COVID-19 Injections: Harms and Damages, a Non-Exhaustive Conclusion

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ABSTRACT

Compelling evidence shows that SARS-CoV-2 and SARS-CoV-2 modified mRNA biologics/vaccines are products of gain-of-function (GOF) research, with genomic features and vaccine outcomes that suggest deliberate engineering rather than natural evolution. Far from benign, these vaccines have unleashed profound harm, disrupting nearly every system of the human body and contributing to unprecedented levels of morbidity and mortality. From autoimmune diseases and cardiovascular catastrophes to pregnancy complications and aggressive cancers, the pattern of systemic toxicity cannot be dismissed as coincidental. Urgent scrutiny and accountability are needed.

Origins of SARS-CoV-2 and SARS-CoV-2 Modified mRNA Biologics/Vaccines

The justification for Dr. Anthony Fauci's pre-pandemic pan-coronavirus mRNA vaccine platform was to create medical countermeasures to protect against potential natural and unnatural biological threats.[1,2] There is a long history of U.S. and Chinese involvement in gain-of-function (GOF) research and viral manipulation techniques,[3] including a long-standing collaboration between U.S.-funded institutions and the Wuhan Institute of Virology (WIV).[4] In particular, the DEFUSE proposal submitted by EcoHealth Alliance to the Defense Advanced Research Projects Agency (DARPA) in 2018 described the intentional creation of chimeric coronaviruses with enhanced infectivity, including features like the furin cleavage site (FCS) and human immunodeficiency virus (HIV)-like inserts.[5]

SARS-CoV-2 displays multiple genomic features indicative of laboratory manipulation. The FCS is a rare insertion in coronaviruses that enhances infectivity and is absent in SARS-like viruses found in nature. It contains elements usually removed in vaccine design due to their immunological-disrupting potential, including IgG class-switching.[6,7] The virus includes other unusual features such as an epithelial sodium channel (ENaC) epitope,[8] dendritic cell-specific intercellular adhesion molecule-3-grabbing non-integrin (DC-SIGN) receptors,[9] and a staphylococcal enterotoxin B (SEB)-like superantigen motif,[10] which are thought to enhance immunological evasion and aerosol transmissibility. Its virions are unusually durable[11] and five times more stable in air than those of severe acute respiratory syndrome (SARS) or Middle East respiratory syndrome (MERS).[12] These combined traits, along with the virus's mutation patterns, are strong evidence that SARS-CoV-2 could not have evolved naturally. Furthermore, senior NATO military scientists rated SARS-CoV-2 as the fourth most attractive pathogen amongst 34 known or potential bioweapons.[13,14] The virus (and vaccine) contains evidence of manipulation, and those specific manipulations match the goals of four of seven categories of GOF experiments.[15] Finally, those manipulations represent a violation of the Biological Weapons Convention.[16]

Suppression of Information and Early Vaccine Development

The rapid development of a vaccine prototype by Fauci's Vaccine Research Center (VRC) and Moderna by Jan 13, 2020,[17] before human-to-human transmission was officially confirmed, exposed an early understanding of the virus's high potential for large-scale spreading, yet this awareness was withheld from doctors and nurses treating early Coronavirus Disease 2019 (COVID-19) patients. A teleconference on Feb 1, 2020, convened by Fauci and Jeremy Farrar, aimed to suppress concerns about HIV-like inserts and the FCS. The widely cited "proximal origin" paper was coordinated by the attendees of that teleconference to discredit lab-origin theories.[18] Scientists who authored or supported this paper were previously involved in similar narrative control during controversies over HIV origin, Gulf War Syndrome, and the 2014 Ebola outbreak.[19] In addition, Kelvin Droegemeier of the White House Office of Science and Technology Policy (OSTP) collaborated with Fauci to withhold information from the Trump administration regarding GOF research ties to the WIV.[20]

The deliberate concealment of critical genomic features delayed public awareness and pandemic mitigation efforts, potentially allowing wider spread and more deaths. The retention of high-risk viral features in both the virus and the vaccine design contradicts decades of safe vaccine development practices. Proven or promising treatments such as hydroxychloroquine,[21] vitamin D, and fusion inhibitors[22] were suppressed in favor of a vaccine-first strategy. The emergence of immune system dysregulation, such as IgG4 class-switching and increased vulnerability to cancer and neurodegenerative disease, is linked both to viral properties, especially furin cleavage,[23] and mRNA vaccine responses.[24] The overlap between modern virology and historical bioweapons research, including elements like SEB superantigens[25] and furin cleavage sites, raises concerns about dual-use research and the ethical boundaries of scientific inquiry.[26]

The FCS, HIV-like inserts, immunological dysregulation, and chimeric viral construction[27] were four key features described as project goals within the DEFUSE proposal that EcoHealth Alliance submitted to DARPA in March 2018. Neither Fauci nor the U.S. intelligence community disclosed this proposal in testimony or in the "Biden Report" on the origin of SARS-CoV-2;[28] they obfuscated what is, in fact, proof of intent to produce a virus much like the one that caused the COVID-19 pandemic.

