group assignment | Adverse reactions<br>Time to clinical improvement (28 days) | Not yet recruiting;<br><br>Estimated study completion: July 31, 2020 |
| **Human Umbilical Cord Mesenchymal Stem Cells (UC-MSCs) therapy**<br><br>Sponsors:<br>Puren Hospital Affiliated to Wuhan University of Science and Technology | NCT04293692 | China, Hubei | Triple blinded randomised controlled trial.<br>N=48 with moderate - severe covid19 randomised to<br>UC-MSCs or<br>placebo | Size of lesion area by chest imaging | Recruiting;<br><br>Estimated primary completion date/ Estimated study completion:<br>May 1 2020/Feb 1, 2021 |
| **Stem cell therapy;** Umbilical cord mesenchymal stem cells. Sponsor: Wuhan Union | NCT04273646 | China, Hubei | Open label, randomised study N=48 with severe covid19; Randomised to stem cell therapy or placebo | Pneumonia severity index week 0-week 12.<br>Oxygenation index | Not yet recruiting;<br><br>Estimated primary completion / |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
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| Hospital, China | | | | | Estimated study completion: June 30 2020/Feb 15, 2022 |
| **Umbilical cord mesenchymal stem cell** | ChiCTR2000029569 | China, Hubei | Open label<br>N=30 with severe and critical covid-19 randomised to<br>Stem cell or conventional treatment | PSI | Not recruiting<br><br>From 2020-02-05 To 2021-04-30 |
| **Umbilical cord blood mononuclear cells** | ChiCTR2000029572 | China, Hubei | Open label<br>N=30 with severe covid 19 randomised to<br>Stem cell or conventional treatment | PSI | Not recruiting<br><br>From 2020-02-05 To 2021-04-30 |
| **Stem cell therapy**; Umbilical cord- derived mesenchymal stem cells Sponsor: ZhiYong Peng | NCT04269525 | China, Hubei | Phase 2, open label<br>N=10, serious or critical covid19 | Oxygenation index day 14 | Recruiting; Estimated primary completion / Estimated study completion:<br>April 30, 2020/Sept 30, 2020 |
| **Human Menstrual Blood-Derived Stem Cells** | ChiCTR2000029606 | Zhejiang, China | Open label, 5 arm study. Critically ill patients treated with stem cells, conventional treatment, artificial liver therapy,<br>artificial liver therapy + stem cells, or<br>Conventional treatment | Mortality | Recruiting;<br><br>From 2020-01-15 To 2022-12-31 |
| **Umbilical cord mononuclear cells** | ChiCTR2000029812 | Guangdong, China | Open label,<br>N= 60 patients with Covid 19 randomised to umbilical cord blood mononuclear cells or conventional<br>treatment | Time to disease recovery | Not recruiting ;<br><br>From 2020-02-20 To 2021-02-20 |
| **Cord Blood Mesenchymal Stem Cells** | ChiCTR2000029816 | Guangdong, China | Open label,<br>N= 60 patients with Covid 19 randomised to Cord Blood Mesenchymal Stem Cells or conventional treatment | Time to disease recovery; | Not recruiting ;<br><br>From 2020-02-20 To 2021-02-20 |
| **Cord Blood NK Cells Combined with Cord Blood Mesenchymal Stem Cells** | ChiCTR2000029817 | Guangdong, china | Open label,<br>N= 60 patients with Covid 19 randomised to<br>High dose NK cells, and mesenchymal stem cells,<br>Conventional dose NK cells and mesenchymal stem cells, or Preventive dose NK cells and<br>mesenchymal stem cells. | Time to disease recovery; | Not recruiting ;<br><br>From 2020-02-20 To 2021-02-20 |
| **Cord Blood NK Cells Combined with Cord Blood Mesenchymal Stem Cells** | ChiCTR2000029818 | Guangdong, china | Open label,<br>N= 60 patients with Covid 19 randomised to<br>High dose NK cells, and mesenchymal stem cells,<br>Conventional dose NK cells and | Time to disease recovery; | Not recruiting ;<br><br>From 2020-02-20 To 2021-02-20 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | mesenchymal stem cells, or Preventive dose NK cells and mesenchymal stem cells. | | |
| **Mesenchymal stem cells** | ChiCTR2000029990 | Beijing, Hubei, Shanghai | Phase 1-2;<br>N=120, Severe covid-19 randomised to mesenchymal stem cells or saline | Improved respiratory system function (blood oxygen saturation) recovery time; | Recruiting;<br><br>From2020-01-30 To 2020-03-31 |
| **Umbilical cord Wharton's Jelly derived mesenchymal stem cells** | ChiCTR2000030088 | Beijing, China | Type of study not stated. Blinding not stated<br>N= 40 with critical covid-19 Treatment: stem cells (n=20)<br>40 ml saline (n=20) | The nucleic acid of the novel coronavirus is negative<br>CT scan of ground glass shadow disappeared | Not yet recruiting;<br><br>From 2020-03-01 To 2021-12-31 |
| **Human umbilical cord mesenchymal stem cells** | ChiCTR2000030116 | Jiangxi, China | N=16 with critical covid-19; Different stem cell doses | Time to leave ventilator on day 28 after receiving MSCs infusion | Recruiting;<br>From 2020-02-01 To 2020-08-31 |
| **Human mesenchymal stem Cells**<br><br>Sponsor:<br>Chinese PLA General Hospital | ChiCTR2000030138 | Hainan, China | Phase 2; Randomised, double blind, placebo controlled trial<br>N=60 randomised to human umbilical cord mesenchymal stem cells (UC-MSC), or placebo | Clinical index | Not yet recruiting;<br><br>From 2020-02-24 To 2020-05-31 |
| **Mesenchymal stem cells** | ChiCTR2000030224 | Hubei, China | Clinical study, open label<br>Severe or critical covid-19 patients; N=32 stratified severity and randomised to stem cells or injection with saline | Several primary endpoints – not specified | Not yet recruiting;<br><br>From 2020-02-14 To 2020-05-31 |
| **Umbilical cord mesenchymal stem cells** | ChiCTR2000030300 | Jiangsu, China | A single-centre, single arm, prospective, open clinical study<br>N=9 | Time to disease recovery;<br>Exacerbation (transfer to RICU) time | Recruiting;<br>From 2020-02-19 To 2021-02-20 |
| **Stem cell educator therapy** | NCT04299152 | NA | This is a prospective, two-arm, partially masked, single center clinical study. N=20 patients with SARS-CoV-2 undergoing either stem cell therapy or conventional treatment | Number of Covid-19 patients who were unable to complete SCE Therapy [ Time Frame: 4 weeks ] | Not yet recruiting; Estimated study completion: Nov 2020 |
| **Dental pulp mesenchymal stem cells** | NCT04302519 | NA | Early phase 1, single arm study N=24 patients with severe covid-19 assigned to stem cell therapy | Disppear time of ground-glass shadow in the lungs [Time Frame: 14 days] | Not yet recruiting, Estimated study completion: July 2021 |
| **Wharton's Jelly Mesenchymal stem cells**<br><br>Sponsor: Stem Cells Arabia | NCT04313322 | Jordan | Phase 1, single arm study N=5 with COVID-19 | Improvement of clinical symptoms; Adverse events;<br>Viral RNA | Recruiting.<br><br>Estimated study completion: Sept, 2020 |
| **NestCell® Mesenchymal Stem** Cell<br><br>Sponsor: Azidus Brasil | NCT04315987 | Not stated | Phase 1 /2 study N=24 patients | Disappear time of ground-glass shadow in the lungs | Not yet recruiting.<br><br>Estimated study completion: June, 2020 |
