

## ~ Executive Summary<sup>1</sup> ~

The data we currently have indicate that the COVID-19 vaccines appear to be quite good at lessening the severity of the symptoms of those who contract COVID-19 despite being vaccinated. I do not dispute this and, in fact, believe it is something to celebrate.

My purpose here is three-fold:

1. **Establish Legitimate Concerns:** to establish that reasonable, well-informed, educated people can have legitimate concerns over the safety profile of the current COVID-19 vaccines, either in general or for themselves in particular. This thesis aligns with the results of a recent survey from the University of Pittsburgh and Carnegie-Melon University that identified the single largest vaccine hesitancy demographic as **those with doctoral degrees**.<sup>2</sup>
2. **Respect for Self-Determination:** as a general moral principle, many strongly believe that those individuals assuming 100% of the risk of a medical intervention should also have the freedom to accept or reject that intervention. If they are coerced into receiving the treatment by an outside entity then, ethically, that entity should at least assume 100% of the financial risk, should adverse reactions to that treatment result in incapacitation or death (thereby possibly depriving the individual's family of a breadwinner).
3. **Outline Some Practical Considerations:** Dr. Robert Malone, purported inventor of mRNA technology, has expressed concern over the lack of transparency about the risks of the mRNA vaccine, the fact that a rigorous risk-benefit assessment for different age groups and demographics is not available, and the lack of respect for personal autonomy reflected in

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<sup>1</sup> In this essay, I am speaking in a personal capacity as a mathematician and do not intend to represent the views of Winona State University. These documents began as my attempt to organize for myself information which complements and even challenges the dominant narrative on COVID-19. It was not my intent to make them publicly available, but enough people have found them helpful that I decided to do that. Unlike government bureaucrats and social media fact-checkers, I do not claim to be infallible. I am simply a classical liberal who is quite concerned at the lack of robust conversation around such an important topic.

<sup>2</sup> <https://www.upmc.com/media/news/072621-king-meija-vaccine-hesitancy>

mandates.<sup>3</sup> As well, Martin Kulldorff, professor of medicine at Harvard University and Brigham and Women's Hospital in Boston, denounced the push for forced or mandatory vaccinations, saying it inevitably results in mistrust and skepticism.<sup>4</sup>

## ~ Nuremberg Code ~

The ten points of the code were given in the section of the judges' verdict entitled "Permissible Medical Experiments."<sup>5</sup> I submit that the first, sixth, and seventh points are most relevant to this discussion, though the ninth and tenth points bear relevance as the number of adverse events increases.

1. The voluntary consent of the human subject is absolutely essential.
2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.
3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.
4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.
5. No experiment should be conducted where there is an *a priori* reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.
6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.
7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.
8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.

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<sup>3</sup> <https://news.yahoo.com/single-most-qualified-mrna-expert-173600060.html> and <https://www.lifesitenews.com/news/mrna-vaccine-expert-covid-19-vaccines-may-make-virus-more-dangerous/>

<sup>4</sup> <https://www.newsmax.com/newsmax-tv/covid-vaccine-mandates-harvard/2021/08/13/id/1032333/>

<sup>5</sup> [https://en.wikipedia.org/wiki/Nuremberg\\_Code](https://en.wikipedia.org/wiki/Nuremberg_Code)

## PERSPECTIVE ON VACCINE MANDATES

9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.
10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

### ~ Key Principles ~

1. If a medical procedure is truly experimental, then the first item in the Nuremberg Code would seem to dictate that it cannot be mandated ethically.
2. If a medical procedure is not experimental (or investigational) but rather well-established, then items six and seven in the code implies that, to ethically require individuals to undergo such a procedure, one must establish:
  - a. That the medical procedure is both absolutely necessary for the common good and the only feasible solution to the problem.
  - b. That there is abundant, irrefutable, scientific evidence that the procedure is safe in the short-term, safe in the long-term, and effective for ALL of those who are required to receive it.

I submit that these COVID vaccines, being (1) the first human vaccines for any coronavirus that are claimed to be safe and effective for widespread use and (2) the first vaccines utilizing the novel mRNA technology, are most certainly experimental and therefore should not be mandated according to the first item in the Nuremberg Code. In fact, the FDA explicitly states this in its emergency use authorization of the Pfizer vaccine: "Pfizer-BioNTech COVID-19 Vaccine is for use for active immunization to prevent COVID-19 caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 16 years of age and older. The vaccine contains a nucleoside-modified messenger RNA (modRNA) encoding the viral spike (S) glycoprotein of SARS-CoV-2 formulated in lipid particles. **It is an investigational [i.e. experimental] vaccine not licensed**

for any indication.”<sup>6</sup> Of additional interest is that the “FDA must ensure that recipients of the vaccine under an EUA are informed, to the extent practicable given the applicable circumstances, that FDA has authorized the emergency use of the vaccine, of the known and potential benefits and risks, the extent to which such benefits and risks are unknown, **that they have the option to accept or refuse the vaccine**, and of any available alternatives to the product. Typically, this information is communicated in a patient ‘fact sheet.’ The FDA posts these fact sheets on our website.”<sup>7</sup>

Nevertheless, I will also seek to establish that items 2a and 2b above are not satisfied, either, in to strengthen the argument that mandating the COVID vaccine is unethical, even for those COVID vaccines that use a more traditional technology and even in the event that any of the vaccines are upgraded from “emergency use authorization” status to the full approval status known as a “biologics license.”

In the section below entitled, “What We Do Not Know About Safety,” the operative observation under most items is, “we don’t know.” If, in fact, there is much that we don’t know, then how can we ethically mandate this medical treatment? **Can we really say that we have abundant, irrefutable, scientific evidence that it is safe in the short- and long-term for EVERYONE who will be REQUIRED to receive it? If not, then mandating it is unethical.**

### **~ The Medical Treatment is NOT Necessary ~**

1. **Comparison with Past Pandemics:** COVID is a serious disease, but see the “Perspective on COVID-19”<sup>8</sup> document for an outline of the way in which this disease has been blown out of proportion as compared with past pandemics. For that reason alone, claiming that vaccines should be required in this case (41.0 deaths per 100,000 annual worldwide death rate) when they were not required for: (1) Pneumonia in 2017-2018 (38.0 deaths per 100,000 worldwide), (2) Hong Kong Flu in 1968 (70.4 deaths per 100,000), or (3) the Asian Flu in 1957-1958 (69.6 deaths per 100,000) is unwarranted.