Defense Medical Epidemiology Database Abnormalities

The Defense Medical Epidemiology Database (DMED), part of the Defense Medical Surveillance System (DMSS), enables queries of de-identified medical data coded by International Classification of Diseases (ICD) classifications for active-duty personnel, filterable by demographics and occupational categories. In 2021, whistleblowers reported significant increases in medical conditions compared to 2016–2020 baselines, prompting congressional scrutiny. The Department of Defense (DoD) attributed these to a "programming logic error."[29] In 2023, updated DMED data from 2021 confirmed elevated diagnoses, including hypertensive disease (22.9%), ovarian dysfunction (34.9%), pulmonary embolism (43.6%), Guillain-Barré syndrome (GBS) (14.9%), esophageal cancer (12.5%), breast cancer (7%), and unspecified myocarditis (151.4%).[30]

Further analyses conducted and verified by Lt. Edward Macie, USN, through April 2025, using the 2016–2020 baseline, showed persistent elevations: myocarditis (153.8% in 2023), infective myocarditis (168.5% in 2021, 122% in 2022, 14% in 2023), digestive organ cancer (15.8% in 2021, 30.2% in 2022, 46.3% in 2023, 43% in 2024), brain cancer (27.2% in 2021, 39% in 2022, 40.1% in 2023), and coagulation defects (25.3% in 2021, 58% in 2022, 31.8% in 2023). Other conditions, potentially vaccine-related, included overweight/obesity (27% in 2021, 69% in 2022, 162% in 2023, 262% in 2024), suicidal/homicidal ideation (45.6% in 2021, 67% in 2022, 80.1% in 2023, 85.6% in 2024), and slip/trip/fall injuries (410% in 2021, 867% in 2022).[31]

During the COVID-19 vaccine mandate period, approximately 95,000 service members separated, retired early, or were medically discharged, raising concerns about military medical readiness.[32] The DoD has not confirmed secondary health impacts. Ethical concerns include violations of the Religious Freedom Restoration Act, the U.S. Constitution, and DoD exemption policies, alongside coercion to receive an Emergency Use Authorization product, contravening 10 USC §§1107 and 1107a.

Autoimmune and Immunological Dysfunction

COVID-19 vaccination has been shown to have a significant impact on the emergence of autoimmune disease and immunological dysfunction. Chen et al. reviewed post-vaccination autoimmune phenomena, including new-onset GBS, immune thrombotic thrombocytopenia (ITP), autoimmune hepatitis, IgA nephropathy, systemic lupus erythematosus (SLE), and rheumatoid arthritis (RA), emphasizing mechanisms such as molecular mimicry and adjuvant-triggered activation of autoreactive lymphocytes.[33] Rodríguez et al. conducted a systematic review of 928 post-vaccination autoimmune cases, reporting that 81.5% were new onset, with the remainder representing relapses. Serious conditions included myocarditis, thrombocytopenia, and autoimmune encephalitis, with 4.7% of new cases resulting in death.[34] The pattern observed aligns with emerging clinical data from a Florida cohort of 817 vaccine-injured retirees, in whom more than 70% exhibited evidence of autoimmunity. These findings underscore the need for urgent reevaluation of mRNA vaccine safety, particularly in aging or immunologically vulnerable populations.

Data from the Florida cohort of 817 vaccine-injured retirees demonstrate a consistent pattern of immune system disruption following mRNA COVID-19 vaccination.[35] Retrospective analysis revealed that more than 80% exhibited measurable immunological abnormalities. These included the development of autoimmune diseases, deficiencies in both cell-mediated and humoral immunity, and frequent reactivation of latent viral infections. Mechanistic evidence supports these clinical observations.