| **Ryoncil** (remestemcel-L), | NA | NA | Pre-clinical | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| allogenic mesenchymal stem cells (Mesoblast)<br><br>Sponsor: FierceBiotech | | | | | |
| **MultiStem,** bone marrow stem cells (Athersys)<br><br>Sponsor: BioSpace | NA | NA | Clinical trial | NA | NA |
| **Allogeneic T-cell therapies**<br><br>Sponsor: AlloVir/Baylor College of Medicine/Fierce Biotech | NA | NA | Pre-clinical | NA | NA |
| **Natural killer cell-based** therapy<br><br>Sponsor: GCLabCell/KLEO Pharmaceuticals/ UPI Korea Biomedical Review | NA | NA | Pre-clinical | NA | Begin Phase 1 by end of 2020 |
| **CYNK-001, allogeneic, natural killer cell therapy**<br><br>Sponsor: Celularity | NA | NA | Pre-clinical | NA | Phase 1/2 study to start in April 2020 |
| **Other** | | | | | |
| **Chloroquine or hydroxy- chloroquine**<br>Antimalarial agent, heme polymerase inhibitor; Malaria prophylaxis and treatment | | | | | |
| **Chloroquin and Hydroxychloroquin** | NCT04315948<br><br>EudraCT: 2020-000982-18 | EU: France, Spain, UK, Germany, Belgium, Netherlands, Luxembourg, Norway N=3200<br><br>Argentina, Bahrain, Canada, Iran, South Africa, Switzerland and Thailand<br>More countries are expected to join | Adaptive, randomised open clinical trial to one of 4 treatments<br><br>(not Chloroquin in EU) | Subject clinical status (on a 7-point ordinal scale) on Day 15 | Recruiting;<br><br>Estimated study completion: March 2023 |
| **Chloroquine**<br><br>Renmin Hospital of Wuhan | ChiCTR2000029559 | Hubei, China | Double blind; N=300 with Covid-19 randomised 1:1:1 to Hydroxychloroquine 0.1 oral 2/ day, Hydroxychloroquine 0.2 | The time when the nucleic acid of the novel coronavirus turns negative | Recruiting;<br><br>From 2020-01-31 To 2020-02-29 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| University | | | oral 2/ day, or placebo | T cell recovery time | |
| **Hydroxychloroquine**<br><br>Sponsor: National Institute of Respiratory Diseases, Mexico | NCT04315896 | Mexico | Randomised double blinded placebo controlled trial<br>N= 500 severe covid-19 patients randomised to hydroxychloroquine, or placebo | All-cause hospital mortality, time frame day 120 | Not yet recruiting;<br><br>Estimated Primary Completion: October 31, 2020 |
| **Hydroxychloroquine**<br><br>Sponsor: National Institute of Respiratory Diseases, Mexico | NCT04318015 | Mexico | Prevention trial<br>Randomised double blinded placebo controlled trial, stratified by risk.<br>N= 400 Healthcare personnel exposed to patients with COVID-19 randomised to hydroxychloroquine, or placebo | Symptomatic COVID-19 infection rate | Not yet recruiting;<br><br>Estimated Primary Completion: December 31, 2020 |
| **Hydroxychloroquine**<br><br>Sponsor:<br>Columbia University | NCT04318444 | New York | Post Exposure Prophylaxis for Household Contacts of COVID-19 Patients: A NYC Community-Based Randomized Clinical Trial, double- blinded<br>N=1600 household contacts | Number of participants with symptomatic, lab-confirmed COVID-19. | Not yet recruiting; Estimated Primary Completion: March 2021 |
| **Chloroquine**<br><br>Sponsor: University of Oxford | NCT04303507 | UK | A Randomised, Placebo-controlled Prophylaxis Study (COPCOV) N=10000 Participant works in healthcare facility or other well characterised high-risk environment, OR is an inpatient or relative of a patient in a participating hospital and likely exposed to COVID-19 infection or another high-risk group Loading dose of 10 mg/kg, followed by<br>150 mg daily for 3 months | Number of symptomatic COVID-19 infections [ Time Frame: Approximately 100 days ] | Not yet recruiting; Estimated completion date: May 2022 |
| **Hydroxychloroquine**<br><br>Sponsor: University of Minnesota | NCT04308668 | Minneapolis, Minnesota, United States New York, New York, United States | Post-exposure Prophylaxis.<br>A Pragmatic Randomized Clinical Trial Quadruple blinded.<br>N=1500 exposed to a COVID19 case within 3 days as either a healthcare worker or household contact randomised to hydroxychloroquine or placebo | Incidence of COVID19 Disease [ Time Frame: 14 days ]<br>Ordinal Scale of COVID19 Disease Severity [ Time Frame: 14 days ] | Recruiting.<br><br>Estimated Study Completion: May 2021 |
| **Hydroxychloroquine** | EudraCT: 2020-001224-33 | Germany | Randomised, double-blinded, placebo-controlled trial<br>N=220 patients with COVID-19 randomised to Hydroxychloroquine or placebo | Viral clearance measured in throat swabs.<br>Interim analysis: will be done when 40% of events have accrued. In case the interim analysis shows a HR > 1.93 (nominal p < 0.0018), efficacy is shown | Ongoing |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | | and the trial may be stopped. | |
| **Hydroxychloroquine Sulfate** | NCT04316377 | University Hospital, Akershus, Norwey | An Open Label Randomized Controlled Pragmatic Trial<br>N=202 hospitalised patients with moderate to severe covid-19 randomised to hydroxychloroquine, or placebo | Rate of decline in SARS-CoV-2 viral load [ Time Frame: Baseline (at randomization) and at 96 hours ] | Not yet recruiting; Estimated Primary Completion: April 1, 2021 |
| **Hydroxychloroquine** + azithromycin<br><br>Sponsor: Hospital Israelita Albert Einstein | NCT04321278 | Brazil, multicentres | Open label randomised controlled trial .<br>N=440 COVID-19 patients who require oxygenation and/or ventilation randomised to Hydroxychloroquine + azithromycin, or Hydroxychloroquine | Clinical status o a 7-point scale [ Time Frame: 15 days after randomization ] | Recruiting;<br><br>Estimated Primary Completion: August 30, 2020 |
| **Chloroquine** vs liponavir/ritonavir | ChiCTR2000029609 | Guangdong, China | A prospective, open-label, multiple- center study or patients with Covid-19 stratified by severity.<br><br>Mild symptoms randomised to chloroquine phosphate (n=59) lopinavir/ritonavir (59), or Chloroquine + lopinavir/ritonavir (59)<br>Severe symptoms randomised to Chloroquine phosphate (n=14) or lopinavir/ritonavir (n=14) | Primary Outcome(s)<br>virus nucleic acid negative-transforming time; | From 2020-02-10 To 2020-12-31 |
| **Chloroquine** and lopinavir/ritonavir | ChiCTR2000029741 | Guangdong, China | Open label study<br>N=112 cases with Confirmed Covid-19 randomised to<br>Chloroquine, or<br>Lipinavir/ritonavir | Several primary outcomes are stated: length of stay, mortality and other | Recruiting;<br><br>From 2020-02-12 To 2020-12-31 |
| **Chloroquine** | ChiCTR2000029740 | Tongji hospital, Hubei, China | Open label COVID-19<br>Randomised to hydroxychloroquine 0.2 mg bid (n=52), or<br>conventional therapy (n=24) | Oxygen index, respiratory rate, lung radiography, lymphocyte count at sees 1,2,3,and 4. | Recruiting;<br><br>From 2020-02-11 To 2020-02-29 |
| **Chloroquine** | ChiCTR2000029762 | Chongqing, China | 60 patients with severe covid-19 | Negative conversion rate of COVID-19 nucleic acid<br><br>Lung inflammation absorption ratio | Cancelled due to lack of patients |