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<sup>6</sup> <https://www.fda.gov/media/144412/download>

<sup>7</sup> <https://www.fda.gov/vaccines-blood-biologics/vaccines/emergency-use-authorization-vaccines-explained>

<sup>8</sup> <http://course1.winona.edu/bperatt/essays/>

2. **Alternative Treatments:** Since the beginning of the pandemic, the NIH has apparently taken an extremely cautious approach, mentioning only treatments that have been shown effective in large (i.e. government and/or pharmaceutical industry sponsored) CRT's while remaining silent on the many proposed treatments that have support only from smaller CRT's or observational studies.<sup>9</sup> The only exception to this of which I am aware regards Remdesivir, which was recommended based only on scant evidence of very limited efficacy. However, some researchers report that when those over 50 with underlying conditions are treated in the first stages of the illness with a sequenced multi-drug approach, there is an 85% reduction in hospitalizations and death.<sup>10</sup> The NIH affirms the progress that has been made in treating COVID-19 in its announcement on April 19, 2021<sup>11</sup> that it will fund large, placebo controlled trials to establish which repurposed drugs can be used to treat COVID-19 at home: "While we're doing a good job with treating hospitalized patients with severe disease, we don't currently have an approved medication that can be self-administered to ease symptoms of people suffering from mild disease at home, and reduce the chance of their needing hospitalization...Several drugs currently are recommended for the treatment of hospitalized patients with moderate to severe COVID-19, including the antiviral drug remdesivir, the anti-inflammatory baricitinib, and corticosteroids. Additionally, the U.S. Food and Drug Administration authorized emergency use of intravenous monoclonal antibodies in non-hospitalized patients with mild to moderate COVID-19 who are at high risk for severe disease. However, medications that can be self-administered at home to reduce COVID-19 symptoms are critically needed." Finally, we note that for most people, this is not a serious disease, and we know of several manageable conditions, such as obesity

<sup>9</sup> <https://www.covid19treatmentguidelines.nih.gov/therapeutic-management/>

<sup>10</sup> See:

- *Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection*, American Journal of Medicine, The American Journal of Medicine, Volume 134, Issue 1, January 2021, Pages 16-22, <https://www.sciencedirect.com/science/article/pii/S0002934320306732?via%3Dihub>
- *Ambulatory Treatment of COVID-19* by Peter McCullough, MD, Cardiologist and Vice Chairman of Internal Medicine, Texas A&M University School of Medicine, Baylor Campus, <https://www.youtube.com/watch?v=cxmhvZ6eEI4>
- Comparative efficacy and safety of pharmacological interventions for the treatment of COVID-19: A systematic review and network meta-analysis, PLOS Medicine, 12/30/2020, <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003501>.
- *Testimony to Texas Senate HHS Committee*, Peter McCullough, MD., <https://www.youtube.com/watch?v=QAH31X3oGM>.
- *MATH+ Protocol*, Dr. Kory et al., MD, University of Wisconsin Madison School of Medicine and Public Health and St. Luke's Medical Center in Madison, <https://covid19criticalcare.com/covid-19-protocols/math-plus-protocol/>.
- A Guide to Home-Based COVID Treatment at <https://aapsonline.org/covidpatientguide/>

<sup>11</sup> <https://www.nih.gov/news-events/news-releases/large-clinical-trial-study-repurposed-drugs-treat-covid-19-symptoms>

and vitamin D deficiency, that are associated with elevated risk.<sup>12</sup> There are also indications that drugs such as Ivermectin and Hydroxychloroquine may be effective as a prophylactic and treatment for COVID-19.<sup>13 14 15 16 17 18 19</sup> I personally know of two practicing physicians who have used these treatments to great effect in their patients.

It has become clear that the vaccines do not prevent transmission – hence the CDC’s recommendation that vaccinated and unvaccinated wear masks,<sup>20</sup> so the main advantage conferred by the vaccine is reduction of symptom severity. The single most easily addressed condition associated with COVID symptom severity is vitamin D deficiency.<sup>21 22</sup>  
<sup>23 24</sup> **If any organization is going to require vaccines to lessen COVID symptoms, should they not also require obese people to lose weight and vitamin D deficient individuals to take supplements? If not, then why this inconsistency in what is mandated “for the common good”?**

## ~ What We Do Not Know About Safety ~

<sup>12</sup> Vitamin D deficiency (present in 80% of those with hospitalized with COVID – see <https://www.healthline.com/health-news/new-study-found-80-percent-of-covid-19-patients-were-vitamin-d-deficient>) and Obesity (present in 78% of those hospitalized with COVID – see <https://www.cdc.gov/obesity/data/obesity-and-covid-19.html> and <https://www.msn.com/en-us/health/medical/cdc-study-finds-78-percent-hospitalized-for-covid-were-overweight-or-obese/ar-BB1enFjA>).

<sup>13</sup> <https://hospitalpharmacyeurope.com/views/ivermectin-time-for-action/>; <https://pubmed.ncbi.nlm.nih.gov/32533071/>.

<sup>14</sup> On HCQ: “Meta analysis using the most serious outcome reported shows 65% [55-72%] improvement for the 30 early treatment studies. Results are similar after exclusion based sensitivity analysis and after restriction to peer-reviewed studies. Restricting to the 7 RCTs shows 48% [19-67%] improvement, and restricting to the 13 mortality results shows 75% [60-84%] lower mortality.” (<https://hcqmeta.com>)

<sup>15</sup> On Ivermectin: “Moderate-certainty evidence finds that large reductions in COVID-19 deaths are possible using ivermectin. Using ivermectin early in the clinical course may reduce numbers progressing to severe disease. The apparent safety and low cost suggest that ivermectin is likely to have a significant impact on the SARS-CoV-2 pandemic globally.” (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8248252/>)

<sup>16</sup> On Ivermectin: “Meta-analyses based on 18 randomized controlled treatment trials of ivermectin in COVID-19 have found large, statistically significant reductions in mortality, time to clinical recovery, and time to viral clearance. Furthermore, results from numerous controlled prophylaxis trials report significantly reduced risks of contracting COVID-19 with the regular use of ivermectin. Finally, the many examples of ivermectin distribution campaigns leading to rapid population-wide decreases in morbidity and mortality indicate that an oral agent effective in all phases of COVID-19 has been identified.” (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8088823/>)

<sup>17</sup> Summary of Latest Peer-Reviewed Research (<https://clinicalnews.org/2021/05/09/latest-peer-reviewed-research-immediate-global-ivermectin-use-will-end-covid-19-pandemic-2/>)

<sup>18</sup> Ivermectin for COVID-19: real-time meta analysis of 63 studies by 613 scientists on 26,398 patients with 31 randomized-controlled trials (<https://ivmmeta.com>)

