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INSTITUTE FOR CORONAVIRUS EMERGENCE NONPROFIT INTELLIGENCE

The Spartacus Letter – Rev. 3 (2021-10-08) | *Spartacus*

Hello,

My name is Spartacus, and I've had enough.

We have been forced to watch America and the Free World spin into inexorable decline due to a biowarfare attack. We, along with countless others, have been victimized and gaslit by propaganda and psychological warfare operations being conducted by an unelected, unaccountable Elite against the American people and our allies.

Our mental and physical health have suffered immensely over the course of the past year and a half. We have felt the sting of isolation, lockdown, masking, quarantines, and other completely nonsensical acts of healthcare theater that have done absolutely nothing to protect the health or wellbeing of the public from the ongoing COVID-19 pandemic.

Now, we are watching the medical establishment inject literal poison into millions of our fellow Americans without so much as a fight.

We have been told that we will be fired and denied our livelihoods if we refuse to vaccinate. This was the last straw.

We have spent thousands of hours analyzing leaked footage from Wuhan, scientific papers from primary sources, as well as the paper trails left by the medical establishment.

What we have discovered would shock anyone to their core.

First, we will summarize our findings, and then, we will explain them in detail. References will be placed at the end.

SUMMARY

- COVID-19 is a blood and blood vessel disease. SARS-CoV-2 infects the lining of human blood vessels, causing them to leak into the lungs.
- Current treatment protocols (e.g. invasive ventilation) are actively harmful to patients, accelerating oxidative stress and causing severe VILI (ventilator-induced lung injuries). The continued use of ventilators in the absence of any proven medical benefit constitutes mass murder.
- Existing countermeasures are inadequate to slow the spread of what is an aerosolized and potentially wastewater-borne virus and constitute a form of medical theater.

- Various non-vaccine interventions have been suppressed by both the media and the medical establishment in favor of vaccines and expensive patented drugs.
- The authorities have denied the usefulness of natural immunity against COVID-19, even though natural immunity confers protection against all of the virus's proteins, and not just one.
- Vaccines will do more harm than good. The antigen that these vaccines are based on, SARS-CoV-2 Spike, is a toxic protein. SARS-CoV-2 may have ADE, or antibody-dependent enhancement; current antibodies may not neutralize future strains, but instead help them infect immune cells. Also, vaccinating during a pandemic with a leaky vaccine removes the evolutionary pressure for a virus to become less lethal.
- There is a vast and appalling criminal conspiracy that directly links both Anthony Fauci and Moderna to the Wuhan Institute of Virology.
- COVID-19 vaccine researchers are directly linked to scientists involved in brain-computer interface ("neural lace") tech, one of whom was indicted for taking grant money from China.
- Independent researchers have discovered mysterious nanoparticles inside the vaccines that are not supposed to be present.
- The entire pandemic is being used as an excuse for a vast political and economic transformation of Western society that will enrich the already rich and turn the rest of us into serfs and untouchables.

COVID-19 PATHOPHYSIOLOGY

COVID-19 is not a viral pneumonia. It is a viral vascular endotheliitis and attacks the lining of blood vessels, particularly the small pulmonary alveolar capillaries, leading to endothelial cell activation and sloughing, coagulopathy, sepsis, pulmonary edema, and ARDS-like symptoms. This is a disease of the blood and blood vessels. The circulatory system. Any pneumonia that it causes is secondary to that.[1–5]

In severe cases, this leads to sepsis,[6,7] blood clots,[8–10] and multiple organ failure,[11–13] including hypoxic and inflammatory damage to various vital organs, such as the brain,[14–17] heart (COVID-19 was initially thought to cause myocarditis, but this has proven rare),[18,19] liver,[20–22] pancreas,[23–26] kidneys,[27–29] and intestines.[30–32]

Some of the most common laboratory findings in COVID-19 are elevated D-dimer, elevated prothrombin time, elevated C-reactive protein, neutrophilia, lymphopenia, hypocalcemia, hyperferritinemia, and inflammatory cytokines, essentially matching a profile of coagulopathy and immune system hyperactivation/immune cell exhaustion.[33–39]

COVID-19 can present as almost anything, due to the wide tropism of SARS-CoV-2 for various tissues in the body's vital organs. While its most common initial presentation is respiratory illness and flu-like symptoms, it can present as brain inflammation, gastrointestinal disease, or even heart attack, stroke, or pulmonary embolism.[40–47] COVID-19 is more severe in those with specific comorbidities, such as obesity, diabetes, and hypertension.[48,49] This is because these conditions involve endothelial dysfunction, which renders the circulatory system more susceptible to infection and injury by this particular virus.[50,51]

The vast majority of COVID-19 cases are mild and do not cause significant disease.[52–55] 80% of known cases are mild and 20% are severe or critical.[56–58] However, this ratio is only correct for known cases, not all infections. The number of actual infections is much, much higher. Consequently, the mortality and

morbidity rate are lower than a CFR may indicate.[59–61] However, COVID-19 spreads very quickly (especially in densely-populated areas with greater exposure to respiratory aerosols in public transport), meaning that there are a significant number of severely ill and critically ill patients appearing in a short time frame.[62,63]

The breakdown of the pathology is as follows:

SARS-CoV-2 Spike binds to ACE2.[64,65] Angiotensin Converting Enzyme 2 is an enzyme that is part of the renin-angiotensin-aldosterone system, or RAAS.[66,67] The RAAS is a hormone control system that moderates blood pressure and fluid volume (i.e. osmolarity) of the circulatory system by controlling vascular tone and salt retention and excretion.[68–72] This protein, ACE2, is ubiquitous in every part of the body that interfaces with the circulatory system, particularly in vascular endothelial cells and pericytes, brain astrocytes, renal tubules and podocytes, pancreatic islet cells, bile duct and intestinal epithelial cells, and the seminiferous ducts of the testis, all of which SARS-CoV-2 can potentially infect, not just the lungs.[73–75]

SARS-CoV-2 infects a cell as follows: SARS-CoV-2 Spike undergoes a conformational change where the S1 trimers flip up and extend, locking onto ACE2 bound to the surface of a cell. TMPRSS2, or transmembrane protease serine 2, comes along and cuts off the heads of the Spike, exposing the S2 stalk-shaped subunit inside. The remainder of the Spike undergoes a conformational change that causes it to unfold like an extension ladder, embedding itself in the cell membrane. Then, it folds back upon itself, pulling the viral membrane and the cell membrane together. The two membranes fuse, with the virus's proteins migrating out onto the surface of the cell. The SARS-CoV-2 nucleocapsid enters the cell, disgorging its genetic material and beginning the viral replication process, hijacking the cell's own structures to produce more virus.[76–78]

SARS-CoV-2 Spike proteins embedded in a cell can actually cause human cells to fuse together, forming syncytia/MGCs (multinucleated giant cells).[79,80] They also have other pathogenic, harmful effects. SARS-CoV-2's viroporins, such as its Envelope and 3a proteins, act as calcium ion channels, introducing calcium into infected cells, a property that is shared with similar coronaviruses, such as SARS.[81–83] The virus suppresses the natural interferon response, resulting in delayed inflammation. SARS-CoV-2 N protein and ORF3a can also directly activate the NLRP3 inflammasome.[84–86] Also, it suppresses the Nrf2 antioxidant pathway.[87–90] The suppression of ACE2 by binding with Spike is claimed to cause a buildup of bradykinin that would otherwise be broken down by ACE2, but this is also contradicted by studies that show that Spike-ACE2 binding can upregulate ACE2 activity.[91–95]

This constant calcium influx into the cells is correlated with noticeable hypocalcemia, or low blood calcium, especially in people with Vitamin D deficiencies and pre-existing endothelial dysfunction.[96–98] The vasoactive peptide bradykinin upregulates cAMP, cGMP, COX, and Phospholipase C activity.[99–107] This, along with the ongoing expression of various SARS-CoV-2 viroporins, collectively results in prostaglandin release and vastly increased intracellular calcium signaling (including dumping of Ca2+ stores from the endoplasmic reticulum), which promotes highly aggressive ROS release and ATP depletion.[108–112] NADPH oxidase releases superoxide into the extracellular space.[113–115] Superoxide radicals react with nitric oxide to form peroxynitrite.[116–119] Peroxynitrite reacts with the tetrahydrobiopterin cofactor needed by endothelial nitric oxide synthase, destroying it and "uncoupling" the enzymes, causing nitric oxide synthase to synthesize more superoxide instead.[120–122] This proceeds in a positive feedback loop until nitric oxide bioavailability in the circulatory system is depleted.[123,124]

Dissolved nitric oxide gas produced constantly by eNOS serves many important functions,[125–127] but it is also antiviral against SARS-like coronaviruses, preventing the palmitoylation of the viral Spike protein and making it harder for it to bind to host receptors.[128–130] The loss of NO allows the virus to begin replicating with impunity in the body. Those with endothelial dysfunction (i.e. hypertension, diabetes, obesity, old age, African-American race) have redox equilibrium issues to begin with, giving the virus an advantage.[131–136]

Due to the extreme cytokine release triggered by these processes, the body summons a great deal of neutrophils and monocyte-derived alveolar macrophages to the lungs.[137–140] Cells of the innate immune system are the first-line defenders against pathogens. They work by engulfing invaders and trying to attack them with enzymes that produce powerful oxidants, like SOD and MPO.[141,142] Superoxide dismutase takes superoxide and makes hydrogen peroxide, and myeloperoxidase takes hydrogen peroxide and chlorine ions and makes hypochlorous acid, which is many, many times more reactive than sodium hypochlorite bleach.[143–146]

Neutrophils have a nasty trick. They can also eject these enzymes into the extracellular space, where they will continuously spit out peroxide and bleach into the bloodstream. This is called neutrophil extracellular trap formation, or NETosis.[147,148] In severe and critical COVID-19, there is actually rather severe NETosis.[149–152]

COVID-19's pathology is, from this point onward, dominated by extreme oxidative stress and neutrophil respiratory burst. Heme iron is stripped out of heme by hypochlorous acid. No amount of supplemental oxygen can oxygenate blood that chemically refuses to bind O2 due to HOCl outcompeting O2 at its binding sites.[153–155] Red blood cells lose the ability to transport oxygen, causing the sufferer to turn blue in the face.[156,157] Unliganded iron, hydrogen peroxide, and superoxide in the bloodstream undergo the Haber-Weiss and Fenton reactions, producing extremely reactive hydroxyl radicals that violently strip electrons from surrounding fats and DNA, oxidizing them severely.[158–165]

Haber-Weiss Reaction:

$Fe^{3+} + {\bullet}O_2^- \rightarrow Fe^{2+} + O_2$

Fenton Reaction:

$Fe^{2+} + H_2O_2 \rightarrow Fe^{3+} + OH^- + {\bullet}OH$

Hydroxyl radicals are extremely reactive, have a very short half-life in the body, and cannot be detoxified by enzymatic action. They occur naturally in the upper atmosphere, where they destroy pollutants. They are also extremely destructive to biological matter and, in industrial applications, they are often generated on purpose and introduced into wastewater streams to sanitize them through their powerful oxidative effect.[166–171]

In severe hypoxia, cellular metabolic shifts cause ATP to break down into hypoxanthine, which, upon the reintroduction of oxygen, causes xanthine oxidase to produce tons of highly damaging radicals that attack tissue.[172–175] In the mitochondria, succinate buildup due to sepsis-induced hypoxia does the same exact thing; when oxygen is reintroduced, it makes superoxide radicals.[176–179] This is called ischemia-reperfusion injury, and it's why the majority of people who go on a ventilator are dying. Make no

mistake, intubation will kill people who have COVID-19 by greatly accelerating the oxidative damage caused by the virus's processes.[180–183]

The end-stage of COVID-19 is severe lipid peroxidation, where fats in the body start to "rust" due to damage by oxidative stress.[184,185] This drives autoimmunity. Oxidized lipids appear as foreign objects to the immune system, which recognizes and forms antibodies against OSEs, or oxidation-specific epitopes.[186,187] Also, oxidized lipids feed directly into pattern recognition receptors, triggering even more inflammation and summoning even more cells of the innate immune system that release even more destructive enzymes.[188,189]

This condition is not unknown to medical science. The actual name for all of this is acute sepsis.[190–192]

We know this is happening in COVID-19 because people who have died of the disease have noticeable ferroptosis signatures in their tissues, as well as various oxidative stress biomarkers such as nitrotyrosine, 4-HNE, and malondialdehyde.[193–199]

There are many other peculiarities involved in COVID-19, such as increases in gene activity associated with ubiquitination,[200,201] endothelial cell activation,[200–203] vWF release,[204–206] mast cell activation,[207,208] and complement system activation.[209–212] Overall, the inflammatory profile of COVID-19 is somewhat like a severe autoimmune reaction. It is reminiscent of lupus and rheumatoid arthritis, but centered in the vasculature.[213–216]

Hyperinflammatory COVID-19 is a severe, SARS-like inflammatory syndrome that can put a sufferer in the ICU. It is not to be trifled with. However, if hyperinflammatory COVID-19 and the associated sepsis can be effectively treated, then the lethality of the virus will be lessened significantly.

COVID-19 TREATMENTS

In those who have critical COVID-19-induced sepsis, hypoxia, coagulopathy, and ARDS, the most common treatments are intubation, injected corticosteroids, and blood thinners. This is not the correct treatment for COVID-19.[217–219] When you intubate someone with this condition, you are setting off a free radical bomb by supplying the cells with O2. It's a catch-22, because we need oxygen to make Adenosine Triphosphate (that is, to live), but O2 is also the precursor of all these damaging radicals that lead to lipid peroxidation.[220–224]

The correct treatment for severe COVID-19 related sepsis is non-invasive ventilation, steroids, and antioxidant infusions. Most of the drugs repurposed for COVID-19 that show any benefit whatsoever in rescuing critically ill COVID-19 patients are antioxidants.[225,226] N-acetylcysteine, melatonin, fluvoxamine, budesonide, famotidine, cimetidine, and ranitidine are all antioxidants.[227–238] Indomethacin prevents iron-driven oxidation of arachidonic acid to isoprostanes.[239] There are powerful antioxidants such as apocynin that have not even been tested on COVID-19 patients yet which could defang neutrophils, prevent lipid peroxidation, restore endothelial health, and restore oxygenation to the tissues.[240–242]

Scientists who know anything about pulmonary neutrophilia, ARDS, and redox biology have known or surmised much of this since March 2020.[243] In April 2020, Swiss scientists confirmed that COVID-19 was a vascular endotheliitis.[244] By late 2020, experts had already concluded that COVID-19 causes a form of viral sepsis.[245,246] They also know that sepsis can be effectively treated with antioxidants.[247–249] None of

this information is particularly new, and yet, for the most part, it has not been acted upon. Doctors continue to use damaging intubation techniques despite high lung compliance and poor oxygenation, killing an untold number of critically ill patients with medical malpractice.[250,251]

Because of the way they are constructed, Randomized Control Trials will never show any benefit for any antiviral against COVID-19. Not Remdesivir, not Kaletra, not HCQ, and not Ivermectin. The reason for this is simple; for the patients that they have recruited for these studies, such as Oxford's ludicrous RECOVERY study, the intervention is too late to have any positive effect.[252,253]

The clinical course of COVID-19 is such that by the time most people seek medical attention for hypoxia, their viral load has already tapered off to almost nothing.[254] If someone is about 10 days post-exposure and has already been symptomatic for five days, there is hardly any virus left in their bodies, only cellular damage and derangement that has initiated a hyperinflammatory response.[255]

In these trials, they give antivirals to severely ill patients who have no virus in their bodies, only a delayed hyperinflammatory response, and then absurdly claim that antivirals have no utility in treating or preventing COVID-19.[256] These clinical trials being cited by the media as evidence of the ineffectiveness of antivirals do not recruit people who are pre-symptomatic. They do not test pre-exposure or post-exposure prophylaxis. This is like using a defibrillator to shock only flatline, and then absurdly claiming that defibrillators have no medical utility whatsoever when the patients refuse to rise from the dead. The intervention is too late. These trials for antivirals show systematic, egregious selection bias. They are providing a treatment that is futile to the specific cohort they are enrolling.[257–261]

India went against the instructions of the WHO and mandated the prophylactic usage of Ivermectin. They have almost completely eradicated COVID-19.[262,263] The Indian Bar Association of Mumbai has brought criminal charges against WHO Chief Scientist Dr. Soumya Swaminathan for recommending against the use of Ivermectin.[264,265]

Ivermectin is not "horse dewormer". Yes, it is sold in veterinary form as a dewormer for animals.[266] It has also been available in pill form for humans for decades, as an antiparasitic drug.[267]

The media and the FDA have disingenuously claimed that because Ivermectin is an antiparasitic drug, it has no utility as an antivirus.[268,269] This is incorrect. Ivermectin has utility as an antiviral. It blocks importin, preventing nuclear import, effectively inhibiting viral access to cell nuclei. Many drugs currently on the market have multiple modes of action. Ivermectin is one such drug. It is both antiparasitic and antiviral.[270–274]

In Bangladesh, Ivermectin costs $1.80 for an entire 5-day course.[275] Remdesivir, which is toxic to the liver, costs $3,120 for a 5-day course of the drug.[276] Billions of dollars of utterly useless Remdesivir were sold to our governments on the taxpayer's dime, and it ended up being totally useless for treating hyperinflammatory COVID-19. The media has hardly even covered this at all.[261]

The opposition to the use of generic Ivermectin is not based in science. It is purely financially and politically motivated. An effective non-vaccine intervention would jeopardize the rushed FDA approval of patented vaccines and medicines for which the pharmaceutical industry stands to rake in billions upon billions of dollars in sales on an ongoing basis.[277–279]

There is mounting evidence that histamine blockers such as diphenhydramine, famotidine, ranitidine, and cimetidine may have utility in treating COVID-19, possibly by direct antiviral effects, or acting to reduce mast cell activation, in addition to modulating redox activity.[280–283]

Melatonin has been found to have some utility as an adjunct treatment for COVID-19.[284,285] So have indomethacin, budesonide, and other immunomodulatory treatments.[286–288] Indomethacin was known to be directly antiviral against SARS-CoV.[289]

COVID-19 TRANSMISSION

COVID-19 is airborne. Initially, the WHO carried water for China by claiming that the virus was only droplet-borne. Our own CDC absurdly claimed that it was mostly transmitted by fomite-to-face contact, which, given its rapid spread from Wuhan to the rest of the world, would have been physically impossible.[290–293]

The ridiculous belief in fomite-to-face being a primary mode of transmission led to the use of surface disinfection protocols that wasted time, energy, productivity, and disinfectant.[294]

The 6-foot guidelines are absolutely useless. The minimum safe distance to protect oneself from an aerosolized virus is to be 15+ feet away from an infected person, no closer. Realistically, no public transit is safe.[295–297]

Surgical masks and cloth masks do not protect you from aerosols. The virus is too small and the filter media has too large of gaps to filter it out. They may catch respiratory droplets and keep the virus from being expelled by someone who is sick, but they do not filter a cloud of infectious aerosols if someone were to walk into said cloud.[298,299]

The minimum level of protection against this virus is quite literally a P100 respirator, a PAPR/CAPR, or a 40mm NATO CBRN respirator, ideally paired with a full-body tyvek or tychem suit, gloves, and booties, with all the holes and gaps taped.[300–303]

Live SARS-CoV-2 may potentially be detected in sewage outflows, and there may be oral-fecal transmission.[304–306] During the SARS outbreak in 2003, in the Amoy Gardens incident, hundreds of people were infected by aerosolized fecal matter rising from floor drains in their apartments.[307–309]

COVID-19 VACCINE DANGERS

The vaccines for COVID-19 are not sterilizing and do not prevent infection or transmission. They are “leaky” vaccines. This means they remove the evolutionary pressure on the virus to become less lethal. It also means that the vaccinated are perfect carriers. In other words, those who are vaccinated are a threat to the unvaccinated, not the other way around.[310–313]

Natural immunity to COVID-19 from a past infection is far more robust than vaccine-induced immunity. This is because the immune system is exposed to all of the pathogen’s proteins, not just one single protein in isolation.[314,315]

All of the COVID-19 vaccines currently in use have undergone minimal testing, with highly accelerated clinical trials. Though they appear to limit severe illness, the long-term safety profile of these vaccines remains unknown.[316,317]

Some of these so-called "vaccines" utilize an untested new technology that has never been used in vaccines before. Traditional vaccines use weakened or killed virus to stimulate an immune response. The Moderna and Pfizer-BioNTech vaccines do not. They are purported to consist of an intramuscular shot containing a suspension of lipid nanoparticles filled with messenger RNA.[318–321] The way they generate an immune response is by fusing with cells in a vaccine recipient's shoulder, undergoing endocytosis, releasing their mRNA cargo into those cells, and then utilizing the ribosomes in those cells to synthesize modified SARS-CoV-2 Spike proteins *in vivo*.[322,323]

These modified Spike proteins then migrate to the surface of the cell, where they are anchored in place by a transmembrane domain. The adaptive immune system detects the non-human viral protein being expressed by these cells, and then forms antibodies against that protein. This is purported to confer protection against the virus, by training the adaptive immune system to recognize and produce antibodies against the Spike on the actual virus.[324,325] The J&J and AstraZeneca vaccines do something similar, but use an adenovirus vector for genetic material delivery instead of a lipid nanoparticle.[326] These vaccines were produced or validated with the aid of fetal cell lines HEK-293 and PER.C6, which people with certain religious convictions may object strongly to.[327,328]

SARS-CoV-2 Spike is a highly pathogenic protein on its own. It is impossible to overstate the danger presented by introducing this protein into the human body.[328,329]

It is claimed by vaccine manufacturers that the vaccine remains in cells in the shoulder, and that SARS-CoV-2 Spike produced and expressed by these cells from the vaccine's genetic material is harmless and inert, thanks to the insertion of prolines in the Spike sequence to stabilize it in the prefusion conformation, preventing the Spike from becoming active and fusing with other cells.[330,331] However, a pharmacokinetic study from Japan showed that the lipid nanoparticles and mRNA from the Pfizer vaccine did not stay in the shoulder, and in fact bioaccumulated in many different organs, including the reproductive organs and adrenal glands, meaning that modified Spike is being expressed quite literally all over the place.[332] These lipid nanoparticles may trigger anaphylaxis in an unlucky few, but far more concerning is the unregulated expression of Spike in various somatic cell lines far from the injection site and the unknown consequences of that.[333,334]

Messenger RNA is normally consumed right after it is produced in the body, being translated into a protein by a ribosome.[335] COVID-19 vaccine mRNA is produced outside the body, long before a ribosome translates it. In the meantime, it could accumulate damage if inadequately preserved. When a ribosome attempts to translate a damaged strand of mRNA, it can become stalled. When this happens, the ribosome becomes useless for translating proteins because it now has a piece of mRNA stuck in it, like a lace card in an old punch card reader. The whole thing has to be cleaned up and new ribosomes synthesized to replace it.[336,337] In cells with low ribosome turnover, like nerve cells, this can lead to reduced protein synthesis, cytopathic effects, and neuropathies.[338–340]