| **Chloroquine** | ChiCTR2000029761 | Chongqing, China | 240 patients randomised to 3 different doses of hydroxychloroquine or conventional treatment | Negative conversion rate of 2019-nCoV nucleic acid<br><br>Lung inflammation absorption ratio | Cancelled due to lack of patients |
| **Phosphoric Chloroquine**<br><br>Sponsor: Jingzhou Central | ChiCTR2000029826 | Hubei, China | Randomised double blinded trial. Serious or critically ill patients randomised to chloroquine (n=30) or placebo (n=15) | Mortality rate | Not yet recruiting;<br><br>From 2020-02-17 To 2020-03-17 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Hospital | | | | | |
| **Chloroquine** | ChiCTR2000029868 | Hubei, China | Multicenter, randomised controlled trial<br>N=200 with mild covid-19 randomised to hydroxychloroquine or conventional treatment | Viral nucleic acid test | Recruiting;<br><br>From 2020-02-06 To 2020-07-31 |
| **Chloroquine**<br><br>Sponsor:<br>Jingzhou Central Hospital | ChiCTR2000029837 | Hubei, China | A randomised, double-blind, parallel, controlled trial<br>Mild or moderate covid19 Randomised to hydroxychloroquine (n=80) or Placebo (n=40) | Time of conversion to be negative of novel coronavirus nucleic acid | Not yet recruiting;<br><br>From 2020-02-17 To 2020-03-17 |
| **Chloroquine** | ChiCTR2000029939 | Zhejiang, China | Single-blind, Randomised, Controlled Clinical Trial<br><br>N=100 patients with covid-19 (severity unknown), randomised to chloroquine phosphate or placebo | Length of hospital stay | Recruiting;<br><br>From 2020-02-06 To 2021-02-06 |
| **Chloroquine** | ChiCTR2000029935 | Zhejiang, China | Single arm study, N=100 patients with covid-19 (severity unknown), treated with chloroquine phosphate | Length of hospital stay | Recruiting;<br><br>From 2020-02-06 To 2021-02-06 |
| **Hydroxychloroquine** sulfate vs phosphate chloroquine | ChiCTR2000029899 | Hubei, China | Randomised, Open-label, Parallel, Controlled Trial<br>N=100 with mild or moderate covid-19 randomised to Hydroxychloroquine sulfate, or phosphate chloroquine | Time to clinical recovery (time frame 28 days) | Recruiting;<br><br>From 2020-02-17 To 2020-04-30 |
| **Hydroxychloroquine** sulfate vs phosphate chloroquine | ChiCTR2000029898 | Hubei, China | Randomised, Open-label, Parallel, Controlled Trial<br>N=100 with severe covid-19 randomised to Hydroxychloroquine<br>sulfate, or phosphate chloroquine | Time to clinical improvement (time frame 28 days) | Recruiting;<br><br>From 2020-02-17 To 2020-04-30 |
| **Hydroxychloroquine** sulfate vs phosphate chloroquine | ChiCTR2000029992 | Hubei, China | Randomised, Open-label, Parallel, Controlled Trial<br>N=100 with severe covid-19 randomised to Hydroxychloroquine sulfate (n=40), or phosphate chloroquine (n=40), or routine treatment (n=20) | Clinical recovery time (6-point scale); Changes in viral load of upper and lower respiratory tract | Not yet recruiting;<br><br>From 2020-02-17 To 2020-05-20 |
| **Chloroquine** phosphate | ChiCTR2000029988 | Hubei, China | Open label clinical trial.<br>N=80 patients with severe covid-19 randomised to chloroquine phosphate or no treatment | Time to clinical recovery | Recruiting;<br><br>From 2020-02-13 To 2020-05-31 |
| **Chloroquine** phosphate aerosol inhalation | ChiCTR2000029975 | Jilin, China | Single arm study of 10 patients; severity is not defined. | Viral negative-transforming time; 30-day cause-specific mortality | Not yet recruiting;<br><br>From 2020-02-24 To 2020-05-31 |
| **Phosphoric chloroquine** | ChiCTR2000030031; | Guangdong, China | A randomised, double-blind, parallel, | Time of conversion to be negative | Recruiting; |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| The Sixth Affiliated Hospital of Guangzhou Medical University (Qingyuan People's Hospital) | | | controlled trial<br>N=120 patients with mild and moderate covid-19 randomised to phosphoric chloroquine (n=80) or placebo (n=40) | of novel coronavirus nucleic acid | From 2020-02-20 To 2021-03-20 |
| **Hydroxychloroquine** sulfate vs chloroquine phosphate | ChiCTR2000030054 | Hubei, China | Randomised, Open-label, Parallel, Controlled Trial<br>N=100 with mild or moderate covid-19 randomised to<br>Hydroxychloroquine sulfate (n=40), or phosphate chloroquine (n=40), or routine treatment (n=20) | Clinical recovery time, time frame 28 days | Not yet recruiting;<br><br>From 2020-02-17 To 2020-05-21 |
| **Hydroxychloroquine** | ChiCTR2000029760 | Chongqing | Randomised controlled study<br>N=240 Patients with mild or moderate infectious disease | Time to clinical recovery | Cancelled due to lack of patients |
| **Chloroquine** | ChiCTR2000029803 | Hubei, China | **Prevention**.<br>Prospective, randomised, open-label, controlled clinical study to evaluate the preventive effect of hydroxychloroquine on close contacts after exposure (COVID-19)<br>320 patients randomised to hydroxychloroquine small dose, high dose, abidol small dose or abidol high dose. | Number of patients who have progressed to suspected or confirmed within 24 days of exposure to new coronavirus | Not yet recruiting;<br><br>From 2020-02-20 To 2021-02-20 |
| **Chloroquine** phosphate inhalation | ChiCTR2000030417 | Heilongjiang, China | Randomised controlled trial. N=30 patients with covid-19 randomised to chloroquine phosphate aerosol inhalation or water for injection atomization inhalation | Several primary outcomes:<br>Temerature, respiratory symptoms improvement,<br>pulmonary imaging improvement, negative virus test | Not yet recruiting;<br><br>From 2020-03-01 To 2020-06-30 |
| **Chloroquine** | ChiCTR2000029542 | Guangdong, China | Phase 4, open label, non-randomised<br>N=20 with covid-19<br>Treatment: chloroquine or conventional treatment | Viral negative-transforming time, 30- day cause specific mortality | Recruiting<br><br>From 2020-02-03 To 2020-07-30 |
| **Hydroxychloroquine** Non-commercial | EudraCT: 2020-000890-25 | France | Patients with documented respiratory infection with coronavirus SARS COV 2<br>N=25 | Results of SARS-COV2 virus detection (Day 1, Day 4, Day 7 and Day 14) | Last visit of the last participant. |
| **Others** | | | | | |
| **Anibiotics** Teicoplanin (Targocid) | NA | NA | Clinical trials | NA | NA |
| **Dihydroartemisini** ne piperaquine (Eurartesim) | ChiCTR2000030082 | NA | Randomised open label, controlled trial<br>Mild to commen covid-19 randomised to | The time when the nucleic acid of the novel coronavirus turns | Recruiting; |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Indicated for the treatment of uncomplicated Plasmodium falciparum malaria | | | dihydroartemisinin piperaquine tablets combined with antiviral treatment, or alpha-interferon and Ardibdol | negative | From 2020-02-23 To 2020-04-30 |