<sup>19</sup> <https://covid19criticalcare.com/covid-19-protocols/i-mask-plus-protocol/>

<sup>20</sup> <https://www.nytimes.com/2021/07/28/health/cdc-covid-testing-vaccine.html>

<sup>21</sup> <https://pubmed.ncbi.nlm.nih.gov/34377451/>

<sup>22</sup> <https://www.bu.edu/sph/news/articles/2021/black-women-with-vitamin-d-insufficiency-more-likely-to-test-positive-for-covid-19/>

<sup>23</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7677378/>

<sup>24</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7898298/>

## PERSPECTIVE ON VACCINE MANDATES

1. **Vaccine Safety Is, in General, an Issue:** In the 1980's, vaccine manufacturers concerned about safety lobbied congress to pass a law protecting them from liability in vaccine injuries. As part of the legislation (1986 National Childhood Vaccine Injury Act and the PREP Act), vaccine makers cannot be sued, and a National Vaccine Injury Compensation Program was established, funded from taxes paid on the administered vaccines, to award payment to those injured from receiving vaccines,<sup>25</sup> though payouts often take years<sup>26</sup> and the amounts are capped.<sup>27</sup> The mere existence of this fund bears testimony to the fact that some individuals will be harmed by vaccines. **The question becomes, are those who wish to mandate vaccines willing to accept the moral and practical consequences of mandating individuals to assume ALL OF THE RISK for something that is required without their consent?** After all, "safe for the general public overall" does not imply "safe for each individual, specifically," and it is each individual who must assume the risk for themselves.
2. **mRNA Vaccines are Novel:** this will be the first mRNA vaccine used on humans. As such, anyone receiving it is effectively a beta-tester for a new vaccine technology. To think there cannot be any unforeseen side effects from a new technology is naïve in the extreme. The vaccine fiasco in Sweden during the 2009-2010 Swine Flu pandemic, in which hundreds of young Swedes now suffer from narcolepsy after a mass vaccination campaign, should remain a cautionary tale that, no matter how much testing is done, unforeseen consequences are always a possibility.<sup>28</sup> How much more so with a novel technology. Will serious but unforeseen consequences arise with the COVID vaccine? What will the long-term effects of the vaccine be, and how widespread will they be? **We do not know; in fact, by definition, we cannot know since the vaccines have been available for only a few months.**
3. **mRNA Vaccines Have Challenges:** Said Tal Brosh, head of the Infectious Disease Unit at Samson Assuta Ashdod Hospital, in an interview with *The Jerusalem Post*: "There are unique and unknown risks to messenger RNA vaccines, including local and systemic inflammatory

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<sup>25</sup> <https://www.hrsa.gov/vaccine-compensation/index.html>

<sup>26</sup> <https://www.gao.gov/products/gao-15-142>

<sup>27</sup> <https://crsreports.congress.gov/product/pdf/LSB/LSB10584> and <https://www.hrsa.gov/sites/default/files/hrsa/vaccine-compensation/data/data-statistics-report.pdf>

<sup>28</sup> <https://medicalxpress.com/news/2020-11-narcolepsy-fiasco-spurs-covid-vaccine.html>

responses that could lead to autoimmune conditions...An article published by the National Center for Biotechnology Information, a division of the National Institutes of Health, said other risks include the biodistribution and persistence of the induced immunogen expression; possible development of auto-reactive antibodies; and toxic effects of any non-native nucleotides and delivery system components.”<sup>29</sup> How significant are these risks to the general populace and, more specifically, how concerning are they to specific individuals with specific health profiles that may make them more susceptible to these potential effects? **Do we know?**

4. **Coronavirus Vaccines Have Problematic History:** Something called the Paradoxical Immune Enhancement Effect, more recently referred to as Antibody Dependent Enhancement, has plagued efforts to create an effective and safe coronavirus vaccine in the past.<sup>30</sup> Will the current round of vaccines suffer from this same complication, and if we are certain they will not, why has no one spoken about this apparent miraculous breakthrough that has allowed the current vaccine to escape the Achilles’ heel of former vaccine attempts? **Do we know?**
  
5. **Natural Immunity & Demographics Excluded from the Clinical Trials:**
  - The regulatory agencies have said almost nothing about natural immunity or given any guidance for COVID recovered patients except that they should get the vaccine. This leaves the public with the impression that natural immunity is somehow unreliable and

<sup>29</sup> <https://www.ipost.com/health-science/could-an-mrna-vaccine-be-dangerous-in-the-long-term-649253>

<sup>30</sup> See:

- <https://nymag.com/intelligencer/2020/04/will-there-be-a-coronavirus-vaccine-maybe-not.html>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7119964/>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7165470/>
- Nature October 16, 2020, <https://www.nature.com/articles/s41579-020-00462-y#Sec11>
- Nature October 16, 2020, <https://www.nature.com/articles/s41579-020-00462-y#Sec11>
- Frontiers in Microbiology December 5, 2018, <https://www.frontiersin.org/articles/10.3389/fmicb.2018.02991/full>
- J Virol. 2004 Nov; 78(22): 12672–12676, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC525089/>
- Nature January 10, 2005, <https://www.nature.com/news/2005/050110/full/050110-3.html#ref-CR1>
- PNAS January 18, 2005, <https://www.pnas.org/content/102/3/797>
- PLoS One. 2012; 7(4): e35421, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3335060/>
- PLoS One. 2012; 7(4): e35421, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3335060/>
- Human Vaccines & Immunotherapeutics June 7, 2016, <https://www.tandfonline.com/doi/full/10.1080/21645515.2016.1177688?scroll=top&needAccess=true>
- Science February 13, 2004, <https://science.sciencemag.org/content/303/5660/944.abstract>
- CDC April 6, 2021, <https://www.cdc.gov/media/releases/2021/p0407-covid-19-vaccine-programs.html>

that getting vaccination offers the only “true” protection. Arguments advanced along these lines usually point out that those with mild cases of COVID may not produce a robust immune response, but that since everyone receives a standard dose of the vaccine, the level immune response to it will be more predictable. Also suggested is that the vaccine in COVID recovered patients may induce a more robust and permanent immune system response than their initial infection, thereby strengthening their natural immunity.<sup>31</sup> However, there is a counter-argument to this hypothesis.<sup>32</sup> What is also not explained is that immune-compromised individuals receiving that same dose of vaccine do not appear to produce strong immune responses<sup>33</sup>, and that older individuals tend to have fewer side effects from the vaccine (indicating, perhaps, that their immune system is possibly not mounting the same level of response as that of younger individuals receiving the vaccine).