Certain proteins, including SARS-CoV-2 Spike, have proteolytic cleavage sites that are basically like little dotted lines that say "cut here", which attract a living organism's own proteases (essentially, molecular scissors) to cut them.[341] There is a possibility that S1 may be proteolytically cleaved from S2, causing

active S1 to float away into the bloodstream while leaving the S2 "stalk" embedded in the membrane of the cell that expressed the protein.[342–347]

SARS-CoV-2 Spike has a Superantigenic region (SAg), which may promote extreme inflammation.[348,349] In one study, the Pfizer BNT162b2 vaccine was found to reprogram adaptive and innate immune responses in such a way that TLR4 surveillance is reduced.[350] Anti-Spike antibodies were found in one study to function as autoantibodies and attack the body's own cells.[351] Those who have been immunized with COVID-19 vaccines have developed blood clots, myocarditis, Guillain-Barre Syndrome, Bell's Palsy, and multiple sclerosis flares, indicating that the vaccine promotes autoimmune reactions against healthy tissue.[352–355]

SARS-CoV-2 Spike does not only bind to ACE2. It was suspected to have regions that bind to basigin, integrins, neuropilin-1, and bacterial lipopolysaccharides as well.[356–360] SARS-CoV-2 Spike, on its own, can potentially bind any of these things and act as a ligand for them, triggering unspecified and likely highly inflammatory cellular activity.[361]

SARS-CoV-2 Spike contains an unusual PRRA insert that forms a furin cleavage site. Furin is a ubiquitous human protease, making this an ideal property for the Spike to have, giving it a high degree of cell tropism. No wild-type SARS-like coronaviruses related to SARS-CoV-2 possess this feature, making it highly suspicious, and perhaps a sign of human tampering.[362–364]

SARS-CoV-2 Spike has a prion-like domain that enhances its infectiousness.[365–367] The Spike S1 RBD may bind to heparin-binding proteins and promote amyloid aggregation. In humans, this could lead to Parkinson's, Lewy Body Dementia, premature Alzheimer's, or various other neurodegenerative diseases.[368] This is very concerning because SARS-CoV-2 S1 is capable of injuring and penetrating the blood-brain barrier and entering the brain. It is also capable of increasing the permeability of the blood-brain barrier to other molecules.[369–371]

SARS-CoV-2, like other betacoronaviruses, may have Dengue-like ADE, or antibody-dependent enhancement of disease.[372–379] For those who aren't aware, some viruses, including betacoronaviruses, have a feature called ADE. There is also something called Original Antigenic Sin, which is the observation that the body prefers to produce antibodies based on previously-encountered strains of a virus over newly-encountered ones.[380,381]

In ADE, antibodies from a previous infection become non-neutralizing due to mutations in the virus's proteins. These non-neutralizing antibodies then act as trojan horses, allowing live, active virus to be pulled into macrophages through their Fc receptor pathways, allowing the virus to infect immune cells that it would not have been able to infect before. This has been known to happen with Dengue Fever; when someone gets sick with Dengue, recovers, and then contracts a different strain, they can get very, very ill.[382,383]

If someone is vaccinated with mRNA based on the Spike from the initial Wuhan strain of SARS-CoV-2, and then they become infected with a future, mutated strain of the virus, they may become severely ill. In other words, it is possible for vaccines to sensitize someone to disease. There is a precedent for this in recent history. Sanofi's Dengvaxia vaccine for Dengue failed because it caused immune sensitization in people whose immune systems were Dengue-naïve.[384–387]

In mice immunized against SARS-CoV and challenged with the virus, a close relative of SARS-CoV-2, they developed immune sensitization, Th2 immunopathology, and eosinophil infiltration in their lungs.[388]

We have been told that SARS-CoV-2 mRNA vaccines cannot be integrated into the human genome, because messenger RNA cannot be turned back into DNA. This is false. There are elements in human cells called LINE-1 retrotransposons, which can indeed integrate mRNA into a human genome by endogenous reverse transcription. Because the mRNA used in the vaccines is stabilized, it persists inside cells for a longer period of time, increasing the chances for this to happen. If the gene for SARS-CoV-2 Spike is integrated into a portion of the genome that is not silent and actually expresses a protein, it is possible that people who take this vaccine may continuously express SARS-CoV-2 Spike from their somatic cells for the rest of their lives.[389–391]

By inoculating people with a vaccine that causes their cells to express Spike proteins, they are being inoculated with a pathogenic protein. A toxin that may cause inflammation, heart problems, and a raised risk of cancers. In the long-term, it may also potentially lead to premature neurodegenerative disease. Absolutely nobody should be compelled to take this vaccine under any circumstances, and in actual fact, the vaccination campaign must be stopped immediately.

COVID-19 CRIMINAL CONSPIRACY

The vaccine and the virus were made by the same people.

In 2014, there was a moratorium on SARS gain-of-function research that lasted until 2017.[392–394] This research was not halted. Instead, it was outsourced, with the federal grants being laundered through NGOs. Ralph Baric is a virologist and SARS expert at UNC Chapel Hill in North Carolina. This is who Anthony Fauci was referring to when he insisted, before Congress, that if any gain-of-function research was being conducted, it was being conducted in North Carolina.[395,396]

This was a lie. Anthony Fauci lied before Congress. A felony.

Ralph Baric and Shi Zhengli are colleagues and have co-written papers together.[397] Ralph Baric mentored Shi Zhengli in his gain-of-function manipulation techniques, particularly serial passage, which results in a virus that appears as if it originated naturally. In other words, deniable bioweapons. Serial passage in humanized hACE2 mice may have produced something like SARS-CoV-2.[398–401]

The funding for the gain-of-function research being conducted at the Wuhan Institute of Virology came from Peter Daszak. Peter Daszak runs an NGO called EcoHealth Alliance. EcoHealth Alliance received millions of dollars in grant money from the National Institutes of Health/National Institute of Allergy and Infectious Diseases (that is, Anthony Fauci), the Defense Threat Reduction Agency (part of the US Department of Defense), and the United States Agency for International Development. NIH/NIAID contributed a few million dollars, and DTRA and USAID each contributed tens of millions of dollars towards this research. Altogether, it was over a hundred million dollars.[402–405]

EcoHealth Alliance subcontracted these grants to the Wuhan Institute of Virology, a lab in China with a very questionable safety record and poorly trained staff, so that they could conduct gain-of-function research, not in their fancy P4 lab, but in a level-2 lab where technicians wore nothing more sophisticated than perhaps a hairnet, latex gloves, and a surgical mask, instead of the bubble suits used

when working with dangerous viruses.[406–411] Chinese scientists in Wuhan reported being routinely bitten and urinated on by laboratory animals. Why anyone would outsource this dangerous and delicate work to the People's Republic of China, a country infamous for industrial accidents and massive explosions that have claimed hundreds of lives, is completely beyond me, unless the aim was to start a pandemic on purpose.[412]

In November of 2019, three technicians at the Wuhan Institute of Virology developed symptoms consistent with a flu-like illness. Anthony Fauci, Peter Daszak, and Ralph Baric knew at once what had happened, because back channels exist between this laboratory and our scientists and officials.[413,414]

December 12th, 2019, Ralph Baric signed a Material Transfer Agreement (essentially, an NDA) to receive Coronavirus mRNA vaccine-related materials co-owned by Moderna and NIH.[415,416] It wasn't until a whole month later, on January 11th, 2020, that China allegedly sent us the sequence to what would become known as SARS-CoV-2.[417,418] Moderna claims, rather absurdly, that they developed a working vaccine from this sequence in under 48 hours.[419–421]

Stéphane Bancel, the current CEO of Moderna, was formerly the CEO of bioMérieux, a French multinational corporation specializing in medical diagnostic tech, founded by one Alain Mérieux.[422,423] Alain Mérieux was one of the individuals who was instrumental in the construction of the Wuhan Institute of Virology's P4 lab.[424–426]

The sequence given as the closest relative to SARS-CoV-2, RaTG13, is not a real virus. It is a forgery. It was made by entering a gene sequence by hand into a database, to create a cover story for the existence of SARS-CoV-2, which is very likely a gain-of-function chimera produced at the Wuhan Institute of Virology and was either leaked by accident or intentionally released. For a virus as significant as RaTG13 appears to be to lie fallow for the better part of a decade with no research papers acknowledging its existence at all is an absurdity.[427–429]

The animal reservoir of SARS-CoV-2 has never been found.[430,431]

26 of the 27 people involved in penning the Lancet letter decrying the lab leak were connected directly to researchers linked to the Wuhan Institute of Virology, a massive conflict of interest.[432] One of those was Peter Daszak himself, who was also a WHO investigator on the ground in Wuhan, and also served as a Facebook fact-checker.[433–439] Peter Daszak and Aleksei Chmura penned an absolutely psychotic letter about animal reservoirs of viruses in 2008.[440] Aleksei Chmura, for his part, was directly involved in capturing bats and collecting samples from them.[441–449]

Dr. David E. Martin showed, beyond a shadow of a doubt, with his research into biotech patents with his company, M-CAM, that literally every aspect of SARS and its variations are patented technologies.[450]

The government response to the pandemic has varied from the farcical to the downright criminal:

Residents in Wuhan were welded inside their apartments by the authorities to enforce a quarantine.[451] In New York, sick COVID-19 patients were transferred into nursing homes to keep them out of hospitals, resulting in thousands of elderly and vulnerable people dying of COVID-19 due to nosocomial infections.[452–454] In the UK, a whistleblower by the name of Wayne Smith claimed that the elderly were murdered by dosing them with large quantities of midazolam, and then the deaths were blamed on COVID-19; he was later found dead, supposedly of COVID-19.[455–457]

While the COVID-19 outbreak ravaged Wuhan, officials in the US completely dropped the ball by failing to stockpile N95 masks and other equipment for healthcare workers, leaving them short on supplies.[458,459] Many masks sat unused in warehouses.[460] Companies in the US offered to manufacture masks locally, but were rebuffed by the government.[461,462] Fearing a run on masks, Anthony Fauci deliberately misinformed the public by claiming that N95 masks have no utility against the virus whatsoever, even though their performance is fair, albeit inferior to a proper respirator.[463]

COVID-19 has been diagnosed with PCR tests with extremely high cycle thresholds. A PCR test cannot actually diagnose an infection. All a PCR test indicates is that a targeted amino acid sequence is present in a sample, indicating that something like a fragment of a virus might exist in a person. A cycle threshold of 40 or greater being used to diagnose a viral infection is fraudulent. The sample is amplified over a trillion times. The targeted AA sequence could appear in practically any organic sample, at that rate. The false positive rate would be enormous.[464–469] The CDC quietly reduced the Ct to 28 after people started getting vaccinated for COVID-19. This would show a high rate of false negatives, thus causing the vaccine to appear more effective than it really is. In essence, the apparent rate of COVID-19 infections can be adjusted by the authorities by altering the sensitivity of tests.[470,471]

The FBI raided Allure Medical in Shelby Township north of Detroit for billing insurance for “fraudulent COVID-19 cures”. The treatment they were using was Intravenous Vitamin C. An antioxidant. Which, as described above, is an entirely valid treatment for COVID-19-induced sepsis, and indeed, is now part of the MATH+ protocol advanced by Dr. Paul E. Marik.[225,472–476]

The FDA banned ranitidine (Zantac) due to supposed NDMA (N-nitrosodimethylamine) contamination.[477,478] Ranitidine is not only an H2 blocker used as antacid, but also has a powerful antioxidant effect, scavenging hydroxyl radicals. This gives it utility in treating COVID-19.[232,479]

The FDA also attempted to take N-acetylcysteine, a harmless amino acid supplement and antioxidant, off the shelves, compelling Amazon to remove it from their online storefront.[480–483]

This leaves us with a chilling question: did the FDA knowingly suppress antioxidants useful for treating COVID-19 sepsis as part of a willful criminal conspiracy against the American public?

The lab leak theory has been suppressed because pulling that thread leads one to inevitably conclude that there is enough circumstantial evidence to link Moderna, the NIH, the WIV, and both the vaccine and the virus’s creation together. In a sane world, this would have immediately led to the world’s biggest RICO and mass murder case. Anthony Fauci, Peter Daszak, Ralph Baric, Shi Zhengli, and Stéphane Bancel, and their accomplices, would have been indicted and prosecuted to the fullest extent of the law. Instead, billions of our tax dollars were awarded to the perpetrators.

This is not a conspiracy “theory”. It is an actual criminal conspiracy, in which people connected to the development of Moderna’s mRNA-1273 are directly connected to the Wuhan Institute of Virology and their gain-of-function research by very few degrees of separation, if any. The paper trail is well-established. The establishment is cooperating with, and facilitating, the worst criminals in human history, and are actively suppressing non-vaccine treatments and therapies in order to compel us to inject these criminals’ products into our bodies. This is absolutely unacceptable.

COVID-19 VACCINE DEVELOPMENT AND LINKS TO TRANSHUMANISM

This section deals with some more speculative aspects of the pandemic and the medical and scientific establishment's reaction to it, as well as the disturbing links between scientists involved in vaccine research and scientists whose work involved merging nanotechnology with living cells.

On June 9th, 2020, Charles Lieber, a Harvard nanotechnology researcher with decades of experience, was indicted by the DOJ for fraud.[484] Charles Lieber received millions of dollars in grant money from the US Department of Defense, specifically the military think tanks DARPA, AFOSR, and ONR, as well as NIH and MITRE.[485] His specialty is the use of silicon nanowires in lieu of patch clamp electrodes to monitor and modulate intracellular activity, something he has been working on at Harvard for the past twenty years.[486] He was claimed to have been working on silicon nanowire batteries in China, but none of his colleagues can recall him ever having worked on battery technology in his life; all of his research deals with bionanotechnology, or the blending of nanotech with living cells.[487–489]

The indictment was over his collaboration with the Wuhan University of Technology. He had double-dipped, against the terms of his DOD grants, and taken money from the PRC's Thousand Talents plan, a program which the Chinese government uses to bribe Western scientists into sharing proprietary R&D information that can be exploited by the PLA for strategic advantage.[490–496]

Charles Lieber's own papers describe the use of silicon nanowires for brain-computer interfaces, or "neural lace" technology. His papers describe how neurons can endocytose whole silicon nanowires or parts of them, monitoring and even modulating neuronal activity.[497–499]

Charles Lieber was a colleague of Robert Langer. Together, along with Daniel S. Kohane, they worked on a paper describing artificial tissue scaffolds that could be implanted in a human heart to monitor its activity remotely.[500,501]

Robert Langer, an MIT alumnus and expert in nanotech drug delivery, is one of the co-founders of Moderna.[502] His net worth is now $5.1 billion USD thanks to Moderna's mRNA-1273 vaccine sales.[503,504]

Both Charles Lieber and Robert Langer's bibliographies describe, essentially, techniques for human enhancement, i.e. transhumanism.[505,506] Klaus Schwab, the founder of the World Economic Forum and the architect behind the so-called "Great Reset", has long spoken of the "blending of biology and machinery" in his books.[507,508]

Since these revelations, it has come to the attention of independent researchers that the COVID-19 vaccines may contain reduced graphene oxide nanoparticles.[509–516] Japanese researchers have also found unexplained contaminants in COVID-19 vaccines.[517–519]

Graphene oxide is an anxiolytic. It has been shown to reduce the anxiety of laboratory mice when injected into their brains.[520,521] Indeed, given SARS-CoV-2 Spike's propensity to compromise the blood-brain barrier and increase its permeability, it is the perfect protein for preparing brain tissue for extravasation of nanoparticles from the bloodstream and into the brain.[522–526] Graphene is also highly conductive and, in some circumstances, paramagnetic.[527–530]

In 2013, under the Obama administration, DARPA launched the BRAIN Initiative; BRAIN is an acronym for Brain Research Through Advancing Innovative Neurotechnologies®. This program involves the

development of brain-computer interface technologies for the military, particularly non-invasive, injectable systems that cause minimal damage to brain tissue when removed.[531]

Supposedly, this technology would be used for healing wounded soldiers with traumatic brain injuries, the direct brain control of prosthetic limbs, and even new abilities such as controlling drones with one's mind. Various methods have been proposed for achieving this, including optogenetics, magnetogenetics, ultrasound, implanted electrodes, and transcranial electromagnetic stimulation. In all instances, the goal is to obtain read or read-write capability over neurons, either by stimulating and probing them, or by rendering them especially sensitive to stimulation and probing.[532]

However, the notion of the widespread use of BCI technology, such as Elon Musk's Neuralink device, raises many concerns over privacy and personal autonomy. Reading from neurons is problematic enough on its own. Wireless brain-computer interfaces may interact with current or future wireless GSM infrastructure, creating neurological data security concerns. A hacker or other malicious actor may compromise such networks to obtain people's brain data, and then exploit it for nefarious purposes.[533–537]

However, a device capable of writing to human neurons, not just reading from them, presents another, even more serious set of ethical concerns. A BCI that is capable of altering the contents of one's mind for innocuous purposes, such as projecting a heads-up display onto their brain's visual center or sending audio into one's auditory cortex, would also theoretically be capable of altering mood and personality, or perhaps even subjugating someone's very will, rendering them utterly obedient to authority. This technology would be a tyrant's wet dream. Imagine soldiers who would shoot their own countrymen without hesitation, or helpless serfs who are satisfied to live in literal dog kennels.[538,539]

BCIs could be used to unscrupulously alter perceptions of basic things such as emotions and values, changing people's thresholds of satiety, happiness, anger, disgust, and so forth. This is not inconsequential. Someone's entire regime of behaviors could be altered by a BCI, including such things as suppressing their appetite or desire for virtually anything on Maslow's Hierarchy of Needs. Anything is possible when you have direct access to someone's brain and its contents. Someone who is obese could be made to feel disgust at the sight of food. Someone who is involuntarily celibate could have their libido disabled so they don't even desire sex to begin with. Someone who is racist could be forced to feel delight over cohabiting with people of other races. Someone who is violent could be forced to be meek and submissive. These things might sound good to you if you are a tyrant, but to normal people, the idea of personal autonomy being overridden to such a degree is appalling.[540–542]

For the wealthy, neural laces would be an unequaled boon, giving them the opportunity to enhance their intelligence with neuroprosthetics (i.e. an "exocortex"), and to deliver irresistible commands directly into the minds of their BCI-augmented servants, even physically or sexually abusive commands that they would normally refuse.[543,544]

If the vaccine is a method to surreptitiously introduce an injectable BCI into millions of people without their knowledge or consent, then what we are witnessing is the rise of a tyrannical regime unlike anything ever seen before on the face of this planet, one that fully intends to strip every man, woman, and child of our free will. The people who rule over us are Dark Triad types who cannot be trusted with such unimaginable power.[545–550]

Our flaws are what make us human. A utopia arrived at by removing people's free will is not a utopia at all. It is a monomaniacal nightmare. Imagine being beaten and sexually assaulted by a wealthy and powerful psychopath and being forced to smile and laugh over it because your neural lace gives you no choice but to obey your master.[551]

The Elites are forging ahead with this technology without giving people any room to question the social or ethical ramifications, or even bothering to establish regulatory frameworks that ensure that our personal agency and autonomy will not be overridden by these devices. They do this because they secretly dream of a future where they can treat you worse than an animal and you cannot even fight back. If this evil plan is allowed to continue, it will spell the end of humanity as we know it.

CONCLUSIONS

The current pandemic was produced and perpetuated by the establishment, through the use of a virus engineered in a PLA-connected Chinese biowarfare laboratory, with the aid of American taxpayer dollars and French expertise.

This research was conducted under the absolutely ridiculous euphemism of "gain-of-function" research, which is supposedly carried out in order to determine which viruses have the highest potential for zoonotic spillover and preemptively vaccinate or guard against them.

Gain-of-function/gain-of-threat research, a.k.a. "Dual-Use Research of Concern", or DURC, is bioweapon research by another, friendlier-sounding name, simply to avoid the taboo of calling it what it actually is. It has always been bioweapon research. The people who are conducting this research fully understand that they are taking wild pathogens that are not infectious in humans and making them more infectious, often taking grants from military think tanks encouraging them to do so.

These virologists conducting this type of research are enemies of their fellow man, like pyromaniac firefighters. GOF research has never protected anyone from any pandemic. In fact, it has now started one, meaning its utility for preventing pandemics is actually negative. It should have been banned globally, and the lunatics performing it should have been put in straitjackets long ago.

Either through a leak or an intentional release from the Wuhan Institute of Virology, a deadly SARS strain is now endemic across the globe, after the WHO and CDC and public officials first downplayed the risks, and then intentionally incited a panic and lockdowns that jeopardized people's health and their livelihoods.

This was then used by the utterly depraved and psychopathic aristocratic class who rule over us as an excuse to coerce people into accepting an injected poison which may be a depopulation agent, a mind control/pacification agent in the form of injectable "smart dust", or both in one. They believe they can get away with this by weaponizing the social stigma of vaccine refusal. They are incorrect.

Their motives are clear and obvious to anyone who has been paying attention. These megalomaniacs have raided the pension funds of the free world. Wall Street is insolvent and has had an ongoing liquidity crisis since the end of 2019. The aim now is to exert total, full-spectrum physical, mental, and financial control over humanity before we realize just how badly we've been extorted by these maniacs.

The pandemic and its response served multiple purposes for the Elite:

- Concealing a depression brought on by the usurious plunder of our economies conducted by rentier-capitalists and absentee owners who produce absolutely nothing of any value to society whatsoever. Instead of us having a very predictable Occupy Wall Street Part II, the Elites and their stooges got to stand up on television and paint themselves as wise and all-powerful saviors instead of the marauding cabal of despicable land pirates that they are.
- Destroying small businesses and eroding the middle class.
- Transferring trillions of dollars of wealth from the American public and into the pockets of billionaires and special interests.
- Engaging in insider trading, buying stock in biotech companies and shorting brick-and-mortar businesses and travel companies, with the aim of collapsing face-to-face commerce and tourism and replacing it with e-commerce and servitization.
- Creating a *casus belli* for war with China, encouraging us to attack them, wasting American lives and treasure and driving us to the brink of nuclear armageddon.
- Establishing technological and biosecurity frameworks for population control and technocratic-socialist "smart cities" where everyone's movements are despotically tracked, all in anticipation of widespread automation, joblessness, and food shortages, by using the false guise of a vaccine to compel cooperation.

Any one of these things would constitute a vicious rape of Western society. Taken together, they beggar belief; they are a complete inversion of our most treasured values.

What is the purpose of all of this? One can only speculate as to the perpetrators' motives, however, we have some theories.

The Elites are trying to pull up the ladder, erase upward mobility for large segments of the population, cull political opponents and other "undesirables", and put the remainder of humanity on a tight leash, rationing our access to certain goods and services that they have deemed "high-impact", such as automobile use, tourism, meat consumption, and so on. Naturally, they will continue to have their own luxuries, as part of a strict caste system akin to feudalism.

What is the most convenient means of accomplishing this? First, scare the public, globally, with an engineered pandemic virus. Then, convince people that the only way they can have their bread and circuses back is if they agree to have poison injected into their shoulder. Naturally, people would panic if they saw everyone around them dying or becoming infertile, so the shot would also necessarily contain something to keep them docile and content.

