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An Open Letter to Parents and Pediatricians

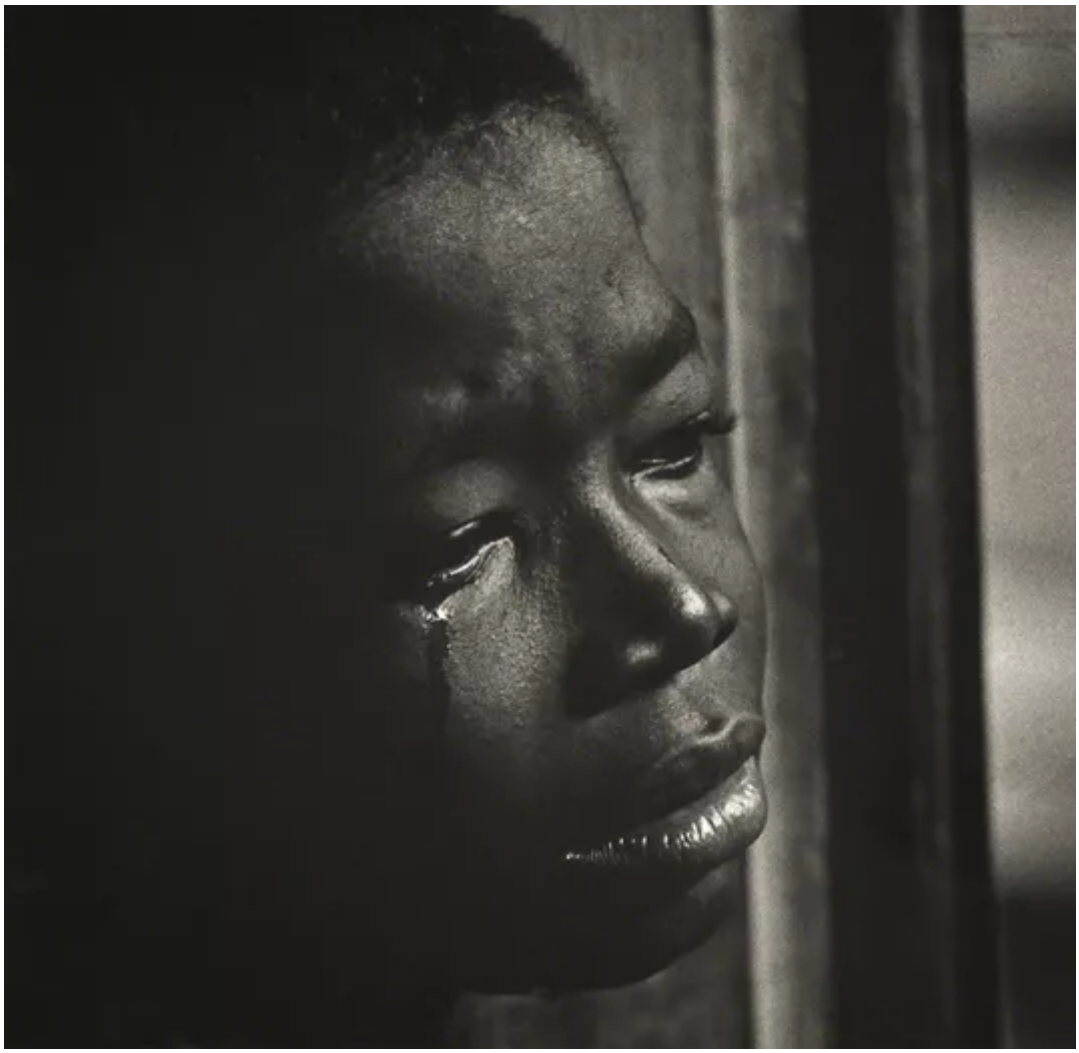
Informing Informed Consent

By Robert M. Rennebohm, MD

"I have tried to let Truth be my prejudice"

*W. Eugene Smith, photojournalist (1918-1978)**

Two top priority goals during the COVID pandemic are to protect the vulnerable and provide the healthiest possible future for our innocent children. Does COVID vaccination give children the healthiest possible future; does it best protect the vulnerable? Or would a different approach to the pandemic give children a better future and better protect the vulnerable?



Is this boy crying because his grandparents have died of COVID? Is he worried about losing his parents to COVID? Is he frightened about dying from COVID himself? Is he sad that he has missed so much school, has seen so little of his friends, has not been able to play like before, and has had to wear a mask? Is he sad because his parents—one a physician, the other a nurse—have lost their jobs because they thought hospital policies were unscientific and harmful to patients? Is he worried that he may be forced to take a COVID vaccine that might cause him harm? Is he just very tired of worrying and hearing about COVID and all of the controversies and bad things going on in the world? Is he worried about the anxiety, sadness, and hardships people in his community have suffered because of COVID directives, particularly those who were already struggling emotionally and financially? Is he saddened by the cruel and intolerant ways in which people now frequently treat each other? Has he noticed that disagreements about COVID vaccination have torn families, friends, and communities apart? Does he wonder what happened to kindness, compassion, and healthy dialogue? Is he worried that these COVID issues will never end?

This image and the other two photographs are from the 1950s. If we were to fast-forward from then to 2022 and view this photo in the context of the COVID pandemic, what questions would cross your mind? What is he thinking? Is he thinking about his most recent patient who died of COVID and whether he and the hospital had done enough to save that patient? Is he thinking that his patient died from an adverse event caused by the COVID vaccine? Is he wondering what has caused this horrible COVID situation? Is he worrying about the overworked and exhausted staff at his hospital? Is he wondering whether this pandemic will ever end, whether we will learn enough from it, whether life will ever be the same, whether the practice of medicine is being forever changed, whether life will become increasingly worse?

***Eugene Smith:**

The photographs at the beginning of this Open Letter are those of Eugene Smith.

W. Eugene Smith (1918-1978) was a brilliant, compassionate photojournalist whose work was most prominently shared in ***Life*** magazine during the 1950s and 60s. He cared deeply about issues of war, poverty, justice, suffering, and health care. Mostly, he cared about seeking truth, particularly social truths. And he longed for Social Beauty.

About his work, Smith said:

"With considerable soul searching, [and] to the utmost of my ability, I have let truth be the prejudice.

"If I can get them to think, get them to feel, get them to see, then I've done about all that I can as a teacher."

We would all benefit if Eugene Smith were still with us today to chronicle the human suffering associated with the COVID pandemic—to help us to see, feel, think about, understand, and collaboratively resolve the COVID situation.

At the end of this Open Letter are two other Smith photos.

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INTRODUCTION:

Two contradictory views on COVID vaccination have been expressed—a **prevailing narrative** (get vaccinated, immediately! Vaccination is our way out of the pandemic) and an **alternative narrative** (stop the COVID vaccination campaign, immediately! COVID vaccination is dangerous and making the pandemic worse). These conflicting narratives have created confusion and anxiety for parents and many pediatricians. This Open Letter is intended to help parents and pediatricians—who simply want to do the right thing—to better understand the science behind the conflicting narratives and decide on a best course of action, regarding COVID vaccination of children.

Informed Consent: Children have had no voice or vote, regarding their potential COVID vaccination. Children depend entirely on their parents to make a well-informed and wise decision. Ethically, experimental pharmaceutical products, particularly experimental vaccines that have been rushed into use before adequate testing for safety could be completed, must not be administered to anyone, particularly children, without adequate informed consent.

Pediatricians are legally and morally required to honor the principle of "Informed Consent" and make certain that parents are sufficiently informed before they (the parents) agree to have their children vaccinated. The information and concerns explained in this Open Letter represent the kind of information needed for a parent to make a well-informed decision before granting consent for COVID vaccination of their child.

Parents, I apologize for the length of this Letter. But the COVID vaccination issue is complex, deserves to be addressed more than superficially, and requires more than a simplistic understanding of immunology and vaccinology. Much is at stake. So, for the sake of your child and all children, please consider taking the time to read this Letter. If you don't have time, consider reading just the **SUMMARY—SHORTER VERSION OF THIS OPEN LETTER.** (Next page)

As a pediatrician with nearly 50 years of experience, I have always believed in the importance of patient/parent education and the impressive ability of parents to adequately grasp complex medical information, particularly when their child's health is at stake. Accordingly, I am confident that parents will be able to grasp the essence of information presented in this Letter.

At the end of this Letter, you will find over 1000 REFERENCES—almost all of which have either been published in peer-reviewed medical journals (the vast majority) or submitted as pre-prints for publication. Just before the References, you will find LINKS to several helpful Educational Video Interviews and Video Presentations.

If you would like additional information about COVID issues, please see the second section of my ***Notes from the Social Clinic*** website. It may be accessed by googling: https://notesfromthesocialclinic.org/ Twenty-one articles, covering most aspects of COVID, are posted in the second section of this ***Social Clinic*** website, starting with a **Lead Article**, entitled, **"A Call for an Independent COVID Commission."** Here is the link to the Lead Article: https://notesfromthesocialclinic.org/a-call-for-an-independent-international-covid-commission/

SUMMARY— THE SHORTER VERSION OF THIS OPEN LETTER:

INTRODUCTION:

- Two contradictory views on COVID vaccination have been expressed—a prevailing narrative (get vaccinated, immediately! Vaccination is our way out of the pandemic) and an alternative narrative (stop the vaccination campaign, immediately! COVID vaccination is dangerous and has been making the pandemic worse).
- Unfortunately, there has been little or no healthy scientific dialogue between proponents of the two narratives, despite repeated pleas for such from leaders of the alternative narrative.
- These conflicting narratives have created confusion and anxiety for parents and pediatricians—who simply want to do the right thing. It has also created unhealthy division within the public, including rifts within families.
- This Open Letter seeks to: clarify the science behind COVID vaccination issues; facilitate healthy, inclusive dialogue; and bring people together to jointly determine what would be best for children and Humanity as a whole.
- The information and concerns explained in this Open Letter represent the kind of information needed for a parent to make a well-informed decision before granting consent for vaccination of their child.