Patterson et al. identified persistent S1 spike protein in circulating monocytes of vaccinated individuals with long COVID, suggesting prolonged antigen exposure and immunological activation.[36] Trougakos et al. proposed that the spike protein itself, regardless of source, can impair immunological and vascular function.[37] Peluso et al. and Santopaolo et al. found that individuals with post-acute sequelae of COVID-19 (PASC) exhibited prolonged SARS-CoV-2-specific T-cell activation and elevated inflammatory cytokines, such as interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-α), persisting months after acute illness, suggesting long-term immunological dysregulation that may parallel vaccine-induced syndromes.[38,39] Choutka et al. further demonstrated that COVID-19 causes extensive T-cell dysregulation characterized by lymphopenia, exhaustion, and aberrant cytokine profiles, which persist into PASC and may also arise from repeated spike exposure via mRNA vaccination.[40] Together, these findings implicate spike protein persistence and toxicity as potential drivers of post-vaccination immunological dysfunction.

Preliminary studies by Villa et al. show autoimmune markers were detected in 74.79% of patients, with manifestations ranging from antinuclear antibody (ANA) positivity to anti-thyroid peroxidase (anti-TPO) antibody production and connective tissue disease markers.[41] Concurrently, 54.71% of patients showed objective signs of immunodeficiency: 32.07% had T-cell (cell-mediated) deficiencies, and 21.91% exhibited humoral dysfunction, including IgG subclass deficiencies and a COVID-like syndrome. Similar findings were noted in other studies by Watad et al. and Vojdani et al.[42,43] Notably, viral reactivation, including Epstein-Barr virus (EBV), herpes simplex virus (HSV), human herpesvirus-6 (HHV-6), cytomegalovirus (CMV), and latent bacterial infection with *Borrelia burgdorferi*, was documented in greater than 90% of those assessed, consistent with impaired immunological surveillance.[41–43] Gold et al. found that EBV reactivation was strongly associated with persistent long COVID symptoms, suggesting that immunological destabilization post-infection or vaccination may permit latent virus escape.[44] Proal and Van Elzakker proposed that viral persistence, immunological exhaustion, and microbiome shifts are key contributors to chronic post-viral syndromes like PASC, emphasizing the parallels to vaccine-induced immunological sequelae.[45] Pellegrino et al. further demonstrated that herpesviruses such as EBV and HHV-6 are linked to the onset of autoimmunity via molecular mimicry and chronic immunological stimulation, reinforcing the concern that vaccine-induced immunological dysregulation may trigger reactivation and autoimmunity in predisposed individuals.[46] These findings are not isolated; they echo broader concerns documented in high-level meta-analyses identifying increased risk of organ-specific inflammation, such as myocarditis, following mRNA vaccination.[47]

Hypersensitivity and Cytokine Storms

Additional evidence suggests that mRNA-based COVID-19 vaccines may trigger IgE-mediated hypersensitivity reactions in susceptible individuals, potentially leading to severe cytokine storms. Repeated exposure to viral antigens, such as the SARS-CoV-2 spike protein, or vaccine components like lipid nanoparticles (LNPs) and polyethylene glycol (PEG), can sensitize the immune system.[48] This priming increases the risk of severe reactions upon re-exposure, driven by IgE antibodies that activate mast cells, releasing histamine and inflammatory cytokines. These hyperinflammatory responses, characterized by excessive cytokine release, may cause tissue damage, anaphylaxis, and, in rare cases, death.

The modified mRNA biologics/vaccines, including those from Pfizer and Moderna, can induce IgE sensitization to the spike protein, PEG, or LNPs. Repeated vaccinations elevate IgE levels, heightening the risk of cytokine storms upon subsequent exposures. These storms involve mast cell degranulation, histamine surges, and massive cytokine release, leading to clinical manifestations ranging from mild allergic reactions (e.g., rashes, hives) to severe outcomes, such as anaphylaxis or cardiovascular events, including Kounis Syndrome, where anaphylaxis triggers acute coronary syndrome.[49, 50] A recent review of 25 cohort studies and eight case reports or series reported anaphylaxis incidences of 8 per 100,000 to 5 per 1,000 doses for Pfizer (1,151 cases), 2 per 100,000 to 1 per 100 doses for Moderna (544 cases), 1 per 10,000 to 3 per 100 doses for AstraZeneca (875 cases), and 2 per 1,000 doses for Janssen (59 cases).[49] Anaphylaxis is more frequently associated with modified mRNA biologics/vaccines.