Why are they doing this? Simple. The Elites are Neo-Malthusians and believe that we are overpopulated and that resource depletion will collapse civilization in a matter of a few short decades. They are not necessarily incorrect in this belief. We are overpopulated, and we are consuming too many resources. However, orchestrating such a gruesome and murderous power grab in response to a looming crisis demonstrates that they have nothing but the utmost contempt for their fellow man. Depopulating the Earth is atrocious in any context, but doing so without the knowledge or consent of the public is monstrous.

It is the opinion of ICENI, and other independent researchers, that the world's governments are covertly engaged in an act of genocide against their own populations. This will not be tolerated.

To those who are participating in this disgusting farce without any understanding of what they are doing, we have one word for you. Stop. You are causing irreparable harm to your country and to your fellow citizens.

To those who may be reading this warning and have full knowledge and understanding of what they are doing and how it will unjustly harm millions of innocent people, we have a few more words.

Damn you to hell. You will not destroy America and the Free World, and you will not have your New World Order. We will make certain of that.

REFERENCES

1. Libby P, Lüscher T. COVID-19 is, in the end, an endothelial disease. *Eur Heart J*. 2020;41(32):3038-3044. doi:10.1093/eurheartj/ehaa623
2. Varga Z, Flammer AJ, Steiger P, et al. Endothelial cell infection and endotheliitis in COVID-19. *The Lancet*. 2020;395(10234):1417-1418. doi:10.1016/S0140-6736(20)30937-5
3. Rapid endotheliitis and vascular damage characterize SARS-CoV-2 infection in a human lung-on-chip model. *EMBO Rep*. 2021;22(6):e52744. doi:10.15252/embr.202152744
4. Cui X, Chen W, Zhou H, et al. Pulmonary Edema in COVID-19 Patients: Mechanisms and Treatment Potential. *Front Pharmacol*. 2021;12:1444. doi:10.3389/fphar.2021.664349
5. Zwaveling S, Wijk RG van, Karim F. Pulmonary edema in COVID-19: Explained by bradykinin? *J Allergy Clin Immunol*. 2020;146(6):1454-1455. doi:10.1016/j.jaci.2020.08.038
6. Frontiers | Parallels in Sepsis and COVID-19 Conditions: Implications for Managing Severe COVID-19 | Immunology. Accessed September 27, 2021. https://www.frontiersin.org/articles/10.3389/fimmu.2021.602848/full
7. Vincent J-L. COVID-19: it's all about sepsis. *Future Microbiol*. 2021;16(3):131-133. doi:10.2217/fmb-2020-0312
8. Gómez-Mesa JE, Galindo-Coral S, Montes MC, Muñoz Martin AJ. Thrombosis and Coagulopathy in COVID-19. *Curr Probl Cardiol*. 2021;46(3):100742. doi:10.1016/j.cpcardiol.2020.100742
9. Chan NC, Weitz JI. COVID-19 coagulopathy, thrombosis, and bleeding. *Blood*. 2020;136(4):381-383. doi:10.1182/blood.2020007335
10. Ortega-Paz L, Capodanno D, Montalescot G, Angiolillo DJ. Coronavirus Disease 2019–Associated Thrombosis and Coagulopathy: Review of the Pathophysiological Characteristics and Implications for Antithrombotic Management. *J Am Heart Assoc*. 2021;10(3):e019650. doi:10.1161/JAHA.120.019650
11. Mokhtari T, Hassani F, Ghaffari N, Ebrahimi B, Yarahmadi A, Hassanzadeh G. COVID-19 and multiorgan failure: A narrative review on potential mechanisms. *J Mol Histol*. Published online October 4, 2020:1-16. doi:10.1007/s10735-020-09915-3
12. Zaim S, Chong JH, Sankaranarayanan V, Harky A. COVID-19 and Multiorgan Response. *Curr Probl Cardiol*. 2020;45(8):100618. doi:10.1016/j.cpcardiol.2020.100618
13. Frontiers | Pathogenesis of Multiple Organ Injury in COVID-19 and Potential Therapeutic Strategies | Physiology. Accessed September 27, 2021. https://www.frontiersin.org/articles/10.3389/fphys.2021.593223/full
14. Boldrini M, Canoll PD, Klein RS. How COVID-19 Affects the Brain. *JAMA Psychiatry*. 2021;78(6):682-683. doi:10.1001/jamapsychiatry.2021.0500

15. Parry AH, Wani AH, Yaseen M. Neurological Dysfunction in Coronavirus Disease-19 (COVID-19). *Acad Radiol*. 2020;27(9):1329-1330. doi:10.1016/j.acra.2020.05.024
16. Schwabenland M, Salié H, Tanevski J, et al. Deep spatial profiling of human COVID-19 brains reveals neuroinflammation with distinct microanatomical microglia-T-cell interactions. *Immunity*. 2021;54(7):1594-1610.e11. doi:10.1016/j.immuni.2021.06.002
17. Rogers JP, Watson CJ, Badenoch J, et al. Neurology and neuropsychiatry of COVID-19: a systematic review and meta-analysis of the early literature reveals frequent CNS manifestations and key emerging narratives. *J Neurol Neurosurg Psychiatry*. 2021;92(9):932-941. doi:10.1136/jnnp-2021-326405
18. Abbasi J. Researchers Investigate What COVID-19 Does to the Heart. *JAMA*. 2021;325(9):808-811. doi:10.1001/jama.2021.0107
19. COVID-19 as a Possible Cause of Myocarditis and Pericarditis. American College of Cardiology. Accessed September 27, 2021. https://www.acc.org/latest-in-cardiology/articles/2021/02/05/19/37/http%3a%2f%2fwww.acc.org%2flatest-in-cardiology%2farticles%2f2021%2f02%2f05%2f19%2f37%2fcovid-19-as-a-possible-cause-of-myocarditis-and-pericarditis
20. Bzeizi K, Abdulla M, Mohammed N, Alqamish J, Jamshidi N, Broering D. Effect of COVID-19 on liver abnormalities: a systematic review and meta-analysis. *Sci Rep*. 2021;11(1):10599. doi:10.1038/s41598-021-89513-9
21. Moon AM, Barritt AS. Elevated Liver Enzymes in Patients with COVID-19: Look, but Not Too Hard. *Dig Dis Sci*. Published online September 2, 2020:1-3. doi:10.1007/s10620-020-06585-9
22. Iqbal Z, Ho JH, Adam S, et al. Managing hyperlipidaemia in patients with COVID-19 and during its pandemic: An expert panel position statement from HEART UK. *Atherosclerosis*. 2020;313:126-136. doi:10.1016/j.atherosclerosis.2020.09.008
23. Steenblock C, Richter S, Berger I, et al. Viral infiltration of pancreatic islets in patients with COVID-19. *Nat Commun*. 2021;12(1):3534. doi:10.1038/s41467-021-23886-3
24. Hayden MR. An Immediate and Long-Term Complication of COVID-19 May Be Type 2 Diabetes Mellitus: The Central Role of β-Cell Dysfunction, Apoptosis and Exploration of Possible Mechanisms. *Cells*. 2020;9(11):2475. doi:10.3390/cells9112475
25. Mukherjee S, Banerjee O, Singh S, Maji BK. COVID 19 could trigger global diabetes burden – A hypothesis. *Diabetes Metab Syndr*. 2020;14(5):963-964. doi:10.1016/j.dsx.2020.06.049
26. Wu C-T, Lidsky PV, Xiao Y, et al. SARS-CoV-2 infects human pancreatic β cells and elicits β cell impairment. *Cell Metab*. 2021;33(8):1565-1576.e5. doi:10.1016/j.cmet.2021.05.013
27. Legrand M, Bell S, Forni L, et al. Pathophysiology of COVID-19-associated acute kidney injury. *Nat Rev Nephrol*. Published online July 5, 2021:1-14. doi:10.1038/s41581-021-00452-0
28. Nugent J, Aklilu A, Yamamoto Y, et al. Assessment of Acute Kidney Injury and Longitudinal Kidney Function After Hospital Discharge Among Patients With and Without COVID-19. *JAMA Netw Open*. 2021;4(3):e211095. doi:10.1001/jamanetworkopen.2021.1095
29. Chen Z, Hu J, Liu L, et al. SARS-CoV-2 Causes Acute Kidney Injury by Directly Infecting Renal Tubules. *Front Cell Dev Biol*. 2021;9:1245. doi:10.3389/fcell.2021.664868
30. Gu J, Han B, Wang J. COVID-19: Gastrointestinal Manifestations and Potential Fecal–Oral Transmission. *Gastroenterology*. 2020;158(6):1518-1519. doi:10.1053/j.gastro.2020.02.054
31. Lehmann M, Allers K, Heldt C, et al. Human small intestinal infection by SARS-CoV-2 is characterized by a mucosal infiltration with activated CD8+ T cells. *Mucosal Immunol*. Published online August 21, 2021:1-12. doi:10.1038/s41385-021-00437-z
32. Zhang H, Kang Z, Gong H, et al. Digestive system is a potential route of COVID-19: an analysis of single-cell coexpression pattern of key proteins in viral entry process. *Gut*. 2020;69(6):1010-1018. doi:10.1136/gutjnl-2020-320953

33. Pourbagheri-Sigaroodi A, Bashash D, Fateh F, Abolghasemi H. Laboratory findings in COVID-19 diagnosis and prognosis. *Clin Chim Acta Int J Clin Chem*. 2020;510:475-482. doi:10.1016/j.cca.2020.08.019
34. Zhang Z-L, Hou Y-L, Li D-T, Li F-Z. Laboratory findings of COVID-19: a systematic review and meta-analysis. *Scand J Clin Lab Invest*. 2020;80(6):441-447. doi:10.1080/00365513.2020.1768587
35. Xie Y, Wang Z, Liao H, Marley G, Wu D, Tang W. Epidemiologic, clinical, and laboratory findings of the COVID-19 in the current pandemic: systematic review and meta-analysis. *BMC Infect Dis*. 2020;20(1):640. doi:10.1186/s12879-020-05371-2
36. Xiang Q, Feng Z, Diao B, et al. SARS-CoV-2 Induces Lymphocytopenia by Promoting Inflammation and Decimates Secondary Lymphoid Organs. *Front Immunol*. 2021;12:1292. doi:10.3389/fimmu.2021.661052
37. Rha M-S, Shin E-C. Activation or exhaustion of CD8+ T cells in patients with COVID-19. *Cell Mol Immunol*. Published online August 19, 2021:1-9. doi:10.1038/s41423-021-00750-4
38. Kusnadi A, Ramírez-Suástegui C, Fajardo V, et al. Severely ill patients with COVID-19 display impaired exhaustion features in SARS-CoV-2–reactive CD8+ T cells. *Sci Immunol*. 2021;6(55):eabe4782. doi:10.1126/sciimmunol.abe4782
39. Del Valle DM, Kim-Schulze S, Huang H-H, et al. An inflammatory cytokine signature predicts COVID-19 severity and survival. *Nat Med*. 2020;26(10):1636-1643. doi:10.1038/s41591-020-1051-9
40. What explains the non-respiratory symptoms seen in some COVID-19 patients? Chemical & Engineering News. Accessed September 28, 2021. https://cen.acs.org/biological-chemistry/infectious-disease/What-explains-non-respiratory-symptoms-seen-in-some-COVID-19-patients/98/web/2020/04
41. Protean manifestations of COVID-19: "Our ignorance is profound." Accessed September 28, 2021. https://www.mdedge.com/chestphysician/article/220899/coronavirus-updates/protean-manifestations-covid-19-our-ignorance
42. Jarrahi A, Ahluwalia M, Khodadadi H, et al. Neurological consequences of COVID-19: what have we learned and where do we go from here? *J Neuroinflammation*. 2020;17(1):286. doi:10.1186/s12974-020-01957-4
43. Zubair AS, McAlpine LS, Gardin T, Farhadian S, Kuruvilla DE, Spudich S. Neuropathogenesis and Neurologic Manifestations of the Coronaviruses in the Age of Coronavirus Disease 2019: A Review. *JAMA Neurol*. 2020;77(8):1018-1027. doi:10.1001/jamaneurol.2020.2065
44. Qureshi AI, Baskett WI, Huang W, et al. Acute Ischemic Stroke and COVID-19. *Stroke*. 2021;52(3):905-912. doi:10.1161/STROKEAHA.120.031786
45. Riyahi S, Dev H, Behzadi A, et al. Pulmonary Embolism in Hospitalized Patients with COVID-19: A Multicenter Study. *Radiology*. Published online July 13, 2021:210777. doi:10.1148/radiol.2021210777
46. Zhong P, Xu J, Yang D, et al. COVID-19-associated gastrointestinal and liver injury: clinical features and potential mechanisms. *Signal Transduct Target Ther*. 2020;5(1):1-8. doi:10.1038/s41392-020-00373-7
47. Nishiga M, Wang DW, Han Y, Lewis DB, Wu JC. COVID-19 and cardiovascular disease: from basic mechanisms to clinical perspectives. *Nat Rev Cardiol*. 2020;17(9):543-558. doi:10.1038/s41569-020-0413-9
48. Al-Sabah S, Al-Haddad M, Al-Youha S, Jamal M, Almazeedi S. COVID-19: Impact of obesity and diabetes on disease severity. *Clin Obes*. Published online October 20, 2020:e12414. doi:10.1111/cob.12414
49. Gao M, Piernas C, Astbury NM, et al. Associations between body-mass index and COVID-19 severity in 6·9 million people in England: a prospective, community-based, cohort study. *Lancet Diabetes Endocrinol*. 2021;9(6):350-359. doi:10.1016/S2213-8587(21)00089-9

50. Jin Y, Ji W, Yang H, Chen S, Zhang W, Duan G. Endothelial activation and dysfunction in COVID-19: from basic mechanisms to potential therapeutic approaches. *Signal Transduct Target Ther*. 2020;5(1):1-13. doi:10.1038/s41392-020-00454-7
51. Green SJ. Covid-19 accelerates endothelial dysfunction and nitric oxide deficiency. *Microbes Infect*. 2020;22(4):149-150. doi:10.1016/j.micinf.2020.05.006
52. Levin AT, Hanage WP, Owusu-Boaitey N, Cochran KB, Walsh SP, Meyerowitz-Katz G. Assessing the age specificity of infection fatality rates for COVID-19: systematic review, meta-analysis, and public policy implications. *Eur J Epidemiol*. 2020;35(12):1123-1138. doi:10.1007/s10654-020-00698-1
53. CDC. Cases, Data, and Surveillance. Centers for Disease Control and Prevention. Published February 11, 2020. Accessed September 28, 2021. https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html
54. Covid IFR Analysis. Accessed September 28, 2021. http://epimonitor.net/Covid-IFR-Analysis.htm
55. Seoane B. A scaling approach to estimate the age-dependent COVID-19 infection fatality ratio from incomplete data. *PLOS ONE*. 2021;16(2):e0246831. doi:10.1371/journal.pone.0246831
56. Hu B, Guo H, Zhou P, Shi Z-L. Characteristics of SARS-CoV-2 and COVID-19. *Nat Rev Microbiol*. 2021;19(3):141-154. doi:10.1038/s41579-020-00459-7
57. Xia L, Chen J, Friedemann T, et al. The Course of Mild and Moderate COVID-19 Infections—The Unexpected Long-Lasting Challenge. *Open Forum Infect Dis*. 2020;7(9). doi:10.1093/ofid/ofaa286
58. Han C, Duan C, Zhang S, et al. Digestive Symptoms in COVID-19 Patients With Mild Disease Severity: Clinical Presentation, Stool Viral RNA Testing, and Outcomes. *Am J Gastroenterol*. Published online April 15, 2020:10.14309/ajg.0000000000000664. doi:10.14309/ajg.0000000000000664
59. CDC. Cases, Data, and Surveillance. Centers for Disease Control and Prevention. Published February 11, 2020. Accessed September 28, 2021. https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/burden.html
60. Wu SL, Mertens AN, Crider YS, et al. Substantial underestimation of SARS-CoV-2 infection in the United States. *Nat Commun*. 2020;11(1):4507. doi:10.1038/s41467-020-18272-4
61. Irons NJ, Raftery AE. Estimating SARS-CoV-2 infections from deaths, confirmed cases, tests, and random surveys. *Proc Natl Acad Sci*. 2021;118(31). doi:10.1073/pnas.2103272118
62. Achaiah NC, Subbarajasetty SB, Shetty RM. R0 and Re of COVID-19: Can We Predict When the Pandemic Outbreak will be Contained? *Indian J Crit Care Med Peer-Rev Off Publ Indian Soc Crit Care Med*. 2020;24(11):1125-1127. doi:10.5005/jp-journals-10071-23649
63. Ives AR, Bozzuto C. Estimating and explaining the spread of COVID-19 at the county level in the USA. *Commun Biol*. 2021;4(1):1-9. doi:10.1038/s42003-020-01609-6
64. Lan J, Ge J, Yu J, et al. Structure of the SARS-CoV-2 spike receptor-binding domain bound to the ACE2 receptor. *Nature*. 2020;581(7807):215-220. doi:10.1038/s41586-020-2180-5
65. Yang J, Petitjean SJL, Koehler M, et al. Molecular interaction and inhibition of SARS-CoV-2 binding to the ACE2 receptor. *Nat Commun*. 2020;11(1):4541. doi:10.1038/s41467-020-18319-6
66. ACE2 angiotensin converting enzyme 2 [Homo sapiens (human)] - Gene - NCBI. Accessed September 28, 2021. https://www.ncbi.nlm.nih.gov/gene/59272
67. Samavati L, Uhal BD. ACE2, Much More Than Just a Receptor for SARS-COV-2. *Front Cell Infect Microbiol*. 2020;10:317. doi:10.3389/fcimb.2020.00317
68. Patel S, Rauf A, Khan H, Abu-Izneid T. Renin-angiotensin-aldosterone (RAAS): The ubiquitous system for homeostasis and pathologies. *Biomed Pharmacother*. 2017;94:317-325. doi:10.1016/j.biopha.2017.07.091
69. Romero CA, Orias M, Weir MR. Novel RAAS agonists and antagonists: clinical applications and controversies. *Nat Rev Endocrinol*. 2015;11(4):242-252. doi:10.1038/nrendo.2015.6
70. The Renin-Angiotensin-Aldosterone-System. TeachMePhysiology. Accessed September 28, 2021. https://teachmephysiology.com/urinary-system/regulation/the-renin-angiotensin-aldosterone-system/

71. Fountain JH, Lappin SL. Physiology, Renin Angiotensin System. In: *StatPearls*. StatPearls Publishing; 2021. Accessed September 28, 2021. http://www.ncbi.nlm.nih.gov/books/NBK470410/
72. Renin Angiotensin Aldosterone System - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/renin-angiotensin-aldosterone-system
73. Hamming I, Timens W, Bulthuis M, Lely A, Navis G, van Goor H. Tissue distribution of ACE2 protein, the functional receptor for SARS coronavirus. A first step in understanding SARS pathogenesis. *J Pathol*. 2004;203(2):631-637. doi:10.1002/path.1570
74. Tissue expression of ACE2 - Summary - The Human Protein Atlas. Accessed September 28, 2021. https://www.proteinatlas.org/ENSG00000130234-ACE2/tissue
75. The protein expression profile of ACE2 in human tissues. *Mol Syst Biol*. 2020;16(7):e9610. doi:10.15252/msb.20209610
76. Huang Y, Yang C, Xu X, Xu W, Liu S. Structural and functional properties of SARS-CoV-2 spike protein: potential antivirus drug development for COVID-19. *Acta Pharmacol Sin*. 2020;41(9):1141-1149. doi:10.1038/s41401-020-0485-4
77. Shang J, Wan Y, Luo C, et al. Cell entry mechanisms of SARS-CoV-2. *Proc Natl Acad Sci*. 2020;117(21):11727-11734. doi:10.1073/pnas.2003138117
78. Xie Y, Karki CB, Du D, et al. Spike Proteins of SARS-CoV and SARS-CoV-2 Utilize Different Mechanisms to Bind With Human ACE2. *Front Mol Biosci*. 2020;7:392. doi:10.3389/fmolb.2020.591873
79. Syncytia formation by SARS-CoV-2-infected cells. *EMBO J*. 2020;39(23):e106267. doi:10.15252/embj.2020106267
80. Ma H, Zhu Z, Lin H, et al. Pyroptosis of syncytia formed by fusion of SARS-CoV-2 spike and ACE2-expressing cells. *Cell Discov*. 2021;7(1):1-4. doi:10.1038/s41421-021-00310-0
81. Xia B, Shen X, He Y, et al. SARS-CoV-2 envelope protein causes acute respiratory distress syndrome (ARDS)-like pathological damages and constitutes an antiviral target. *Cell Res*. 2021;31(8):847-860. doi:10.1038/s41422-021-00519-4
82. Nieto-Torres JL, Verdiá-Báguena C, Jimenez-Guardeño JM, et al. Severe acute respiratory syndrome coronavirus E protein transports calcium ions and activates the NLRP3 inflammasome. *Virology*. 2015;485:330-339. doi:10.1016/j.virol.2015.08.010
83. Minakshi R, Padhan K, Rehman S, Hassan MdI, Ahmad F. The SARS Coronavirus 3a protein binds calcium in its cytoplasmic domain. *Virus Res*. 2014;191:180-183. doi:10.1016/j.virusres.2014.08.001
84. Pan P, Shen M, Yu Z, et al. SARS-CoV-2 N protein promotes NLRP3 inflammasome activation to induce hyperinflammation. *Nat Commun*. 2021;12(1):4664. doi:10.1038/s41467-021-25015-6
85. Shah A. Novel Coronavirus-Induced NLRP3 Inflammasome Activation: A Potential Drug Target in the Treatment of COVID-19. *Front Immunol*. 2020;11:1021. doi:10.3389/fimmu.2020.01021
86. Xu H, Chitre SA, Akinyemi IA, et al. *SARS-CoV-2 Viroporin Triggers the NLRP3 Inflammatory Pathway*.; 2020:2020.10.27.357731. doi:10.1101/2020.10.27.357731
87. Olagnier D, Farahani E, Thyrsted J, et al. SARS-CoV2-mediated suppression of NRF2-signaling reveals potent antiviral and anti-inflammatory activity of 4-octyl-itaconate and dimethyl fumarate. *Nat Commun*. 2020;11(1):4938. doi:10.1038/s41467-020-18764-3
88. Bousquet J, Cristol J-P, Czarlewski W, et al. Nrf2-interacting nutrients and COVID-19: time for research to develop adaptation strategies. *Clin Transl Allergy*. 2020;10(1):58. doi:10.1186/s13601-020-00362-7
89. Cuadrado A, Pajares M, Benito C, et al. Can Activation of NRF2 Be a Strategy against COVID-19? *Trends Pharmacol Sci*. 2020;41(9):598-610. doi:10.1016/j.tips.2020.07.003
90. Bousquet J, Czarlewski W, Zuberbier T, et al. Potential Interplay between Nrf2, TRPA1, and TRPV1 in Nutrients for the Control of COVID-19. *Int Arch Allergy Immunol*. 2021;182(4):324-338. doi:10.1159/000514204