| **ACE-2** Recombinant human angiotensin-converting enzyme 2 | NCT04287686 | China, Guangdong | Pilot study to decide whether to continue with phase 2B trial N=24 patients with positive SARS-CoV-2 or homolog to covid19 randomised to rhACE2 or placebo | Body temperature and viral load | Not yet recruiting; Estimated study completion: April 2020 |
| **ARB or ACE** inhibitor | ChiCTR2000030453 | Zhejiang, China | Single arm study N=100 treated with angiotensin receptor blocker /angiotensin converting enzyme inhibitor | Ratio of severe cases | Not yet recruiting; No estimated end- date |
| **ARB or ACE inhibitor** Sponsor: Neuromed IRCCS | NCT04318418 | IRCCS, Neuromed, Department of Epidemiology and Prevention, Pozzilli, Italy | Observational case control study N=5000 | Severe COVID-19 | NA |
| **Losartan** Sponsor: University of Minnesota | NCT04312009 | Minneapolis, Minnesota, United States | Randomized Controlled Trial, double blinded. N=200 hospitalised patients with COVID-19 randomised to Losartan 25 mg daily or | Sequential Organ Failure Assessment (SOFA) Respiratory Score [ Time Frame: 28 days ] | Not yet recruiting Estimated study completion. April 1, 2021 |
| **Losartan** Sponsor: University of Minnesota | NCT04311177 | Minneapolis, Minnesota, United States | Randomized Controlled Trial, double blinded. N=516 patients with COVID-19 not requiring hospitalisation randomised to Losartan 25 mg daily or placebo | Hospital Admission [ Time Frame: 28 days ] | Not yet recruiting Estimated study completion. April 1, 2021 |
| **Aviptadil** Synthetic version of Vasoactive Intestinal Polypeptide Sponsor: NeuroRx, Inc. | NCT04311697 | New York, New York, US Haifa, Israe | PHase 2 double blinded randomised trial. N=120 patients, intubated and on maximal conventional medial therapy are randomised to Intravenous Aviptadil or placebo | Mortality [ Time Frame: 5 Days with followup through 30 days | March 17, 2020 Estimated study completion: August 2020 |
| **Nitrogen oxide** Sponsor: Xijing Hospital | NCT04290858 | Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico | Double blinded randomised trial N=400 with covid19 with fever, resp. rate>24 or sat>93% randomised to NO | Sp=2<93%, , intubation, ECMO | Not yet recruiting; Estimated study completion: March 1, 2021 |
| **Nitrogen oxide** Sponsor: Xijing Hospital | NCT04290871 | Xijing Hospital Massachusetts General Hospital Fondazione IRCCS Ca' | Phase 2 study; Double blinded, sham controlled randomised trial N=104 with covid19 with PaO2/FiO2 < 300 | SARS-free patients at 14 days [ Time Frame: 14 days since beginning of treatment ] Percentage of patients that have a | Not yet recruiting; Estimated study completion: March 1, 2021 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | Granda, Ospedale Maggiore Policlinico | or SpO2 below 93% breathing ambient air randomised to NO or sham NO | PaO2/FiO2 ratio steadily > 300 in ambient air | |
| **Nitrogen oxide**<br><br>Sponsor: Massachusetts General Hospital | NCT04305457 | Xijing Hospital<br>Massachusetts General Hospital Fondazione IRCCS Ca'<br>Granda, Ospedale Maggiore Policlinico | Phase 2 randomised open label trial<br>N=240 with mild covid-19 Randomised to NO or no intervention | Reduction in intubation and mechanical ventilation (time frame 28 days) | Not yet recruiting; Estimated primary completion date/study completion:April 2021/ April 2022 |
| **Nitrogen oxide**<br><br>Sponsor: Massachusetts General Hospital | NCT04306393 | Xijing Hospital<br>Massachusetts General Hospital | Phase 2 randomised open label trial<br>N=200 with severe covid-19 randomised to NO or no intervention | Change of arterial oxygenation at 48 hours from enrollment [ Time Frame: 48 hours ] | Not yet recruiting; Estimated primary completion date/study |
| Nitrogen oxide<br><br>Sponsor: Massachusetts General Hospital | NCT04312243 | Xijing Hospital<br>Massachusetts General Hospital Fondazione IRCCS Ca'<br>Granda, Ospedale Maggiore Policlinico | Preventive study:<br>Phase 2 open label trial of 460 healthcare workers. | Percentage of subjects with COVID-19 diagnosis | Not yet recruiting; Estimated primary completion date/study completion:March 2021/ March 2022 |
| **Hydrogen-oxygen nebulizer** | ChiCTR2000029739 | Guangdong and Shanghai | Multicenter, Randomised, Parallel Controlled Clinical Study<br>N=440 patients with moderate covid-19 randomised to Hydrogen-oxygen nebulizer or conventional treatment | Worsening or improving of condition | Recruiting;<br><br>From 2020-02-01 To 2021-08-31 |
| **ECMO** | ChiCTR2000029804 | | Case series, N=100 | Mortality | Recruiting |
| **Nutrients**<br>**Vitamin C**<br><br>Sponsor: ZhiYong Peng | NCT04264533 | China, Hubei | Phase 2, blinded<br>N=140 patients with serious or critical covid-19 randomised to vitamin C IV, or placebo | Ventilation-free days | Recruiting; Sep 30, 2020, |
| **Vitamin C** 0.5 g + diammonium glycerrhizinate enteric coated capsules 150 mg t.i.d. | ChiCTR2000029768 | Hubei, China | A randomised, open, controlled trial N=60 patients with covid-19 | Time to Clinical recovery | Recruiting;<br>From 2020-02-12 To 2020-05-12 |
| **Vitamin C** | ChiCTR2000029957 | Shaanxi and Hubei, China | Case series, observational study of 56 patients with severe or critical covid-19 | Ventilation-free days; mortality; | Not yet recruiting; From 2020-02-24 To 2021-02-28 |
| **Vitamin C** | ChiCTR2000030135 | Hubei and Shaanxi, China | Randomised trial, Blinding not stated;<br>Severe or critical covid-19 patients High dose vitamin: N=26<br>Routine treatment: N=13 | Ventilation free days; Mortality | Not yet recruiting; From 2020-02-25 To 2021-02-28 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **Alpha lipoic acid** | ChiCTR2000029851 | | N=68 with severe covid-19 randomised to alpha lipoic acid or placebo | SOFA | Recruiting;<br>From2020-02-19 To 2020-03-10 |
| **Lipoic acid** | NA | Guangdong and Hubei, China | Parallel single blind study.<br>N=394 randomised to lipoic acid or blank control | Progression rate from mild to critical/severe | Recruiting;<br>From 2020-03-02 To 2020-04-30 |
| **Microbiota** | NCT04251767 | China, Jiangsu | Washed Microbiota Transplantation in Patients With covid19. Quadruple blinded.<br>N=40 patients with severe infection randomised to<br>Washed microbiota suspension delivered through nasogastric tube, nasojejunal tube or oral, combining with standard therapy, or Placebo | Number of participants with improvement from severe type to common type (Time Frame: 2 weeks) | Enrolling by invitation;<br>Estimated study completion: April 16,<br>2020 |
| **Probiotics** | ChiCTR2000029974 | Shandong, China | A prospective, multicenter, open-label, randomised, parallel-controlled trial.<br>N=300 patients with mild to severe covid-19 randomised to live Clostridium Butyricum Capsules and Live Bacillus Coagulans Tablets for 14 days | Time to Clinical recovery | Recruiting;<br>From 2020-02-09 To 2020-08-31 |