Note: Over 1000 references for the statements made in this shorter version are embedded in the longer version. Please see the longer version for those references.

SECTION 1: TWO CONFLICTING COVID NARRATIVES:

- **The Prevailing Narrative**, promoted by the CDC and the US COVID Task Force, confidently states that the COVID vaccines are safe, effective, and necessary. According to this narrative: the pandemic has become a "pandemic of the unvaccinated;" the entire

global population, with certain exceptions, must promptly become vaccinated, for the sake of protecting all of Humanity; COVID vaccination is a moral and social obligation of all citizens; to remain unvaccinated is selfish and socially irresponsible; and the alternative narrative (described in this Letter) represents harmful "misinformation."

- **The Alternative Narrative** suggests that the pandemic has become prolonged and made more dangerous, not because of the unvaccinated, but because an unwise mass vaccination campaign that uses sub-optimal vaccines is doing more harm than good. **This alternative narrative represents a deep and sound scientific explanation that has been developed and articulated by extremely competent and caring scientists and physicians** who have devoted their careers to the proper development and use of life-saving vaccines and have dedicated the past 22 months to thoroughly studying the COVID situation.
- According to the alternative narrative, on scientific grounds alone, the current COVID mass vaccination campaign must be urgently stopped—because the COVID vaccines are not safe, not adequately effective, and are harming people at both an individual and population level. According to this narrative, COVID vaccines should certainly not be administered to children.

SECTION 2: AN OVERVIEW OF THE HUMAN IMMUNE SYSTEM (HuIS):

- The HuIS wisely approaches a virus in multiple ways. It does not simply and only produce specific antibody to a single major component of the virus, like the spike protein. It produces antibodies to multiple components up and down the virus, and it utilizes many

other capacities in its vast armamentarium—innate immune capacities and acquired (adaptive) immune capacities.

- The immune system can be divided into two major compartments—the mucosal immune system and the systemic immune system. Dr. Bhakdi has helpfully referred to these two compartments as the "Air Force" (mucosal compartment) and the "Navy" (systemic compartment).
- The Air Force is "based" in the mucosa and submucosa (the space underneath the mucosal lining) of the respiratory tract, the GI tract, and the mucosa/submucosa of other mucous membrane-lined organs (e.g., bladder, uterus, etc.).
- The Navy is based (has "bases") throughout the rest of the body—in lymph nodes, spleen, bone marrow, in the blood circulation, within solid organs, etc.
- Both the Air Force and the Navy have an Innate Immunity division and an Acquired (Adaptive) Immunity division.
- The mucosal immune system uniquely produces secretory IgA, which plays a key role in quickly combatting viruses that enter the body through the respiratory tract or GI tract. The systemic immune system does not produce secretory IgA.
- In both the mucosal compartment and the systemic compartment, the first line of defense, the first responders, are the troops of the Innate Immunity division, which includes natural killer cells (NK cells) and natural antibodies. If the innate immunity division determines that it is necessary to activate and mobilize the acquired immunity division (the second line of defense), it sends signals for that to happen.
- Sometimes only the Air Force (the mucosal immune system) is needed (particularly with viruses that enter through the nose and throat); sometimes only the Navy (systemic immune system) is needed; and sometimes both compartments (both the Naval bases and the Air force bases) must go into full action in order to protect a person from an invading virus.
- It is helpful to think of the immune system as an ingeniously orchestrated immune ecosystem, just like ecosystems in nature (forests, wetlands, etc.). Just as ecosystems in nature are complex, delicate, need to be respected, and must not be subjected to reckless tampering, the same is true with the immune ecosystem.
- In summary, when the SARS-CoV-2 virus invades a person, the HuIS potentially uses all of its multiple dimensions—both its mucosal immune system (the Air Force) and its systemic immune system (the Navy), both of which have an innate immunity division and an acquired immunity division—to quickly subdue the virus (initially by innate immunity troops of the Air Force) and create robust, durable, multi-dimensional acquired immunity to protect the person from future invasion by that virus.

- In comparison, the COVID vaccines provide uni-dimensional training of the systemic immune system and little, if any, training of the mucosal immune system.
- There is legitimate concern that the current COVID vaccines could be interfering with innate immunity and detrimentally disrupting the flow and optimal function of the natural human immune ecosystem.
- There is considerable scientific evidence that naturally acquired immunity is more effective, more robust, and more durable than the immunity provided by COVID vaccines.

SECTION 3: WHAT HAPPENS WHEN A VIRAL PANDEMIC, LIKE THE COVID PANDEMIC, IS NOT TREATED WITH A MASS VACCINATION CAMPAIGN?

- When a pandemic like the COVID pandemic is not treated with a vaccine (which was the case during the first year of the COVID pandemic), a considerable percentage of the population (primarily people under age 65, who are out and about) eventually becomes infected with the virus (the SARS-CoV-2 virus in this pandemic).
- The most vulnerable, including the elderly, must be carefully protected from exposure to the virus.
- Those who do become infected need to be proactively treated (much more promptly and aggressively than has been the case throughout the COVID pandemic).
- Meanwhile, in the absence of vaccination, the virus and the HuIS work together to arrive at a mutually acceptable compromise—whereby the virus might be allowed to live peacefully within the human being (at least for a while), as long as it stays under control and does not cause regrettable harm.
- Under such natural circumstances (i.e., without vaccination interference) the virus normally and naturally mutates in a benign direction—i.e., the variants gradually become less and less virulent, less dangerous.
- The end result is that: considerable herd immunity develops, which protects everyone; in the meantime, appropriate public health measures and prompt and appropriately aggressive treatments minimize hospitalizations and deaths; the epidemic subsides within several months; and when the virus returns, even in a new form, the immune system provides considerable protection.
- Absolutely, the hospitalizations and deaths that occur are regrettable. However, according to the alternative narrative (and in my opinion as well), treatment of the pandemic with a mass vaccination campaign, using sub-optimal vaccines, results in considerably more cumulative hospitalizations and deaths than occurs in the absence of such a vaccination campaign, as explained in the next Section.

SECTION 4: WHAT HAPPENS WHEN A PANDEMIC LIKE THE COVID PANDEMIC IS PRIMARILY TREATED WITH A MASS VACCINATION CAMPAIGN, USING A SUB-OPTIMAL VACCINE?

- The current COVID pandemic has been primarily managed with roll out of a rapid, massive vaccination campaign, using **sub-optimal** uni-dimensional vaccines (directed at only the spike protein), in the midst of the active pandemic and in the midst of considerable lockdown measures.
- Unlike **optimal** vaccines (which kill the virus and prevent infection and transmission) sub-optimal vaccines do not adequately prevent infection or transmission. At best, they might lessen severity of infection.
- **Proponents of the alternative narrative would favor use of an optimal COVID vaccine, if an optimal vaccine were available and proven to be safe and effective. But an optimal COVID vaccine has not been available.**
- According to many experienced virologists/vaccinologists, a mass vaccination campaign using a sub-optimal vaccine in the midst of a pandemic is a recipe for disaster. Why? Because, when a person who has been vaccinated with a sub-optimal vaccine is subsequently exposed to the virus, the vaccine does not prevent the virus from entering cells, replicating in those cells, and spreading to other people. Then,
- When the virus replicates in the vaccinated person's cells, new mutations develop, and under the pressure of the mass vaccination campaign, the successful mutations are ones that confer the new variant with an ability to "escape" the vaccine-induced anti-spike protein antibody. As a consequence, the vaccine-induced antibodies quickly become less effective and the new variant more easily enters cells, more easily replicates, tends to be more transmissible than its predecessors, and can become an overwhelmingly predominant variant in the community. And,
- In addition to the concern that the COVID mass vaccination campaign will result in development of predominant variants with increased vaccine resistance and increased transmissibility, there is concern that the mass vaccination campaign might eventually generate a predominant variant that is far more virulent (deadly) than any of its predecessors—a virulent variant that could be harmful to everyone, including children, regardless of vaccination status.
- There is also concern that the COVID vaccines may be undermining and disrupting our normal immune system—particularly our innate immunity, particularly in children.
- Dr. Vanden Bossche, a leading proponent of the alternative narrative, disagrees that this is a "pandemic of the unvaccinated." On the contrary, he views it as a pandemic that has become prolonged and more dangerous because of the mass vaccination campaign. Furthermore, he worries that it is the vaccinated people who are becoming the most

likely "spreaders" of the virus—because the vaccine allows the vaccine-resistant variant to enter their cells and replicate, while the vaccine might indirectly make them less symptomatic, even asymptomatic, which results in their possibly being unwitting asymptomatic spreaders.

- Dr. Vanden Bossche thinks it is a huge mistake to continue the current COVID mass vaccination campaign. He urges that the campaign be immediately shut down before it drives the development of a variant that is not only extraordinarily transmissible, but extremely virulent—a catastrophic development.
- **According to the alternative narrative, the total cumulative numbers of COVID hospitalizations, COVID ICU admissions, and COVID deaths during the COVID pandemic (from the beginning of the pandemic through January 2022) would have been lower if the pandemic had not been treated with the mass vaccination campaign and, instead, had been managed as described in Section 3.**
- As with other issues raised in this Open Letter, it would be immensely helpful to establish an **"Inclusive Independent International COVID Commission**," consisting of independent international panels of fairly selected, eminent scientists who would be asked to respectfully, thoroughly, objectively, transparently, and publicly address the conflicting points of view on COVID vaccination, in an effort to resolve disagreements and arrive at consensus.