91. McCarthy CG, Wilczynski S, Wenceslau CF, Webb RC. A new storm on the horizon in COVID-19: Bradykinin-induced vascular complications. *Vascul Pharmacol*. 2021;137:106826. doi:10.1016/j.vph.2020.106826
92. Lei Y, Zhang J, Schiavon CR, et al. SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downregulation of ACE 2. *Circ Res*. 2021;128(9):1323-1326. doi:10.1161/CIRCRESAHA.121.318902
93. Silhol F, Sarlon G, Deharo J-C, Vaïsse B. Downregulation of ACE2 induces overstimulation of the renin–angiotensin system in COVID-19: should we block the renin–angiotensin system? *Hypertens Res*. 2020;43(8):854-856. doi:10.1038/s41440-020-0476-3
94. Ciulla MM. SARS-CoV-2 downregulation of ACE2 and pleiotropic effects of ACEIs/ARBs. *Hypertens Res*. 2020;43(9):985-986. doi:10.1038/s41440-020-0488-z
95. Lu J, Sun PD. High affinity binding of SARS-CoV-2 spike protein enhances ACE2 carboxypeptidase activity. *J Biol Chem*. 2020;295(52):18579-18588. doi:10.1074/jbc.RA120.015303
96. Osman W, Fahdi FA, Salmi IA, Khalili HA, Gokhale A, Khamis F. Serum Calcium and Vitamin D levels: Correlation with severity of COVID-19 in hospitalized patients in Royal Hospital, Oman. *Int J Infect Dis*. 2021;107:153-163. doi:10.1016/j.ijid.2021.04.050
97. Raesi A, Saedi Dezaki E, Moosapour H, et al. Hypocalcemia in Covid-19: A Prognostic Marker for Severe Disease. *Iran J Pathol*. 2021;16(2):144-153. doi:10.30699/IJP.2020.130491.2442
98. Bennouar S, Cherif AB, Kessira A, Bennouar D-E, Abdi S. Vitamin D Deficiency and Low Serum Calcium as Predictors of Poor Prognosis in Patients with Severe COVID-19. *J Am Coll Nutr*. 2021;40(2):104-110. doi:10.1080/07315724.2020.1856013
99. Blaes N, Girolami J-P. Targeting the “Janus face” of the B2-bradykinin receptor. *Expert Opin Ther Targets*. 2013;17. doi:10.1517/14728222.2013.827664
100. Siragy H, Jaffa A, Margolius H. Bradykinin B2 receptor modulates renal prostaglandin E2 and nitric oxide. *Hypertension*. Published online 1997. doi:10.1161/01.HYP.29.3.757
101. Pyne NJ, Tolan D, Pyne S. Bradykinin stimulates cAMP synthesis via mitogen-activated protein kinase-dependent regulation of cytosolic phospholipase A2 and prostaglandin E2 release in airway smooth muscle. *Biochem J*. 1997;328(Pt 2):689-694. Accessed September 28, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1218972/
102. Dixon BS, Breckon R, Fortune J, Sutherland E, Simon FR, Anderson RJ. Bradykinin activates protein kinase C in cultured cortical collecting tubular cells. *Am J Physiol-Ren Physiol*. 1989;257(5):F808-F817. doi:10.1152/ajprenal.1989.257.5.F808
103. Schini VB, Boulanger C, Regoli D, Vanhoutte PM. Bradykinin stimulates the production of cyclic GMP via activation of B2 kinin receptors in cultured porcine aortic endothelial cells. *J Pharmacol Exp Ther*. 1990;252(2):581-585.
104. Gholamreza-Fahimi E, Bisha M, Hahn J, et al. Cyclooxygenase activity in bradykinin-induced dermal extravasation. A study in mice and humans. *Biomed Pharmacother*. 2020;123:109797. doi:10.1016/j.biopha.2019.109797
105. Fong P, Stafforini DM, Brown NJ, Pretorius M. Increased blood flow induces oxidative stress through an endothelium- and nitric oxide-independent mechanism. *Free Radic Biol Med*. 2010;49(2):301-305. doi:10.1016/j.freeradbiomed.2010.04.023
106. Portilla D, Morrissey J, Morrison AR. Bradykinin-activated membrane-associated phospholipase C in Madin-Darby canine kidney cells. *J Clin Invest*. 1988;81(6):1896-1902. doi:10.1172/JCI113536
107. Cruzblanca H, Koh D-S, Hille B. Bradykinin inhibits M current via phospholipase C and Ca2+ release from IP3-sensitive Ca2+ stores in rat sympathetic neurons. *Proc Natl Acad Sci*. 1998;95(12):7151-7156. doi:10.1073/pnas.95.12.7151
108. Bradykinin - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/chemistry/bradykinin

109. Banerjee A, Czinn SJ, Reiter RJ, Blanchard TG. Crosstalk between endoplasmic reticulum stress and anti-viral activities: A novel therapeutic target for COVID-19. *Life Sci*. 2020;255:117842. doi:10.1016/j.lfs.2020.117842
110. Danta CC. SARS-CoV-2, Hypoxia, and Calcium Signaling: The Consequences and Therapeutic Options. *ACS Pharmacol Transl Sci*. 2021;4(1):400-402. doi:10.1021/acsptsci.0c00219
111. Shaban MS, Müller C, Mayr-Buro C, et al. Multi-level inhibition of coronavirus replication by chemical ER stress. *Nat Commun*. 2021;12(1):5536. doi:10.1038/s41467-021-25551-1
112. Sabirli R, Koseler A, Goren T, Turkcuer I, Kurt O. High GRP78 levels in Covid-19 infection: A case-control study. *Life Sci*. 2021;265:118781. doi:10.1016/j.lfs.2020.118781
113. Dubiella U, Seybold H, Durian G, et al. Calcium-dependent protein kinase/NADPH oxidase activation circuit is required for rapid defense signal propagation. *Proc Natl Acad Sci*. 2013;110(21):8744-8749. doi:10.1073/pnas.1221294110
114. Görlach A, Bertram K, Hudecova S, Krizanova O. Calcium and ROS: A mutual interplay. *Redox Biol*. 2015;6:260-271. doi:10.1016/j.redox.2015.08.010
115. Feno S, Butera G, Vecellio Reane D, Rizzuto R, Raffaello A. Crosstalk between Calcium and ROS in Pathophysiological Conditions. *Oxid Med Cell Longev*. 2019;2019:e9324018. doi:10.1155/2019/9324018
116. Beckman JS, Koppenol WH. Nitric oxide, superoxide, and peroxynitrite: the good, the bad, and ugly. *Am J Physiol*. 1996;271(5 Pt 1):C1424-1437. doi:10.1152/ajpcell.1996.271.5.C1424
117. PACHER P, BECKMAN JS, LIAUDET L. Nitric Oxide and Peroxynitrite in Health and Disease. *Physiol Rev*. 2007;87(1):315-424. doi:10.1152/physrev.00029.2006
118. Radi R. Oxygen radicals, nitric oxide, and peroxynitrite: Redox pathways in molecular medicine. *Proc Natl Acad Sci*. 2018;115(23):5839-5848. doi:10.1073/pnas.1804932115
119. Guzik TJ, West NEJ, Pillai R, Taggart DP, Channon KM. Nitric Oxide Modulates Superoxide Release and Peroxynitrite Formation in Human Blood Vessels. *Hypertension*. 2002;39(6):1088-1094. doi:10.1161/01.HYP.0000018041.48432.B5
120. Roe ND, Ren J. Nitric oxide synthase uncoupling: A therapeutic target in cardiovascular diseases. *Vascul Pharmacol*. 2012;57(5):168-172. doi:10.1016/j.vph.2012.02.004
121. Luo S, Lei H, Qin H, Xia Y. Molecular mechanisms of endothelial NO synthase uncoupling. *Curr Pharm Des*. 2014;20(22):3548-3553. doi:10.2174/13816128113196660746
122. Chen W, Druhan LJ, Chen C-A, et al. Peroxynitrite induces destruction of the tetrahydrobiopterin and heme in endothelial nitric oxide synthase: transition from reversible to irreversible enzyme inhibition. *Biochemistry*. 2010;49(14):3129-3137. doi:10.1021/bi9016632
123. Ozdemir B, Yazici A. Could the decrease in the endothelial nitric oxide (NO) production and NO bioavailability be the crucial cause of COVID-19 related deaths? *Med Hypotheses*. 2020;144:109970. doi:10.1016/j.mehy.2020.109970
124. Guan SP, Seet RCS, Kennedy BK. Does eNOS derived nitric oxide protect the young from severe COVID-19 complications? *Ageing Res Rev*. 2020;64:101201. doi:10.1016/j.arr.2020.101201
125. Nitric Oxide - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/medicine-and-dentistry/nitric-oxide
126. Levine AB, Punihaole D, Levine TB. Characterization of the Role of Nitric Oxide and Its Clinical Applications. *Cardiology*. 2012;122(1):55-68. doi:10.1159/000338150
127. Rosselli M, Keller PJ, Dubey RK. Role of nitric oxide in the biology, physiology and pathophysiology of reproduction. *Hum Reprod Update*. 1998;4(1):3-24. doi:10.1093/humupd/4.1.3
128. Mel A de. Potential roles of nitric oxide in COVID-19: A perspective. *Integr Mol Med*. 2020;7(3). doi:10.15761/IMM.1000403
129. Ricciardolo FLM, Bertolini F, Carriero V, Högman M. Nitric oxide's physiologic effects and potential as a therapeutic agent against COVID-19. *J Breath Res*. 2020;15(1):014001. doi:10.1088/1752-7163/abc302

130. Åkerström S, Gunalan V, Keng CT, Tan Y-J, Mirazimi A. Dual effect of nitric oxide on SARS-CoV replication: Viral RNA production and palmitoylation of the S protein are affected. *Virology*. 2009;395(1):1-9. doi:10.1016/j.virol.2009.09.007
131. Hadi HA, Carr CS, Al Suwaidi J. Endothelial Dysfunction: Cardiovascular Risk Factors, Therapy, and Outcome. *Vasc Health Risk Manag*. 2005;1(3):183-198. Accessed September 28, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1993955/
132. Bonetti PO, Lerman LO, Lerman A. Endothelial Dysfunction. *Arterioscler Thromb Vasc Biol*. 2003;23(2):168-175. doi:10.1161/01.ATV.0000051384.43104.FC
133. Endothelial Dysfunction in Diabetes | Diabetes Care. Accessed September 28, 2021. https://care.diabetesjournals.org/content/34/Supplement_2/S285
134. Patel PD, Velazquez JL, Arora RR. Endothelial dysfunction in African-Americans. *Int J Cardiol*. 2009;132(2):157-172. doi:10.1016/j.ijcard.2008.10.007
135. Kalinowski L, Dobrucki IT, Malinski T. Race-specific differences in endothelial function: predisposition of African Americans to vascular diseases. *Circulation*. 2004;109(21):2511-2517. doi:10.1161/01.CIR.0000129087.81352.7A
136. Ungvari Z, Tarantini S, Kiss T, et al. Endothelial dysfunction and angiogenesis impairment in the ageing vasculature. *Nat Rev Cardiol*. 2018;15(9):555-565. doi:10.1038/s41569-018-0030-z
137. Reusch N, De Domenico E, Bonaguro L, et al. Neutrophils in COVID-19. *Front Immunol*. 2021;12:952. doi:10.3389/fimmu.2021.652470
138. Cavalcante-Silva LHA, Carvalho DCM, Lima É de A, et al. Neutrophils and COVID-19: The road so far. *Int Immunopharmacol*. 2021;90:107233. doi:10.1016/j.intimp.2020.107233
139. Knoll R, Schultze JL, Schulte-Schrepping J. Monocytes and Macrophages in COVID-19. *Front Immunol*. 2021;12:2952. doi:10.3389/fimmu.2021.720109
140. Meidaninikjeh S, Sabouni N, Marzouni HZ, Bengar S, Khalili A, Jafari R. Monocytes and macrophages in COVID-19: Friends and foes. *Life Sci*. 2021;269:119010. doi:10.1016/j.lfs.2020.119010
141. Phagocytes - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/immunology-and-microbiology/phagocytes
142. Respiratory Burst - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/respiratory-burst
143. Superoxide Dismutase - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/neuroscience/superoxide-dismutase
144. Myeloperoxidase - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/medicine-and-dentistry/myeloperoxidase
145. Spickett CM, Jerlich A, Panasenko OM, et al. The reactions of hypochlorous acid, the reactive oxygen species produced by myeloperoxidase, with lipids. *Acta Biochim Pol*. 2000;47(4):889-899.
146. Hypochlorous_acid. Accessed September 28, 2021. https://www.bionity.com/en/encyclopedia/Hypochlorous_acid.html
147. Neutrophil extracellular traps in immunity and disease | Nature Reviews Immunology. Accessed September 28, 2021. https://www.nature.com/articles/nri.2017.105
148. Kaplan MJ, Radic M. Neutrophil extracellular traps (NETs): Double-edged swords of innate immunity. *J Immunol Baltim Md 1950*. 2012;189(6):2689-2695. doi:10.4049/jimmunol.1201719
149. Gillot C, Favresse J, Mullier F, Lecompte T, Dogné J-M, Douxfils J. NETosis and the Immune System in COVID-19: Mechanisms and Potential Treatments. *Front Pharmacol*. 2021;12:1999. doi:10.3389/fphar.2021.708302
150. Arcanjo A, Logullo J, Menezes CCB, et al. The emerging role of neutrophil extracellular traps in severe acute respiratory syndrome coronavirus 2 (COVID-19). *Sci Rep*. 2020;10(1):19630. doi:10.1038/s41598-020-76781-0

151. Middleton EA, He X-Y, Denorme F, et al. Neutrophil extracellular traps contribute to immunothrombosis in COVID-19 acute respiratory distress syndrome. *Blood*. 2020;136(10):1169-1179. doi:10.1182/blood.2020007008
152. Schönrich G, Raftery MJ, Samstag Y. Devilishly radical NETwork in COVID-19: Oxidative stress, neutrophil extracellular traps (NETs), and T cell suppression. *Adv Biol Regul*. 2020;77:100741. doi:10.1016/j.jbior.2020.100741
153. Goud PT, Bai D, Abu-Soud HM. A Multiple-Hit Hypothesis Involving Reactive Oxygen Species and Myeloperoxidase Explains Clinical Deterioration and Fatality in COVID-19. *Int J Biol Sci*. 2021;17(1):62-72. doi:10.7150/ijbs.51811
154. Edeas M, Saleh J, Peyssonnaux C. Iron: Innocent bystander or vicious culprit in COVID-19 pathogenesis? *Int J Infect Dis*. 2020;97:303-305. doi:10.1016/j.ijid.2020.05.110
155. Habib HM, Ibrahim S, Zaim A, Ibrahim WH. The role of iron in the pathogenesis of COVID-19 and possible treatment with lactoferrin and other iron chelators. *Biomed Pharmacother*. 2021;136:111228. doi:10.1016/j.biopha.2021.111228
156. Rahman A, Tabassum T, Araf Y, Al Nahid A, Ullah MdA, Hosen MJ. Silent hypoxia in COVID-19: pathomechanism and possible management strategy. *Mol Biol Rep*. Published online April 23, 2021:1-7. doi:10.1007/s11033-021-06358-1
157. Tobin MJ, Laghi F, Jubran A. Why COVID-19 Silent Hypoxemia Is Baffling to Physicians. *Am J Respir Crit Care Med*. 2020;202(3):356-360. doi:10.1164/rccm.202006-2157CP
158. Kehrer JP. The Haber-Weiss reaction and mechanisms of toxicity. *Toxicology*. 2000;149(1):43-50. doi:10.1016/s0300-483x(00)00231-6
159. Wardman P, Candeias LP. Fenton Chemistry: An Introduction. *Radiat Res*. 1996;145(5):523-531. doi:10.2307/3579270
160. Sharpe MA, Robb SJ, Clark JB. Nitric oxide and Fenton/Haber–Weiss chemistry: nitric oxide is a potent antioxidant at physiological concentrations. *J Neurochem*. 2003;87(2):386-394. doi:10.1046/j.1471-4159.2003.02001.x
161. Kanti Das T, Wati MR, Fatima-Shad K. Oxidative Stress Gated by Fenton and Haber Weiss Reactions and Its Association With Alzheimer's Disease. *Arch Neurosci*. 2015;2(2). doi:10.5812/archneurosci.20078
162. Barciszewska A-M. Elucidating of oxidative distress in COVID-19 and methods of its prevention. *Chem Biol Interact*. 2021;344:109501. doi:10.1016/j.cbi.2021.109501
163. Ntyonga-Pono M-P. COVID-19 infection and oxidative stress: an under-explored approach for prevention and treatment? *Pan Afr Med J*. 2020;35(Suppl 2):12. doi:10.11604/pamj.2020.35.2.22877
164. Forcados GE, Muhammad A, Oladipo OO, Makama S, Meseko CA. Metabolic Implications of Oxidative Stress and Inflammatory Process in SARS-CoV-2 Pathogenesis: Therapeutic Potential of Natural Antioxidants. *Front Cell Infect Microbiol*. 2021;11:457. doi:10.3389/fcimb.2021.654813
165. Cumpstey AF, Clark AD, Santolini J, Jackson AA, Feelisch M. COVID-19: A Redox Disease—What a Stress Pandemic Can Teach Us About Resilience and What We May Learn from the Reactive Species Interactome About Its Treatment. *Antioxid Redox Signal*. Published online June 29, 2021. doi:10.1089/ars.2021.0017
166. Hydroxyl Radical - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/earth-and-planetary-sciences/hydroxyl-radical
167. Gligorovski S, Strekowski R, Barbati S, Vione D. Environmental Implications of Hydroxyl Radicals (•OH). *Chem Rev*. 2015;115(24):13051-13092. doi:10.1021/cr500310b
168. Lyngsie G, Krumina L, Tunlid A, Persson P. Generation of hydroxyl radicals from reactions between a dimethoxyhydroquinone and iron oxide nanoparticles. *Sci Rep*. 2018;8(1):10834. doi:10.1038/s41598-018-29075-5

169. Takeda K, Fujisawa K, Nojima H, Kato R, Ueki R, Sakugawa H. Hydroxyl radical generation with a high power ultraviolet light emitting diode (UV-LED) and application for determination of hydroxyl radical reaction rate constants. *J Photochem Photobiol Chem*. 2017;340:8-14. doi:10.1016/j.jphotochem.2017.02.020
170. Kord Forooshani P, Pinnaratip R, Polega E, et al. Hydroxyl Radical Generation through the Fenton-like Reaction of Hematin- and Catechol-Functionalized Microgels. *Chem Mater*. 2020;32(19):8182-8194. doi:10.1021/acs.chemmater.0c01551
171. Deng Y, Zhao R. Advanced Oxidation Processes (AOPs) in Wastewater Treatment. *Curr Pollut Rep*. 2015;1(3):167-176. doi:10.1007/s40726-015-0015-z
172. Hypoxanthine - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/chemistry/hypoxanthine
173. Dowell FJ, Hamilton CA, McMurray J, Reid JL. Effects of a xanthine oxidase/hypoxanthine free radical and reactive oxygen species generating system on endothelial function in New Zealand white rabbit aortic rings. *J Cardiovasc Pharmacol*. 1993;22(6):792-797. doi:10.1097/00005344-199312000-00003
174. Fig. 1. Generation of superoxide by xanthine-hypoxanthine oxidase and... ResearchGate. Accessed September 28, 2021. https://www.researchgate.net/figure/Generation-of-superoxide-by-xanthine-hypoxanthine-oxidase-and-NADH-SMP-systems-a-The_fig1_7927959
175. Granger DN. Role of xanthine oxidase and granulocytes in ischemia-reperfusion injury. *Am J Physiol*. 1988;255(6 Pt 2):H1269-1275. doi:10.1152/ajpheart.1988.255.6.H1269
176. Mao H, Yang A, Zhao Y, Lei L, Li H. Succinate Supplement Elicited “Pseudohypoxia” Condition to Promote Proliferation, Migration, and Osteogenesis of Periodontal Ligament Cells. *Stem Cells Int*. 2020;2020:e2016809. doi:10.1155/2020/2016809
177. Lukyanova LD, Kirova YI. Mitochondria-controlled signaling mechanisms of brain protection in hypoxia. *Front Neurosci*. 2015;9:320. doi:10.3389/fnins.2015.00320
178. Messner KR, Imlay JA. Mechanism of superoxide and hydrogen peroxide formation by fumarate reductase, succinate dehydrogenase, and aspartate oxidase. *J Biol Chem*. 2002;277(45):42563-42571. doi:10.1074/jbc.M204958200
179. Quinlan CL, Orr AL, Perevoshchikova IV, Treberg JR, Ackrell BA, Brand MD. Mitochondrial Complex II Can Generate Reactive Oxygen Species at High Rates in Both the Forward and Reverse Reactions. *J Biol Chem*. 2012;287(32):27255-27264. doi:10.1074/jbc.M112.374629
180. Cowled P, Fitridge R. Pathophysiology of Reperfusion Injury. In: Fitridge R, Thompson M, eds. *Mechanisms of Vascular Disease: A Reference Book for Vascular Specialists*. University of Adelaide Press; 2011. Accessed September 28, 2021. http://www.ncbi.nlm.nih.gov/books/NBK534267/
181. Sun Z-Y, Xia H-G, Zhu D-Q, Deng L-M, Zhu P-Z, Wang D-B. Clinical significance of mechanical ventilation on ischemic-reperfusion injury caused by lung chest trauma and VEGF expression levels in peripheral blood. *Exp Ther Med*. 2017;14(3):2531-2535. doi:10.3892/etm.2017.4825
182. Gielis JF, Beckers PAJ, Briedé JJ, Cos P, Schil PEV. Oxidative and nitrosative stress during pulmonary ischemia-reperfusion injury: from the lab to the OR. *Ann Transl Med*. 2017;5(6):4-4. doi:10.21037/atm.2017.03.32
183. Wu N-C, Liao F-T, Cheng H, Sung S-H, Yang Y-C, Wang J-J. Intravenous superoxide dismutase as a protective agent to prevent impairment of lung function induced by high tidal volume ventilation. *BMC Pulm Med*. 2017;17:105. doi:10.1186/s12890-017-0448-9
184. Lipid Peroxidation - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/neuroscience/lipid-peroxidation
185. Ayala A, Muñoz MF, Argüelles S. Lipid Peroxidation: Production, Metabolism, and Signaling Mechanisms of Malondialdehyde and 4-Hydroxy-2-Nonenal. *Oxid Med Cell Longev*. 2014;2014:360438. doi:10.1155/2014/360438