| **Thalidomide**<br>Sponsor: First Affiliated Hospital of Wenzhou Medical University | NCT04273581 | China | Prospective, Multicenter, Randomised, Double-blind, Placebo, Parallel Controlled Clinical Study<br>N=40, Severe Covid-19 randomised to thalidomide or placebo | Time to Clinical Improvement (TTCI) (Time Frame: up to 28 days) | Not yet recruiting; May 30, 2020 |
| **Thalidomide**<br>Sponsor: First Affiliated Hospital of Wenzhou Medical University | NCT04273529 | China | Phase 2 study, prospective, Multicenter, Randomised, Double-blind, Placebo, Parallel Controlled Clinical Study<br>N=100 moderate Covid-19 randomised to thalidomide, or placebo | Time to Clinical Recovery (TTCR) (Time Frame: up to 28 days) | Not yet recruiting, Estimated study completion date:<br>June 30, 2020 |
| **Dipyridamidole** | ChiCTR2000030055 | Guangdong, Hubei, Zhejiang ,China | Phase 4, blinding not stated.<br>N=460 patients with suspected corona infection but not 2019-nCoV pneumonia patients…<br>Randomised to dipyridamole, or Conventional treatment | Several primary outcomes | Recruiting;<br>From 2020-02-10 To 2020-04-10 |
| **Sodium aescinate** | ChiCTR2000029742 | Hubei, China | A randomised, parallel controlled trial stratified by severity: | Chest imaging (CT) | Recruiting; |
| A **triterpene saponin** derived from the seeds of horse | NA | NA | N=60 with moderate covid-19<br>Randomised to Conventional treatment, | NA | From 2020-02-10 To 2020-12-31 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| chestnut (Aesculus hippocastanum). Abundant reports have indicated the therapeutic properties of AESS, such as anti-inflamatory, anti-oxidant, relieving tissue oedema, and recovering vasopermeability (Liu et al. 2020) | | | or Conventional + sodium aescinate. N=30 Severe patients randomised to Conventional + hormone therapy, Conventional treatment, or Conventional treatment + sodium aescinate | | |
| **GD31** Nucleoside analog | ChiCTR2000029895 | Guangdong, China | Single arm, N=160 | The negative conversion rate and negative conversion time of novel coronavirus nucleic acid | Recruiting; From 2020-02-16 To 2020-12-31 |
| **PUL-042** Toll like receptor 2/6/9 Agonist In a phase 2 study in stem cell transplant recipients.<br><br>Sponsor: Pulmotect, Inc. | NCT04313023 | Not yet provided | A Phase 2 Multiple Dose, Double blinded, placebo-controlled study. N=200 exposed patients (without COVID-19) randomised to PUL-042 or placebo | Prevention of COVID-19 [ Time Frame: 14 days ] | Not yet recruiting.<br><br>Estimated Study Completion: October 2020 |
| **PUL-042** Toll like receptor 2/6/9 Agonist In a phase 2 study in stem cell transplant recipients.<br><br>Sponsor: Pulmotect, Inc. | NCT04312997 | Houston, Texas, US | A Phase 2 Multiple Dose Double blinded, placebo controlled study. N=100 with COVID-19 without severe symptoms randomised to PUL-042 or placebo | Ordinal Scale for Clinical Improvement (score 1-8) [ Time Frame: 14 days ] | Not yet recruiting.<br><br>Estimated Study Completion: October 2020 |
| **Suramin sodium** Used for treatment of trypanosomiasis | ChiCTR2000030029 | Zhejing, China | Single arm study of 20 patients with covid-19. | Clinical cure rate, incidence of mechanical ventilation by day28; All-cause mortality by day28; Incidence of ICU admission by day28 | From2020-01-31 To 2020-05-30 |
| **CMAB806** | ChiCTR2000030196 | Hubei, China | Phase 2, a multicenter, single arm, open label trial N=60 with moderate or severe covid-19 with elevated IL6 | Relive of cytokine release syndrome | Not yet recruiting;<br><br>From 2020-02-20 To 2020-05-31 |
| **Acetylcystein Inhaled** | ChiCTR2000030328 | Hubei, China | Clinical trial, blinding not stated. N=60 with moderate covid-19 treated with either Acetylcysteine inhaled via tracheal tube or saline inhaled via tracheal tube | Wide range of primary outcomes | Not yet recruiting End-date not specified |
| **Bismuth potassium citrate** | ChiCTR2000030398 | Hubei, China | A randomized, double-blind, placebo-controlled trial | Conversion rate at day 15 | Not yet recruiting |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | N=340 randomised 1:1 to bismuth potassium citrate or | | |
| **Sildenafil** | NCT04304313 | Hubei, China | Phase 3, pilot study, single arm study N=10 | Rate of disease remission<br>Rate of entering the critical stage<br>Time of entering the critical stage<br>Time frame 14 days | Recruiting; November 9, 2020 |
| **Ebastine**<br>**H1 antagonist** | ChiCTR2000030535 | Hubei, China | Single blind, multicenter, randomized, parallel controlled tria N= 100 patients with mild to severe covid-19 randomised to Ebastine + interferon- alpha aerosol inhalation + lopinavir, or interferon-alpha aerosol inhalation + lopinavir | Several primary outcomes: Fever, respiratory rate, blood oxygen saturation turned to normal and cough relieved for at least 72 hours. | Recruiting;<br><br>From 2020-02-20 to 2020-03-30 |
| **Nebulized amniotic fluid**<br><br>University of Utah | NCT04319731 | Not provided | Phase 1 study Single arm study N=10 | Ventilator Free Days [ | Not yet recruiting<br><br>Estimated primary completion March 20, 2021 |
| **Camostat** (Foipan®) mesylate<br><br>Licenced for pancreatitis and reflux esophagitis after gastrectomy in Japan | NCT04321096 | Denmark, at hospital across DK | A multicenter, randomised, double blinded, placebo-controlled trial N=180 randomised to Camostat mesylate, or placebo | Days to clinical improvement from study enrolment [ Time Frame: 30 days<br>] | Not recruiting;<br><br>Estimated Primary Completio: December 31, 2020 |
| **Camostat** TMPRSS-2 inhibitor | https://www.ncbi.nlm.nih.gov/pubmed/30849247 | NA | NA | NA | NA |
| **Leflunomide**<br>Approved in EU for rheumatoid arthritis and psoriasis arthritis<br><br>Sponsor: Renmin Hospital of Wuhan University | ChiCTR2000030058 | Hubei | Phase 3, multicenter, randomized, double-blind, controlled clinical trial N=200 patients with pneumonia caused by novel coronavirus. randomised to Leflunomide, or placebo | The days from positive to negative for viral nucleic acid testing | Not yet recruiting;<br><br>From 2020-03-01 To 2020-05-30 |
| **Itraconazole**<br>Sponsor: UZLeuven | EurdraCT: 2020-001243-15 | Belgium | Randomised, open label trial.<br>N= 200 hospitalized patients randomized to itraconazole or standard of care | Clinical status of subject at day 15 (on a 7-point ordinal scale) | Ongoing |
| **Colchicin**<br><br>anti-inflammatory drug already used to treat gout and pericarditis (inflammation of the heart membrane) | https://www.ctvnews.ca/health/coronavirus/canadian-researchers-study-drug-to-reduce-covid-19-complications-1.4864738 | Montreal, Canada | Clinical trial with 6000 pts. | Reduce the risks of pulmonary complications and death | Recruiting |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **Cerocal, NP-120 (Ifenprodil)**<br>N-methyl-D-aspartate (NDMA) receptor glutamate receptor antagonist specifically targeting the NMDA-type subunit 2B (Glu2NB)<br>(Novotech)<br>Sponsor: Algernon | https://www.globenewswire.com/news-release/2020/03/19/2003362/0/en/Algernon-to-Support-Planned-Phase-2-Trial-of-Ifenprodil-for-Coronavirus.html<br>Clinical Trials Arena<br>Algernon Pharmaceuticals | South Korea | Phase 2 clinical trial | NA | Not yet recruiting |