The concept of anaphylaxis, as described by Charles Richet in his 1913 Nobel lecture, highlights how repeated antigen exposure can provoke severe allergic reactions.[51] In modified mRNA biologics/vaccines, the spike protein, particularly its S1 subunit, and LNPs act as potent immunological triggers, stimulating inflammatory cytokines such as IL-1β and IL-6. Histamine release from mast cells amplifies IL-6 secretion, potentially contributing to myocarditis or acute coronary events.[50] A recent Italian study reported higher all-cause mortality risks in individuals receiving one or two vaccine doses compared to the unvaccinated, with boosters showing no protective effect. Increased life expectancy loss was observed among those receiving multiple doses.[52] Autopsy studies have noted increased all-cause mortality in some vaccinated individuals, with deaths occurring shortly after vaccination, suggesting acute immunological reactions like cytokine storms or anaphylaxis as potential contributors.[52,53]

The spike protein, combined with inflammatory adjuvants like LNPs, heightens the risk of IgE-mediated reactions. A narrative review indicated that widely distributed spike proteins may trigger autoimmune and inflammatory conditions, increasing morbidity.[54] Another review suggested that COVID-19 severity in vaccinated individuals may be iatrogenic, driven by IgE sensitization to proteins homologous to SARS-CoV-2, present in vaccine components or excipients. These proteins are linked to mast cell degranulation, histamine release, and immunological cascades, contributing to morbidity and mortality in vaccinated COVID-19 patients.[55]

Cardiovascular Adverse Events

Substantial data now indicates that COVID-19 mRNA vaccination is associated with severe adverse cardiovascular-associated outcomes. Four landmark studies encompassing a combined 184 million individuals provide compelling and consistent findings regarding the safety profile of these products.

In a cohort study conducted by Faksova et al. (n = 99 million), the investigators reported a 510% increased risk of myocarditis following mRNA vaccination, a 278% increased risk of acute disseminated encephalomyelitis (ADEM), a 223% increased risk of cerebral venous sinus thrombosis (CVST) following viral vector vaccination, and a 149% increased risk of GBS, also associated with viral vector platforms.[56] Similarly, Raheleh et al. (n = 85 million) identified a 286% increased risk of myocardial infarction following the second dose of modified mRNA biologics/vaccines, a 240% increased risk of stroke following the first dose, a 244% increased risk of coronary artery disease after the second dose, and a 199% increased risk of cardiac arrhythmia after the first dose.[57] These deleterious cardiovascular effects are likely due to vaccine uptake into the heart, resulting in cardiomyocyte spike protein production, inflammation, and ultimately irreversible scarring.[58]

Hulscher et al., through the analysis of 325 autopsy cases, demonstrated a high likelihood of a causal relationship between COVID-19 vaccination and death, mediated through injuries to multiple organ systems. This represents one of the strongest pathological confirmations of vaccine-induced mortality to date.[59] Furthermore, Alessandria et al. (n = 290,727) reported that individuals who received two doses of COVID-19 vaccines experienced a 37% reduction in life expectancy compared to unvaccinated individuals during the follow-up period.[52]

This profound cardiovascular damage invokes grave concern for acute pathology and potential morbidity and mortality, particularly among the 9 million American children[60] who continue to receive these products, which does not include the preborn.

Reproductive and Pregnancy-Related Risks

The safety of COVID-19 vaccines in pregnant women has been questioned due to reported adverse events affecting maternal, fetal, and neonatal health. Pfizer's post-market surveillance report, completed in February 2021, documented 42,086 adverse events, including 1,223 deaths, within 10 weeks of vaccine rollout.[61] Pregnancy-related outcomes showed an 81% miscarriage rate, with 26 out of 32 cases resulting in loss of pregnancy. This information is limited by missing follow-up from 238 of 270 cases but demands additional investigation. Stillbirth and neonatal death rates were 31 per 1,000, compared to expected rates of 5.8 and 3.9 per 1,000, respectively. Breastfeeding complications occurred in 13% of cases (17/133). This also appears to be substantially higher than expected from the literature. A study by Shimabukuro et al., published in the *New England Journal of Medicine* in April 2021, reported a 12.6% miscarriage rate among vaccinated pregnant women.[62] Re-analysis suggested a rate of 82%, comparable to the abortion pill RU-486.[63-65] The Shimabukuro

study faced criticism for methodological issues and conflicts of interest, including pharmaceutical funding.[66] The majority of the women in the study (700/827) were vaccinated in the third trimester, creating a false dilution of miscarriage rates as it is outside of the miscarriage window of the first or early second trimester. When adjusted for first-term or early second-term miscarriages, the values were 104/127, or a rate of 82%. This discrepancy indicates vaccine effects on early pregnancy, possibly via immunological or placental mechanisms.