- Nevertheless, we do know that COVID recovered patients appear to have robust, complete, and durable immunity. There is a technicality that must be appreciated in this respect. As I understand it, immunologists explain that our bodies use professional antigen-presenting cells to actually break apart viruses into several different pieces (epitopes) so that the body will develop antibodies against each piece.<sup>34</sup> In this way, even if the pathogen mutates (so that, say, the spike protein is no longer recognized by the body’s immune system), the body will still recognize other parts of the virus and neutralize it. For this reason, the argument goes, natural immunity is more complete than that obtained from the COVID vaccine, which induces immunity only against the spike protein but not the other components of the virus. Natural immunity against COVID is also durable and probably lifelong, as borne out by a **stunning number of**

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<sup>31</sup> <https://www.medpagetoday.com/opinion/marty-makary/92434>, <https://www.nytimes.com/2020/12/05/health/covid-natural-immunity.html>

<sup>32</sup> <https://www.cure-hub.com/post/covid-19-natural-infection-vs-vaccine-immunity>, “COVID-19 vaccines are effective and induce a strong immune response. Cure-Hub's own data shows high neutralizing antibody levels after vaccination, especially after the second mRNA dose. In fact, two doses of the Pfizer and Moderna vaccines can push antibody production higher than natural infection. However, this does not mean vaccine induced immunity is superior to natural immunity. Below we provide evidence that recovery from natural infection generates a more diverse immune response.”

<sup>33</sup> <https://jamanetwork.com/journals/jama/fullarticle/2777685>

<sup>34</sup> [https://en.wikipedia.org/wiki/Antigen-presenting\\_cell](https://en.wikipedia.org/wiki/Antigen-presenting_cell)

recent studies.<sup>35</sup> A New York Times piece from May 7, 2021 notes that there is a “growing body of literature that suggests that immunity elicited by infection and vaccination for SARS-CoV-2 appears to be long-lived,” said Scott Hensley, an immunologist at the University of Pennsylvania.”<sup>36</sup>

- Dr. Peter McCullough from Texas A & M School of Medicine, Baylor Campus, the most published research physician in his field of study, refocused his practice on treating COVID-19 patients and has co-authored the single most often downloaded resource on treating COVID-19. He claims that clinical trials initially excluded pregnant women, women of childbearing potential, and COVID recovered patients.<sup>37</sup> More recent trials have included only a very small number of COVID recovered patients, apparently. Therefore, the safety and effectiveness for these groups is largely unknown. **McCullough claims that in urging these people to get vaccinated, we have crossed an**

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<sup>35</sup> See

- Science, 2/05/2021, <https://science.sciencemag.org/content/371/6529/eabf4063.full> showed 95% recovered patients maintained immunity longer than 6 months;
- Lancet, 4/17/2021, <https://pubmed.ncbi.nlm.nih.gov/33844963/> showed that recovered patients had an 84% less chance of infection 7 months out;
- Antiviral Res., January 2017, <https://pubmed.ncbi.nlm.nih.gov/27840203/> demonstrated underlying T-cell immunity to the closely related SARS and MERS viruses remained even 12 years after infection.
- Nature, May 24, 2021, <https://www.nature.com/articles/d41586-021-01442-9> demonstrates that, even for patients with mild cases of COVID, the bone marrow plasma cells developed in COVID recovered patients likely confer lifelong immunity.
- BioRxiv, May 9, 2021, <https://www.biorxiv.org/content/10.1101/2021.05.07.443175v1.abstract> showed that the bone marrow plasma cells continue mature and strengthen for at least 12 months after infection.
- BMJ, 01/26/2021, <https://www.bmj.com/content/372/bmj.n99/rr-0>, “Low risk of reinfection confirms strong partial immunity and provides a rationale for saving millions of doses of vaccine for those with no immunity.”
- Science, 02/2021, <https://science.sciencemag.org/content/371/6529/eabf4063.full>, “Substantial immune memory is generated after COVID-19, involving all four major types of immune memory. About 95% of subjects retained immune memory at ~6 months after infection. Circulating antibody titers were not predictive of T cell memory. Thus, simple serological tests for SARS-CoV-2 antibodies do not reflect the richness and durability of immune memory to SARS-CoV-2.”
- MedRxiv, 04/24/2021, <https://www.medrxiv.org/content/10.1101/2021.04.20.21255670v1>, “Vaccination was highly effective with overall estimated efficacy for documented infection of 92·8% (CI:[92·6, 93·0]); hospitalization 94·2% (CI:[93·6, 94·7]); severe illness 94·4% (CI:[93·6, 95·0]); and death 93·7% (CI:[92·5, 94·7]). Similarly, the overall estimated level of protection from prior SARS-CoV-2 infection for documented infection is 94·8% (CI:[94·4, 95·1]); hospitalization 94·1% (CI:[91·9, 95·7]); and severe illness 96·4% (CI:[92·5, 98·3]). Our results question the need to vaccinate previously-infected individuals.”
- NIH, 04/29/2021, <https://pubmed.ncbi.nlm.nih.gov/33948597/>, “These results suggest that following a typical case of mild COVID-19, SARS-CoV-2-specific CD8+ T cells not only persist but continuously differentiate in a coordinated fashion well into convalescence, into a state characteristic of long-lived, self-renewing memory.”
- Immunity, 06/16/2021, [https://www.cell.com/immunity/fulltext/S1074-7613\(20\)30181-3?returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1074761320301813%3Fshowall%3Dtrue](https://www.cell.com/immunity/fulltext/S1074-7613(20)30181-3?returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1074761320301813%3Fshowall%3Dtrue), “Notably, there was a strong correlation between neutralization antibody titers and the numbers of virus-specific T cells.”
- The Lancet, 06/2021, [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(21\)00182-6/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00182-6/fulltext), “Observational data from a national clinical laboratory, though limited by an epidemiological view of the U.S. population, offer an encouraging timeline for the development and sustainability of antibodies up to ten months from natural infection and could inform post-pandemic planning.”
- Nature, 06/2021, <https://www.nature.com/articles/d41586-021-01557-z>, “Wang et al. show that, between 6 and 12 months after infection, the concentration of neutralizing antibodies remains unchanged. That the acute immune reaction extends even beyond six months is suggested by the authors’ analysis of SARS-CoV-2-specific memory B cells in the blood of the convalescent individuals over the course of the year. These memory B cells continuously enhance the reactivity of their SARS-CoV-2-specific antibodies through a process known as somatic hypermutation. The good news is that the evidence thus far predicts that infection with SARS-CoV-2 induces long-term immunity in most individuals.”