| **BXT-25 ( Bioxytran; glycolprotein)**<br>Late Stage Treatment, Acute Respiratory Distress Syndrome (ARDS) | https://www.globenewswire.com/news-release/2020/02/05/1980137/0/en/Bioxytran-Seeking-Partners-for-Late-Stage-Treatment-of-Wuhan-Coronavirus-using-BXT-25.html | NA | Pre-clinical | NA | Not yet recruiting |
| **Antibodies from mice, REGN3048-3051,** against the spike protein (Regeneron)<br>Funded by: Biomedical Advanced Research and Development Authority (BARDA) | NA | NA | Pre-clinical | NA | Start Phase 1 June 2020 |
| Antibodies **from recovered COVID-19 patients**<br>(CelltrionCelltri)<br>Sponsor: Korea Herald<br>UPI | NA | NA | Pre-clinical | NA | Start Phase 1 in July 2020 |
| **Antibodies from** recovered **COVID-19 patients**<br>(Kamada)<br>Sponsor: BioSpace<br>AbbVie | NA | NA | Pre-clinical | NA | NA |
| **Antibodies from** recovered **COVID-19 patients**<br>Sponsor: Vir | NA | NA | Pre-clinical | NA | Start Phase 1 ~ July 2020 |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| Biotech/WuXi Biologics/Biogen | | | | | |
| **Antibodies from** recovered **COVID-19 patients**<br><br>Sponsor: Lilly/Ab-Cellera/ NIH Vaccines Research Center | NA | NA | Pre-clinical | NA | Start Phase 1 in late July 2020 |
| **Antibody** (Erasmus MC/Utrecht University) | NA | NA | Pre-clinical | NA | NA |
| **Antibodies** (ImmunoPrecise Antibodies) | NA | NA | Pre-clinical | NA | NA |
| **Antibody** (Harbour BioMed/Mount Sinai Health System) | NA | NA | Pre-clinical | NA | NA |
| **Antibodies** (AstraZeneca) | NA | NA | Pre-clinical | NA | NA |
| **Antibody** (Distributed Bio) | NA | NA | Pre-clinical | NA | NA |
| **Antibodies** (Chelsea and Westminster Hospital, Imperial College London)<br>Funded by:UK government | NA | NA | Pre-clinical | NA | NA |
| **Antibody** (Vanderbilt Vaccine Center) | NA | NA | Pre-clinical | NA | Phase 1 trial begins in summer 2020 |
| **Antibodies from recovered COVID-19 patients** (Tsinghua University / Third People's Hospital of Shenzhen / Brii Biosciences) | NA | NA | Pre-clinical | NA | Phase 1 trial begins Q3 2020 |
| Antibodies **from recovered COVID-19 patients** (Grifols) | NA | NA | Pre-clinical | NA | NA |
| **Antibodies from** recovered **COVID-19 patients** (Amgen / Adaptive Biotechnologies) | NA | NA | Pre-clinical | NA | NA |
| **Non-viral gene** therapy **to produce monoclonal antibodies**<br><br>(Generation Bio / Vir Biotechnology) | NA | NA | Pre-clinical | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| **RNAi - testing 150 RNAis** (Sirnaomics) | NA | NA | NA | NA | NA |
| **siRNA candidates** (Vir Biotech/Alnylam Pharmaceuticals) | NA | NA | Pre-clinical | NA | NA |
| **Ampligen; (rintatolimod)** (AIM ImmunoTech/National Institute of Infectious Diseases in Japan) | NA | NA | Pre-clinical | NA | NA |
| **OT-101, a TGF-Beta antisense drug candidate** (Mateon Therapeutics) | NA | NA | Pre-clinical | NA | NA |
| **Peptides targeting the NP protein**<br><br>(CEL-SCI/University of Georgia Center for Vaccines and Immunology) | NA | NA | Pre-clinical | NA | NA |
| **BIO-11006, inhaled peptide**<br><br>(Biomarck Pharmaceuticals) | NA | NA | Pre-clinical | NA | Phase 2 |
| **WP1122, glucose decoy prodrug (**and **related drug candidates)** (Moleculin Biotech/University of Texas Medical Branch) | NA | NA | Pre-clinical | NA | NA |
| **Nafamostat** approved in Japan to treat pancreatitis and other diseases<br><br>(University of Tokyo/ National Center for Global Health and Medicine) | NA | Japan | Pre-clinical | NA | Trial starts April 2020 |
| **A number of synthesized** nanoviricide **drug candidates**<br><br>(NanoViricides) | NA | NA | Pre-clinical | NA | NA |
| **Activase (alteplase),** tissue plasminogen activator (tPA)<br><br>FDA-approved since 1987, approved to treat stroke, myocardial infarction, and | http://news.mit.edu/2020/covid-19-treat-respiratory-patients- | USA (Compassionate use) | NA | NA | NA |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| pulmonary embolism<br><br>(Beth Israel Deaconess, the University of Colorado Anschultz Medical Campus, and Denver Health (Genentech)) | plasminogen-0324 | | | | |
| **AT-001,** aldose reductase inhibitor<br><br>(AppliedTherapeutics/ numerous NewYorkCity hospitals) | NA | USA (Compassionate Use) | "Named Patient" Emergency INDs or Investigator-Initiated Trials | Address acute lung inflammation and cardiomyopathy in critical COVID-19 patients. | NA |
| **Aplidin (plitidepsin),** approved in Australia to treat multiple myeloma<br><br>(PharmaMar) | NA | Spain | Multicenter, randomized Phase II clinical trial | Evaluation of two different doses of plitidepsin | Clinical trial protocol submitted |
| **Solnatide** (AP301)<br><br>Inhaled peptide, available for treatment of patients with severe COVID-19 for Treatment of Acute Lung Injury (ARDS)<br><br>Solnatide has been approved for Compassionate Use by the Austrian Federal Office for Safety in Health Care (BASG) for the treatment of patients infected by the novel coronavirus SARS-CoV-2 and subsequently developing severe pulmonary dysfunction (severe COVID-19) | EUdraCT 2020-001244-26 | Austria | RCT, double-blind, placebo controlled, parallel assignment | • Days free of mechanical ventilation (ventilator free days, VFD) within 28 days<br>• Drug-related adverse events (through day 14)<br>• All adverse events through day 28<br>• All-cause deaths through day 28<br>• Vital signs daily through day 14 (heart rate, systolic and diastolic blood pressure, and body temperature)<br>• ECG parameters including heart rate PQ, QRS, QT and QTc intervals through day 7<br>• Clinical laboratory assessments (haematology, clinical chemistry, blood gases and urine analysis) daily through day 14<br>• 24-hour fluid balance through day 7<br>• Hemodynamic parameters: mean arterial pressure, pulmonary blood volume (PBV), cardiac index and cardiac output assessed at screening and daily until end of | Ongoing |

| Product; Description; Sponsor | Study identifier | Study location | Study design | Primary outcome | Status of trial |
|---|---|---|---|---|---|
| | | | | treatment<br>• Need for vasoactive drugs assessed at screening and daily until end of treatment | |

# Appendix 3 EudraCT registered studies (n=29)

*Table A 3: EudraCT registered studies for Covid19 treatments*

| EudraCT registered studies | |
|---|---|
| **Title** | COUNTER-COVID - Oral **imatinib** to prevent pulmonary vascular leak in COVID-19 – a randomized, single-blind, placebo controlled, clinical trial in patients with severe COVID-19 disease |
| **EudraCT Number** | 2020-001236-10 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001236-10/NL |