The Vaccine Adverse Event Reporting System (VAERS) has highlighted safety signals. A 2022 letter to the American Board of Obstetrics and Gynecology cited VAERS data showing increased risks of miscarriage, fetal malformations, and pregnancy losses, supported by 1,019 peer-reviewed articles on vaccine injuries within 12 months of rollout, a number that grew to 3,580 by June 2024.[67,68] A 2023 study by Thorp et al. compared adverse events over 18 months post-COVID-19 vaccination to 282 months post-influenza vaccination, finding proportional reporting ratios (PRR) of 177 for miscarriage, 135 for stillbirth, and 4,257 for menstrual abnormalities, with *p*-values <0.000001.[69] For reference, a PRR > 1 suggests a potential safety signal. A 2025 analysis assessed 37 adverse events over 40 months, identifying breaches in CDC/FDA safety signals for outcomes like preeclampsia and newborn asphyxia, with *p*-values ≤0.001.[64] These data suggest higher pregnancy risks with COVID-19 vaccines compared to other vaccines, possibly due to placental or fetal effects.

Pfizer's Phase 2/3 clinical trial, completed in July 2023, evaluated the vaccine in 324 low-risk pregnant women, with 161 vaccinated and 163 receiving placebo.[70] The vaccinated group showed increased newborn complications, including a 100% rise in low Apgar scores, 80% increase in neonatal jaundice, 70% increase in congenital malformations, and 310% increase in congenital anomalies with developmental delays at six months. The trial's focus on low-risk women at 24–34 weeks gestation limits its broader applicability and raises data selection concerns for favorable outcomes. Regardless, these outcomes suggest transplacental transfer of vaccine components or immunological activation affecting fetal health.

Studies have also identified vaccine mRNA crossing biological barriers. A 2024 study by Lin et al. confirmed transplacental mRNA transfer into fetal blood, with bioactive mRNA inducing spike protein expression in the placenta and decidua, potentially explaining placental abnormalities.[64,71] Research by Hanna et al. in 2022 and 2023 detected intact mRNA in breast milk, suggesting infant exposure.[72,73] Aldén et al. in 2022 showed in vitro reverse transcription of vaccine mRNA into human liver cells, raising concerns about genomic integration.[74] These findings indicate developmental or immunological effects in fetuses or newborns from mRNA exposure.

VAERS Safety Signals and Vaccine Contamination Concerns

VAERS is designed for post-marketing surveillance of vaccines and biologics, compensating for their limited premarket safety studies by identifying early safety signals.[75] However, the Lazarus report indicates that only 1–10% of adverse events are reported to VAERS, necessitating cautious interpretation of its data. As of Mar 11, 2022, VAERS recorded 25,641 deaths and 1,183,493 adverse event reports related to COVID-19 vaccines.[76] In contrast, the 1976 swine influenza vaccination program was halted by President Gerald Ford due to a few deaths and more than 200 cases of GBS.[77] Despite 5,500 reported cases of GBS and transverse myelitis linked to COVID-19 vaccines, these biologics remain in use, including for more than 9 million children, highlighting a significant disparity in regulatory responses to adverse events.[78]

Vaccine contamination has added to safety concerns. Independent labs identified plasmid DNA, including the cancer-promoting simian virus 40 (SV40) sequence, in Pfizer's vaccine.[79-83] A 2024 report by McKernan confirmed SV40 and plasmid DNA in biopsies from a vaccinated cancer patient.[84] If this DNA integrates into the genome, it could lead to cellular transformation or genetic abnormalities, particularly in pregnant women and their offspring.

Surge in Aggressive Cancers

Since 2021, following widespread COVID-19 vaccination, oncologists and peer-reviewed case reports have noted a surge in aggressive cancers occurring post vaccination.[85-96] These cancers are characterized by rapid onset, late-stage presentation, occurrence in younger patients, and relapses in individuals previously in remission. Epidemiological data from the U.S., UK, and Japan indicate increased cancer incidence, particularly in those aged 75 and older, with a rising rate of excess deaths.[97-102] The very first step in scientific inquiry is observation, such as anecdotal observations by oncologist Kashyap Patel, who noted an increase in rare cancers like cholangiocarcinoma in younger patients and rapid progression in cancers such as breast and renal cell carcinoma since the COVID-19 pandemic began.[100]

According to Valdes and Perea, COVID-19 vaccines may generate a pro-tumorigenic milieu that predisposes oncologic patients to cancer progression, recurrence, and/or metastasis.[103]