<sup>36</sup> <https://www.nytimes.com/2021/05/26/health/coronavirus-immunity-vaccines.html>

<sup>37</sup> <https://rumble.com/vg6dcd-peter-mccullough-interview.html>

**important regulatory line.** Indeed, he claims at least two recent studies have shown that COVID recovered patients have 2 to 3 times the adverse event rates of COVID naïve patients. [It is also known that COVID recovered patients have a much stronger immune response to the vaccine.<sup>38 39 40</sup>] Personally, I have found no study to date that shows vaccines offer any significant benefit to the already robust, durable, and complete natural immunity enjoyed by COVID recovered patients. A small study of 738 individuals out of Kentucky showed that unvaccinated, COVID-recovered patients had a 2.34 times more risk of reinfection compared to fully vaccinated, COVID-recovered patients, but the risk of reinfection in both groups is very small.<sup>41</sup> Furthermore, a much larger study of 52,238 individuals concluded that, “Individuals who have had SARS-CoV-2 infection are unlikely to benefit from COVID-19 vaccination, and vaccines can be safely prioritized to those who have not been infected before.”<sup>42</sup> **At the very least, mandating vaccines for COVID recovered individuals appears to be completely unnecessary.**

- The FDA has recently granted Emergency Authorization for T-Detect from Adaptive Biotechnologies. This test has demonstrated 99%+ specificity and 95% sensitivity in testing for underlying T-cell immunity to COVID for recovered individuals.<sup>43</sup> For those who are COVID-recovered, at the very least such a test should be considered as good as receiving the vaccine, especially since the FDA recommends against testing vaccinated individuals for COVID antibodies<sup>44</sup> (and hence, it is unclear the level of immunity any given vaccinated individual will actually enjoy). Dr. Martin Kulldorff, a professor at Harvard Medical School specializing in disease surveillance methods, infectious disease outbreaks, and vaccine safety concurs: “Thinking that everyone must be vaccinated is as scientifically flawed as thinking that nobody should. COVID vaccines are important for older high-risk people, and their care takers. Those with prior natural infection do not need it. Nor children.”<sup>45</sup> I will hasten to note, though, the some virologists maintain

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<sup>38</sup> <https://www.medrxiv.org/content/10.1101/2021.01.29.21250653v1.full.pdf>

<sup>39</sup> <https://www.mdpi.com/2075-1729/11/3/249/htm>

<sup>40</sup> <https://www.mdpi.com/2075-1729/11/3/249/htm>

<sup>41</sup> <https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7032e1-H.pdf>

<sup>42</sup> <https://www.medrxiv.org/content/10.1101/2021.06.01.21258176v2>

<sup>43</sup> <https://www.t-detect.com/covid-19/for-patients/>

<sup>44</sup> <https://www.fda.gov/medical-devices/safety-communications/antibody-testing-not-currently-recommended-assess-immunity-after-covid-19-vaccination-fda-safety>

<sup>45</sup> <https://mobile.twitter.com/MartinKulldorff/status/1371638485686358018>

that “immunity after infection or exposure often comes without a person producing or maintaining measurable antibodies.”<sup>46</sup>

## 6. What We Know, and Don’t Know, about Adverse Reactions:

- a. *Fertility and Menstrual Cycles:* Thousands of women have reported that their menstrual cycles have been disrupted after receiving a COVID vaccine,<sup>47</sup> and there are reports denying in the strongest possible terms, even as a possibility, that vaccines could cause this phenomenon.<sup>48</sup> Is it really honest to claim that we know, for a fact, only a few months into the vaccination campaign, that there can be absolutely no possibility that an mRNA gene therapy, a novel technology, might affect fertility? Especially when it appears that COVID-19 may affect male fertility,<sup>49</sup> and the effects of COVID-19 on pregnancy remain largely unknown?<sup>50</sup> Remember that these are the same folks who assured us for years that “Chronic Lyme” doesn’t exist because there is no possible mechanism by which it could exist.<sup>51</sup> Now that a plausible mechanism has been discovered whereby Lyme symptoms may persist even after the bacterium responsible for the disease has been eliminated from one’s system, it is no longer considered “anti-science” to speak of it. It is not unreasonable to expect a similar scenario might play out here. Therefore, a more responsible statement than “we know it cannot happen because there is no mechanism by which it could happen” is that “we don’t know” of a mechanism by which it could happen, but we need to investigate the phenomenon more

<sup>46</sup> <https://sharylattkisson.com/2021/08/covid-19-natural-immunity-compared-to-vaccine-induced-immunity-the-definitive-summary/>

<sup>47</sup> <https://abc7news.com/covid-vaccine-menstrual-cycle-clinical-trials-and-side-effects-women/10557707/> and <https://www.lifesitenews.com/news/thousands-of-women-report-hemorrhaging-reproductive-dysfunction-miscarriage-after-corona-shots>

<sup>48</sup> <https://www.statesman.com/story/news/politics/politifact/2021/04/22/covid-vaccine-fertility-menstrual-cycles-fact-check-pfizer-moderna/7334743002/> and <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-19-vaccines-myth-versus-fact>

<sup>49</sup> <https://www.cnn.com/2021/01/28/health/sperm-male-fertility-covid-19-wellness/index.html>

<sup>50</sup> <https://pubmed.ncbi.nlm.nih.gov/33435547/> and <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/special-populations/pregnancy-data-on-covid-19/what-cdc-is-doing.html>

<sup>51</sup> The CDC for years denied the existence of Chronic Lyme Disease and maintained that a 6-week regimen of Doxycycline eliminated to *Borrelia bacterium* handily from one’s system. See <https://lymescience.org/cdc-chronic-lyme-long-term-antibiotics-ilads/> and <https://lymediseaseassociation.org/news/news-releases/chronic-lyme-patients-cant-get-treated-cdc-director-told-by-national-patient-group/>. In the last few years, researchers have discovered that “renegade proteins” can remain in one’s body even after the bacterium is eliminated, and that this may be a mechanism by which certain individuals can experience ongoing symptoms. See <https://www.health.harvard.edu/blog/chronic-lyme-arthritis-a-mystery-solved-2019100317959>. Now that a mechanism has been discovered, it is no longer taboo or “anti-science” to speak about chronic Lyme disease. Yet, how much damage was done over the years to those who suffered from Chronic Lyme Disease even as the medical establishment arrogantly denied its existence, maintaining that anyone who held a different view was “uninformed” and a victim of “disinformation”? It is not unreasonable to believe this same scenario could play out here. Some medical experts claim that they know of no mechanism by which a vaccine could interfere with menstruation. This is properly categorized as a statement of ignorance, not a statement of certainty that such a mechanism does not exist. It is not without reason that many well-informed, well-educated individuals have stopped trusting the medical establishment’s competence and honesty.

carefully.” Individuals who cautiously desire to wait until more is definitively known,<sup>52</sup> especially young women who are at extremely low risk from COVID<sup>53</sup>, are not necessarily “anti-science.”