| **Start Date** | 2020-03-31 |
| **Medical condition** | Covid19 is characterized by hypoxemic respiratory failure, caused by extensive vascular leak and pulmonary edema early in the course of disease. |
| **Sponsor** | Amsterdam UMC |
| **Title** | An adaptive phase 2/3, randomized, double-blind, placebo-controlled, study assessing efficacy and safety of **sarilumab** for hospitalized patients with COVID-19 |
| **EudraCT Number** | 2020-001162-12 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001162-12/DE |
| **Start Date** | 2020-03-26 |
| **Medical condition** | Corona virus infection |
| **Sponsor** | Sanofi-aventis Recherche et Développement |
| **Title** | Randomized controlled trial of **hydroxychloroquine** versus placebo for the treatment of adult patients with acute coronavirus disease 2019 – COVID-19 |
| **EudraCT Number** | 2020-001224-33 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001224-33/DE |
| **Start Date** | 2020-03-25 |
| **Medical condition** | Acute coronavirus disease 2019 |
| **Sponsor** | Universitätsklinikum Tübingen |
| **Title** | The Greek study in the Effects of **Colchicine** in Covid-19 complications prevention |
| **EudraCT Number** | 2020-001455-40 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001455-40/GR |
| **Start Date** | 2020-04-01 |
| **Medical condition** | This trial will investigate if colchicine could potentially have an effect in patients' clinical course by limiting the myocardial necrosis and pneumonia development in the context of COVID-19 |
| **Sponsor** | Hellenic Society of Rhythmology |
| **Title** | Reducing health care workers absenteeism in SARS-CoV-2 pandemic by enhanced trained immune responses through **Bacillus Calmette-Guérin vaccination**, a randomized controlled trial (COVID-19). |
| **EudraCT Number** | 2020-000919-69 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000919-69/NL |
| **Start Date** | 2020-03-17 |
| **Medical condition** | SARS-CoV-2 infection |
| **Sponsor** | University Medical Center |
| **Title** | Platform Randomised trial of INterventions against COVID-19 In older peoPLE |
| **EudraCT Number** | 2020-001209-22 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001209-22/GB |
| **Start Date** | 2020-03-26 |
| **Medical condition** | Suspected COVID-19 |
| **Sponsor** | University of Oxford / Clinical Trials and Research Governance |
| **Title** | An adaptive Phase 2/3, randomized, open-label study assessing efficacy and safety of **hydroxychloroquine** for hospitalized patients with moderate to severe COVID-19 |
| **EudraCT Number** | 2020-001270-29 |

| | |
|---|---|
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001270-29/GB |
| **Start Date** | 2020-04-02 |
| **Medical condition** | Coronavirus infection |
| **Sponsor** | sanofi-aventis recherche & développement |
| **Title** | Effectiveness of **Interleukin-6 Receptor Inhibitors** in the Management of Patients with Severe SARS-CoV-2 Pneumonia: An Open-Label Multicenter Sequential Randomized Controlled Trial |
| **EudraCT Number** | 2020-001275-32 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001275-32/DK |
| **Start Date** | 2020-04-03 |
| **Medical condition** | SARS-CoV-2 infection |
| **Sponsor** | The Parker Institute, Bispebjerg and Frederiksberg Hospital, The Capital Region of Denmark |
| **Title** | NORWEGIAN CORONAVIRUS DISEASE 2019 (NO COVID-19) STUDY: AN OPEN LABELED RANDOMIZED CONTROLLED PRAGMATIC TRIAL TO EVALUATE THE ANTIVIRAL EFFECT OF **CHLOROQUINE** IN ADULT PATIENTS WITH SARS-COV-2 INFECTION |
| **EudraCT Number** | 2020-001010-38 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001010-38/NO |
| **Start Date** | 2020-03-23 |
| **Medical condition** | SARS-COV-2 infection |
| **Sponsor** | Akershus University Hospital |
| **Title** | The Impact of **Camostat Mesilate** on COVID-19 Infection: An investigator-initiated randomized, placebo-controlled, phase IIa trial |
| **EudraCT Number** | 2020-001200-42 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001200-42/DK |
| **Start Date** | 2020-03-30 |
| **Medical condition** | 2019-nCoV acute respiratory disease |
| **Sponsor** | Department of Infecitous Diseases, Aarhus University Hospital |
| **Title** | A prospective, randomized, open-label, interventional study to investigate the efficacy of **sargramostim** (Leukine®) in improving oxygenation and short- and long-term outcome of COVID-19 patients with acute hypoxic respiratory failure. |
| **EudraCT Number** | 2020-001254-22 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001254-22/BE |
| **Start Date** | 2020-03-24 |
| **Medical condition** | Acute hypoxic respiratory failure of COVID-19 patients |
| **Sponsor** | University Hospital Ghent |
| **Title** | Uno studio randomizzato multicentrico in aperto per valutare l'efficacia della somministrazione precoce del **Tocilizumab** (TCZ) in pazienti affetti da polmonite da COVID-19. |
| **EudraCT Number** | 2020-001386-37 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001386-37/IT |
| **Start Date** | 2020-03-27 |
| **Medical condition** | COVID-19 infection |
| **Sponsor** | Azienda Unità Sanitaria Locale-IRCCS di Reggio Emilia |
| **Title** | HYCOVID - **Hydroxychloroquine** versus placebo chez les patients ayant une infection COVID-19 à risque d'aggravation secondaire : étude prospective multicentrique randomisée en double aveugle |
| **EudraCT Number** | 2020-001271-33 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001271-33/FR |
| **Start Date** | 2020-03-31 |
| **Medical condition** | Patient atteint du Covid-19 |
| **Sponsor** | CHU Angers |
| **Title** | A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTICENTER STUDY TO EVALUATE THE SAFETY AND EFFICACY OF **TOCILIZUMAB** IN PATIENTS WITH SEVERE COVID-19 PNEUMONIA |
| **EudraCT Number** | 2020-001154-22 |

| | |
|---|---|
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001154-22/FR |
| **Start Date** | 2020-03-31 |
| **Medical condition** | Severe COVID-19 pneumonia |
| **Sponsor** | F. Hoffmann-La Roche Ltd |
| **Title** | A Multicenter, Adaptive, Randomized Blinded Controlled Trial of the Safety and Efficacy of **Investigational Therapeutics** for the Treatment of COVID-19 in Hospitalised Adults |
| **EudraCT Number** | 2020-001052-18 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001052-18/GB |
| **Start Date** | 2020-03-25 |
| **Medical condition** | Influenza COVID-19 |
| **Sponsor** | Regents of the University of Minnesota |
| **Title** | Covid-19: A randomized, open-label, adaptive, proof-of- concept clinical trial of new **antiviral drug candidates** against SARS-CoV-2. |
| **EudraCT Number** | 2020-001243-15 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001243-15/BE |
| **Start Date** | 2020-03-26 |
| **Medical condition** | COVID-19 |
| **Sponsor** | UZLeuven |