SECTION 5: OTHER CONCERNS ABOUT THE COVID VACCINES—ADVERSE EVENTS:

- In addition to Dr. Vanden Bossche's concerns that current mass vaccination is driving the development of more transmissible and potentially more lethal strains and may be harming natural innate immune function (particularly in children), many scientists and physicians are deeply concerned that the COVID vaccines are unsafe in other important ways—causing unacceptable short- and long-term side effects for individuals.
- For example: myocarditis and pericarditis in adolescents and young adults; lethal clotting in adults.
- The 1077 REFERENCES at the end of this Open Letter include 757 articles in the medical literature (the vast majority of them being peer-reviewed publications, the rest being pre-prints submitted for publication) that report serious side effects of COVID vaccinations (#271-1028). This represents an alarming and unprecedented number of reports of adverse effects of a new pharmaceutical product. Please consider scrolling through the REFERENCES and reading the titles of these 757 articles.

- The VAERS data also reveal an alarming number of severe adverse reactions and deaths associated with the COVID vaccines.

SECTION 6: PROBLEMS WITH THE COVID PCR TEST AND COVID DATA COLLECTED TO DATE:

- The prevailing narrative (its data and its conclusions) has been fundamentally based on use of the COVID PCR test.
- A positive COVID PCR test cannot be adequately interpreted without knowing the Ct (cycle threshold) value at which the test was positive.
- If the test is positive at a low Ct value (e.g., 20), this means the specimen has a large amount of virus in it, the test is strongly positive, the diagnosis of COVID is more definite, and the person is highly contagious.
- A positive COVID PCR test at a Ct greater than 30 is likely to represent either a false positive (commonly) or detection of a tiny amount of dead virus. Many of such people have not, in fact, had COVID, and if they have had COVID, they are no longer infectious.
- When a COVID PCR test is positive at a Ct value greater than 27, the false positivity rate for the test is 75.5%. The higher the Ct value, the higher the false positivity rate.
- Unfortunately, the Ct values at which tests have been positive have not been shared with patients or their physicians.
- Even when a COVID PCR test is positive at a low Ct value, this does not assure that the patient definitely has COVID. The most accurate test for confirmation of COVID is genomic sequencing. Since the beginning of the pandemic, confirmed diagnoses of COVID should have been based on genomic sequencing, not on PCR testing.
- By basing data collection on the COVID PCR test and using it without disclosing Ct values and without genomic sequencing, the CDC and State Health Departments have generated scientifically unsound data.
- Making matters worse, data collection by the CDC and State Health Departments has been based on scientifically unsound criteria for designation of “COVID cases,” “COVID hospitalizations,” and “COVID deaths.”
- The scientifically unsound use of COVID PCR tests and the scientifically unsound criteria used for designation of “COVID cases,” “COVID hospitalizations,” and “COVID deaths” has resulted in US data being of low scientific quality, inadequately accurate, inadequately interpretable, and misleading.
- **The prevailing narrative has not been based on proper conduct of science.** This has been a huge and fundamental problem throughout the pandemic.

SECTION 7: EFFICACY OF THE COVID VACCINES:

- Proponents of the alternative narrative are concerned that the COVID vaccines are not nearly as effective as initially and subsequently claimed by their manufacturers.
- COVID vaccine failure would not be surprising, since: COVID vaccines are sub-optimal and uni-dimensional; only partially train the systemic immune system; have little or no effect on the mucosal immune system; may be interfering with normal immune function; and drive the appearance and predominance of viral variants that "escape" the vaccinal antibodies and become increasingly transmissible and potentially more lethal.
- There are contradictory data regarding the extent to which the COVID vaccines are affecting infection rates, severity of illness, and incidence of death. This is not surprising, considering that the initial clinical trials and many of the subsequent studies of vaccine efficacy have been based on scientifically unsound data collection, as explained in Section 6.
- Several studies suggest that: the COVID vaccines actually increase risk of COVID infection and COVID death during the 5 weeks after the first dose; then there is temporary and modest protection (at best) for a matter of only weeks or a few months; then there appears to be a negative effect (increased susceptibility to COVID infection); and it is likely that Boosters will prove to provide only transient benefit, which is likely due to brief non-specific stimulation of natural immunity.
- Furthermore, there is legitimate concern that vaccine-induced ADE (antibody dependent enhancement) phenomena might be increasing disease severity and death in vaccinated people when they subsequently become infected; and there is some evidence that vaccinated people may be more likely to spread the virus than are the unvaccinated (because the vaccines may actually facilitate viral entry into cells).
- Several studies suggest that both the short-term effectiveness and the long-term effectiveness of the COVID vaccines are disappointing, especially with the newer variants. Natural immunity appears to be more robust and more durable than vaccine-induced immunity.
- **For the reasons explained in Section 6, all vaccine efficacy data, from all institutions and all countries must be critically examined and interpreted with caution, including data from Johns Hopkins, WHO, the CDC and state health departments.** Frankly, because of the problematic way in which COVID data have been collected to date, I do not think we know how truly protective the COVID vaccines have been.
- An **Inclusive Independent International COVID Commission** could helpfully assess the contradictory data and provide an appropriate consensus regarding the effectiveness of the COVID vaccines.

SECTION 8: HOW NECESSARY AND WISE HAS THE MASS COVID VACCINATION CAMPAIGN BEEN?

- The mass vaccination campaign, coupled with a failure to provide prompt and adequate outpatient and inpatient treatment, has resulted in a larger cumulative number of people with severe COVID illness and COVID death (during 2020 and 2021) than would have occurred if the COVID pandemic had never been treated with the current mass vaccination campaign and, instead, had been managed as described in Section 3.
- The mass vaccination campaign has appeared to prolong the pandemic and make it more dangerous. The vaccines themselves have caused an unacceptable number and degree of adverse events, at the individual level.
- There is legitimate concern and growing scientific evidence that the mass vaccination campaign has been unwise.
- Ideally, however, this issue should be addressed by an **Inclusive Independent International COVID Commission.**

SECTION 9: THE OBLIGATION OF PEDIATRICIANS TO PROVIDE SUFFICIENT INFORMATION FOR TRUE INFORMED CONSENT:

- Pediatricians, understandably, have had little time and energy to study the COVID situation in depth. (That is why this Open Letter, with its in-depth analysis and 1077 REFERENCES, is being offered.)
- Pediatricians are welcome to share this Open Letter to help inform parents about COVID vaccination issues.

SECTION 10: CONCLUSIONS:

- The prevailing narrative has been primarily based on scientifically unsound use of the COVID PCR test and scientifically unsound collection of data, regarding COVID cases, COVID hospitalizations, COVID deaths, and vaccine efficacy.
- Scientifically unsound data collection leads to scientifically unsound conclusions and scientifically unsound public policies.
- The alternative narrative represents a deep and sound scientific explanation that has been developed and articulated by extremely competent and caring scientists and

physicians who appreciate the complexity and elegance of the immune ecosystem, have devoted their careers to the proper development and use of life-saving vaccines, and have dedicated the past 22 months to thoroughly studying the COVID situation. They are not "anti-vaxxers." On the contrary, they are pro-vaccination but insist that vaccines be adequately demonstrated to be safe, effective, and necessary.

- According to the alternative narrative, and in my opinion as well, the COVID vaccines are inadequately safe, inadequately effective, and have been doing more harm than good.
- The mass vaccination campaign, with its sub-optimal vaccines, has prolonged the pandemic and resulted in more deaths and hospitalizations than would have occurred if the COVID pandemic had been treated without this mass vaccination campaign.
- This has not been a "pandemic of the unvaccinated," it has been a pandemic that has been made worse by an ill-conceived mass vaccination campaign.
- **The COVID vaccines have been promoted without proper informed consent.** Neither the public, nor parents, have been provided adequate information by the proponents of the prevailing narrative. Instead, they have been given simplistic, one-sided information and have been told that the information provided by the alternative narrative (the science-based, data-driven alternative narrative described in this Letter) represents "misinformation."
- Parents and the public deserve to have representatives of the two opposing COVID narratives come together to engage in healthy, respectful, scientifically sound, publicly witnessed (televised) dialogue about the safety, efficacy, necessity, results, and wisdom of the current COVID mass vaccination campaign. For 22 months, leaders of the alternative narrative have been pleading for such, to no avail.
- Parents and the public can and should insist that an **"Inclusive Independent International COVID Commission"** be formed, consisting of independent international panels of fairly selected, eminent scientists who would be asked to thoroughly and objectively address COVID vaccination issues in an effort to resolve disagreements and arrive at consensus. Such is the tradition of science, medicine, democracy, and civil society. The public deserves and desperately needs such careful examination and healthy dialogue. Successful resolution of the COVID pandemic depends on it.
- Until the above-suggested Commission convenes and arrives at a thoughtful and fair consensus, the current mass vaccination campaign should—out of an abundance of caution—be at least temporarily suspended, at least for children.
- As parents and the public watch C-SPAN-like televised proceedings of the Commission, they (parents and the public) can decide in their own minds who among the Commissioners and discussants seems most knowledgeable, careful, rigorously scientific, compassionate, honest, ethical, and most wise.

- Only then will parents be able to make a truly informed decision for their children.