186. Binder CJ, Papac-Milicevic N, Witztum JL. Innate sensing of oxidation-specific epitopes in health and disease. *Nat Rev Immunol*. 2016;16(8):485-497. doi:10.1038/nri.2016.63
187. Leibundgut G, Witztum JL, Tsimikas S. Oxidation-specific epitopes and immunological responses: Translational biotheranostic implications for atherosclerosis. *Curr Opin Pharmacol*. 2013;13(2):10.1016/j.coph.2013.02.005. doi:10.1016/j.coph.2013.02.005
188. Miller YI, Choi S-H, Wiesner P, et al. Oxidation-Specific Epitopes Are Danger-Associated Molecular Patterns Recognized by Pattern Recognition Receptors of Innate Immunity. *Circ Res*. 2011;108(2):235-248. doi:10.1161/CIRCRESAHA.110.223875
189. Zhivaki D, Kagan JC. Innate immune detection of lipid oxidation as a threat assessment strategy. *Nat Rev Immunol*. Published online September 21, 2021:1-9. doi:10.1038/s41577-021-00618-8
190. Macdonald J, Galley HF, Webster NR. Oxidative stress and gene expression in sepsis. *Br J Anaesth*. 2003;90(2):221-232. doi:10.1093/bja/aeg034
191. Mantzarlis K, Tsolaki V, Zakynthinos E. Role of Oxidative Stress and Mitochondrial Dysfunction in Sepsis and Potential Therapies. *Oxid Med Cell Longev*. 2017;2017:e5985209. doi:10.1155/2017/5985209
192. Toufekoula C, Papadakis V, Tsaganos T, et al. Compartmentalization of lipid peroxidation in sepsis by multidrug-resistant gram-negative bacteria: experimental and clinical evidence. *Crit Care*. 2013;17(1):R6. doi:10.1186/cc11930
193. Dominic P, Ahmad J, Bhandari R, et al. Decreased availability of nitric oxide and hydrogen sulfide is a hallmark of COVID-19. *Redox Biol*. 2021;43:101982. doi:10.1016/j.redox.2021.101982
194. Yang M, Lai CL. SARS-CoV-2 infection: can ferroptosis be a potential treatment target for multiple organ involvement? *Cell Death Discov*. 2020;6(1):1-6. doi:10.1038/s41420-020-00369-w
195. Jacobs W, Lammens M, Kerckhofs A, et al. Fatal lymphocytic cardiac damage in coronavirus disease 2019 (COVID-19): autopsy reveals a ferroptosis signature. *ESC Heart Fail*. 2020;7(6):3772-3781. doi:10.1002/ehf2.12958
196. Tavakol S, Seifalian AM. Vitamin E at a high dose as an anti-ferroptosis drug and not just a supplement for COVID-19 treatment. *Biotechnol Appl Biochem*. n/a(n/a). doi:10.1002/bab.2176
197. Sonnweber T, Boehm A, Sahanic S, et al. Persisting alterations of iron homeostasis in COVID-19 are associated with non-resolving lung pathologies and poor patients' performance: a prospective observational cohort study. *Respir Res*. 2020;21(1):276. doi:10.1186/s12931-020-01546-2
198. Žarković N, Orehovec B, Milković L, et al. Preliminary Findings on the Association of the Lipid Peroxidation Product 4-Hydroxynonenal with the Lethal Outcome of Aggressive COVID-19. *Antioxidants*. 2021;10(9):1341. doi:10.3390/antiox10091341
199. Mehri F, Rahbar AH, Ghane ET, Souri B, Esfahani M. The comparison of oxidative markers between Covid-19 patients and healthy subjects. *Arch Med Res*. Published online June 7, 2021. doi:10.1016/j.arcmed.2021.06.004
200. Cao Z, Xia H, Rajsbaum R, Xia X, Wang H, Shi P-Y. Ubiquitination of SARS-CoV-2 ORF7a promotes antagonism of interferon response. *Cell Mol Immunol*. 2021;18(3):746-748. doi:10.1038/s41423-020-00603-6
201. Zhang H, Zheng H, Zhu J, et al. Ubiquitin-Modified Proteome of SARS-CoV-2-Infected Host Cells Reveals Insights into Virus–Host Interaction and Pathogenesis. *J Proteome Res*. Published online March 5, 2021:acs.jproteome.0c00758. doi:10.1021/acs.jproteome.0c00758
202. Shi H, Zuo Y, Navaz S, et al. Endothelial cell-activating antibodies in COVID-19. *MedRxiv Prepr Serv Health Sci*. Published online July 9, 2021:2021.01.18.21250041. doi:10.1101/2021.01.18.21250041
203. Chang R, Mamun A, Dominic A, Le N-T. SARS-CoV-2 Mediated Endothelial Dysfunction: The Potential Role of Chronic Oxidative Stress. *Front Physiol*. 2021;11:1752. doi:10.3389/fphys.2020.605908
204. Mei ZW, van Wijk XMR, Pham HP, Marin MJ. Role of von Willebrand Factor in COVID-19 Associated Coagulopathy. *J Appl Lab Med*. 2021;6(5):1305-1315. doi:10.1093/jalm/jfab042

205. Mancini I, Baronciani L, Artoni A, et al. The ADAMTS13-von Willebrand factor axis in COVID-19 patients. *J Thromb Haemost JTH*. 2021;19(2):513-521. doi:10.1111/jth.15191
206. Ladikou EE, Sivaloganathan H, Milne KM, et al. Von Willebrand factor (vWF): marker of endothelial damage and thrombotic risk in COVID-19? *Clin Med*. 2020;20(5):e178-e182. doi:10.7861/clinmed.2020-0346
207. Afrin LB, Weinstock LB, Molderings GJ. Covid-19 hyperinflammation and post-Covid-19 illness may be rooted in mast cell activation syndrome. *Int J Infect Dis IJID Off Publ Int Soc Infect Dis*. 2020;100:327-332. doi:10.1016/j.ijid.2020.09.016
208. Gebremeskel S, Schanin J, Coyle KM, et al. Mast Cell and Eosinophil Activation Are Associated With COVID-19 and TLR-Mediated Viral Inflammation: Implications for an Anti-Siglec-8 Antibody. *Front Immunol*. 2021;12:641. doi:10.3389/fimmu.2021.650331
209. Java A, Apicelli AJ, Liszewski MK, et al. The complement system in COVID-19: friend and foe? *JCI Insight*. 5(15):e140711. doi:10.1172/jci.insight.140711
210. Noris M, Benigni A, Remuzzi G. The case of complement activation in COVID-19 multiorgan impact. *Kidney Int*. 2020;98(2):314-322. doi:10.1016/j.kint.2020.05.013
211. Holter JC, Pischke SE, Boer E de, et al. Systemic complement activation is associated with respiratory failure in COVID-19 hospitalized patients. *Proc Natl Acad Sci*. 2020;117(40):25018-25025. doi:10.1073/pnas.2010540117
212. Chouaki Benmansour N, Carvelli J, Vivier E. Complement cascade in severe forms of COVID-19: Recent advances in therapy. *Eur J Immunol*. 2021;51(7):1652-1659. doi:10.1002/eji.202048959
213. López-Pedrera C, Barbarroja N, Jimenez-Gomez Y, Collantes-Estevez E, Aguirre MA, Cuadrado MJ. Oxidative stress in the pathogenesis of atherothrombosis associated with anti-phospholipid syndrome and systemic lupus erythematosus: new therapeutic approaches. *Rheumatol Oxf Engl*. 2016;55(12):2096-2108. doi:10.1093/rheumatology/kew054
214. Farris AD, Guthridge JM. Overlapping B cell pathways in severe COVID-19 and lupus. *Nat Immunol*. 2020;21(12):1478-1480. doi:10.1038/s41590-020-00822-z
215. MacDonald L, Alivernini S, Tolusso B, et al. COVID-19 and RA share an SPP1 myeloid pathway that drives PD-L1^{+} neutrophils and CD14^{+} monocytes. *JCI Insight*. 2021;6(13). doi:10.1172/jci.insight.147413
216. Schett G, Manger B, Simon D, Caporali R. COVID-19 revisiting inflammatory pathways of arthritis. *Nat Rev Rheumatol*. 2020;16(8):465-470. doi:10.1038/s41584-020-0451-z
217. Luo M, Cao S, Wei L, et al. Intubation, mortality, and risk factors in critically ill Covid-19 patients: A pilot study. *J Clin Anesth*. 2020;67:110039. doi:10.1016/j.jclinane.2020.110039
218. Tandon A, Pandey L. COVID-19, steroids, and mucormycosis: What an ophthalmologist should know. *Indian J Ophthalmol*. 2021;69(7):1970. doi:10.4103/ijo.IJO_1143_21
219. Therapeutic Anticoagulation with Heparin in Critically Ill Patients with Covid-19. *N Engl J Med*. 2021;385(9):777-789. doi:10.1056/NEJMoa2103417
220. Free radicals: What are they and why should nurses care about them? American Nurse. Published April 11, 2011. Accessed September 28, 2021. https://www.myamericannurse.com/free-radicals-what-are-they-and-why-should-nurses-care-about-them/
221. Ahsan H, Ali A, Ali R. Oxygen free radicals and systemic autoimmunity. *Clin Exp Immunol*. 2003;131(3):398-404. doi:10.1046/j.1365-2249.2003.02104.x
222. 8.2: Generation of Free Radicals in the Body. Medicine LibreTexts. Published July 29, 2016. Accessed September 28, 2021. https://med.libretexts.org/Bookshelves/Nutrition/Book%3A_An_Introduction_to_Nutrition_(Zimmerman)/08%3A_Nutrients_Important_as_Antioxidants/8.02%3A_Generation_of_Free_Radicals_in_the_Body

223. Daiber A, Oelze M, Daub S, et al. Vascular Redox Signaling, Redox Switches in Endothelial Nitric Oxide Synthase (eNOS Uncoupling), and Endothelial Dysfunction. In: Laher I, ed. *Systems Biology of Free Radicals and Antioxidants*. Springer; 2014:1177-1211. doi:10.1007/978-3-642-30018-9_48
224. Gladyshev VN. The Free Radical Theory of Aging Is Dead. Long Live the Damage Theory! *Antioxid Redox Signal*. 2014;20(4):727-731. doi:10.1089/ars.2013.5228
225. Junghanns FB. MATH+ Protocol. FLCCC | Front Line COVID-19 Critical Care Alliance. Accessed September 28, 2021. https://covid19criticalcare.com/covid-19-protocols/math-plus-protocol/
226. Lammi C, Arnoldi A. Food-derived antioxidants and COVID-19. *J Food Biochem*. 2021;45(1):e13557. doi:10.1111/jfbc.13557
227. Żukowski P, Maciejczyk M, Matczuk J, et al. Effect of N-Acetylcysteine on Antioxidant Defense, Oxidative Modification, and Salivary Gland Function in a Rat Model of Insulin Resistance. *Oxid Med Cell Longev*. 2018;2018:e6581970. doi:10.1155/2018/6581970
228. Aldini G, Altomare A, Baron G, et al. N-Acetylcysteine as an antioxidant and disulphide breaking agent: the reasons why. *Free Radic Res*. 2018;52(7):751-762. doi:10.1080/10715762.2018.1468564
229. Zhitkovich A. N-Acetylcysteine: Antioxidant, Aldehyde Scavenger, and More. *Chem Res Toxicol*. 2019;32(7):1318-1319. doi:10.1021/acs.chemrestox.9b00152
230. Gilad E, Cuzzocrea S, Zingarelli B, Salzman AL, Szabó C. Melatonin is a scavenger of peroxynitrite. *Life Sci*. 1997;60(10):PL169-174. doi:10.1016/s0024-3205(97)00008-8
231. Shaeib F, Khan SN, Ali I, et al. Melatonin Prevents Myeloperoxidase Heme Destruction and the Generation of Free Iron Mediated by Self-Generated Hypochlorous Acid. *PLOS ONE*. 2015;10(4):e0120737. doi:10.1371/journal.pone.0120737
232. Elsaed WM, Alahmadi AM, Al-Ahmadi BT, Taha JA, Tarabishi RM. Gastroprotective and antioxidant effects of fluvoxamine on stress-induced peptic ulcer in rats. *J Taibah Univ Med Sci*. 2018;13(5):422-431. doi:10.1016/j.jtumed.2018.04.010
233. Dallé E, Daniels WMU, Mabandla MV. Long-Term Treatment with Fluvoxamine Decreases Nonmotor Symptoms and Dopamine Depletion in a Postnatal Stress Rat Model of Parkinson's Disease. *Oxid Med Cell Longev*. 2020;2020:e1941480. doi:10.1155/2020/1941480
234. Braga PC, Dal Sasso M, Culici M, Bianchi T, Guffanti EE. Budesonide reduces superoxide and peroxynitrite anion chemiluminescence during human neutrophil bursts. *Pharmacology*. 2005;75(4):179-186. doi:10.1159/000088623
235. Mikolka P, Kopincova J, Tomcikova Mikusiakova L, et al. Effects of surfactant/budesonide therapy on oxidative modifications in the lung in experimental meconium-induced lung injury. *J Physiol Pharmacol Off J Pol Physiol Soc*. 2016;67(1):57-65.
236. Lamothe PH, Rao E, Serra AJ, et al. Comparative efficacy of cimetidine, famotidine, ranitidine, and mylanta in postoperative stress ulcers. Gastric pH control and ulcer prevention in patients undergoing coronary artery bypass graft surgery. *Gastroenterology*. 1991;100(6):1515-1520. doi:10.1016/0016-5085(91)90647-4
237. van Zyl JM, Kriegler A, van der Walt BJ. Anti-oxidant properties of H2-receptor antagonists. Effects on myeloperoxidase-catalysed reactions and hydroxyl radical generation in a ferrous-hydrogen peroxide system. *Biochem Pharmacol*. 1993;45(12):2389-2397. doi:10.1016/0006-2952(93)90218-I
238. Ching T-L, Haenen GRMM, Bast A. Cimetidine and other H2 receptor antagonists as powerful hydroxyl radical scavengers. *Chem Biol Interact*. 1993;86(2):119-127. doi:10.1016/0009-2797(93)90116-G
239. Peterson DA, Gerrard JM, Rao GHR, White JG. Inhibition of ferrous iron induced oxidation of arachidonic acid by indomethacin. *Prostaglandins Med*. 1979;2(2):97-108. doi:10.1016/0161-4630(79)90044-2
240. Cross AL, Hawkes J, Wright HL, Moots RJ, Edwards SW. APPA (apocynin and paeonol) modulates pathological aspects of human neutrophil function, without supressing antimicrobial ability, and inhibits

TNFα expression and signalling. *Inflammopharmacology*. 2020;28(5):1223-1235. doi:10.1007/s10787-020-00715-5
241. Heumüller S, Wind S, Barbosa-Sicard E, et al. Apocynin Is Not an Inhibitor of Vascular NADPH Oxidases but an Antioxidant. *Hypertension*. 2008;51(2):211-217. doi:10.1161/HYPERTENSIONAHA.107.100214
242. de Almeida AC, dos Santos Vilela MM, Condino-Neto A, Ximenes VF. The Importance of Myeloperoxidase in Apocynin-Mediated NADPH Oxidase Inhibition. *ISRN Inflamm*. 2012;2012:260453. doi:10.5402/2012/260453
243. NADPH oxidase Covid-19 Oxygen treatment? ResearchGate. Accessed September 28, 2021. https://www.researchgate.net/post/NADPH_oxidase_Covid-19_Oxygen_treatment
244. Varga Z, Flammer AJ, Steiger P, et al. Endothelial cell infection and endotheliitis in COVID-19. *The Lancet*. 2020;395(10234):1417-1418. doi:10.1016/S0140-6736(20)30937-5
245. COVID19. Global Sepsis Alliance. Accessed September 28, 2021. https://www.global-sepsis-alliance.org/covid19
246. HealthLeaders. Expert: Severe COVID-19 Illness Is Viral Sepsis. Accessed September 28, 2021. https://www.healthleadersmedia.com/clinical-care/expert-severe-covid-19-illness-viral-sepsis
247. Aisa-Alvarez A, Soto ME, Guarner-Lans V, et al. Usefulness of Antioxidants as Adjuvant Therapy for Septic Shock: A Randomized Clinical Trial. *Med Kaunas Lith*. 2020;56(11):E619. doi:10.3390/medicina56110619
248. Aisa-Alvarez A, Perez-Torres I, Camarena-Alejo G, et al. A Randomized clinical trial of antioxidant therapy in patients with septic shock. Reference study to propose adjuvant therapy in patients with critical organic damage by COVID-19. Published online September 28, 2021. doi:10.21203/rs.3.rs-52169/v1
249. Kashiouris MG, L'Heureux M, Cable CA, Fisher BJ, Leichtle SW, Fowler AA. The Emerging Role of Vitamin C as a Treatment for Sepsis. *Nutrients*. 2020;12(2):E292. doi:10.3390/nu12020292
250. That "damn machine": mechanical ventilators in the ICU. STAT. Published August 20, 2021. Accessed September 28, 2021. https://www.statnews.com/2021/08/20/that-damn-machine-the-dark-side-of-mechanical-ventilators-in-the-icu/
251. Ferreira JC, Ho Y-L, Besen BAMP, et al. Protective ventilation and outcomes of critically ill patients with COVID-19: a cohort study. *Ann Intensive Care*. 2021;11(1):92. doi:10.1186/s13613-021-00882-w
252. Effect of Hydroxychloroquine in Hospitalized Patients with Covid-19. *N Engl J Med*. 2020;383(21):2030-2040. doi:10.1056/NEJMoa2022926
253. Popp M, Stegemann M, Metzendorf M-I, et al. Ivermectin for preventing and treating COVID-19. *Cochrane Database Syst Rev*. 2021;7:CD015017. doi:10.1002/14651858.CD015017.pub2
254. Acosta MAT, Singer BD. Pathogenesis of COVID-19-induced ARDS: implications for an aging population. *Eur Respir J*. Published online January 1, 2020. doi:10.1183/13993003.02049-2020
255. dos Santos WG. Natural history of COVID-19 and current knowledge on treatment therapeutic options. *Biomed Pharmacother*. 2020;129:110493. doi:10.1016/j.biopha.2020.110493
256. Dölken L, Stich A, Spinner CD. Remdesivir for Early COVID-19 Treatment of High-Risk Individuals Prior to or at Early Disease Onset—Lessons Learned. *Viruses*. 2021;13(6):963. doi:10.3390/v13060963
257. Hydroxychloroquine does not benefit adults hospitalized with COVID-19. National Institutes of Health (NIH). Published November 9, 2020. Accessed September 28, 2021. https://www.nih.gov/news-events/news-releases/hydroxychloroquine-does-not-benefit-adults-hospitalized-covid-19
258. Ivermectin Won't Treat Covid-19 but Demand for Drug Surges - The New York Times. Accessed September 28, 2021. https://www.nytimes.com/2021/08/30/health/covid-ivermectin-prescriptions.html

259. What the FDA wants doctors to tell patients asking for ivermectin. American Medical Association. Accessed September 28, 2021. https://www.ama-assn.org/delivering-care/public-health/what-fda-wants-doctors-tell-patients-asking-ivermectin
260. AbbVie's Kaletra doesn't work in COVID-19, say Chinese scientists -. Accessed September 28, 2021. https://pharmaphorum.com/news/abbvies-kaletra-doesnt-work-in-covid-19-say-chinese-scientists/
261. Chamary JV. The Strange Story Of Remdesivir, A Covid Drug That Doesn't Work. Forbes. Accessed September 28, 2021. https://www.forbes.com/sites/jvchamary/2021/01/31/remdesivir-covid-coronavirus/
262. Uttar Pradesh government says early use of Ivermectin helped to keep positivity, deaths low. The Indian Express. Published May 12, 2021. Accessed September 28, 2021. https://indianexpress.com/article/cities/lucknow/uttar-pradesh-government-says-ivermectin-helped-to-keep-deaths-low-7311786/
263. India Claims Ivermectin is Effective Against COVID – Orion's Cold Fire. Accessed September 28, 2021. https://orionscoldfire.com/index.php/2021/09/16/india-claims-ivermectin-is-effective-against-covid/
264. Dr. Soumya Swaminathan deletes her controversial tweet - Indian Bar Association. Accessed September 28, 2021. https://indianbarassociation.in/indian-bar-associationiba-vs-dr-soumyaswaminathan/
265. Indian Bar Association Charges WHO Chief Scientist for Mass Murder - PaulCraigRoberts.org. Accessed September 28, 2021. https://www.paulcraigroberts.org/2021/08/23/indian-bar-association-charges-who-chief-scientist-for-mass-murder/
266. Ivomec® (ivermectin) – Effective dewormer, trusted for more than 35 years. Boehringer Ingelheim Vetmedica. Published April 10, 2019. Accessed September 28, 2021. https://www.bi-vetmedica.com/species/cattle/products/ivomec.html
267. CRUMP A, ŌMURA S. Ivermectin, 'Wonder drug' from Japan: the human use perspective. *Proc Jpn Acad Ser B Phys Biol Sci*. 2011;87(2):13-28. doi:10.2183/pjab.87.13
268. Camero K. Some people are taking an anti-parasitic to treat COVID. Here's why that's a bad idea. Miami Herald. Accessed September 28, 2021. https://www.miamiherald.com/news/coronavirus/article253290108.html
269. Editor AD News. University experts weigh in on using ivermectin 'horse dewormer' as COVID-19 treatment. Technician. Accessed September 28, 2021. https://www.technicianonline.com/news/university-experts-weigh-in-on-using-ivermectin-horse-dewormer-as-covid-19-treatment/article_319584f2-15dc-11ec-a985-5b35a9dc71ff.html
270. Yang SNY, Atkinson SC, Wang C, et al. The broad spectrum antiviral ivermectin targets the host nuclear transport importin α/β1 heterodimer. *Antiviral Res*. 2020;177:104760. doi:10.1016/j.antiviral.2020.104760
271. Kosyna FK, Nagel M, Kluxen L, Kraushaar K, Depping R. The importin α/β-specific inhibitor Ivermectin affects HIF-dependent hypoxia response pathways. *Biol Chem*. 2015;396(12):1357-1367. doi:10.1515/hsz-2015-0171
272. Shahbaznejad L, Davoudi A, Eslami G, et al. Effects of Ivermectin in Patients With COVID-19: A Multicenter, Double-blind, Randomized, Controlled Clinical Trial. *Clin Ther*. 2021;43(6):1007-1019. doi:10.1016/j.clinthera.2021.04.007
273. Zaidi AK, Dehgani-Mobaraki P. The mechanisms of action of Ivermectin against SARS-CoV-2: An evidence-based clinical review article. *J Antibiot (Tokyo)*. Published online June 15, 2021:1-13. doi:10.1038/s41429-021-00430-5
274. Ivermectin for COVID-19: real-time meta analysis of 65 studies. Accessed September 28, 2021. https://ivmmeta.com/