- b. *Reports of Blindness Following Vaccine Reception:* Among the nearly 20,000 eye disorders reported to VigiBase, a database for the WHO maintained by the Uppsala Monitoring Centre (UMC) in Uppsalla, Sweden, there are 303 cases of blindness following the reception of the vaccine. More than half of the eye disorders (10,667) were also reported to the U.K.’s Yellow Card adverse event reporting system.<sup>54</sup> Is it true that these cases have nothing to do with the vaccine? These databases typically vastly under-represent the number of adverse cases,<sup>55</sup> because they are passive and require self-reporting.<sup>56</sup> Additionally, the reports of adverse effects don’t necessarily indicate that those effects were definitively caused by the vaccine; each case must be examined carefully to establish, or refute, a cause-and-effect relationship.<sup>57</sup>
- c. *Astra-Zeneca Vaccine and One Size Fits All Mentality:* This remarkable statement was made on Wednesday, 4/28/2021 on national, public-funded TV station France 5 by Alex Kahn, a geneticist and Cancer League president whose credentials and track record are beyond suspicion: “There have been alerts and these alerts have been of good quality, because today everyone agrees that if you are between 20 and 30 years old, at least this is absolutely certain: the risk is higher to be vaccinated by Astra-Zeneca than not to be vaccinated. That’s it. It’s as clear as that.”<sup>58</sup> The fact is that it is not to everyone’s “risk advantage” to receive the vaccine. In particular, why on earth would we force children to receive this vaccine in its infancy, when their survival rate from covid is 99.999%?<sup>59</sup>
- An appropriate decision requires each individual to assess their risk from COVID as

<sup>52</sup> <https://www.americasfrontlinedoctors.org/action-alerts/identifying-post-vaccination-complications-their-causes-an-analysis-of-covid-19-patient-data>

<sup>53</sup> Johns Hopkins found zero COVID deaths among healthy children, and adolescents and young adults are likewise at very low risk. (<https://www.wsj.com/articles/cdc-covid-19-coronavirus-vaccine-side-effects-hospitalization-kids-11626706868>)

<sup>54</sup> <https://www.lifesitenews.com/news/19916-eye-disorders-including-blindness-following-covid-vaccine-reported-in-europe>

<sup>55</sup> “Although 25% of ambulatory patients experience an adverse drug event, less than 0.3% of all adverse drug events and 1-13% of serious events are reported to the Food and Drug Administration (FDA). Likewise, fewer than 1% of vaccine adverse events are reported. Low reporting rates preclude or slow the identification of “problem” drugs and vaccines that endanger public health. New surveillance methods for drug and vaccine adverse effects are needed.” See page 6 of <https://www.icandecide.org/wp-content/uploads/2020/12/Lazarus-report.pdf>

<sup>56</sup> <https://pubmed.ncbi.nlm.nih.gov/33039207/>

<sup>57</sup> <https://www.reuters.com/article/uk-factcheck-vaers-idUSKBN2AE00Q>

<sup>58</sup> [https://www.lifesitenews.com/news/highly-respected-geneticist-issues-warning-about-astrazeneca-shot-for-young-people?utm\\_source=top\\_news&utm\\_campaign=standard](https://www.lifesitenews.com/news/highly-respected-geneticist-issues-warning-about-astrazeneca-shot-for-young-people?utm_source=top_news&utm_campaign=standard)

<sup>59</sup> See <https://www.acsh.org/news/2020/11/18/covid-infection-fatality-rates-sex-and-age-15163>

opposed to their risk from the particular vaccine, and since the individual assumes all of the risk from receiving the vaccine, it should remain their complete decision to do so.

- d. *Large Number of Reported Adverse Events and Concerns:* Even though we are only a few months into the vaccination campaign, and there are strong indications that the VAERS systems is seriously backlogged,<sup>60</sup> there have been over 571,831 reports of adverse events associated with the COVID vaccines on the United States government's VAERS system, including 12,791 deaths, 13,139 life-threatening injuries, and 16,044 permanent disabilities.<sup>61</sup> When Pfizer's own documentation for the vaccine trials details the phenomenon of the "shedding" of spike proteins to others via inhalation or skin contact, and recommends that those who have received the investigational vaccine stay away from pregnant women,<sup>62</sup> what are we to make of the safety of those around the vaccinated? Finally, an expose by Tucker Carlson<sup>63</sup> reported that, in 1976, the U.S. government vaccinated 45 million people against pandemic swine but cancelled the program after 53 deaths were reported following the vaccine administration. If that is true, it gives one pause to consider the complete lack of response to, or even acknowledgement of, the 12,791 deaths that have been reported on VAERS following the reception of COVID vaccines. It is not unreasonable for a person to note a strong financial incentive for the pharmaceutical industry, and the government (who owns a patent crucial to the Moderna/Pfizer vaccine<sup>64</sup>) to be reluctant to ascribe adverse effects to the vaccine. In the end, we don't appear to yet know the true extent of even the short-term the adverse effects from the vaccine, nor can we know that this soon into the program.
- e. *The Issue of Mirco-clotting:* Dr. Charles Hoffe has been practicing medicine for 28 years in a small, rural town in British Columbia, Canada. In a recent interview, he outlined

<sup>60</sup> See former NY Times reporter Alex Berenson's post at <https://mobile.twitter.com/AlexBerenson/status/1388279986155573248>

<sup>61</sup> See <https://www.medalerts.org/vaersdb/findfield.php?TABLE=ON&GROUP1=CAT&EVENTS=ON&VAX=COVID19>, accessed on 5/04/2021.

<sup>62</sup> See

[https://twitter.com/drsimonegold/status/1387827663801393161?ref\\_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1387827663801393161%7Ctwgr%5E%7Ctwcon%5Es1\\_%ref\\_url=https%3A%2F%2Fwww.lifesitenews.com%2Fnews%2Famericas-frontline-doctors-covid-vaccinated-can-shed-spike-protein-harming-unvaccinated](https://twitter.com/drsimonegold/status/1387827663801393161?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1387827663801393161%7Ctwgr%5E%7Ctwcon%5Es1_%ref_url=https%3A%2F%2Fwww.lifesitenews.com%2Fnews%2Famericas-frontline-doctors-covid-vaccinated-can-shed-spike-protein-harming-unvaccinated)

<sup>63</sup> <https://video.foxnews.com/v/6252794642001#sp=show-clips>

<sup>64</sup> <https://www.msn.com/en-us/health/medical/who-owns-the-covid-19-vaccines-to-a-great-extent-you-do---but-you-may-not-see-the-profits/ar-BB1b49L8>

what he believes is significant evidence that the vaccines cause micro-clots in the lungs and other parts of the body.