Several biological mechanisms are proposed to explain vaccine-related oncogenesis. Valdes and Perea's multi-hit hypothesis suggests that multiple pathways contribute to cancer development.[103] Lymphopenia, common after severe COVID-19, is also reported post-vaccination and may impair immunological surveillance.[104-107] Vaccine-induced spike proteins could bind lymphocytes via angiotensin-converting enzyme 2 (ACE2)-independent pathways, triggering apoptosis, while repeated antigen exposure from boosters may upregulate programmed death-1 (PD-1) on T cells, leading to immunological exhaustion.[106-108] Prolonged interferon signaling and IL-6 elevations might further suppress lymphopoiesis.[105] Lymphopenia reduces CD4+/CD8+ T-cell populations, weakening anti-tumor responses and enabling immunological evasion. Chronic lymphopenia may trigger compensatory proliferation of exhausted T cells, fostering pro-inflammatory environments linked to cardiovascular and metabolic diseases. Elevated C-reactive protein (CRP) and red cell distribution width (RDW) often accompany lymphopenia, reflecting systemic inflammation that suppresses adaptive immunity.

Repeated mRNA vaccination elevates IgG4 antibodies, potentially blocking anti-tumor responses by competing

with IgG1 for Fcγ receptors on immunological cells, inhibiting effector functions via FcγRIIB receptors, and promoting immunological tolerance.[109] Jordakieva et al. showed that IgG4 in colorectal cancer synergizes with macrophages to create an immunosuppressive microenvironment.[110] Abue et al. reported that repeated boosters correlate with poorer survival in pancreatic cancer, with high IgG4 levels linked to worse prognosis.[111] The SARS-CoV-2 spike protein may also promote oncogenesis by downregulating ACE2, activating nuclear factor kappa B (NF-κB) and activator protein-1/c-Fos (AP-1/c-Fos) via mitogen-activated protein kinase (MAPK), and increasing IL-6, fostering proliferation, chemoresistance, and immunological suppression.[112] The spike protein's S2 subunit may disrupt p53 tumor suppressor activity by interacting with p53 and mouse double minute 2 (MDM2), reducing p21 and death receptor 5 (DR5) activation and impairing DNA repair.[113, 114]

Additional mechanisms include SV40 DNA sequences in vaccines, historically linked to oncogenesis, raising concerns about their presence in COVID-19 vaccines.[115-118] Chronic inflammation and lymphopenia may create a pro-tumorigenic milieu, while lipid nanoparticles in modified mRNA biologics/vaccines could accumulate in tumors via the enhanced permeability and retention effect. Spike protein might unsilence retrotransposable elements, contributing to genomic instability, and reverse transcription of vaccine mRNA could lead to persistent transcription of integrated sequences.[119] ACE2 downregulation may dysregulate tumor microenvironments, and codon optimization of modified mRNA biologics/vaccines might disrupt RNA-G quadruplex-protein binding, altering microRNA regulation.[103]

Aberrant Protein Production

The incorporation of N1-methylpseudouridine (m1Ψ) into modified mRNA biologics/vaccines, such as those developed by Pfizer-BioNTech (BNT162b2) and Moderna, aims to reduce immunogenicity and enhance mRNA stability.[120] However, m1Ψ significantly impacts translation dynamics, potentially leading to unintended protein synthesis with profound biological consequences. Structurally similar to uridine, m1Ψ alters base-pairing dynamics during mRNA-tRNA interactions, which may reduce codon recognition efficiency and increase the likelihood of tRNA mispairing.[121] This can result in amino acid misincorporation, akin to the glutamic acid-to-valine substitution in sickle cell anemia, which drastically alters protein structure and function.[122] Moreover, m1Ψ may disrupt ribosomal movement, causing pausing, stalling, or slippage, particularly at slippery sequences, leading to +1 or -1 frameshifts that shift the reading frame and produce aberrant proteins.[123,124] In the BNT162b2 vaccine, 728 uridines are replaced with m1Ψ, and a similar replacement occurs in Moderna's vaccine.[125,126] Theoretically, each m1Ψ site could independently cause a frameshift, yielding three possible outcomes per site (no change, +1, or -1 frameshift).[127] This results in a potential 3^{728} (approximately 2.67×10^{346}) unique protein sequences, vastly exceeding the number of atoms in the universe ($\sim 10^{82}$).[128] While cellular mechanisms like nonsense-mediated decay and ribosome-associated quality control mitigate this diversity, the potential for significant protein variation persists.[129]