275. Israeli scientist says COVID-19 could be treated for under $1/day. The Jerusalem Post | JPost.com. Accessed September 28, 2021. https://www.jpost.com/health-science/israeli-scientist-says-covid-19-could-be-treated-for-under-1day-675612
276. Feuer W. Gilead's coronavirus treatment remdesivir to cost $3,120 per U.S. patient with private insurance. CNBC. Published June 29, 2020. Accessed September 28, 2021. https://www.cnbc.com/2020/06/29/gileads-coronavirus-treatment-remdesivir-to-cost-3120-for-us-insured-patients.html
277. Pharmaceutical companies pay low taxes and reap enormous profit from COVID vaccines. American Friends Service Committee. Published September 15, 2021. Accessed September 28, 2021. https://www.afsc.org/newsroom/pharmaceutical-companies-pay-low-taxes-and-reap-enormous-profit-covid-vaccines
278. Obscene global vaccine profiteering by pharmaceutical companies. World Socialist Web Site. Accessed September 28, 2021. https://www.wsws.org/en/articles/2021/04/01/vacc-a01.html
279. Pharmaceutical Companies Reaping Immoral Profits From COVID Vaccines Yet Paying Low Tax Rates. Common Dreams. Accessed September 28, 2021. https://www.commondreams.org/newswire/2021/09/15/pharmaceutical-companies-reaping-immoral-profits-covid-vaccines-yet-paying-low
280. Ennis M, Tiligada K. Histamine receptors and COVID-19. *Inflamm Res*. Published online November 18, 2020:1-9. doi:10.1007/s00011-020-01422-1
281. Hogan II RB, Hogan III RB, Cannon T, et al. Dual-histamine receptor blockade with cetirizine - famotidine reduces pulmonary symptoms in COVID-19 patients. *Pulm Pharmacol Ther*. 2020;63:101942. doi:10.1016/j.pupt.2020.101942
282. Mura C, Preissner S, Nahles S, Heiland M, Bourne PE, Preissner R. Real-world evidence for improved outcomes with histamine antagonists and aspirin in 22,560 COVID-19 patients. *Signal Transduct Target Ther*. 2021;6(1):1-3. doi:10.1038/s41392-021-00689-y
283. Ishola AA, Joshi T, Abdulai SI, Tijjani H, Pundir H, Chandra S. Molecular basis for the repurposing of histamine H2-receptor antagonist to treat COVID-19. *J Biomol Struct Dyn*. 2021;0(0):1-18. doi:10.1080/07391102.2021.1873191
284. Cross KM, Landis DM, Sehgal L, Payne JD. Melatonin for the Early Treatment of COVID-19: A Narrative Review of Current Evidence and Possible Efficacy. *Endocr Pract*. 2021;27(8):850-855. doi:10.1016/j.eprac.2021.06.001
285. Camp OG, Bai D, Gonullu DC, Nayak N, Abu-Soud HM. Melatonin interferes with COVID-19 at several distinct ROS-related steps. *J Inorg Biochem*. 2021;223:111546. doi:10.1016/j.jinorgbio.2021.111546
286. Marinella MA. Indomethacin and resveratrol as potential treatment adjuncts for SARS-CoV-2/COVID-19. *Int J Clin Pract*. 2020;74(9):e13535. doi:10.1111/ijcp.13535
287. Yu L-M, Bafadhel M, Dorward J, et al. Inhaled budesonide for COVID-19 in people at high risk of complications in the community in the UK (PRINCIPLE): a randomised, controlled, open-label, adaptive platform trial. *The Lancet*. 2021;398(10303):843-855. doi:10.1016/S0140-6736(21)01744-X
288. Ebell MH. Inhaled Budesonide Reduces the Risk of Emergency Department Evaluation or Hospitalization in Early COVID-19. *Am Fam Physician*. 2021;104(2):207-208. Accessed September 28, 2021. https://www.aafp.org/afp/2021/0800/p207.html
289. Amici C, Di Caro A, Ciucci A, et al. Indomethacin has a potent antiviral activity against SARS coronavirus. *Antivir Ther*. 2006;11(8):1021-1030.
290. Droplets vs Aerosols: What's More Important in COVID-19 Spread? Published May 13, 2021. Accessed September 28, 2021. https://www.medpagetoday.com/special-reports/exclusives/92564

291. COVID-19: Droplet or Airborne Transmission? Penn Medicine Epidemiologists Issue Statement - Penn Medicine. Accessed September 28, 2021. https://www.pennmedicine.org/updates/blogs/penn-physician-blog/2020/august/airborne-droplet-debate-article
292. 239 Experts With One Big Claim: The Coronavirus Is Airborne - The New York Times. Accessed September 28, 2021. https://www.nytimes.com/2020/07/04/health/239-experts-with-one-big-claim-the-coronavirus-is-airborne.html
293. Goldman E. Exaggerated risk of transmission of COVID-19 by fomites. *Lancet Infect Dis*. 2020;20(8):892-893. doi:10.1016/S1473-3099(20)30561-2
294. Lewis D. COVID-19 rarely spreads through surfaces. So why are we still deep cleaning? *Nature*. 2021;590(7844):26-28. doi:10.1038/d41586-021-00251-4
295. Viable SARS-CoV-2 in the air of a hospital room with COVID-19 patients | medRxiv. Accessed September 28, 2021. https://www.medrxiv.org/content/10.1101/2020.08.03.20167395v1
296. PolitiFact JG. What We Know About the Airborne Spread of the Coronavirus. Kaiser Health News. Published September 30, 2020. Accessed September 28, 2021. https://khn.org/news/fact-check-airborne-transmission-coronavirus-science-behind-aerosol-spread/
297. A guideline to limit indoor airborne transmission of COVID-19 | PNAS. Accessed September 28, 2021. https://www.pnas.org/content/118/17/e2018995118
298. Chen CC, Willeke K. Aerosol penetration through surgical masks. *Am J Infect Control*. 1992;20(4):177-184. doi:10.1016/s0196-6553(05)80143-9
299. Konda A, Prakash A, Moss GA, Schmoldt M, Grant GD, Guha S. Aerosol Filtration Efficiency of Common Fabrics Used in Respiratory Cloth Masks. *ACS Nano*. 2020;14(5):6339-6347. doi:10.1021/acsnano.0c03252
300. Guide for the Selection of Personal Protective Equipment for Emergency First Responders (Percutaneous Protection--Apparel), NIJ Guide 102-00, Volume IIc. National Institute of Justice. Accessed September 28, 2021. https://nij.ojp.gov/library/publications/guide-selection-personal-protective-equipment-emergency-first-responders-1
301. US EPA O. EPA Researchers Test Effectiveness of Face Masks, Disinfection Methods Against COVID-19. Published April 5, 2021. Accessed September 28, 2021. https://www.epa.gov/sciencematters/epa-researchers-test-effectiveness-face-masks-disinfection-methods-against-covid-19
302. Caruhel J-B, Sigaux N, Crambert A, et al. Military gas mask to protect surgeons when performing tracheotomies on patients with COVID-19. *BMJ Mil Health*. Published online August 2020:bmjmilitary-2020-001547. doi:10.1136/bmjmilitary-2020-001547
303. Coronavirus Protection Made Easy with the MaxAir CAPR®. Mopec. Published March 2, 2020. Accessed September 28, 2021. https://www.mopec.com/coronavirus-protection-made-easy-with-the-maxair-capr/
304. Kitajima M, Ahmed W, Bibby K, et al. SARS-CoV-2 in wastewater: State of the knowledge and research needs. *Sci Total Environ*. 2020;739:139076. doi:10.1016/j.scitotenv.2020.139076
305. Sharif S, Ikram A, Khurshid A, et al. Detection of SARs-CoV-2 in wastewater using the existing environmental surveillance network: A potential supplementary system for monitoring COVID-19 transmission. *PLOS ONE*. 2021;16(6):e0249568. doi:10.1371/journal.pone.0249568
306. Peccia J, Zulli A, Brackney DE, et al. Measurement of SARS-CoV-2 RNA in wastewater tracks community infection dynamics. *Nat Biotechnol*. 2020;38(10):1164-1167. doi:10.1038/s41587-020-0684-z
307. McKinney KR, Gong YY, Lewis TG. Environmental transmission of SARS at Amoy Gardens. *J Environ Health*. 2006;68(9):26-30; quiz 51-52.
308. Hung LS. The SARS epidemic in Hong Kong: what lessons have we learned? *J R Soc Med*. 2003;96(8):374-378. Accessed September 28, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC539564/

309. COVID-19 Could Spread Through Dry Floor Drains. CleanLink. Accessed September 28, 2021. https://www.cleanlink.com/news/article/COVID-19-Could-Spread-Through-Dry-Floor-Drains--25600
310. 'Leaky' Vaccines Can Produce Stronger Versions of Viruses. Healthline. Published July 27, 2015. Accessed September 28, 2021. https://www.healthline.com/health-news/leaky-vaccines-can-produce-stronger-versions-of-viruses-072715
311. MD BH. Let's Stop Pretending About the Covid-19 Vaccines | RealClearScience. Published August 23, 2021. Accessed September 28, 2021. https://www.realclearscience.com/articles/2021/08/23/lets_stop_pretending_about_the_covid-19_vaccines_791050.html
312. CDC Newsroom. CDC. Published January 1, 2016. Accessed September 28, 2021. https://www.cdc.gov/media/releases/2021/s0730-mmwr-covid-19.html
313. Brueck H. CDC: Everyone should mask up indoors — whether they're fully vaccinated or not — as the Delta variant sweeps the US. Business Insider. Accessed September 28, 2021. https://www.businessinsider.com/cdc-fully-vaccinated-new-guidelines-wear-masks-indoors-delta-2021-7
314. Lasting immunity found after recovery from COVID-19. National Institutes of Health (NIH). Published January 25, 2021. Accessed September 28, 2021. https://www.nih.gov/news-events/nih-research-matters/lasting-immunity-found-after-recovery-covid-19
315. Gazit S, Shlezinger R, Perez G, et al. *Comparing SARS-CoV-2 Natural Immunity to Vaccine-Induced Immunity: Reinfections versus Breakthrough Infections*.; 2021:2021.08.24.21262415. doi:10.1101/2021.08.24.21262415
316. Accelerated Covid-19 Vaccine Clinical Trials. JD Supra. Accessed September 28, 2021. https://www.jdsupra.com/legalnews/accelerated-covid-19-vaccine-clinical-95853/
317. Were the COVID-19 vaccines rushed? Here's how the vaccines were developed so fast. Accessed September 28, 2021. https://www.nebraskamed.com/COVID/were-the-covid-19-vaccines-rushed
318. Reichmuth AM, Oberli MA, Jaklenec A, Langer R, Blankschtein D. mRNA vaccine delivery using lipid nanoparticles. *Ther Deliv*. 2016;7(5):319-334. doi:10.4155/tde-2016-0006
319. Without these lipid shells, there would be no mRNA vaccines for COVID-19. Chemical & Engineering News. Accessed September 28, 2021. https://cen.acs.org/pharmaceuticals/drug-delivery/Without-lipid-shells-mRNA-vaccines/99/i8
320. CDC. Understanding mRNA COVID-19 Vaccines. Centers for Disease Control and Prevention. Published March 4, 2021. Accessed September 28, 2021. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mrna.html
321. What are mRNA vaccines and how do they work?: MedlinePlus Genetics. Accessed September 28, 2021. https://medlineplus.gov/genetics/understanding/therapy/mrnavaccines/
322. Corbett KS, Edwards DK, Leist SR, et al. SARS-CoV-2 mRNA vaccine design enabled by prototype pathogen preparedness. *Nature*. 2020;586(7830):567-571. doi:10.1038/s41586-020-2622-0
323. PhD SM. How mRNA vaccines from Pfizer and Moderna work, why they're a breakthrough and why they need to be kept so cold. The Conversation. Accessed September 28, 2021. http://theconversation.com/how-mrna-vaccines-from-pfizer-and-moderna-work-why-theyre-a-breakthrough-and-why-they-need-to-be-kept-so-cold-150238
324. Martínez-Flores D, Zepeda-Cervantes J, Cruz-Reséndiz A, Aguirre-Sampieri S, Sampieri A, Vaca L. SARS-CoV-2 Vaccines Based on the Spike Glycoprotein and Implications of New Viral Variants. *Front Immunol*. 2021;12:2774. doi:10.3389/fimmu.2021.701501
325. Prompetchara E, Ketloy C, Tharakhet K, et al. DNA vaccine candidate encoding SARS-CoV-2 spike proteins elicited potent humoral and Th1 cell-mediated immune responses in mice. *PLOS ONE*. 2021;16(3):e0248007. doi:10.1371/journal.pone.0248007

326. COVID-19 Viral Vector Vaccines. Accessed September 28, 2021. https://www.idsociety.org/covid-19-real-time-learning-network/vaccines/covid-19-viral-vector-vaccines/
327. Zimmerman RK. Helping patients with ethical concerns about COVID-19 vaccines in light of fetal cell lines used in some COVID-19 vaccines. *Vaccine*. 2021;39(31):4242-4244. doi:10.1016/j.vaccine.2021.06.027
328. The Ethics of the SARS-CoV-2 Vaccines Revisited. Christian Medical & Dental Associations® (CMDA). Published September 15, 2021. Accessed September 28, 2021. https://cmda.org/the-ethics-of-the-sars-cov-2-vaccines-revisited/
329. Canadian Covid Care Alliance. Accessed September 28, 2021. https://mailchi.mp/5666d252288c/canadian-covid-care-alliance
330. Juraszek J, Rutten L, Blokland S, et al. Stabilizing the closed SARS-CoV-2 spike trimer. *Nat Commun*. 2021;12(1):244. doi:10.1038/s41467-020-20321-x
331. The tiny tweak behind COVID-19 vaccines. Chemical & Engineering News. Accessed September 28, 2021. https://cen.acs.org/pharmaceuticals/vaccines/tiny-tweak-behind-COVID-19/98/i38
332. SARS-COV-2 mRNA Vaccine (BNT162, PF-07302048) 2.6.4 Overview of Pharmacokinetic Test | BibSonomy. Accessed September 28, 2021. https://www.bibsonomy.org/bibtex/29920ce3643fa2f4fdbecccfa57790d2d/fordham1
333. Krantz MS, Liu Y, Phillips EJ, Stone CA. COVID-19 vaccine anaphylaxis: PEG or not? *Allergy*. 2021;76(6):1934-1937. doi:10.1111/all.14722
334. Moghimi SM. Allergic Reactions and Anaphylaxis to LNP-Based COVID-19 Vaccines. *Mol Ther*. 2021;29(3):898-900. doi:10.1016/j.ymthe.2021.01.030
335. Overview of translation (article). Khan Academy. Accessed September 28, 2021. https://www.khanacademy.org/science/ap-biology/gene-expression-and-regulation/translation/a/translation-overview
336. Thomas EN, Kim KQ, McHugh EP, Marcinkiewicz T, Zaher HS. Alkylative damage of mRNA leads to ribosome stalling and rescue by trans translation in bacteria. Dever TE, Storz G, eds. *eLife*. 2020;9:e61984. doi:10.7554/eLife.61984
337. Karamyshev AL, Karamysheva ZN. Lost in Translation: Ribosome-Associated mRNA and Protein Quality Controls. *Front Genet*. 2018;9:431. doi:10.3389/fgene.2018.00431
338. Mendonsa S, von Kuegelgen N, Bujanic L, Chekulaeva M. Charcot–Marie–Tooth mutation in glycyl-tRNA synthetase stalls ribosomes in a pre-accommodation state and activates integrated stress response. *Nucleic Acids Res*. 2021;49(17):10007-10017. doi:10.1093/nar/gkab730
339. Zuko A, Mallik M, Thompson R, et al. tRNA overexpression rescues peripheral neuropathy caused by mutations in tRNA synthetase. *Science*. 2021;373(6559):1161-1166. doi:10.1126/science.abb3356
340. Zhang S, Chen Y, Wang Y, Zhang P, Chen G, Zhou Y. Insights Into Translatomics in the Nervous System. *Front Genet*. 2020;11:1682. doi:10.3389/fgene.2020.599548
341. Klein T, Eckhard U, Dufour A, Solis N, Overall CM. Proteolytic Cleavage—Mechanisms, Function, and "Omic" Approaches for a Near-Ubiquitous Posttranslational Modification. *Chem Rev*. 2018;118(3):1137-1168. doi:10.1021/acs.chemrev.7b00120
342. Örd M, Faustova I, Loog M. The sequence at Spike S1/S2 site enables cleavage by furin and phospho-regulation in SARS-CoV2 but not in SARS-CoV1 or MERS-CoV. *Sci Rep*. 2020;10(1):16944. doi:10.1038/s41598-020-74101-0
343. Lemmin T, Kalbermatter D, Harder D, Plattet P, Fotiadis D. Structures and dynamics of the novel S1/S2 protease cleavage site loop of the SARS-CoV-2 spike glycoprotein. *J Struct Biol X*. 2020;4:100038. doi:10.1016/j.yjsbx.2020.100038

344. Belouzard S, Chu VC, Whittaker GR. Activation of the SARS coronavirus spike protein via sequential proteolytic cleavage at two distinct sites. *Proc Natl Acad Sci*. 2009;106(14):5871-5876. doi:10.1073/pnas.0809524106
345. Ogata AF, Cheng C-A, Desjardins M, et al. Circulating Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Vaccine Antigen Detected in the Plasma of mRNA-1273 Vaccine Recipients. *Clin Infect Dis*. 2021;(ciab465). doi:10.1093/cid/ciab465
346. Peacock TP, Goldhill DH, Zhou J, et al. The furin cleavage site in the SARS-CoV-2 spike protein is required for transmission in ferrets. *Nat Microbiol*. 2021;6(7):899-909. doi:10.1038/s41564-021-00908-w
347. Bestle D, Heindl MR, Limburg H, et al. TMPRSS2 and furin are both essential for proteolytic activation of SARS-CoV-2 in human airway cells. *Life Sci Alliance*. 2020;3(9). doi:10.26508/lsa.202000786
348. Cheng MH, Zhang S, Porritt RA, et al. Superantigenic character of an insert unique to SARS-CoV-2 spike supported by skewed TCR repertoire in patients with hyperinflammation. *Proc Natl Acad Sci*. 2020;117(41):25254-25262. doi:10.1073/pnas.2010722117
349. Brown M, Bhardwaj N. Super(antigen) target for SARS-CoV-2. *Nat Rev Immunol*. 2021;21(2):72-72. doi:10.1038/s41577-021-00502-5
350. Föhse K, Geckin B, Overheul G, et al. The BNT162b2 mRNA vaccine against SARS-CoV-2 reprograms both adaptive and innate immune response. Published online 2021. doi:10.1101/2021.05.03.21256520
351. Wang H, Chen Q, Hu Y, et al. Pathogenic antibodies induced by spike proteins of COVID-19 and SARS-CoV viruses. Published online September 28, 2021. doi:10.21203/rs.3.rs-612103/v2
352. says R to the document-WB. Summary: Covid-19 Vaccine Concerns. Dr. Rich Swier. Published September 18, 2021. Accessed September 28, 2021. https://drrichswier.com/2021/09/18/summary-covid-19-vaccine-concerns/
353. Commissioner O of the. Coronavirus (COVID-19) Update: July 13, 2021. FDA. Published July 13, 2021. Accessed September 28, 2021. https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-july-13-2021
354. Bell's Palsy After COVID Vaccines Still Very Rare. Published August 16, 2021. Accessed September 28, 2021. https://www.medpagetoday.com/infectiousdisease/covid19vaccine/94061
355. Havla J, Schultz Y, Zimmermann H, Hohlfeld R, Danek A, Kümpfel T. First manifestation of multiple sclerosis after immunization with the Pfizer-BioNTech COVID-19 vaccine. *J Neurol*. Published online June 11, 2021. doi:10.1007/s00415-021-10648-w
356. Baggen J, Vanstreels E, Jansen S, Daelemans D. Cellular host factors for SARS-CoV-2 infection. *Nat Microbiol*. 2021;6(10):1219-1232. doi:10.1038/s41564-021-00958-0
357. Perez-Miller S, Patek M, Moutal A, et al. Novel Compounds Targeting Neuropilin Receptor 1 with Potential To Interfere with SARS-CoV-2 Virus Entry. *ACS Chem Neurosci*. 2021;12(8):1299-1312. doi:10.1021/acschemneuro.0c00619
358. Daly JL, Simonetti B, Klein K, et al. Neuropilin-1 is a host factor for SARS-CoV-2 infection. *Science*. 2020;370(6518):861-865. doi:10.1126/science.abd3072
359. Nader D, Fletcher N, Curley GF, Kerrigan SW. SARS-CoV-2 uses major endothelial integrin αvβ3 to cause vascular dysregulation in-vitro during COVID-19. *PLOS ONE*. 2021;16(6):e0253347. doi:10.1371/journal.pone.0253347
360. Petruk G, Puthia M, Petrlova J, et al. SARS-CoV-2 spike protein binds to bacterial lipopolysaccharide and boosts proinflammatory activity. *J Mol Cell Biol*. 2020;12(12):916-932. doi:10.1093/jmcb/mjaa067
361. Suzuki YJ, Gychka SG. SARS-CoV-2 Spike Protein Elicits Cell Signaling in Human Host Cells: Implications for Possible Consequences of COVID-19 Vaccines. *Vaccines*. 2021;9(1):36. doi:10.3390/vaccines9010036