“Most importantly, he has emphasized these micro-clots are too small to show up on CT scans, MRI, and other conventional tests, such as angiograms, and can only be detected using the D-dimer blood test, a standard test that indicates whether blood clots are being actively formed somewhere within a person’s vascular system.

‘Using the latter, he found that 62 percent of his patients injected with an mRNA shot were positive for clotting, not a small fraction that can be easily dismissed.

‘He has explained that what is happening in bodies is that the spike proteins in the vaccine become “part of the cell wall of your vascular endothelium. This means that these cells which line your blood vessels, which are supposed to be smooth so that your blood flows smoothly, now have these little spikey bits sticking out. ... when the platelet comes through the capillary, it suddenly hits all these COVID spikes, and it becomes absolutely inevitable that blood clots will form to block that vessel.”

He made an important distinction: “The blood clots we hear about, which the media claim are very rare, are the big blood clots, which are the ones that cause strokes and show up on CT scans, MRI, etc. The clots I’m talking about are microscopic and too small to find on any scan. They can thus only be detected using the D-dimer test’ ...

“This is his pessimistic, scientific view: ‘blood vessels in their lungs are now blocked up. In turn, this causes the heart to need to work harder to try to keep up against a much greater resistance trying to get the blood through your lungs. This is called pulmonary artery hypertension – high blood pressure in the lungs because the blood simply cannot get through effectively. “People with this condition usually die of heart failure within a few short years.”

Pro-vaccine former Pfizer executive Dr. Michael Yeadon echoes these concerns: “The gene-based design makes your body manufacture virus spike protein, and we know, and we’ve known for years, that virus spike protein triggers blood clots.”<sup>65</sup>

I have not seen these claims addressed convincingly by the larger medical community. I have also not seen Yeadon or Hoffe address the concern that COVID-19 may also cause these micro-clots, perhaps with higher frequency, as appears to be the case with myocarditis and pericarditis.<sup>66</sup>

7. **Spike Protein Itself is Pathogenic and Can Alter Gene Expression:** It appears that just the spike protein from the coronavirus is pathogenic. It crosses the blood-brain barrier in mice<sup>67</sup> and impairs endothelial function by downregulation of ACE2.<sup>68</sup> In an attempt to discover the mechanism(s) responsible for “long-haul syndrome,” researchers at the Texas Tech University Health Sciences Center found “that exposure to the SARS-CoV-2 spike protein alone was enough to *change baseline gene expression* in airway cells. This suggests that symptoms seen in patients may initially result from the spike protein interacting with the cells directly.”<sup>69</sup> Since these particular spike proteins bind to ACE2 receptors 10-20 more strongly than other spike proteins,<sup>70</sup> what does that imply for the large number of spike proteins created by the body in response to the mRNA vaccine? **I am not sure.**
  
8. **The Vaccine Spike Protein is Even More Problematic than the Original?:** In a paper published in the *International Journal of Vaccine Theory, Practice, and Research*,<sup>71</sup> authors Seneff and Nigh argue that the spike proteins produced by the body in response to the mRNA injection are worse than the actual disease because the synthetic mRNA has been

<sup>65</sup> <https://www.lifesitenews.com/opinion/from-shots-to-clots-covid-vaccine-induced-blood-clots/>

<sup>66</sup> <https://www.medrxiv.org/content/10.1101/2021.07.23.21260998v1.full.pdf>

<sup>67</sup> The S1 protein of SARS-CoV-2 crosses the blood-brain barrier in mice, *Nature Neuroscience*, 12/16/2020,

<https://www.nature.com/articles/s41593-020-00771-8>

<sup>68</sup> *SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downregulation of ACE 2*, *Circulation Research*, Vol. 128, No. 9,

<https://www.ahajournals.org/doi/10.1161/CIRCRESAHA.121.318902>.

<sup>69</sup> <https://www.studyfinds.org/covid-alters-genes-long-haulers/>

<sup>70</sup> See <http://hmi-us.com/publications/sars-cov-2-prion-like-domains-in-spike-proteins-enable-higher-affinity-to-ace2.html>

<sup>71</sup> *Worse Than the Disease? Reviewing Some Possible Unintended Consequences of the mRNA Vaccines Against COVID-19*, *International Journal of Vaccine Theory, Practice, and Research*, <https://ijvtp.com/index.php/IJVTPr/article/view/23>.

manipulated in such a way as to create a very unnatural spike protein that results in it not collapsing on itself into the cell once it attaches to the ACE2 receptor, as it normally does. Instead it stays open and attached to the ACE2 receptor, disabling it and causing a host of problems leading to heart, lung, and immune impairment.

Byram Bridle, a viral immunologist and associate professor at University of Guelph, Ontario working on COVID vaccine development, notes that data from a Japanese biodistribution study confirms that the spike proteins produced by one's cells in response to the mRNA vaccine do not stay localized to the muscle receiving the injection. Instead, they enter the bloodstream, circulate for several days post-vaccination and then accumulate in organs and tissues including the spleen, bone marrow, the liver, adrenal glands, and in quite high concentrations in the ovaries. Bridle also claims that the spike protein alone is responsible for virtually all of the cardiovascular damage inflicted by the virus on the body.<sup>72</sup> I found independent corroboration of Bridle's claim regarding antigen protein entering the bloodstream in a paper published in *Clinical Infectious Diseases*,<sup>73</sup> but there are those experts who appear claim that researchers such as Bridle are misinterpreting these studies (more on that below).

Dr. Janci Chunn Lindsay holds a doctorate in biochemistry and molecular biology from the University of Texas, with over 30 years of scientific experience in toxicology and mechanistic biology. In the mid-1990s, she aided the development of a temporary human contraceptive vaccine which, in her words, "ended up causing unintended autoimmune ovarian destruction and sterility in animal test models. Despite efforts against this and sequence analyses that did not predict this." She offered a commentary to the CDC in which she cited several safety concerns surrounding the COVID vaccines.<sup>74</sup>

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<sup>72</sup> *New peer reviewed study on COVID-19 vaccines suggests why heart inflammation, blood clots and other dangerous side effects occur*, interview of Byram Bridle by Alex Pierson, <https://omny.fm/shows/on-point-with-alex-pierson/new-peer-reviewed-study-on-covid-19-vaccines-sugge>

<sup>73</sup> *Circulating SARS-CoV-2 Vaccine Antigen Detected in the Plasma of mRNA-1273 Vaccine Recipients*, *Clinical Infectious Diseases*, May 20, 2021, <https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciab465/6279075>.