Aberrant proteins may be recognized as foreign, triggering inflammatory responses, or share homology with human proteins, risking autoimmunity.[130] Misfolded proteins could aggregate, causing cellular stress, toxicity, or contributing to neurodegenerative disorders, such as prion diseases.[131] Additionally, an influx of aberrant proteins might overwhelm degradation pathways like the ubiquitin-proteasome system or autophagy, leading to cellular dysfunction and mitochondrial stress.[132] In rare cases, functional but unintended proteins could emerge, potentially interacting with chromatin to cause epigenetic changes or affecting the cell cycle to promote tumorigenesis.[133]

Biopsychosocial and Ethical Considerations

COVID-19 vaccine mandates have caused significant biopsychosocial harm, including ethical violations, social fragmentation, psychological distress, economic devastation, and eroded public health trust, while failing to deliver promised benefits. These policies disrupted individual well-being, societal cohesion, and institutional credibility, leaving lasting scars.

Ethically, mandates for competent adults violated personal autonomy and bodily integrity, core principles of medical ethics. By tying employment, education, or public access to vaccination status, they undermined informed consent, enshrined in the Nuremberg Code, Helsinki Declaration, and Belmont Report. Bardosh et al. noted mandates eroded civil liberties without robust justification.[134]

Socially and psychologically, mandates fractured trust in public health institutions, fostering division. Bardosh's research highlighted how coercion eroded confidence, prioritizing compliance over transparency.[134] A 2022 Danish study found vaccine passports deepened distrust among the unvaccinated, fueling skepticism toward public health measures.[135] Heidi Larson argued in the *Lancet* that mandates ignoring natural immunity undermined institutional competence, amplifying social disconnection.[136] This distrust reduced routine vaccinations, increasing psychological stress.

Economically and socially, mandates exacerbated inequalities. France's *passe sanitaire* marginalized vulnerable populations, deepening economic precarity and social divides.[137] Exclusionary measures pitted vaccinated against unvaccinated, fracturing community bonds.

Psychologically, mandates undermined confidence in preventive medical care. A 2024 JAMA Network Open study found state mandates did not significantly increase medical worker vaccination rates, contributing to distrust.[138] Public health goals were undermined by waning vaccine efficacy and minimal transmission impact. A 2024 study showed U.S. state mandates failed to boost COVID-19 vaccination rates, reducing booster and flu vaccine uptake compared to states with mandate bans.[139] Mandates ignoring natural immunity appeared arbitrary, fueling distress.

Mandatory COVID-19 vaccine policies have had damaging effects on public trust, vaccine confidence, political polarization, human rights, inequities, and social wellbeing. It is imperative that we question the effectiveness and consequences of coercive vaccination policy in pandemic response. Moving forward, we need to urge the public health community and policymakers

to return to non-discriminatory, trust-based public health approaches.[140] Policies without religious or medical exemptions were deemed discriminatory, deepening societal division and disproportionately harming disadvantaged communities.

The psychological toll was compounded by vaccines' neuropsychiatric effects. A Seoul-based study in molecular psychiatry linked COVID-19 vaccination to increased risks of depression (HR 1.683, 95% CI 1.520–1.863); anxiety, dissociative, stress-related, and somatoform disorders (HR 1.439, 95% CI 1.322–1.568); and sleep disorders (HR 1.934, 95% CI 1.738–2.152), raising safety concerns warranting further investigation.[141]

These policies, implemented despite foreseeable consequences, inflicted profound harm, undermining public health and social cohesion.

The Future of mRNA Biologics: Promise, Risks, and Ethical Imperatives

The development of mRNA biologics represents a transformative frontier in medicine, leveraging rapid development, customizable protein coding, and scalable production. Beyond COVID-19 vaccines, advanced platforms like self-amplifying RNA (saRNA) and circular RNA (circRNA) are under investigation, with more than 1,160 clinical trials since 2019 targeting cancer, infectious diseases, and rare genetic disorders. The use of saRNA enhances protein expression post-vaccination, while circRNA evades immunological detection to extend protein production, addressing limitations of conventional mRNA.[142] However, these "software upgrades for the body" introduce significant risks. The absence of mechanisms to regulate protein dose, duration, or cessation raises profound safety issues, as uncontrolled foreign protein production in human cells may trigger unforeseen physiological consequences.

Moderna's pipeline, encompassing 48 programs with 36 in clinical trials, exemplifies this ambition, targeting infectious diseases, oncology, and rare disorders.[143] A prominent example, AZD7970 (relaxin mRNA), developed with AstraZeneca since 2017, encodes relaxin to promote heart tissue regeneration and reduce inflammation in heart failure patients.[144-146] Yet, the safety profile of mRNA biologics remains troubling. As previously discussed, COVID-19 modified mRNA biologics/vaccines, the first large-scale application, are associated with myocarditis, particularly in young populations, with epidemiological data indicating elevated risks. Myocardial damage from these vaccines may lead to cardiac scarring, reduced heart efficiency, and increased long-term heart failure risk, particularly in children. Ironically, therapies like relaxin mRNA are proposed to address such damage, but their reliance on foreign mRNA risks further immunologically mediated adverse events.