362. Liu S, Selvaraj P, Lien CZ, et al. The PRRA Insert at the S1/S2 Site Modulates Cellular Tropism of SARS-CoV-2 and ACE2 Usage by the Closely Related Bat RaTG13. *J Virol*. 95(11):e01751-20. doi:10.1128/JVI.01751-20
363. Johnson BA, Xie X, Kalveram B, et al. Furin Cleavage Site Is Key to SARS-CoV-2 Pathogenesis. *bioRxiv*. Published online August 26, 2020:2020.08.26.268854. doi:10.1101/2020.08.26.268854
364. Deigin Y. Lab-made? CoV2 genealogy through the lens of gain-of-function research. Medium. Published May 3, 2020. Accessed September 28, 2021. https://yurideigin.medium.com/lab-made-cov2-genealogy-through-the-lens-of-gain-of-function-research-f96dd7413748
365. Tetz G, Tetz V. SARS-CoV-2 Prion-Like Domains in Spike Proteins Enable Higher Affinity to ACE2. Published online March 29, 2020. doi:10.20944/preprints202003.0422.v1
366. Fryer HR, McLean AR. There Is No Safe Dose of Prions. *PLOS ONE*. 2011;6(8):e23664. doi:10.1371/journal.pone.0023664
367. Seneff S, Nigh G. Worse Than the Disease? Reviewing Some Possible Unintended Consequences of the mRNA Vaccines Against COVID-19. *Int J Vaccine Theory Pract Res*. 2021;2(1):38-79. Accessed September 28, 2021. https://ijvtpr.com/index.php/IJVTPR/article/view/23
368. Idrees D, Kumar V. SARS-CoV-2 spike protein interactions with amyloidogenic proteins: Potential clues to neurodegeneration. *Biochem Biophys Res Commun*. 2021;554:94-98. doi:10.1016/j.bbrc.2021.03.100
369. Rhea EM, Logsdon AF, Hansen KM, et al. The S1 protein of SARS-CoV-2 crosses the blood–brain barrier in mice. *Nat Neurosci*. 2021;24(3):368-378. doi:10.1038/s41593-020-00771-8
370. Zhang L, Zhou L, Bao L, et al. SARS-CoV-2 crosses the blood–brain barrier accompanied with basement membrane disruption without tight junctions alteration. *Signal Transduct Target Ther*. 2021;6(1):1-12. doi:10.1038/s41392-021-00719-9
371. Buzhdygan TP, DeOre BJ, Baldwin-Leclair A, et al. The SARS-CoV-2 spike protein alters barrier function in 2D static and 3D microfluidic in-vitro models of the human blood-brain barrier. *Neurobiol Dis*. 2020;146:105131. doi:10.1016/j.nbd.2020.105131
372. Ricke DO. Two Different Antibody-Dependent Enhancement (ADE) Risks for SARS-CoV-2 Antibodies. *Front Immunol*. 2021;12:640093. doi:10.3389/fimmu.2021.640093
373. Halstead SB, Katzelnick L. COVID 19 Vaccines: Should we fear ADE? *J Infect Dis*. Published online August 12, 2020:jiaa518. doi:10.1093/infdis/jiaa518
374. Yahi N, Chahinian H, Fantini J. Infection-enhancing anti-SARS-CoV-2 antibodies recognize both the original Wuhan/D614G strain and Delta variants. A potential risk for mass vaccination? *J Infect*. 2021;0(0). doi:10.1016/j.jinf.2021.08.010
375. (STUDY) Why so many vaccinated people are getting sick: Antibody Dependent Enhancement (ADE) | Sharyl Attkisson. Accessed September 28, 2021. https://sharylattkisson.com/2021/08/study-why-so-many-vaccinated-people-are-getting-sick/
376. Lee WS, Wheatley AK, Kent SJ, DeKosky BJ. Antibody-dependent enhancement and SARS-CoV-2 vaccines and therapies. *Nat Microbiol*. 2020;5(10):1185-1191. doi:10.1038/s41564-020-00789-5
377. Wen J, Cheng Y, Ling R, et al. Antibody-dependent enhancement of coronavirus. *Int J Infect Dis*. 2020;100:483-489. doi:10.1016/j.ijid.2020.09.015
378. Wan Y, Shang J, Sun S, et al. Molecular Mechanism for Antibody-Dependent Enhancement of Coronavirus Entry. *J Virol*. 2020;94(5):e02015-19. doi:10.1128/JVI.02015-19
379. Liu Y, Arase N, Kishikawa J, et al. *The SARS-CoV-2 Delta Variant Is Poised to Acquire Complete Resistance to Wild-Type Spike Vaccines*.; 2021:2021.08.22.457114. doi:10.1101/2021.08.22.457114
380. Zhang A, Stacey HD, Mullarkey CE, Miller MS. Original Antigenic Sin: How First Exposure Shapes Lifelong Anti–Influenza Virus Immune Responses. *J Immunol*. 2019;202(2):335-340. doi:10.4049/jimmunol.1801149

381. Brown EL, Essigmann HT. Original Antigenic Sin: the Downside of Immunological Memory and Implications for COVID-19. *mSphere*. 6(2):e00056-21. doi:10.1128/mSphere.00056-21
382. Antibody Dependent Enhancement - an overview | ScienceDirect Topics. Accessed September 28, 2021. https://www.sciencedirect.com/topics/medicine-and-dentistry/antibody-dependent-enhancement
383. ADE. Accessed September 28, 2021. https://www.cdc.gov/dengue/training/cme/ccm/page57857.html
384. Shukla R, Ramasamy V, Shanmugam RK, Ahuja R, Khanna N. Antibody-Dependent Enhancement: A Challenge for Developing a Safe Dengue Vaccine. *Front Cell Infect Microbiol*. 2020;10:597. doi:10.3389/fcimb.2020.572681
385. Scientists Discover How Dengue Vaccine Fails to Protect Against Disease. Newsroom. Published June 23, 2021. Accessed September 28, 2021. https://news.unchealthcare.org/2021/06/scientists-discover-how-dengue-vaccine-fails-to-protect-against-disease/
386. Mahalingam S, Herring BL, Halstead SB. Call to Action for Dengue Vaccine Failure. *Emerg Infect Dis*. 2013;19(8):1335-1337. doi:10.3201/eid1908.121864
387. How the World’s First Dengue Vaccination Drive Ended in Disaster. Scientific American. doi:10.1038/scientificamerican0419-38
388. Tseng C-T, Sbrana E, Iwata-Yoshikawa N, et al. Immunization with SARS Coronavirus Vaccines Leads to Pulmonary Immunopathology on Challenge with the SARS Virus. *PLOS ONE*. 2012;7(4):e35421. doi:10.1371/journal.pone.0035421
389. Zhang L, Richards A, Khalil A, et al. SARS-CoV-2 RNA reverse-transcribed and integrated into the human genome. *BioRxiv Prepr Serv Biol*. Published online December 13, 2020:2020.12.12.422516. doi:10.1101/2020.12.12.422516
390. MIT & Harvard Study Suggests mRNA Vaccine Might Permanently Alter DNA After All. Rights and Freedoms. Published August 13, 2021. Accessed September 28, 2021. https://rightsfreedoms.wordpress.com/2021/08/13/mit-harvard-study-suggests-mrna-vaccine-might-permanently-alter-dna-after-all/
391. The Injection Fraud – It's Not a Vaccine – Solari Report. Accessed September 28, 2021. https://home.solari.com/deep-state-tactics-101-the-covid-injection-fraud-its-not-a-vaccine/
392. Dec 19 LS| NE| CN|, 2017. Feds lift gain-of-function research pause, offer guidance. CIDRAP. Accessed September 28, 2021. https://www.cidrap.umn.edu/news-perspective/2017/12/feds-lift-gain-function-research-pause-offer-guidance
393. Begley,STAT S. U.S. Lifts Moratorium on Funding Controversial, High-Risk Virus Research. Scientific American. Accessed September 28, 2021. https://www.scientificamerican.com/article/u-s-lifts-moratorium-on-funding-controversial-high-risk-virus-research/
394. NIH Lifts Funding Pause on Gain-of-Function Research. National Institutes of Health (NIH). Published December 18, 2017. Accessed September 28, 2021. https://www.nih.gov/about-nih/who-we-are/nih-director/statements/nih-lifts-funding-pause-gain-function-research
395. Ralph S. Baric, PhD. UNC Gillings School of Global Public Health. Accessed September 28, 2021. https://sph.unc.edu/adv_profile/ralph-s-baric-phd/
396. Ralph Baric: On the Front Lines of Coronavirus for Three Decades - UNC General Alumni Association. Accessed September 28, 2021. https://alumni.unc.edu/news/ralph-baric-on-the-front-lines-of-coronavirus-for-three-decades/
397. Menachery VD, Yount BL, Debbink K, et al. A SARS-like cluster of circulating bat coronaviruses shows potential for human emergence. *Nat Med*. 2015;21(12):1508-1513. doi:10.1038/nm.3985
398. Inside the risky bat-virus engineering that links America to Wuhan. MIT Technology Review. Accessed September 28, 2021. https://www.technologyreview.com/2021/06/29/1027290/gain-of-function-risky-bat-virus-engineering-links-america-to-wuhan/

399. Suryanarayanan S. Items from coronavirus expert Ralph Baric's emails. U.S. Right to Know. Published December 14, 2020. Accessed September 28, 2021. https://usrtk.org/biohazards-blog/ralph-baric-emails/
400. Newsweek Op-Ed: "Congress Must Pursue Answers About the Origin of COVID-19" | Senator Rand Paul. Accessed September 28, 2021. https://www.paul.senate.gov/newsweek-op-ed-congress-must-pursue-answers-about-origin-covid-19
401. Baker N. The Lab-Leak Hypothesis. Intelligencer. Published January 4, 2021. Accessed September 28, 2021. https://nymag.com/intelligencer/article/coronavirus-lab-escape-theory.html
402. Lerner S, Hvistendahl M, Hibbett M. NIH Documents Provide New Evidence U.S. Funded Gain-of-Function Research in Wuhan. The Intercept. Published September 10, 2021. Accessed September 28, 2021. https://theintercept.com/2021/09/09/covid-origins-gain-of-function-research/
403. BOMBSHELL: Fauci Kept Funding Peter Daszak's Wuhan "Gain of Function" Experiments with $7.5 Million after Trump Canceled Grant. National File. Published June 3, 2021. Accessed September 28, 2021. https://nationalfile.com/bombshell-fauci-kept-funding-peter-daszaks-wuhan-gain-of-function-experiments-with-7-5-million-after-trump-canceled-grant/
404. miningawareness. USAID (PREDICT) & NIH Gave $ 1.9 Million to the Wuhan (WIV) Lab Through Daszak-EcoHealth Alliance; Daszak Talks China Partners' Work on "Killer" Viruses; Biden Budget Requests More USAID Money for Similar Projects. Mining Awareness +. Published June 11, 2021. Accessed September 28, 2021. https://miningawareness.wordpress.com/2021/06/11/usaid-predict-nih-gave-1-9-million-to-the-wuhan-wiv-lab-through-daszak-ecohealth-alliance-daszak-talks-china-partners-work-on-killer-viruses-biden-admin-plans/
405. Gallagher: This is Bigger than Dr. Fauci. Congressman Mike Gallagher. Published May 20, 2021. Accessed September 28, 2021. https://gallagher.house.gov/media/press-releases/gallagher-bigger-dr-fauci
406. Blog A. EcoHealth Alliance, DARPA Toyed With Infecting Wild Chinese Bats With Covid, Leaked Docs Allege. Algora Blog. Published September 22, 2021. Accessed September 28, 2021. https://www.algora.com/Algora_blog/2021/09/22/ecohealth-alliance-darpa-toyed-with-infecting-wild-chinese-bats-with-covid-leaked-docs-allege
407. Archive VA, feed G author R. Pentagon gave millions to EcoHealth Alliance for weapons research program. New York Post. Published July 2, 2021. Accessed September 28, 2021. https://nypost.com/2021/07/01/pentagon-gave-millions-to-ecohealth-alliance-for-wuhan-lab/
408. Judicial Watch: New Documents Show Wuhan Lab Asked NIH Official for Information on Disinfectants; Nine Fauci Agency Grants for EcoHealth Bat Coronavirus Research. Judicial Watch. Published July 8, 2021. Accessed September 28, 2021. https://www.judicialwatch.org/press-releases/wuhan-lab-fauci-grants/
409. JW v NIH Wuhan June 2021 00696. Judicial Watch. Accessed September 28, 2021. https://www.judicialwatch.org/documents/jw-v-nih-wuhan-june-2021-00696/
410. Opinion | State Department cables warned of safety issues at Wuhan lab studying bat coronaviruses. *Washington Post*. https://www.washingtonpost.com/opinions/2020/04/14/state-department-cables-warned-safety-issues-wuhan-lab-studying-bat-coronaviruses/. Accessed September 28, 2021.
411. Panetta G. US officials were reportedly concerned that safety breaches at a Wuhan lab studying coronaviruses in bats could cause a pandemic. Business Insider. Accessed September 28, 2021. https://www.businessinsider.com/us-officials-raised-alarms-about-safety-issues-in-wuhan-lab-report-2020-4
412. (PDF) The possible origins of 2019-nCoV coronavirus. Accessed September 28, 2021. https://web.archive.org/web/20200214144447/https:/www.researchgate.net/publication/339070128_The_possible_origins_of_2019-nCoV_coronavirus

413. Crist C. 3 Wuhan Lab Workers' 2019 Illness Raises Concerns. WebMD. Accessed September 28, 2021. https://www.webmd.com/lung/news/20210524/wuhan-lab-researchers-illness
414. Williams J. Fauci calls on China to release medical records of Wuhan researchers. TheHill. Published June 4, 2021. Accessed September 28, 2021. https://thehill.com/policy/healthcare/556815-fauci-calls-on-china-to-release-medical-records-of-wuhan-researchers
415. Confidential Documents reveal Moderna sent mRNA Coronavirus Vaccine Candidate to University Researchers weeks before emergence of Covid-19. Rights and Freedoms. Published June 26, 2021. Accessed September 28, 2021. https://rightsfreedoms.wordpress.com/2021/06/26/confidential-documents-reveal-moderna-sent-mrna-coronavirus-vaccine-candidate-to-university-researchers-weeks-before-emergence-of-covid-19/
416. Confidential Documents reveal Moderna sent mRNA Coronavirus Vaccine Candidate to University Researchers weeks before emergence of Covid-19 – The Expose. Accessed September 28, 2021. https://theexpose.uk/2021/06/18/confidential-documents-reveal-moderna-sent-mrna-coronavirus-vaccine-candidate-to-university-researchers-weeks-before-emergence-of-covid-19/
417. Jan 11 LS| NE| CN|, 2020. China releases genetic data on new coronavirus, now deadly. CIDRAP. Accessed September 28, 2021. https://www.cidrap.umn.edu/news-perspective/2020/01/china-releases-genetic-data-new-coronavirus-now-deadly
418. Whole genome of novel coronavirus, 2019-nCoV, sequenced. ScienceDaily. Accessed September 28, 2021. https://www.sciencedaily.com/releases/2020/01/200131114748.htm
419. Bendix SN Andrew Dunn, Aria. Moderna's groundbreaking coronavirus vaccine was designed in just 2 days. Business Insider. Accessed September 28, 2021. https://www.businessinsider.com/moderna-designed-coronavirus-vaccine-in-2-days-2020-11
420. Moderna designed its coronavirus vaccine in 2 days — here's how - National | Globalnews.ca. Global News. Accessed September 28, 2021. https://globalnews.ca/news/7492076/moderna-coronavirus-vaccine-technology-how-it-works/
421. Wallace-Wells D. We Had the Vaccine the Whole Time. Intelligencer. Published December 7, 2020. Accessed September 28, 2021. https://nymag.com/intelligencer/2020/12/moderna-covid-19-vaccine-design.html
422. The Board of Directors of bioMerieux, chaired by Alain Merieux, has appointed Stephane Bancel Directeur General delegue (Chief Executive Officer) of bioMerieux starting January 1, 2007. bioMérieux Corporate Website. Accessed September 28, 2021. https://www.biomerieux.com/en/board-directors-biomerieux-chaired-alain-merieux-has-appointed-stephane-bancel-directeur-general
423. Stéphane Bancel | HIMSS. Published September 24, 2021. Accessed September 28, 2021. https://www.himss.org/global-conference/speaker-stephane-bancel
424. Alain Mérieux receives the prestigious Chinese Reform Friendship Award. Mérieux Foundation. Published September 17, 2013. Accessed September 28, 2021. https://www.fondation-merieux.org/en/news/alain-merieux-receives-the-prestigious-chinese-reform-friendship-award/
425. Beijing JXTWLCI. The Wuhan lab at the core of a virus controversy. Accessed September 28, 2021. https://medicalxpress.com/news/2020-04-wuhan-lab-core-virus-controversy.html
426. China Inaugurates the first biocontainment level 4 laboratory in Wuhan----Wuhan Institute of Virology. Accessed September 28, 2021. http://english.whiov.cas.cn/ne/201712/t20171212_187624.html
427. RaTG13 is fake. Nerd Has Power. Accessed September 28, 2021. https://nerdhaspower.weebly.com/ratg13-is-fake.html
428. RaTG13 – the Undeniable Evidence That the Wuhan Coronavirus Is Man-Made. GNEWS. Published May 2, 2020. Accessed September 28, 2021. https://gnews.org/192144
429. Scientific history of RaTG13. Peak Prosperity. Accessed September 28, 2021. https://www.peakprosperity.com/forum-topic/scientific-history-of-ratg13/

430. No one can find the animal that gave people covid-19. MIT Technology Review. Accessed September 28, 2021. https://www.technologyreview.com/2021/03/26/1021263/bat-covid-coronavirus-cause-origin-wuhan/
431. How WHO is working to track down the animal reservoir of the SARS-CoV-2 virus. Accessed September 28, 2021. https://www.who.int/news-room/feature-stories/detail/how-who-is-working-to-track-down-the-animal-reservoir-of-the-sars-cov-2-virus
432. Jewers C. More Lancet letter signatories found to have links to Wuhan. Mail Online. Published September 11, 2021. Accessed September 28, 2021. https://www.dailymail.co.uk/news/article-9980015/26-Lancet-scientists-trashed-theory-Covid-leaked-Chinese-lab-links-Wuhan.html
433. Wang N, Li S-Y, Yang X-L, et al. Serological Evidence of Bat SARS-Related Coronavirus Infection in Humans, China. *Virol Sin*. 2018;33(1):104-107. doi:10.1007/s12250-018-0012-7
434. Daszak and scientists stand by Lancet letter condemning Wuhan lab "conspiracy theories." MSN. Accessed September 28, 2021. https://www.msn.com/en-us/health/medical/daszak-and-scientists-stand-by-lancet-letter-condemning-wuhan-lab-conspiracy-theories/ar-AALT8w6
435. Albaugh G. Journal That Mocked COVID Lab-Leak As "Conspiracy" Recants. Citizens Journal. Published September 22, 2021. Accessed September 28, 2021. https://www.citizensjournal.us/journal-that-mocked-covid-lab-leak-as-conspiracy-recants/
436. Calisher C, Carroll D, Colwell R, et al. Statement in support of the scientists, public health professionals, and medical professionals of China combatting COVID-19. *The Lancet*. 2020;395(10226):e42-e43. doi:10.1016/S0140-6736(20)30418-9
437. Lancet's COVID origins panel disbands over ties to Peter Daszak's EcoHealth Alliance. swiftheadline. Published September 26, 2021. Accessed September 28, 2021. https://swiftheadline.com/lancets-covid-origins-panel-disbands-over-ties-to-peter-daszaks-ecohealth-alliance/
438. WHO Covid Expert Peter Daszak's Alleged China Connection and CCP Money Trail: What's the Truth? Published February 11, 2021. Accessed September 28, 2021. https://www.ibtimes.sg/who-covid-expert-peter-daszaks-alleged-china-connection-ccp-money-trail-whats-truth-55511
439. Rutz D. Media fact-checkers, Facebook cited Wuhan lab-linked scientist to knock down lab leak theory. Fox News. Published June 3, 2021. Accessed September 28, 2021. https://www.foxnews.com/media/daszak-fact-checks-coronavirus-wuhan-lab
440. Daszak P, Chmura A. A Fall From Grace To… Virulence? *Ecohealth*. 2008;5(1):96-97. doi:10.1007/s10393-008-0163-3
441. Bogich TL, Chunara R, Scales D, et al. Preventing pandemics via international development: a systems approach. *PLoS Med*. 2012;9(12):e1001354. doi:10.1371/journal.pmed.1001354
442. Daszak P, Howard SE, Chmura AA. Rock, paper, scissors; chicken, human, swine. *EcoHealth*. 2009;6(1):159-160. doi:10.1007/s10393-009-0245-x
443. Ge X-Y, Li J-L, Yang X-L, et al. Isolation and characterization of a bat SARS-like coronavirus that uses the ACE2 receptor. *Nature*. 2013;503(7477):535-538. doi:10.1038/nature12711
444. Latinne A, Hu B, Olival KJ, et al. Origin and cross-species transmission of bat coronaviruses in China. *BioRxiv Prepr Serv Biol*. Published online May 31, 2020:2020.05.31.116061. doi:10.1101/2020.05.31.116061
445. Li H-Y, Zhu G-J, Zhang Y-Z, et al. A qualitative study of zoonotic risk factors among rural communities in southern China. *Int Health*. 2020;12(2):77-85. doi:10.1093/inthealth/ihaa001
446. Li H, Chen Y, Machalaba CC, et al. Wild animal and zoonotic disease risk management and regulation in China: Examining gaps and One Health opportunities in scope, mandates, and monitoring systems. *One Health Amst Neth*. 2021;13:100301. doi:10.1016/j.onehlt.2021.100301

447. Nava A, Shimabukuro JS, Chmura AA, Luz SLB. The Impact of Global Environmental Changes on Infectious Disease Emergence with a Focus on Risks for Brazil. *ILAR J*. 2017;58(3):393-400. doi:10.1093/ilar/ilx034
448. Wang N, Li S-Y, Yang X-L, et al. Serological Evidence of Bat SARS-Related Coronavirus Infection in Humans, China. *Virol Sin*. 2018;33(1):104-107. doi:10.1007/s12250-018-0012-7
449. Zeng L-P, Gao Y-T, Ge X-Y, et al. Bat Severe Acute Respiratory Syndrome-Like Coronavirus WIV1 Encodes an Extra Accessory Protein, ORFX, Involved in Modulation of the Host Immune Response. *J Virol*. 2016;90(14):6573-6582. doi:10.1128/JVI.03079-15
450. David Martin. *The Fauci COVID 19 Dossier*.; 2021. Accessed September 28, 2021. http://archive.org/details/the-fauci-covid-19-dossier
451. 161385360554578. Coronavirus patients WELDED into homes in China as death toll spirals to 813. The US Sun. Published February 9, 2020. Accessed September 28, 2021. https://www.the-sun.com/news/378365/coronavirus-patients-welded-into-homes-in-china-as-death-toll-spirals-to-813/
452. Archive VA, Author E the, Twitter F on, et al. COVID-19 deaths in NY nursing homes were 50 percent higher than claimed: probe. New York Post. Published January 28, 2021. Accessed September 28, 2021. https://nypost.com/2021/01/28/ny-nursing-home-covid-deaths-50-higher-than-stated-ag-probe/
453. Ciavaglia DR and J. Investigations into Northeast nursing homes ongoing as true COVID death toll rises by 16K. The Intelligencer. Accessed September 28, 2021. https://www.theintell.com/story/news/coronavirus/2021/09/14/covid-nursing-homes-deaths-investigation-pa-ny-nj/8280221002/
454. editor@palltimes.com A and SR. New York health chief, Cuomo defender, resigning. Oswego County News Now. Accessed September 28, 2021. http://www.oswegocountynewsnow.com/news/new-york-health-chief-cuomo-defender-resigning/article_4e6877f6-1d7a-11ec-b7fc-23eab87d9a8a.html
455. Care homes accused of using powerful sedatives to kill corona victims quickly. The Sun. Published July 12, 2020. Accessed September 28, 2021. https://www.thesun.co.uk/news/12100515/care-homes-accused-sedatives-coronavirus-die-quickly/
456. Wayne Smith, The Man Exposing The Midazolam Mass Murder Care Home Scandal Found Dead - Plandemic. Accessed September 28, 2021. https://plandemic.co/2021/08/19/wayne-smith-the-man-exposing-the-midazolam-mass-murder-care-home-scandal-found-dead/
457. Did the 'First Wave' Mean the Mass Murder of the Elderly With Midazolam? – The White Rose. Accessed September 28, 2021. https://thewhiterose.uk/was-this-the-first-wave-mass-murder-of-the-elderly-with-midazolam/
458. News: Face mask shortage prompts CDC to... (The Washington Post) - Behind the headlines - NLM. NCBI. Accessed September 28, 2021. https://www.ncbi.nlm.nih.gov/search/research-news/8835
459. Evstatieva M. U.S. Companies Shifted To Make N95 Respirators During COVID. Now, They're Struggling. *NPR*. https://www.npr.org/2021/06/25/1009858893/u-s-companies-shifted-to-make-n95-respirators-during-covid-now-theyre-struggling. Published June 25, 2021. Accessed September 28, 2021.
460. Pandemic Market Oddity: N95 Mask Shortage Despite Availability. Verisk. Accessed September 28, 2021. https://www.verisk.com/insurance/covid-19/iso-insights/pandemic-market-oddity-n95-mask-shortage-despite-availability/
461. In the early days of the pandemic, the U.S. government turned down an offer to manufacture millions of N95 masks in America. *Washington Post*. https://www.washingtonpost.com/investigations/in-the-early-days-of-the-pandemic-the-us-government-turned-down-an-offer-to-manufacture-millions-of-n95-masks-in-america/2020/05/09/f76a821e-908a-11ea-a9c0-73b93422d691_story.html. Accessed September 28, 2021.