THE LONGER VERSION OF THIS OPEN LETTER:

SECTION 1: THE TWO CONFLICTING COVID NARRATIVES:

The prevailing narrative: In the view of the CDC and the US COVID Task Force, the pandemic has become a "pandemic of the unvaccinated," and "the way out of the pandemic" is for the entire population of the world to become fully vaccinated, including children. According to this narrative—which has been supported by most government leaders, most health care establishments, and almost all conventional media—the COVID vaccines are safe, effective, and necessary, and human beings have a social and moral obligation to become vaccinated, as soon as possible. According to this narrative, unvaccinated people are the problem—because they become infected; they allow the virus to replicate, mutate and spread to others; they become more ill than the vaccinated; and they disproportionately occupy hospital beds and resources.

An alternative narrative: In the view of a many other scientists and physicians—e.g., Dr. Geert Vanden Bossche, Dr. Luc Montagnier (Nobel Prize winner for discovering the HIV/AIDS virus), Dr. Sucharit Bhakdi, Dr. Mike Yeadon, Dr. Wolfgang Wodarg, Dr. Robert Malone (a major contributor to the development of mRNA technology), Dr. Byram Bridle, Dr. Michael Palmer, Dr. Peter McCullough, Dr. James Lyons-Weiler, and Dr. Paul Alexander—the pandemic has become prolonged and more dangerous, not because of the unvaccinated, but because a misguided mass vaccination campaign that uses sub-optimal vaccines is doing more harm than good. These just-mentioned scientists and physicians are highly competent, extremely accomplished, deeply caring scientists and physicians with extensive knowledge and experience in virology, immunology, vaccinology, evolutionary biology, epidemiology, and evidence-based medicine. They are not "anti-vaxxers." In fact, several of them have played major roles in developing life-saving vaccines, and all of them are pro-vaccine, as long as the vaccine has been adequately proven to be safe, effective, and necessary.

According to these thoughtful scientists, the current COVID mass vaccination campaign, strictly from a scientific standpoint, has been ill-conceived and must be urgently stopped—because the sub-optimal COVID vaccines are unsafe, inadequately effective, and are harming people at both an individual and population level—as will be explained later in this Open Letter. According to these scientists, currently available COVID vaccines should certainly not be administered to children. Dr. Vanden Bossche has thoroughly explained this alternative narrative via several video interviews—for example, see the two links below (as well as additional LINKS listed at the end of this Letter, just before the REFERENCES):

https://www.voiceforscienceandsolidarity.org/videos-and-interviews/dr-geert-vanden-bossche-immediate-notice-to-the-world-health-organization

https://www.voiceforscienceandsolidarity.org/videos-and-interviews/second-call-to-who-please-dont-vaccinate-against-omicron

It is important to emphasize that, in the general population, proponents of the alternative narrative are a heterogeneous group who support it for varied reasons. The highly accomplished and experienced scientists mentioned above promote the alternative narrative primarily because they think it is based on sound science and sound medical ethics, and they feel strongly that the prevailing narrative is not based on sound science or sound medical ethics. Their support of the alternative narrative is based on the science and ethics involved, not on politics, ideology, or some other agenda. The political, economic, social, and religious views of these scientists and physicians are heterogeneous, not monolithic, and fall along a wide spectrum. In fact, some of these scientists have social views that are much farther "left" and much more progressive than the social views of US Democrats and Liberal Canadians who support the prevailing narrative.

Other proponents of the alternative narrative are not scientists or physicians. Some of these proponents appear to be motivated primarily by political and ideological concerns (e.g., a feared loss of individual liberty), rather than (or in addition to) scientific concerns, and some of these proponents espouse political, social, economic, and religious views that are very different from those of the above-mentioned scientists and physicians.

Although the prevailing narrative promotes the simplistic perception that supporters of the alternative narrative are all arch-conservative Republicans and right-wing extremists who are "anti-vaxxers," "anti-science," "anti-facts" and "deplorably spreading dangerous misinformation," the reality is (the facts are) that there is considerable diversity and heterogeneity among proponents of the alternative narrative, and **the alternative narrative, itself, represents a deep and sound scientific explanation** that has been developed and articulated by extremely competent and caring scientists and physicians who have been pro-vaccination throughout their exemplary careers and have dedicated the past 22 months to thoroughly studying the COVID situation.

The need for healthy, scientific and public dialogue: Unfortunately, there has been little or no healthy scientific dialogue between the proponents of the prevailing narrative and proponents of the alternative narrative. Those who support the alternative narrative (most notably Dr. Vanden Bossche and Dr. Bhakdi) have repeatedly asked the supporters of the prevailing narrative to participate in healthy, inclusive, objective, transparent, publicly witnessed scientific dialogue about COVID issues—so that an accurate consensus can be reached and shared with the public. However, supporters of the prevailing narrative have avoided such dialogue and, instead, have summarily dismissed supporters of the alternative narrative as being harmful "spreaders of misinformation."

This lack of healthy, inclusive scientific dialogue is antithetical to the proper practice of science and medicine. This lack of adequate scientific dialogue has, in turn, led to a lack of healthy and inclusive public dialogue about COVID. Great polarization has resulted within the public, even within families, particularly over the issue of vaccination. This contentious polarization has left parents and pediatricians in the difficult position of not knowing whom to believe, whom to trust, and what to do—particularly about vaccination of children. Parents and pediatricians desperately want to do the right thing, both for their children and for society, but the right course of action has been unclear.

A call for healthy and inclusive dialogue: As a pediatrician, a pediatric rheumatologist, and a grandfather, I offer this Open Letter in hopes that it will help clarify the science behind COVID vaccination issues, facilitate healthy and inclusive dialogue, and bring people together to jointly determine what would be best for children and Humanity as a whole. Since the US COVID Task Force and the conventional media have abundantly and exclusively presented their prevailing narrative and have largely dismissed, demonized, and even censored the alternative narrative—such that the public has become disproportionately familiar with the prevailing narrative and (in many cases) strongly prejudiced against the alternative narrative—I will try to correct that imbalance by giving appropriate voice to the alternative narrative.

SECTION 2: AN OVERVIEW OF THE HUMAN IMMUNE SYSTEM (HuIS):

Before we delve deeply into issues of COVID vaccination, let us review how the human immune system normally and naturally protects us from infection. I apologize for the length of the explanation that follows, but it is essential for parents, physicians, and the public to have a general appreciation (even if only vague) of the ingenious complexity, beauty, flexibility, wisdom, delicacy, and collaborative nature of normal human immune system function, as well as the complexities involved with vaccination. It is not necessary for the reader to fully grasp the information in this section. What is important is to appreciate the multi-dimensional elegance of the immune system and how that compares to COVID vaccine-induced immunity.

I want to emphasize that the explanation that follows simply represents my best current understanding of the immune system and how it works. There may well be aspects of this understanding that will need correction—at least eventually, as we continue to learn more about the complexities of our immune system. As with other information presented in this Letter, it would be best to engage leading experts in immunology, virology, vaccinology, epidemiology, and evolutionary biology in objective, careful, healthy, inclusive, publicly witnessed, peer-to-peer dialogue about the kind of information I am about to present. Such peer-to-peer dialogue would either confirm that information or provide important improvements/corrections of it.

In the meantime, here are my understandings:

The human immune system (HuIS) normally has tremendous capacity and uses great wisdom to deal with viral infections, including those as new and threatening as SARS-CoV-2. The HuIS wisely approaches a virus in multiple ways. It does not simply and only produce specific antibody to a single major component of the virus, like the spike protein. It produces antibodies to multiple components up and down the virus, and it utilizes many other capacities in its vast armamentarium—innate immune capacities and acquired (adaptive) immune capacities; mucosal capacities and systemic capacities.

The Figure below provides an overview of the immune system and might help you to keep things straight, as you read the following written explanation of how the immune system orchestrates its many components and capacities to protect us from infection:

First, it is helpful to know that the immune system can be divided into two major compartments—the mucosal immune system [1-10] and the systemic immune system. Dr. Sucharit Bhakdi has helpfully referred to these two compartments as the “Air Force” (mucosal compartment) and the “Navy” (the systemic compartment). (See LINK 12.) The Air Force is “based” in the mucosa (and submucosa) of the respiratory tract (upper airways and bronchi), the mucosa of the GI tract, and the mucosa of other mucous membrane-lined organs (e.g., bladder, uterus, etc.). The Navy is based (has “bases”) throughout the rest of the body—in lymph nodes, spleen, bone marrow, in the blood circulation, within solid organs, etc.

The mucosal immune system is actually the larger compartment of the human immune system—much larger than the systemic component. [2] This makes sense, because infectious agents, particularly during childhood, primarily enter the human body through

the respiratory tract and gastrointestinal tract, both of which are lined by mucosa. A prompt and effective immune response by the mucosal immune system can prevent infectious agents from invading the systemic compartment of the human body. The mucosal immune system is particularly active and important in children, who are frequently coming into contact with respiratory and gastrointestinal infectious agents that are new to them.

A major difference between the mucosal immune system and the systemic immune system is that the mucosal immune system can produce **secretory IgA antibodies**, while the systemic immune system does not. Secretory IgA is a particularly important early defense measure. More on this later.

Both the Air Force and the Navy have an Innate Immunity division and an Acquired (Adaptive) Immunity division.

Innate Immunity: The Innate Immunity division consists of "troops" that are born with certain important capacities. Some of these troops have the ability to recognize dangerous intruders (like viruses). They announce to the rest of the immune system that they have spotted a threat, and they act as first responders. Some of these troops are natural killer cells (NK cells) that quickly recognize infected cells and kill those cells—which, in turn, kills the virus inside those cells, thereby preventing spread of viral infection. Other troops (B1 cells) produce innate "natural" non-specific antibodies (mostly large IgM antibodies) that attach to invaders (like viruses) in a loose and non-specific way—which interferes with viral entry into cells, thereby slowing down the infection of cells. [11-16]

These "natural antibodies" are non-specific in that they are capable of recognizing and attaching to any potentially dangerous virus that has invaded, but they are not capable of recognizing exactly what specific virus has invaded (for example SARS-CoV-2 versus some other coronavirus). Fortunately, to do their job these natural antibodies do not need to know exactly what specific virus is present. They bind to any invading virus until a more specific immune response (by the acquired immunity division) can be mobilized against the specific invading virus, if such a response proves to be necessary.