As of 2025, 150–200 mRNA-based therapeutics and vaccines are in global clinical and preclinical development, with 70% targeting infectious diseases and cancer, led by Moderna, BioNTech, CureVac, Arcturus Therapeutics, and emerging players like Orna Therapeutics and Replicate Bioscience. However, the COVID-19 modified mRNA biologics/vaccines, a flagship for the technology, failed to prevent transmission, exhibited negative efficacy, and caused significant adverse events.[147,148] These shortcomings undermine claims of safety and efficacy, necessitating rigorous scrutiny of next-generation platforms.

The rapid proliferation of mRNA, saRNA, and circRNA biologics amplifies ethical and safety concerns. Prolonged protein expression, exemplified by S1 spike protein detection more than 700 days post-COVID vaccination, underscores the potential for irreversible harm.[24] The self-replication of saRNAs and the stability of circRNAs exacerbate these risks, lacking a reliable "off switch." This trajectory evokes historical medical oversteps, such as the widespread use of lobotomies in the mid-20th century, where enthusiasm for a novel intervention outpaced understanding of its devastating consequences. Just as lobotomies were abandoned when their harm became undeniable, the unchecked expansion of mRNA biologics risks a similar reckoning.

Our limited understanding of long-term outcomes demands caution. The pursuit of synthetic genetic technologies, driven by perceived threats, must not override the potential for catastrophic unintended consequences. Prolonged protein expression and immunological evasion strategies may foster synthetic dependency, sidelining the body's natural resilience. This raises a critical question: does modifying the body's intricate design reflect hubris rather than progress? Society must balance the promise of mRNA biologics against the grave risks of irreversible harm, ensuring that the capacity to innovate does not outstrip the imperative to do no harm.

Violations

The evidence presented in this paper reveals a multifaceted crisis driven by the deliberate engineering of SARS-CoV-2 through GOF research and the catastrophic health impacts of modified mRNA biologics/vaccines, which have unleashed systemic toxicity across multiple organ systems. Vaccinating during an active pandemic without assessing natural immunity, which is 27 times more protective than vaccine-induced immunity,[149] risked dangerous immunological responses. Promoting influenza vaccines increased coronavirus susceptibility via respiratory interference.[150] Basic health measures, such as ensuring vitamin D levels above 50 ng/mL to prevent severe disease[151] were ignored. Safe, off-label treatments like ivermectin and hydroxychloroquine/zinc, with decades of established safety, were suppressed.[152, 153] Coercion, suppression of vaccine limitations (lack of safety, efficacy, and transmission prevention), and violations of informed consent contravened the Nuremberg Code, Helsinki Declaration, and U.S. constitutional protections (First, Tenth, Fourteenth Amendments). Liability protections (Childhood Vaccine Injury Act, PREP Act) and legislative failures (Bioshield Act, Bayh-Dole Act) enabled rushed, unsafe vaccine rollouts and industry-regulator collusion, eroding accountability.

Conclusion

The COVID-19 pandemic response violated core principles of public health, medical freedom, and bodily autonomy, amplifying the devastating effects of SARS-CoV-2 and its modified mRNA biologics/vaccines.

The overwhelming evidence of SARS-CoV-2's gain-

of-function origins, coupled with the catastrophic health impacts of modified mRNA COVID-19 biologics/vaccines and the unchecked expansion of next-generation mRNA biologics, paints a chilling picture of deliberate design and systemic harm. Engineered viral features and vaccines that devastate immunological, cardiovascular, reproductive, and neurological systems have driven staggering morbidity and mortality, with effects unlikely to be accidental. Coordinated efforts to obscure these truths, enabled by liability shields and legislative failures, have worsened a global health disaster. The surge in autoimmune diseases, aggressive cancers, pregnancy losses, cardiovascular fatalities, societal fragmentation, and the looming risks of advanced mRNA platforms demand an immediate halt to mRNA vaccine and biologic use, comprehensive investigations into the motives behind this unprecedented violation of public trust, and robust measures to restore safe therapeutics and ethical public health practices. Humanity deserves accountability, transparency, and a resolute commitment to preventing such engineered calamities in the future.

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