462. Cheong W. The US government turned down an offer to manufacture up to 1.7 million N95 masks weekly in January: report. Business Insider. Accessed September 28, 2021. https://www.businessinsider.com/us-government-rejected-an-offer-to-manufacture-up-to-17-million-n95-masks-weekly-2020-5
463. Dugdale CM, Walensky RP. Filtration Efficiency, Effectiveness, and Availability of N95 Face Masks for COVID-19 Prevention. *JAMA Intern Med*. 2020;180(12):1612-1613. doi:10.1001/jamainternmed.2020.4218
464. What's a PCR test cycle threshold and why it matters. Full Fact. Published 16:47:37.518768+00:00. Accessed September 28, 2021. https://fullfact.org/health/cycle-threshold-values/
465. Rajyalakshmi B, Samavedam S, Reddy PR, Aluru N. Prognostic Value of "Cycle Threshold" in Confirmed COVID-19 Patients. *Indian J Crit Care Med Peer-Rev Off Publ Indian Soc Crit Care Med*. 2021;25(3):322-326. doi:10.5005/jp-journals-10071-23765
466. Covid Mandates: Unscientific, Irrational And Fraudulent, Dozens Of Reasons To Stop Them Now | Covid Call To Humanity. Accessed September 28, 2021. https://covidcalltohumanity.org/2021/09/27/nicanor-perlas-covid-mandates-unscientific-irrational-and-fraudulent-dozens-of-reasons-to-stop-them-now/
467. The COVID-19 PCR Test Is Key to the Pandemic Fraud | Principia Scientific Intl. Principia Scientific Intl. | A science-based community. Published September 8, 2020. Accessed September 28, 2021. https://principia-scientific.com/the-covid-19-pcr-test-is-key-to-the-pandemic-fraud/
468. Mandavilli A. Your Coronavirus Test Is Positive. Maybe It Shouldn't Be. *The New York Times*. https://www.nytimes.com/2020/08/29/health/coronavirus-testing.html. Published August 29, 2020. Accessed September 28, 2021.
469. The Fog of COVID-19 Data: How many cases aren't even cases? John Locke Foundation. Accessed September 28, 2021. https://www.johnlocke.org/update/the-fog-of-covid-19-data-how-many-cases-arent-even-cases/
470. Caught Red-Handed: CDC Changes Test Thresholds To Virtually Eliminate New COVID Cases Among Vaxx'd. Rights and Freedoms. Published May 24, 2021. Accessed September 28, 2021. https://rightsfreedoms.wordpress.com/2021/05/24/caught-red-handed-cdc-changes-test-thresholds-to-virtually-eliminate-new-covid-cases-among-vaxxd/
471. Trabert D. CDC: maximum 28 CT for post-vaccine COVID PCR tests. The Sentinel. Published May 3, 2021. Accessed September 28, 2021. https://sentinelksmo.org/cdc-maximum-28-ct-for-post-vaccine-covid-pcr-tests/
472. FLCCC-Alliance-MATHplus-Protocol-ENGLISH.pdf. Accessed September 28, 2021. https://covid19criticalcare.com/wp-content/uploads/2021/01/FLCCC-Alliance-MATHplus-Protocol-ENGLISH.pdf
473. Kashiouris MG, L'Heureux M, Cable CA, Fisher BJ, Leichtle SW, Fowler AA. The Emerging Role of Vitamin C as a Treatment for Sepsis. *Nutrients*. 2020;12(2):E292. doi:10.3390/nu12020292
474. Obi J, Pastores SM, Ramanathan LV, Yang J, Halpern NA. Treating sepsis with vitamin C, thiamine, and hydrocortisone: Exploring the quest for the magic elixir. *J Crit Care*. 2020;57:231-239. doi:10.1016/j.jcrc.2019.12.011
475. Harris R. "Tantalizing" Results For A Test Of Vitamin C For Sepsis. *NPR*. https://www.npr.org/sections/health-shots/2019/10/01/766029397/mixed-results-for-a-test-of-vitamin-c-for-sepsis. Published October 1, 2019. Accessed September 28, 2021.
476. nutraingredients.com. "Ethically and morally unacceptable": Reaction to vitamin C for sepsis trial. nutraingredients.com. Accessed September 28, 2021. https://www.nutraingredients.com/Article/2020/01/28/Ethically-and-morally-unacceptable-Reaction-to-vitamin-C-for-sepsis-trial

477. Research C for DE and. FDA Updates and Press Announcements on NDMA in Zantac (ranitidine). *FDA*. Published online July 1, 2021. Accessed September 28, 2021. https://www.fda.gov/drugs/drug-safety-and-availability/fda-updates-and-press-announcements-ndma-zantac-ranitidine
478. FDA studies: No post-ingestion NDMA from ranitidine. Accessed September 28, 2021. https://www.raps.org/news-and-articles/news-articles/2021/6/fda-studies-no-post-ingestion-ndma-from-ranitidine
479. Ahmadi A, Ebrahimzadeh MA, Ahmad-Ashrafi S, Karami M, Mahdavi MR, Saravi SSS. Hepatoprotective, antinociceptive and antioxidant activities of cimetidine, ranitidine and famotidine as histamine H2 receptor antagonists. *Fundam Clin Pharmacol*. 2011;25(1):72-79. doi:10.1111/j.1472-8206.2009.00810.x
480. Nutrition C for FS and A. LES Labs - 593764 - 07/23/2020. Center for Food Safety and Applied Nutrition. Published July 29, 2020. Accessed September 28, 2021. https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/warning-letters/les-labs-593764-07232020
481. US senator, NPA press FDA on NAC supplements. Natural Products INSIDER. Published August 18, 2021. Accessed September 28, 2021. https://www.naturalproductsinsider.com/regulatory/us-senator-npa-press-fda-nac-supplements
482. nutraingredients-usa.com. CRN: 'This is not the final word on NAC.' nutraingredients-usa.com. Accessed September 28, 2021. https://www.nutraingredients-usa.com/Article/2021/05/11/CRN-This-is-not-the-final-word-on-NAC
483. Amazon confirms plans on removing NAC supplements. Natural Products INSIDER. Published May 6, 2021. Accessed September 28, 2021. https://www.naturalproductsinsider.com/regulatory/amazon-confirms-plans-removing-nac-supplements
484. Harvard University Professor and Two Chinese Nationals Charged in Three Separate China Related Cases. Published January 28, 2020. Accessed September 28, 2021. https://www.justice.gov/opa/pr/harvard-university-professor-and-two-chinese-nationals-charged-three-separate-china-related
485. Research Sponsors - Lieber Research GroupThe Lieber group is focused broadly on science and technology at the nanoscale - Lieber Research Group. Accessed September 28, 2021. http://cml.harvard.edu/resources/research-sponsors
486. Shaw J. Virus-Sized Transistors. Harvard Magazine. Published December 16, 2010. Accessed September 28, 2021. https://www.harvardmagazine.com/2011/01/virus-sized-transistors
487. Why did a Chinese university hire Charles Lieber to do battery research? Accessed September 28, 2021. https://www.science.org/content/article/why-did-chinese-university-hire-charles-lieber-do-battery-research
488. Writer PRHS. Reading life's building blocks. Harvard Gazette. Published January 5, 2012. Accessed September 28, 2021. https://news.harvard.edu/gazette/story/2012/01/reading-lifes-building-blocks/
489. Correspondent CM-MH. Harvard researchers present nanowire devices update. Harvard Gazette. Published July 2, 2019. Accessed September 28, 2021. https://news.harvard.edu/gazette/story/2019/07/harvard-researchers-present-nanowire-devices-update/
490. Harvard University Professor Indicted on False Statement Charges. Published June 9, 2020. Accessed September 28, 2021. https://www.justice.gov/usao-ma/pr/harvard-university-professor-indicted-false-statement-charges
491. Barry E, Kolata G. China's Lavish Funds Lured U.S. Scientists. What Did It Get in Return? *The New York Times*. https://www.nytimes.com/2020/02/06/us/chinas-lavish-funds-lured-us-scientists-what-did-it-get-in-return.html. Published February 6, 2020. Accessed September 28, 2021.

492. Subbaraman N. Harvard chemistry chief's arrest over China links shocks researchers. *Nature*. Published online February 3, 2020. doi:10.1038/d41586-020-00291-2
493. Portman R, Carper T. Threats to the U.S. Research Enterprise: China's Talent Recruitment Plans. :109.
494. Krige J. Scholars or Spies? U.S.-China Tension in Academic Collaboration. China Research Center. Published October 12, 2020. Accessed September 28, 2021. https://www.chinacenter.net/2020/china_currents/19-3/scholars-or-spies-u-s-china-tension-in-academic-collaboration/
495. FBI_Risks_To_Academia.pdf. Accessed September 28, 2021. https://www.research.psu.edu/sites/default/files/FBI_Risks_To_Academia.pdf
496. Zweig D, Kang S. AMERICA CHALLENGES CHINA'S NATIONAL TALENT PROGRAMS. :20.
497. Zhang A, Zhao Y, You SS, Lieber CM. Nanowire probes could drive high-resolution brain-machine interfaces. *Nano Today*. 2020;31:100821. doi:10.1016/j.nantod.2019.100821
498. Hong G, Lieber CM. Novel electrode technologies for neural recordings. *Nat Rev Neurosci*. 2019;20(6):330-345. doi:10.1038/s41583-019-0140-6
499. Human Cells Eat Nanowires. IEEE Spectrum. Published December 19, 2016. Accessed September 28, 2021. https://spectrum.ieee.org/human-cells-eat-nanowires
500. They've got the beat. Boston Herald. Published August 29, 2012. Accessed September 28, 2021. https://www.bostonherald.com/2012/08/29/theyve-got-the-beat-2/
501. Tian B, Liu J, Dvir T, et al. Macroporous nanowire nanoelectronic scaffolds for synthetic tissues. *Nat Mater*. 2012;11(11):986-994. doi:10.1038/nmat3404
502. Board of Directors: Advancing mRNA Science - Moderna. Accessed September 28, 2021. https://www.modernatx.com/modernas-board-directors
503. Tognini G. MIT Scientist Bob Langer Becomes A Billionaire Thanks To Moderna Stock Rally. Forbes. Accessed September 28, 2021. https://www.forbes.com/sites/giacomotognini/2020/11/12/mit-scientist-bob-langer-becomes-a-billionaire-thanks-to-moderna-stock-rally/
504. Moderna's Stock Rally Makes Bob Langer a Billionaire. Accessed September 28, 2021. https://www.ceotodaymagazine.com/2020/11/modernas-stock-rally-makes-bob-langer-a-billionaire/
505. Langer Lab – MIT Department of Chemical Engineering. Accessed September 28, 2021. https://langerlab.mit.edu/
506. Nano-Bioelectronics. Lieber Research Group. Accessed September 28, 2021. http://cml.harvard.edu/research/nano-bioelectronics
507. Durden T. Klaus Schwab: Great Reset Will "Lead To Fusion Of Our Physical, Digital, & Biological Identity." Invesbrain. Published November 17, 2020. Accessed September 28, 2021. https://invesbrain.com/klaus-schwab-great-reset-will-lead-to-fusion-of-our-physical-digital-biological-identity/
508. Shaping the Future of the Fourth Industrial Revolution by Klaus Schwab, Nicholas Davis: 9781984822611 | PenguinRandomHouse.com: Books. Accessed September 28, 2021. https://www.penguinrandomhouse.com/books/598250/shaping-the-future-of-the-fourth-industrial-revolution-by-klaus-schwab-founder-and-executive-chairman-world-economic-forum-with-nicholas-davis/
509. ORWELL CITY: Official interim report of Pfizer's vaccination vial analysis explained by La Quinta Columna. ORWELL CITY. Accessed September 28, 2021. https://www.orwell.city/2021/06/vaccination-vial-analysis-explained.html
510. Yi J, Choe G, Park J, Lee JY. Graphene oxide-incorporated hydrogels for biomedical applications. *Polym J*. 2020;52(8):823-837. doi:10.1038/s41428-020-0350-9
511. Kim YH, Jo MS, Kim JK, et al. Short-term inhalation study of graphene oxide nanoplates. *Nanotoxicology*. 2018;12(3):224-238. doi:10.1080/17435390.2018.1431318

512. News · CBC. Potentially toxic masks distributed in schools and daycares in Quebec | CBC News. CBC. Published March 26, 2021. Accessed September 28, 2021. https://www.cbc.ca/news/canada/montreal/masks-early-pulmonary-toxicity-quebec-schools-daycares-1.5966387
513. HAF. BOMBSHELL: Disposable Blue Face Masks Found to Contain Toxic, Asbestos-Like Substance that Destroys Lungs. https://humansarefree.com/. Accessed September 28, 2021. https://humansarefree.com/2021/04/bombshell-disposable-blue-face-masks-found-to-contain-toxic-asbestos-like-substance-that-destroys-lungs.html/
514. 崔大祥, 高昂, 梁辉, 田静, 李雪玲, 沈琦. Nano coronavirus recombinant vaccine taking graphene oxide as carrier. Published online January 15, 2021. Accessed October 8, 2021. https://patents.google.com/patent/CN112220919A/en
515. Xu L, Xiang J, Liu Y, et al. Functionalized graphene oxide serves as a novel vaccine nano-adjuvant for robust stimulation of cellular immunity. *Nanoscale*. 2016;8(6):3785-3795. doi:10.1039/C5NR09208F
516. Recent progress of graphene oxide as a potential vaccine carrier and adjuvant - ScienceDirect. Accessed October 8, 2021. https://www.sciencedirect.com/science/article/abs/pii/S1742706120303305?via%3Dihub
517. Reuters. Japan suspends 1.6M doses of Moderna shot after contamination reports. NBC News. Accessed September 28, 2021. https://www.nbcnews.com/news/world/japan-suspends-1-6m-doses-moderna-shot-after-contamination-reports-n1277669
518. Contaminant in Moderna COVID-19 vaccine vials found in Japan was metallic particles: report. FiercePharma. Accessed September 28, 2021. https://www.fiercepharma.com/pharma/contaminant-moderna-covid-19-vaccine-vials-found-japan-was-metallic-particles-report
519. Administrator A. Japan Suspects Contaminant In Moderna Vaccines Is Metallic, 'Reacts To Magnets.' The Burning Platform. Published August 27, 2021. Accessed September 28, 2021. https://www.theburningplatform.com/2021/08/27/japan-suspects-contaminant-in-moderna-vaccines-is-metallic-reacts-to-magnets/
520. Franceschi Biagioni A, Cellot G, Pati E, et al. Graphene oxide prevents lateral amygdala dysfunctional synaptic plasticity and reverts long lasting anxiety behavior in rats. *Biomaterials*. 2021;271:120749. doi:10.1016/j.biomaterials.2021.120749
521. Soothing the symptoms of anxiety with graphene oxide. Graphene Flagship. Accessed September 28, 2021. https://graphene-flagship.eu/graphene/news/soothing-the-symptoms-of-anxiety-with-graphene-oxide/
522. SARS-CoV-2 Spike Proteins Disrupt the Blood-Brain Barrier, Potentially Raising Risk of Neurological Damage in COVID-19 Patients. Temple Health. Accessed September 28, 2021. https://www.templehealth.org/about/news/sars-cov-2-spike-proteins-disrupt-the-blood-brain-barrier-potentially-raising-risk-of-neurological-damage-in-covid-19-patients
523. NEUROMODULATORY EFFECTS OF SARS-COV-2 ON THE BLOOD-BRAIN BARRIER. CROI Conference. Accessed September 28, 2021. https://www.croiconference.org/abstract/neuromodulatory-effects-of-sars-cov-2-on-the-blood-brain-barrier/
524. Ohta S, Kikuchi E, Ishijima A, Azuma T, Sakuma I, Ito T. Investigating the optimum size of nanoparticles for their delivery into the brain assisted by focused ultrasound-induced blood–brain barrier opening. *Sci Rep*. 2020;10(1):18220. doi:10.1038/s41598-020-75253-9
525. Vu MN, Rajasekhar P, Poole DP, et al. Rapid Assessment of Nanoparticle Extravasation in a Microfluidic Tumor Model. *ACS Appl Nano Mater*. 2019;2(4):1844-1856. doi:10.1021/acsanm.8b02056
526. Saraiva C, Praça C, Ferreira R, Santos T, Ferreira L, Bernardino L. Nanoparticle-mediated brain drug delivery: Overcoming blood–brain barrier to treat neurodegenerative diseases. *J Controlled Release*. 2016;235:34-47. doi:10.1016/j.jconrel.2016.05.044

527. Pappas S. Rare magnetism found in the world's strongest material. livescience.com. Published October 14, 2020. Accessed September 28, 2021. https://www.livescience.com/graphene-hides-rare-magnetism.html
528. Augustyniak-Jabłokow MA, Tadyszak K, Strzelczyk R, Fedaruk R, Carmieli R. Slow spin relaxation of paramagnetic centers in graphene oxide. *Carbon*. 2019;152:98-105. doi:10.1016/j.carbon.2019.06.024
529. Sang M, Shin J, Kim K, Yu KJ. Electronic and Thermal Properties of Graphene and Recent Advances in Graphene Based Electronics Applications. *Nanomaterials*. 2019;9(3):374. doi:10.3390/nano9030374
530. INBRAIN Neuroelectronics Secures $17 Million in Series A Funding for First AI-Powered Graphene-Brain Interface. Published March 30, 2021. Accessed September 28, 2021. https://www.businesswire.com/news/home/20210330005388/en/INBRAIN-Neuroelectronics-Secures-17-Million-in-Series-A-Funding-for-First-AI-Powered-Graphene-Brain-Interface
531. DARPA and the Brain Initiative. Accessed September 28, 2021. https://www.darpa.mil/program/our-research/darpa-and-the-brain-initiative
532. Six Paths to the Nonsurgical Future of Brain-Machine Interfaces. Accessed September 28, 2021. https://www.darpa.mil/news-events/2019-05-20
533. Neuralink and the Brain's Magical Future. Wait But Why. Published April 20, 2017. Accessed September 28, 2021. https://waitbutwhy.com/2017/04/neuralink.html
534. Martins NRB, Angelica A, Chakravarthy K, et al. Human Brain/Cloud Interface. *Front Neurosci*. 2019;13:112. doi:10.3389/fnins.2019.00112
535. Lee S, Shin Y, Woo S, Lee KK and H-N. *Review of Wireless Brain-Computer Interface Systems*. IntechOpen; 2013. doi:10.5772/56436
536. Researchers demonstrate first human use of high-bandwidth wireless brain-computer interface. Brown University. Accessed September 28, 2021. https://www.brown.edu/news/2021-03-31/braingate-wireless
537. AI and VR Transform Thoughts to Action with Wireless BCI | Psychology Today. Accessed September 28, 2021. https://www.psychologytoday.com/us/blog/the-future-brain/202107/ai-and-vr-transform-thoughts-action-wireless-bci
538. Haselager P. Did I Do That? Brain–Computer Interfacing and the Sense of Agency. *Minds Mach*. 2013;23(3):405-418. doi:10.1007/s11023-012-9298-7
539. Mind reading and brain computer interface technology: the future is coming, fast. Privacy SOS. Accessed September 28, 2021. https://privacysos.org/technologies_of_controlmind_reading/
540. With Magnetic Nanoparticles, Scientists Remotely Control Neurons and Animal Behavior. Accessed September 28, 2021. http://www.buffalo.edu/news/releases/2010/07/11518.html
541. Brain-machine interfaces may be used to study and regulate mood - Science in the News. Accessed September 28, 2021. https://sitn.hms.harvard.edu/flash/2019/brain-machine-interfaces-may-used-study-regulate-mood/?web=1&wdLOR=c97F3B6A1-B18A-433D-96C4-477F88B46A83
542. Shanechi MM. Brain–machine interfaces from motor to mood. *Nat Neurosci*. 2019;22(10):1554-1564. doi:10.1038/s41593-019-0488-y
543. Opinion / The Last Humans and the Next Brands - Critical Mass - Adforum.com. Accessed September 28, 2021. https://www.adforum.com/agency/6664937/press-releases/70226/opinion-the-last-humans-and-the-next-brands
544. Bonaci T, Herron J, Matlack C, Chizeck HJ. Securing the exocortex: A twenty-first century cybernetics challenge. In: *2014 IEEE Conference on Norbert Wiener in the 21st Century (21CW)*. ; 2014:1-8. doi:10.1109/NORBERT.2014.6893912
545. Can dark triad leaders be a good choice for a leadership position? - Egon Zehnder. Can dark triad leaders be a good choice for a leadership position? - Egon Zehnder. Accessed September 28, 2021.

https://www.egonzehnder.com/insight/can-dark-triad-leaders-be-a-good-choice-for-a-leadership-position
546. Silver J. The Startling Accuracy of Referring to Politicians as “Psychopaths.” The Atlantic. Published July 31, 2012. Accessed September 28, 2021. https://www.theatlantic.com/health/archive/2012/07/the-startling-accuracy-of-referring-to-politicians-as-psychopaths/260517/
547. Schlesinger T. The Rise of the Psychopath and Sociopath to Political Power. World Issues — Politics, Economics, and More. Published December 1, 2020. Accessed September 28, 2021. https://medium.com/world-issues-politics-economics-and-more/the-rise-of-the-psychopath-and-sociopath-to-political-power-b67ef9073477
548. Commentary: 12% of corporate leaders are psychopaths. It’s time to take this problem seriously. Fortune. Accessed September 28, 2021. https://fortune.com/2021/06/06/corporate-psychopaths-business-leadership-csr/
549. 21 percent of CEOs are psychopaths. Only 21 percent? *Washington Post*. https://www.washingtonpost.com/news/on-small-business/wp/2016/09/16/gene-marks-21-percent-of-ceos-are-psychopaths-only-21-percent/. Accessed September 28, 2021.
550. McCullough J. The Psychopathic CEO. Forbes. Accessed September 28, 2021. https://www.forbes.com/sites/jackmccullough/2019/12/09/the-psychopathic-ceo/
551. The brain-computer interface: new rights or new threats to fundamental freedoms? Accessed September 28, 2021. https://pace.coe.int/en/files/28722

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