Other troops of the innate immunity division include macrophages, dendritic cells, and neutrophils. Among other things, these cells gobble up and digest invaders.

The various troops of the innate immunity division communicate among themselves and with troops of the acquired immunity division via Cytokines. Cytokines are messenger molecules that activate and energize components of both the innate immunity division and the acquired immunity division. Excessive release of cytokines, however, can result in a "cytokine storm," which is a potentially harmful hyperimmune/hyperinflammatory reaction.

Children, compared to adults, have particularly strong innate immunity. [17] Because children are young and healthy, and because they frequently encounter a wide variety of

infectious agents, especially during the first 5 years of life, their innate immunity division develops lots of valuable experience during early life. Not only are they born with a robust innate immunity division, but their innate immunity becomes even stronger due to frequent practice and self-training during childhood. We should try to avoid unnecessarily interfering with this valuable practice and training.

Acquired (Adaptive) Immunity: The acquired (adaptive) immunity division is the second line of defense. The troops in this division have more sophisticated and specialized abilities to attack specific viruses. They acquire their specialized abilities only through experience with the specific virus involved One platoon of B cells (antibody producing cells) in this division acquires an ability to produce (and then only produces) specific antibodies that bind only to a specific virus (like SARS-CoV-2). Another platoon of B cells learns to produce specific antibodies to a different specific virus, like an influenza virus. And so on. These capacities are not innate. These B cells are not born with this ability to produce antibody to a specific virus. They acquire this learned ability only after first experiencing the specific viral infection involved.

The acquired immunity division also has troops that are capable of specifically attacking and killing cells that have become infected with a specific virus. These are virus-specific cytolytic T cells. They are like the innate immune division's natural killer cells, except that they are very specific. There is one specific platoon of cytolytic T cells that attacks SARS-CoV-2 infected cells, and a different platoon that specifically attacks (and only attacks) cells that have been infected by, for example, a hepatitis virus.

The orchestrating cells of the acquired immunity division are helper T cells. Some helper T cells (Th2 cells) help B cells, by activating these B cells so that they (the B cells) start producing their specific antibodies. Other helper T cells (Th1 cells) help by activating specific cytolytic T cells. Helper T cells know whether and when they need to activate B cells and/or cytolytic T cells.

A key ability of the acquired immunity troops is that they are capable of specific, long-lasting memory. After the troops of the acquired immunity division react to a first encounter with a specific virus, they are able to remember that experience and are able to quickly mount a similar specific B cell antibody response or a specific cytolytic T cell response to that same specific virus if/when that virus invades again, even when invasion occurs many years later. This is called B cell memory and T cell memory; it is specific for a specific virus, and it is long-lasting. The innate immunity division also has capacity for memory, but it is not as sophisticated and specific as the memory capacities of the acquired (adaptive) immunity division.

So, to review, when a respiratory virus enters the respiratory tract, the first line of defense, the first responders, are the troops of the Innate Immunity division of the mucosal immune system. If the innate immunity division of the mucosal immune system

determines that it is necessary to activate and mobilize its acquired (adaptive) immunity division, it sends signals for that to happen. Sometimes the innate immunity division of the mucosal immune system can eradicate a viral infection without needing to activate its acquired immunity division. It depends on how robust the innate immunity division is and how threatening the infection is. If the mucosal immune system senses a need to activate the systemic immune system, it sends signals for that to happen.

It should be realized that sometimes only the Air Force (the mucosal immune system) is needed; sometimes only the Navy (systemic immune system) is needed; and sometimes both compartments (both the Naval bases and the Air force bases) must go into action in order to protect a person from an invading virus. For example, as just mentioned, when a respiratory virus (SARS-CoV-2, other coronaviruses, influenza virus, or RSV) enters the respiratory tract, the Air Force immediately goes into action—first, the Air Force's innate immunity division; then, if needed, the Air Force's acquired immunity division. The Air force may or may not feel the need to mobilize the Navy (the systemic immune system). However, if the respiratory virus threatens to break through the Air Force's defenses, and invade the systemic circulation/compartment, and threatens other organs in the body, then the Air Force certainly and quickly signals the Navy to become active. The Navy then mobilizes its innate immunity division (first, and at the very least) and then its acquired immunity division (if needed). Between the Air Force and the Navy (each with their own innate immunity and acquired immunity divisions), the invading virus is conquered and immune memory is established.

Production of Secretory IgA by the submucosal immune system: As mentioned earlier, an extremely important and unique capacity of the mucosal immune system is its ability to promptly produce large quantities of secretory IgA, which then coats the mucosa and neutralizes invading viruses. [1, 8, 9] In fact, secretory IgA is produced in quantities that are far greater than those of all other immunoglobulins that the human immune system produces. [3] The secretory IgA is produced by B cells within the submucosa/mucosal tissues. [4] An important difference between secretory IgA and other immunoglobulins (like IgG and IgM antibodies) is that secretory IgA is able to neutralize viruses without creating a potentially harmful inflammatory reaction. [1] IgG, for example, tends to trigger considerable inflammation, which is often necessary and helpful, but can be harmful.

IgA can also be produced by the systemic immune system, but this systemic (or circulatory) IgA is different from secretory IgA. [1] Systemic IgA is produced in the bone marrow and does not get effectively transported onto mucosal surfaces. [5] So, systemic IgA does not participate in topical mucosal immune protection.

Limitations of systemic vaccination: Finally, it should be realized that systemic vaccination (intra-muscular administration of vaccine, as is the case with the COVID vaccines) trains the systemic immune system but provides little, if any, training of the mucosal immune system

and, therefore, does not beneficially affect secretory IgA production or other mucosal immune function. [6] In fact, there is concern that the vaccine's training for a systemic immune response might mal-program the HuIS's response to a respiratory virus (which is invading the respiratory compartment of the body, not the systemic compartment). More on this later.

The Human Immune Ecosystem: The above-described immune system—its two major compartments (the mucosal immune system and the systemic immune system) and the innate and acquired immunity divisions within each compartment—is an ingeniously orchestrated, marvelously performing system that has developed and perfected its extraordinary, coordinated capacities over thousands of years. It is an extremely complex, efficient, collaborative system, with many checks and balances, finely tuned and orchestrated. I like to think of the immune system as a marvelous immune ecosystem, just like the precious ecosystems in Nature. Just as ecosystems in Nature (forests, wetlands, prairies, lakes, etc.) are complex, delicate, need to be respected, and must not be subjected to reckless tampering, the same is true with the human immune ecosystem.

Environmentalists and ecologists know, too well, how quickly and disastrously Nature's ecosystems can be damaged and disrupted by arrogant and ignorant tampering by those who erroneously think their interventions will only benefit and not cause harm. There are too many examples of human tampering that has resulted in regrettable environmental/ecological disaster. For example, too often, giant mining, timber, and agricultural corporations have intolerantly and dismissively refused to listen to the concerns of environmentalists, have disrespectfully scoffed at the concerns of ecologists, and have continued to autocratically ravage the environment. We need to treat the human immune ecosystem with the same respect and care that we need to treat environmental ecosystems.

In summary, when the SARS-CoV-2 virus invades a person, the HuIS potentially uses all of its dimensions—both its mucosal immune system (the Air Force) and its systemic immune system (the Navy), both of which have an innate immunity division and an acquired immunity division—to quickly subdue the virus (initially by innate immunity troops) and create robust, durable acquired immunity to protect the person from future invasion by that virus.

Naturally Acquired Immunity versus Vaccine-Created Immunity: Because of the elegant and ingenious complexity of the human immune system—its multi-faceted, multidisciplinary, multi-dimensional, collaborative approach; its diversity, division of labor, respect for and use of all aptitudes; its flexibility, adjustability, efficiency, wise checks and balances, feedback mechanisms and back up mechanisms; its ability to learn from experience; its astonishing memory; and the fact that its capacities have been perfected over thousands of years—most immunologists, virologists, and vaccinologists agree that

naturally acquired immunity is superior to vaccine-induced immunity, at least when compared to COVID vaccine-induced immunity. There is a great amount of evidence that naturally acquired immunity to SARS-CoV-2 is superior to the immunity provided by the current COVID vaccines. [18–163] This, in part, is because the human immune system (HuIS) approaches the virus in a multi-dimensional way, starting with a rapid and effective response by the mucosal immune system in the respiratory tract (including production of secretory IgA).

In contrast, the COVID vaccines are uni-dimensional (they are focused only on the spike protein of the virus, not on other components of the virus) and they reach and train only the systemic compartment of the immune system, not the mucosal compartment.

It is a shame that the COVID vaccines do not train or give practice to the mucosal immune system, because the SARS-CoV-2 virus enters the body through the respiratory tract (and possibly through the GI tract) and often never penetrates into the systemic compartment—thanks to the mucosal immune system's ability to usually contain the virus within the respiratory tract. If the COVID vaccines were capable of fully training and mobilizing the mucosal immune system, they would be much more effective than they are. The main offering of the COVID vaccines is partial training of the systemic immune system, so that it (the systemic immune system) can respond if the mucosal immune system fails to contain the virus within the respiratory tract and the virus invades the systemic compartment. Even when that penetration does occur, the multi-dimensional approach of the natural systemic immune system is much more effective than the uni-dimensional (spike protein-based) response that the COVID vaccine teaches.