| **Title** | A pragmatic adaptive open label, randomized Phase II/III multicenter study of **IFX-1** in Patients with severe COVID-19 Pneumonia - "PANAMO" |
| **EudraCT Number** | 2020-001335-28 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001335-28/NL |
| **Start Date** | 2020-03-29 |
| **Medical condition** | Severe pneumonia in context of COVID-19 |
| **Sponsor** | InflaRx GmbH |
| **Title** | Multicenter study on the efficacy and tolerability of **tocilizumab** in the treatment of patients with COVID-19 pneumonia |
| **EudraCT Number** | 2020-001110-38 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001110-38/IT |
| **Start Date** | 2020-03-18 |
| **Medical condition** | COVID-19 pneumonia |
| **Sponsor** | ISTITUTO NAZIONALE PER LO STUDIO E LA CURA DEI TUMORI - FONDAZIONE "G. PASCALE" |
| **Title** | A randomised double-blind placebo-controlled trial to determine the safety and efficacy of inhaled **SNG001** (IFNβ-1a for nebulisation) for the treatment of patients with confirmed SARS-CoV-2 infection (COVID-19) |
| **EudraCT Number** | 2020-001023-14 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001023-14/GB |
| **Start Date** | 2020-03-17 |
| **Medical condition** | COVID-19 |
| **Sponsor** | Synairgen Research Limited |
| **Title** | Cohort Multiple randomized controlled trials open-label of **immune modulatory drugs** and other treatments in COVID-19 patients |
| **EudraCT Number** | 2020-001246-18 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001246-18/FR |
| **Start Date** | 2020-03-25 |
| **Medical condition** | COVID-19 |
| **Sponsor** | Assistance Publique - Hôpitaux de Paris |
| **Title** | A Phase 3 Randomized Study to Evaluate the Safety and Antiviral Activity of **Remdesivir** (GS-5734™) in Participants with Moderate COVID-19 Compared to Standard of Care Treatment |
| **EudraCT Number** | 2020-000842-32 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000842-32/DE |
| **Start Date** | 2020-03-18 |
| **Medical condition** | Coronavirus disease 2019 (COVID-19) |

| | |
|---|---|
| **Sponsor** | Gilead Sciences, Inc. |
| **Title** | A Phase 3 Randomized Study to Evaluate the Safety and Antiviral Activity of **Remdesivir** (GS-5734™) in Participants with Severe COVID-19 |
| **EudraCT Number** | 2020-000841-15 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000841-15/DE |
| **Start Date** | 2020-03-18 |
| **Medical condition** | Coronavirus disease 2019 (COVID-19) |
| **Sponsor** | Gilead Sciences, Inc. |
| **Title** | Recombinant human angiotensin-converting enzyme 2 (**rhACE2**) as a treat-ment for patients with COVID-19 |
| **EudraCT Number** | 2020-001172-15 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001172-15/DK |
| **Start Date** | 2020-04-03 |
| **Medical condition** | Severe COVID-19 POSITIVE hospitalized male or female, between 35 and ≤ 80 years of age |
| **Sponsor** | APEIRON Respiratory Therapies GmbH |
| **Title** | The NOR Solidarity multicenter trial on the efficacy of different **anti-viral drugs** in SARS-CoV-2 infected patients (COVID-19) |
| **EudraCT Number** | 2020-000982-18 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000982-18/NO |
| **Start Date** | 2020-03-26 |
| **Medical condition** | SARS-COV-2 infection |
| **Sponsor** | Oslo University Hospital |
| **Title** | Evaluation of the concentration/viral effect relationship of **hydroxychloroquine** in COVID-19 patients in the intensive care unit. |
| **EudraCT Number** | 2020-001281-11 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001281-11/FR |
| **Start Date** | 2020-03-30 |
| **Medical condition** | covid-19 |
| **Sponsor** | CHU de Saint Etienne |
| **Title** | Randomised Evaluation of COVID-19 Therapy (RECOVERY) |
| **EudraCT Number** | 2020-001113-21 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001113-21/GB |
| **Start Date** | 2020-03-17 |
| **Medical condition** | COVID-19 (infection with SARS-CoV-2 virus) |
| **Sponsor** | University of Oxford |
| **Title** | Treatment of Coronavirus SARS-Cov2 Respiratory Infections with Hydroxychloroquine |
| **EudraCT Number** | 2020-000890-25 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000890-25/FR |
| **Start Date** | 2020-03-05 |
| **Medical condition** | Patients with documented respiratory infection with coronavirus SARS COV 2 |
| **Sponsor** | Fondation Méditerranée Infection (FMI) - IHU Méditerranée Infection |
| **Title** | A prospective, randomized, factorial design, interventional study to compare the safety and efficacy of combinations of blockade of **interleukin-6** pathway and **interleukin-1** pathway to best standard of care in improving oxygenation and short- and long-term outcome of COVID-19 patients with acute hypoxic respiratory failure and systemic cytokine release syndrome. |
| **EudraCT Number** | 2020-001500-41 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001500-41/BE |
| **Start Date** | 2020-04-03 |
| **Medical condition** | COVID-19 patients with acute hypoxic respiratory failure and systemic cytokine release syndrome. |
| **Sponsor** | University Hospital Ghent |
| **Title** | Multi-centre, adaptive, randomized trial of the safety and efficacy of treatments of COVID-19 in hospitalized adults |
| **EudraCT Number** | 2020-000936-23 |

| | |
|---|---|
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-000936-23/FR |
| **Start Date** | 2020-03-09 |
| **Medical condition** | COVID-19<br>- Has laboratory-confirmed SARS-CoV-2 infection as determined by PCR, or other commercial or public health assay in any specimen < 72 hours prior to randomization.<br>- Illness of any duration, and at least one of the following:<br>•Clinical assessment (evidence of rales/crackles on exam) AND SpO2 ≤ 94% on room air, OR<br>•Requiring mechanical ventilation and/or supplemental oxygen. |
| **Sponsor** | INSERM |
| **Title** | **CHROLOQUINE** PHOSPHATE AGAINST INFECTION BY THE NOVEL CORONAVIRUS SARS-CoV-2 (COVID-19): THE HOPE OPEN-LABEL, NON-RANDOMIZED CLINICAL TRIAL |
| **EudraCT Number** | 2020-001345-38 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001345-38/GR |
| **Start Date** | 2020-04-02 |
| **Medical condition** | Possible prevention of pneumonia from SARS-CoV-2 in patients staying home and improving symptoms of SARS-CoV-2 pneumonia in patients treated in hospital |
| **Sponsor** | Uni-Pharma Kleon Tsetis Pharmaceutical Laboratories S.A. |
| **Title** | EFFICIENCY IN MANAGEMENT OF ORGAN DYSFUNCTION ASSOCIATED WITH INFECTION BY THE NOVEL SARS-CoV-2 VIRUS (COVID-19) THROUGH A PERSONALIZED IMMUNOTHERAPY APPROACH: THE ESCAPE CLINICAL TRIAL |
| **EudraCT Number** | 2020-001039-29 |
| **Trial protocol** | https://www.clinicaltrialsregister.eu/ctr-search/trial/2020-001039-29/GR |
| **Start Date** | 2020-04-01 |
| **Medical condition** | Organ dysfunction by the novel SARS-Cov-2 virus |
| **Sponsor** | HELLENIC INSTITUTE FOR THE STUDY OF SEPSIS |

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