<sup>74</sup> <https://www.jennifermargulis.net/halt-covid-vaccine-research-scientist-urges-cdc/>

Dr. Hooman Noorchashm, M.D., Ph.D., delineates a number of concerns regarding the safety of the Moderna/Pfizer vaccine for COVID recovered patients.<sup>75</sup>

And yet, there are experts who appear to debunk many of these concerns quite convincingly, explaining how these papers have been misinterpreted (including at least one author of one of the cited papers).<sup>76</sup> Such experts also explain that the spike protein cannot even exit the cell once it is complete until it is shredded by protease.<sup>77</sup>

What is very clear to me is that there very well may be unintended consequences of the vaccine emerging and several concerns expressed among professionals in the field about safety unknowns surrounding the vaccines. Other professionals in the field strongly deny there is any evidence for concern. **What am I, a non-expert, to make of this?** The government regulatory agencies such as the CDC and NIH have proven themselves to be an unreliable guide, at least during the present pandemic (misleading the public on the likelihood of transmission outdoors,<sup>78</sup> ignoring the strong evidence that asymptomatic transmission is very minimal,<sup>79</sup> and being slow to acknowledge the robust immunity conferred on post-COVID patients). **I see a robust scientific discussion occurring, as is appropriate. But, conclusions seem far from certain at this point, many experts involved in the discussion appear to be very strongly motivated by a personal and/or political agenda.** At this point, I am not personally convinced that we know the full extent and severity of the unintended consequences nor the outcomes regarding the safety concerns. Until such knowledge is clear and uncontroversial, I believe mandating the vaccine is premature.

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<sup>75</sup> <https://noorchashm.medium.com/a-public-letter-to-fda-commissioner-dr-c2728667c0bb>

<sup>76</sup> <https://sciencebasedmedicine.org/the-deadly-coronavirus-spike-protein/>

<sup>77</sup> <https://www.youtube.com/watch?v=9EfToFXwx98>

<sup>78</sup> See

- <https://www.nytimes.com/2021/05/11/briefing/outdoor-covid-transmission-cdc-number.html?referringSource=articleShare>,
- <https://onlinelibrary.wiley.com/doi/10.1111/ina.12766>, <https://www.canterbury.ac.uk/science-engineering-and-social-sciences/spear/docs/EXECUTIVE-SUMMARY-Outdoor-Transmission-of-COVID-19.pdf>,
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7813483/pdf/main.pdf>
- <https://www.irishtimes.com/news/ireland/irish-news/outdoor-transmission-accounts-for-0-1-of-state-s-covid-19-cases-1.4529036? ga=2.24768063.440780849.1618007143-575568946.1618007143>.

<sup>79</sup> <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2774102>

9. **Reverse Transcription of SARS-CoV-2:** “SARS-CoV-2 RNA can be reverse-transcribed to be part of a chimeric viral-human genome: A study appearing as a pre-print on the bioRxiv\* server in December 2020 reveals that the genome of the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) is inserted into the human genome, accounting for the detection of viral RNAs, even in late convalescence.”<sup>80</sup> This is a common phenomenon with retroviruses, like HIV, as well. Can we therefore be absolutely sure that the mRNA in the vaccines cannot possibly, in any way, affect our human DNA and anyone who so much as suggests this is a possibility that should be considered carefully is a completely insane anti-science wacko? **I’m not yet convinced.**
10. **Polyethylene Glycol in mRNA Vaccines:** It is suspected that the mechanism causing the anaphylactic shock experienced by some COVID vaccine recipients may be the PEG lipid nanoparticles that serve to protect the mRNA for delivery into the body and also act as an adjuvant, since PEG initiates a strong inflammatory response. This is the first vaccine to use PEG, but it has been used in other medicines and known to cause anaphylactic shock in some individuals, even those with no known allergies.<sup>81</sup> **Since the individual is the one being asked to take the risk of such a reaction, should it not also be their decision?**
11. **Vaccines Protect the Individual:** For all of the claims that “we’re in this together” and talk of the “common good,” one thing is very clear about the COVID vaccines: they apparently do an excellent job of protecting the vaccinated individual from severe symptoms should they be infected,<sup>82</sup> though they do not prevent transmission.<sup>83</sup> As we have seen in recent days, they do not prevent transmission. **Since the vaccines do protect the individual, then whether or not to receive the vaccine should, likewise, be an individual decision.** Those who choose to can be protected and should have the right to make that choice. Those who do not should likewise be allowed to make that choice. **No one choosing to receive the vaccine is at any risk from those who choose not to receive it, if indeed we**

<sup>80</sup> <https://www.news-medical.net/news/20201216/SARS-CoV-2-RNA-can-be-reverse-transcribed-to-be-part-of-chimeric-viral-human-genome.aspx>

<sup>81</sup> See <https://pubmed.ncbi.nlm.nih.gov/33657648/> and <https://pubmed.ncbi.nlm.nih.gov/33857566/>

<sup>82</sup> See <https://scienceblog.com/522486/do-covid-19-vaccines-prevent-infection-and-transmission/>

<sup>83</sup> <https://www.nytimes.com/2021/07/28/health/cdc-covid-testing-vaccine.html>

believe the vaccine works as well as the data seem to indicate. If we do not believe this, and the vaccinated are still “afraid” of the unvaccinated, then why require the vaccine in the first place?

12. **Long-Term Safety Cannot Be Known for Several Years:** Because the COVID-19 vaccines have only been administered in the United States since December 2020, the long-term effects are unknown at this time.<sup>84</sup> In fact, even though vaccine research appears to indicate that usually, if vaccines are going to have serious side effect, they occur within six weeks of injection,<sup>85</sup> it is also true that complete development of a safe vaccine usually takes 10-15 years.<sup>86</sup> By definition, long-term effects cannot be known for many years and after a large segment of the population has received the vaccine (especially if the long-term effects are serious but rare). So, will the COVID vaccine have significant unforeseen long-term effects? **We don't know.**

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<sup>84</sup> <https://www.healthline.com/health/is-the-coronavirus-vaccine-safe#long-term-effects>

<sup>85</sup> <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>

<sup>86</sup> [https://www.health.ny.gov/prevention/immunization/vaccine\\_safety/science.htm](https://www.health.ny.gov/prevention/immunization/vaccine_safety/science.htm)