Furthermore, as will be discussed later (Section 4), the COVID vaccines are sub-optimal vaccines—meaning that they do not fully prevent virus from infecting our cells, and they do not prevent transmission of the virus from one person to another. Optimal vaccines prevent infection of cells and prevent transmission.

Moreover, there is legitimate concern that vaccinal COVID antibodies might detrimentally interfere with natural antibodies and other natural multi-dimensional responses of the naturally behaving immune system. This concern includes the possibility that vaccinal antibodies might interfere with the training and practice that a young child's innate immunity division needs and normally gets in the absence of interfering vaccinal antibodies. In other words, the COVID vaccines might be harmfully disturbing and disrupting the normal immune ecosystem, particularly in children. **That is why it is so important to appreciate the complexity and delicacy of the natural immune ecosystem and avoid reckless tampering with it.** For more information about disturbance of innate immunity and natural antibodies by COVID vaccination, see Dr. Vanden Bossche's video interviews, either by clicking on the LINKS at the end of this Letter, or by clicking on the following website: https://www.voiceforscienceandsolidarity.org/

Also, “An Interview with the Human Immune System” may be found at this link: https://notesfromthesocialclinic.org/interview-with-the-human-immune-system/

SECTION 3: WHAT HAPPENS WHEN A VIRAL PANDEMIC, LIKE THE COVID PANDEMIC, IS NOT TREATED WITH A MASS VACCINATION CAMPAIGN?

When a respiratory virus pandemic is not treated with a vaccine (which was the case during the first year of the COVID pandemic, almost all of 2020), a considerable percentage of the population eventually becomes infected with the virus (the SARS-CoV-2 virus in this pandemic). The spread of infection will be slower or faster, depending on the extent to which strict mitigation policies (strict isolation, mask wearing, physical distancing, etc.) are deployed. Realistically, the largest group to become infected will be the relatively young people (those under age 60), because they are out and about and are most likely to be exposed to the virus. It is preferable that the relatively young and healthy (as opposed to the elderly and frail) are the ones who become infected, because they are the best able to withstand the infection without harm (thanks to their marvelous immune systems, as well as thoughtfully prescribed treatments), and almost all of them will do well, particularly if treated appropriately (see next paragraphs).

Infection of this younger group, and the naturally acquired immunity resulting from their infection, would increasingly result in robust **herd immunity**, which would then serve to increasingly protect the elderly and vulnerable. Until sufficient herd immunity has developed, very careful public health mitigation measures would be needed to protect the elderly and most vulnerable. It is important to understand that herd immunity via natural infection is far superior to herd immunity attempted via mass vaccination with a suboptimal vaccine. More on this later.

Treatment of COVID: Informed physicians know that COVID has two phases—a viral phase and an immune-response phase. [164-181] First, there is a viral phase, which is due to active viral replication and is typically limited to about 7 days, thanks to a normal immune response. In most people the immune response phase is relatively silent; but in some patients, there is a harmful hyperimmune/hyperinflammatory phase that typically starts on about day 8 and causes particularly severe illness during the second and third weeks. This second phase of illness is not due to ongoing viral infection; it is due to an abnormal, dangerously excessive immune reaction to the virus (“cytokine storm,” hypersensitivity reaction, e.g.). [170-176] Fortunately, most people experience only the viral phase (and a relatively silent immune response to the virus) and do not experience a hyperimmune/hyperinflammatory phase. It is the patients in the ICU who are experiencing a severe hyperimmune/hyperinflammatory phase.

In addition to relying on the multi-dimensional response of the HuIS to COVID, people who do become symptomatic with COVID may be started on safe outpatient anti-viral therapies (according to their individual needs) as soon as it becomes apparent that they are having symptoms of COVID and are in the viral phase of illness. Such patients may be promptly started on a combination of medications that would be likely to at least somewhat slow viral replication [182-200], plus nutraceuticals to support the HuIS (e.g., vit D, vitamin C, Zinc). Those who appear to have an unusually large and/or threatening viral load (which may be estimated by the Ct values at which their serial COVID PCR tests are positive, see Note below), or are otherwise at higher risk, may, in addition, be promptly treated with monoclonal antibodies—unless the involved SARS-C-V-2 variant has become resistant to available monoclonal antibodies. If a patient's serial studies for d-Dimers are positive, early outpatient treatment with anticoagulation (e.g., oral apixaban) may be initiated. [201-203] In addition, selected patients may be placed on outpatient O2 monitoring with a finger probe, to detect early signs of worsening.

Note: For discussion of Ct (cycle threshold) values of COVID PCR tests, see Section 6 and click on the following link: https://notesfromthesocialclinic.org/the-importance-of-knowing-the-ct-value-at-which-covid-pcr-tests-are-positive-long-version/

The above outpatient treatment efforts, particularly if initiated promptly after onset of symptoms, have been shown to significantly reduce the likelihood of early infection evolving into severe illness that would require hospitalization. [192-193]

If a patient who is receiving the above outpatient treatment shows signs of worsening despite that treatment (on day 8, for example), prompt evaluation for presence of a hyperimmune/hyperinflammatory response may be initiated and the patient may be treated promptly with appropriately aggressive immunosuppression, including corticosteroid and anti-cytokine therapies. [204-223] Antihistamine and anti-leukotriene therapies might also be indicated. The need for anticoagulation should also be addressed, both during the viral phase and the hyperimmune phase.

Note: For further discussion of treatment of severe COVID illness, click on the following link: https://notesfromthesocialclinic.org/treatment-of-severe-covid-19-illness-long-version/

With the above prompt outpatient treatment of early illness (the viral phase) and with prompt, appropriately aggressive immunosuppressive treatment of those who develop severe illness due to a hyperimmune reaction, a high percentage of the hospitalizations and deaths that occurred during 2020 and 2021 would likely have been prevented.

Détente between the Human Immune System (HuIS) and the virus: Meanwhile, in the absence of vaccination, the virus and the HuIS work together (not literally, of course) to arrive at a mutually acceptable compromise—whereby the virus might be allowed to live peacefully within the human being (at least for a while), as long as it stays under control

and does not cause regrettable harm. (I am anthropomorphizing the situation for teaching purposes only.) After all, the human body needs to have viruses as part of its microbiome. We benefit from viruses that live peacefully and harmlessly within us.

Under natural circumstances (i.e., when an active respiratory virus pandemic like COVID is not treated with mass vaccination) the virus normally, naturally, and usually evolves in a "benign" direction—thanks to "natural selection" and associated adjustments made by the immune system. This general rule has been a long held, accepted understanding among evolutionary biologists. Though yet to be completely understood in all its detail, this view has stood the test of time. Typically, many different mutations and variants develop but no one variant becomes greatly predominant. By "benign direction" I mean that the variants gradually become less and less virulent, less dangerous—-at the very least, they become less virulent and dangerous than is the case when such an epidemic is treated with a rapid mass vaccination campaign that uses a sub-optimal vaccine (as discussed in the next section). Some variants might become more transmissible, but that would be acceptable, if they have become less virulent. If at any time the virus starts to get out of control, the HuIS would quickly re-establish the upper hand. The HuIS is tolerant, but strict and wise.

So, in the absence of vaccination, the natural behavior of a respiratory virus pandemic is for it to evolve in the above-described way. Many mutations/variants develop; through the process of natural selection, worrisomely virulent stains are eliminated, and acceptable strains are "allowed;" overall the virus becomes decreasingly dangerous; and no one variant completely dominates. The end result is that considerable herd immunity develops, which protects everyone. In the meantime, the above-mentioned medical treatments, coupled with normal immune function, minimize hospitalizations and deaths, and the pandemic subsides within several months. When/if the same virus (or a similar version of it) returns in the future, the HuIS is prepared for it.

Yes, absolutely, the hospitalizations and deaths that do occur are, of course, regrettable and tragic. However, according to the alternative narrative (as will be explained in the next Section), **treatment of the pandemic with a mass vaccination campaign that uses sub-optimal vaccines results in considerably more cumulative hospitalizations and deaths than occurs when such a vaccination campaign is not deployed.**

In contrast to the above understanding, Dr. Fauci and the US COVID Task Force believe it is essential to treat a pandemic like COVID with the current COVID mass vaccination campaign, despite the sub-optimal nature of the COVID vaccines. They contend that the current mass vaccination campaign markedly reduces cumulative hospitalizations and deaths. Their contention has been that the COVID pandemic has become prolonged and made more dangerous because of unvaccinated people. They contend that unvaccinated people have irresponsibly "allowed" the virus to spread, replicate, and develop new threatening mutations/variants, and they contend that this would not have happened if all

had become vaccinated. In their view the initial pandemic has morphed into a "pandemic of the unvaccinated" and this has resulted in many hospitalizations and deaths that could have been prevented if more people had become vaccinated.

As we will see in the next section, those who support the alternative narrative believe that the current mass vaccination campaign, not the unvaccinated population, is responsible for prolonging the COVID pandemic, creating more frequent "waves," making the pandemic more dangerous, and causing excessive lives to be lost. Those who support the alternative narrative would agree with Dr. Fauci if the available COVID vaccines were "optimal" vaccines, capable of eradicating/killing the virus—but the available COVID vaccines are "suboptimal," at best.

SECTION 4: WHAT HAPPENS WHEN A PANDEMIC LIKE THE COVID PANDEMIC IS PRIMARILY TREATED WITH A MASS VACCINATION CAMPAIGN, USING A SUB-OPTIMAL VACCINE?

If an optimal vaccine (meaning the vaccine completely prevents infection and transmission) were available for COVID and were safe, then use of such a vaccine for the most vulnerable (at least) would clearly be helpful and wise. Optimal vaccines kill (fully eradicate) the virus as soon as the virus threatens the individual.

Fortunately, we have had optimal vaccines for a variety of viruses—e.g., polio, measles, rubella, hepatitis. These vaccines have used either live attenuated virus or dead virus to mimic infection and, thereby, trigger the immune system to launch a multi-dimensional systemic immune response that eradicates the virus if/when it enters our body. These optimal vaccines prevent infection and transmission and have been extremely valuable.

If an optimal vaccine for COVID were available and proven to be safe, the scientists and physicians who support the alternative COVID narrative would fully support its use, at least for the vulnerable. After all, these scientists and physicians are not "anti-Vaxx." They are pro-vaccination, as long as the vaccines are adequately demonstrated to be safe, effective, and necessary. Many of these scientists and physicians have devoted their careers to development of safe vaccines.

However, historically, virologists and vaccinologists have not been able to develop a safe, optimal vaccine for coronaviruses or respiratory syncytial virus (RSV)—viruses that enter the human body through the respiratory tract. [224-231] Over the past 20 years the best they have been able to do is develop a sub-optimal vaccine—meaning that the vaccine might reduce disease severity somewhat but does not fully prevent infection or transmission. Those sub-optimal vaccines have not proven to be adequately effective or adequately safe. In fact, animal studies of these previous coronavirus vaccines (and RSV vaccines) have shown them to be dangerous, primarily because of antibody-dependent

enhancement (ADE) of viral replication and disease severity in the vaccinated subjects. [224-260]

Note: For more detailed discussion of ADE, click on the following link and read the explanation under Question 8 in that document: https://notesfromthesocialclinic.org/a-call-for-an-independent-international-covid-commission/

Despite the above history of coronavirus vaccine failures, the current COVID pandemic has been primarily managed with roll out of a rapid mass vaccination campaign, using sub-optimal uni-dimensional vaccines (directed at only the spike protein), in the midst of the active pandemic and in the midst of considerable lockdown measures. According to many experienced virologists/vaccinologists (including, most notably, Dr. Geert Vanden Bossche), this type of vaccination campaign is a recipe for disaster. [261-270] Why? Because, according to these scientists, the sub-optimal vaccine does not adequately prevent the virus from entering cells, replicating in those cells, and being transmitted to other people. When the virus replicates in the vaccinated person's cells, new mutations develop. Then, under the pressure of the mass vaccination campaign, the successful new mutations tend to be ones that confer the new variant with an ability to "escape" the vaccine-induced anti-spike protein antibody. As a consequence, the vaccine-induced antibodies quickly become less effective and the new variant more easily enters cells, more easily replicates, and tends to be more transmissible than its predecessors. Some vaccinologists/pharmaceutical companies might then try to counteract this phenomenon by producing a new, "updated" vaccine against the latest mutated spike protein, but it is impossible to keep up with the new "escape" mutations that inevitably evolve.

In March 2021 Dr. Vanden Bossche dutifully warned the WHO, CDC, and those leading the mass vaccination campaign that this campaign would inevitably and continually lead to the development of variants that would be increasingly transmissible and would become predominant strains. Click on this link to view his warning: https://notesfromthesocialclinic.org/treatment-of-severe-covid-19-illness-long-version/

Dr. Vanden Bossche appears to have been correct. [261-270] Since initiation of the mass vaccination campaign (in December 2020), we have seen one wave after another of new, more transmissible and more vaccine-resistant variants that have achieved predominance, until being displaced by a new predominant variant. The Delta variant accounted for about 97% of COVID infections during its reign and was much more vaccine-resistant than were earlier variants. Now the Omicron variant has become similarly predominant, and it is much more transmissible and much more vaccine-resistant than was Delta. (When pandemics are not treated with mass vaccination, it is unusual to see such total predominance of a single variant; usually there is a mixture of many variants.)

In addition to the concern that the COVID mass vaccination campaign would result in development of predominant variants with increased vaccine resistance and increased

transmissibility, Dr. Vanden Bossche has also been concerned that the mass vaccination campaign might eventually generate a predominant variant that is far more virulent (deadly) than any of its predecessors—either due to ADE (which primarily affects the vaccinated) or to increased intrinsic virulence of the virus, or both. Fortunately, a new variant with increased intrinsic virulence has not yet appeared, but such is certainly possible, particularly if the current mass vaccination campaign is continued. A virus with increased intrinsic virulence would be a threat to both the unvaccinated and vaccinated, including children, particularly if it is more transmissible than previous variants. The extent to which ADE already has, or eventually will, complicate the pandemic is unclear. It is likely that ADE has already caused, or will soon cause, increased disease severity and disease spread, particularly if the mass vaccination campaign is continued.

Dr. Vanden Bossche is also concerned that the COVID vaccines may be undermining and disrupting our normal immune system—particularly our innate immunity, particularly in children. For example, he is concerned that the vaccinal antibodies, which tightly bind to the spike protein of the SARS-CoV-2 virus, "out compete" our immune system's natural antibodies and may be otherwise disrupting the natural flow and natural training of our immune system. He appreciates the complexity and delicacy of the immune system (our immune ecosystem) and fears that the vaccines are harmfully tampering with our immune ecosystem, rendering it (the HuIS) less capable of protecting us.

Dr. Vanden Bossche (and other scientists who support the alternative narrative) disagrees that this is a "pandemic of the unvaccinated." On the contrary, he views it as a pandemic that has become prolonged and more dangerous because of the mass vaccination campaign with its suboptimal vaccines. Furthermore, he worries that it is the vaccinated people who are becoming the most likely "spreaders" of the virus—because the vaccine allows the vaccine-resistant variant to more easily enter their cells and replicate, while the vaccine might indirectly make them somewhat less symptomatic, even asymptomatic, which results in their possibly being unwitting asymptomatic "super-spreaders." If this is true, then it is the vaccinated people, not the unvaccinated, who are the greater threat to the vulnerable, to the elderly, and to children.

Dr. Vanden Bossche, who is one of the most experienced and wisest vaccinologists in the world, thinks it is a huge mistake to continue the current COVID mass vaccination campaign. He argues that now, with the Omicron variant being mild and being the predominant variant, is the best time to stop the vaccination campaign—because the Omicron variant, though very transmissible, is fortunately less virulent (less deadly) than any of the preceding variants. He suggests that we stop vaccinating before it is too late—before a more transmissible and more virulent variant is generated, before ADE becomes more common, and before the immune systems of a higher and higher percentage of the population become compromised/hampered by the vaccines. His admonition includes a plea to not start vaccinating people with a new vaccine that is effective against Omicron's

mutated spike protein. Such a vaccine would be only transiently beneficial, if at all, and would soon become obsolete when an inevitable new vaccine-resistant strain appears. Furthermore, continued vaccination with a new, updated vaccine will delay restoration of natural immunity that he fears has been disrupted and harmed by COVID vaccines. And continued vaccination will further delay development of herd immunity.

According to the alternative narrative, the total cumulative numbers of COVID hospitalizations, COVID ICU admissions, and COVID deaths during the COVID pandemic (from the beginning of the pandemic through January 2022) would have been lower if the pandemic had not been treated with the mass vaccination campaign and, instead, had been treated as described in Section 3.

For further discussion, details, and references, regarding the concerns of Dr. Vanden Bossche and those who agree with him, please see the LINKS to videos at the end of this Open Letter and/or click on his website: https://www.voiceforscienceandsolidarity.org/

So, which narrative is correct? Who is correct? Dr. Fauci? Or Dr. Vanden Bossche? Whose understanding of immunology, virology, vaccinology, epidemiology, and evolutionary biology is deeper, more thoughtful, and more accurate? Whose understanding is more careful and compassionate? How is a parent to know? How is their pediatrician to know?

It would be wise and helpful to assemble an inclusive and diverse expert panel of fairly selected, internationally respected virologists and vaccinologists to carefully, critically, respectfully, transparently, and publicly examine the two contradictory narratives regarding COVID vaccination. Indeed, Dr. Vanden Bossche, in an open letter to the global medical community, pleaded (ten months ago) for just that. Such dialogue and careful examination is fundamental to Medicine and Science but has been largely absent during the COVID pandemic. Instead, we have seen intolerance of challenges to the prevailing narrative. Dr. Vanden Bossche's plea for healthy dialogue has gone unheeded, so far. Instead, scientists who support the alternative narrative have been censored and demonized as deplorable "spreaders of harmful disinformation."

SECTION 5: OTHER CONCERNS ABOUT THE COVID VACCINES—ADVERSE EVENTS:

In addition to Dr. Vanden Bossche's concerns that current mass vaccination is driving the development of more transmissible and potentially more lethal strains; is harming natural immune function; is delaying development of naturally acquired herd immunity; and threatens to cause more severe COVID illness and increased numbers of COVID deaths; many scientists and physicians are deeply concerned that the COVID vaccines are unsafe in other important ways—causing unacceptable short- and long-term side effects for

individuals (e.g., myocarditis in adolescents and young adults; and death from blood clots in adults). [271-1028]

Please note that in the REFERENCES section of this Letter I have listed 757 articles on serious adverse effects of the COVID vaccines. [271-1028] Almost all of these articles represent peer-reviewed publications in the formal medical literature; the remaining are pre-prints of articles that have been submitted for such publication. This represents an alarming and unprecedented number of published reports about the side effects of a new pharmaceutical product—and barely a year has passed since roll-out of the COVID vaccines. **I urge the reader to at least scroll through the list of REFERENCES and read the titles of the 757 articles. These articles do not represent "misinformation."**

The two available mRNA vaccines (Pfizer and Moderna) are lipid-nanoparticle-formulated, nucleoside-modified mRNA vaccines that encode the receptor-binding domain of the spike glycoprotein of the SARS-CoV-2 virus. [882]

The mRNA vaccines work by entering human cells and directing them to produce the spike protein. Once those cells produce the spike protein, the spike protein ends up sitting on the outside of the cell wall, where it is recognized by the immune system as an unwanted and potentially dangerous foreign substance. The immune system then produces antibodies against the spike protein and directs killer T cells to destroy the cells that have produced the spike protein. To an unknown extent, some of the spike protein breaks free and circulates through the bloodstream, before it becomes neutralized by the vaccinal antibody.

Historically, during the development of mRNA gene therapy technology, two major problems became apparent—unmodified mRNA is too immunogenic (stimulates the immune system too much) and too unstable to be clinically feasible [882, 1029]:

Unmodified mRNA proved to provoke a degree of immune reaction that rendered it dangerous and unfeasible for clinical use. [1029] For example, by stimulating Toll-receptors, unmodified mRNA adversely activates cells of the innate immune system and increases production of type 1 interferon and pro-inflammatory cytokines. It became necessary to modify the mRNA so that it would be less immunogenic. This was accomplished by incorporating pseudouridine into the mRNA. This nucleoside-modified mRNA proved to not only suppress unwanted mRNA-mediated immune activation, but also enhance the stability and functionality of the mRNA.

A potential problem with nucleoside-modified mRNA is that it is less immunogenic because it dampens innate immune sensing. This suggests that it might at least transiently suppress innate immunity when injected into humans. This, in turn, raises the possibility that some people who receive the vaccine may develop at least a transient and possibly clinically significant decrease in innate immunity functionality shortly after vaccination.

Indeed, in a phase I/II study of mRNA COVID-19 vaccine, healthy volunteers (under age 56) developed a transient, dose-dependent lymphopenia during the first few days after initial vaccination. [1030] Whether interferon and cytokine levels also dropped is unclear, because this was apparently not studied (or at least not reported). These data raise the possibility that some elderly people, who may already be relatively less immunocompetent (because of age), may not tolerate this transient immunosuppression as well as younger, healthier people—i.e., the immunosuppression may be less transient and/or more clinically significant. It is conceivable that this could predispose some elderly people to develop a post-vaccination infection (by whatever infectious agents happen to be around).

So, one concern about the mRNA vaccines is that these vaccines might cause a transient immunosuppression, during the first 1-4 weeks after the initial dose of vaccine, that could render elderly people transiently more vulnerable to becoming infected (with whatever bacteria or virus they may be exposed to, including but not limited to COVID). It is conceivable, for example, that an elderly nursing home resident who suddenly and inexplicably deteriorates and dies during the weeks after COVID vaccination might do so because transient vaccine-induced immunosuppression has made the resident more vulnerable to infection. This possibility needs to be at least kept in mind. After all, alert innate immune sensing, type 1 interferon, cytokines, and lymphocytes play major roles in our initial innate immune defense against infection.

Although eventual studies may prove that there is little or no need to be concerned about the above, this issue has not yet been adequately studied.

A second problem with the mRNA technology is that unmodified mRNA is normally quickly degraded, before it has a chance to instruct the ribosomes in our cells to synthesize the desired protein (spike protein in the case of the COVID vaccine). [882, 1029] So, to make the technology clinically feasible, the mRNA must be protected from degradation. This is done by encapsulating the mRNA in a lipid-nanoparticle. The lipid is polyethylene glycol (PEG). This lipid encapsulation protects the mRNA from degradation, makes it more stable, and enhances its entry into the cytoplasm of cells. [1029]

This raises the following unanswered question: Since it is protected, how long does this PEG-encapsulated mRNA remain in our cell's cytoplasm before it eventually disintegrates? Does it persist for just hours, or for days? weeks? months? Do we know? This is important, because if the mRNA continues to instruct the cell's ribosomes to make spike protein only for a matter of hours or days, this might be reasonable. But if the PEG-encapsulated mRNA persistently instructs the ribosomes to keep making spike protein for weeks and weeks, even months, this might create prolonged and harmful (not to mention unnecessary) immune reactions to this prolonged production of spike protein. [786, 882] In this way could the vaccine be predisposing some people to chronic unnecessary and potentially harmful immune reactions?

This raises a third concern. We want a vaccine to provoke an appropriate immune reaction for an appropriate length of time. We do not want to provoke an excessive reaction or a reaction that persists for an excessive length of time. It is unclear whether the mRNA vaccines provoke only an appropriate reaction (i.e., an appropriate level of antibody production, not too high or too low) and only for an appropriate length of time. Although eventual studies may prove that there is little or no need to be concerned about the above, this issue has not yet been adequately studied.

A fourth concern: How healthy is it to have PEG-encapsulated mRNA sitting in the cytoplasm of our cells? Do we know with certainty which cells of the body receive the vaccine's PEG-encapsulated mRNA? Is it just the muscle cells near the site of injection? Does the PEG-encased mRNA enter all cells that have a lipid cell membrane, including brain cells, heart cells, ovarian cells? [882] Do we know the consequences of housing PEG-encapsulated mRNA in our various cell types?

According to biodistribution studies in rodents, conducted by Pfizer, the mRNA (or at least the lipid nanoparticle) does not just stay in the arm muscle that has been jabbed. It gets into the regional lymph nodes, then the general circulation, and enters the cells of many organs, including the liver, spleen, other lymph nodes, adrenal glands, ovaries and testes, and probably the heart and brain. [882, 1031] These studies were of sub-optimal quality and will need to be repeated but are very concerning and are consistent with what is known about intramuscular injections in general. It is not normal, healthy, or wise for cells in these organs to be producing spike protein.

As already mentioned, we do not know how long the mRNA continues to make the cells synthesize the spike protein. Does this vary from person to person and from organ to organ? We also do not know how much spike protein is produced in a given person, or within various organs of a given person. This quantity might vary from person to person and within organs of an individual person, and it undoubtedly varies over time. Some people and/or some organs may produce much larger quantities of spike protein than others.

We also do not know how exposure to spike protein after vaccination compares to exposure to spike protein during actual COVID infection. The acute viral phase of the infection typically lasts approximately one week, during which time the spike protein in the infected body reaches a peak, then most likely declines relatively quickly and greatly, then disappears. It is possible that COVID vaccination results in a much greater and/or longer exposure to spike protein—higher levels, longer levels, or both. This is unknown.

Nor do we know how much anti-spike antibody is produced (after vaccination) by a given person and for how long. We also do not know the extent to which a given person's immune system might mount a killer T-cell attack against the spike protein-coated cells

(after vaccination), and for how long—this might vary from person to person and within organs of an individual person.

As just one example, if a particular young, vaccinated woman's ovaries start making huge quantities of spike protein (compared to quantities produced by other vaccinated women) and her immune system mounts a particularly vigorous anti-spike protein antibody attack and/or a particularly vigorous and/or prolonged killer T-cell attack on spike protein-coated ovarian cells, that woman would be at risk of diminished fertility. This issue has not been adequately studied.

A fifth concern: A significant percentage of people are allergic to PEG. Anti-PEG antibodies have been found in 42-72% of people. [882] Some such people may have allergic reactions, including potential life-threatening anaphylaxis and prolonged anaphylaxis. [427, 487, 619, 640, 641, 669, 678, 691, 732, 822, 844, 848, 881, 882, 960, 999] How do we know who might have an initial, prolonged, or delayed allergic reaction to the PEG component of the vaccine?

A sixth concern: Are the mRNA vaccines setting people up for either transient or chronic autoimmune reactions? An example of this concern might be the Florida obstetrician who died of autoimmune thrombocytopenia shortly after receiving a mRNA vaccine. [1032] Shoenfeld et al have emphasized the potential capacity of the SARS-CoV-2 virus to trigger a variety of autoimmune reactions, including reactions occurring due to "molecular mimicry." [1033-1035] "A massive heptapeptide sharing exists between the SARS-CoV-2 spike glycoprotein and human proteins." [1034] There is a legitimate concern that the antibodies to spike protein that the mRNA vaccines train the immune system to produce might accidentally cross-react with peptides within normal human tissue (the phenomenon of molecular mimicry), either transiently, recurrently, or chronically. Although future studies might prove that the mRNA vaccines do not trigger significant molecular mimicry reactions, or other autoimmune reactions, this issue has not yet been adequately studied.

A seventh concern is the possibility that antibody dependent enhancement (ADE), or other similarly violent immune reactions, might occur in vaccinated people when, at a later date (many months, even years, later), they become infected with the wild SARS-CoV-2 virus. [224-260, 882] For more information about ADE see Question 8 in this link: https://notesfromthesocialclinic.org/a-call-for-an-independent-international-covid-commission/

An eighth concern is that the spike protein all by itself appears to have potential to do great harm. [354, 682, 780, 847, 882] This is true when the spike protein is present during active COVID illness, or when the spike protein is produced solely as a result of vaccination. Spike protein appears to be a toxic, pathogenic (harmful) material. It can cause damage not only in people with active COVID illness, but also in vaccinated individuals (i.e., in the absence of infection). The spike protein can abnormally activate platelets, which

predisposes to thrombosis (clotting). [525, 555, 702, 1026] The spike protein can also injure the endothelial cells that line the inner walls of blood vessels, which predisposes to thrombotic occlusion and/or conceivable microvascular occlusion from endothelial cell swelling. [682, 780] The spike protein can cross the blood-brain barrier and potentially injure the brain. [354, 847] The spike protein can lead to lung injury [332] and myocarditis/pericarditis [391, 448, 563, 740, 811,]. And the spike protein can injure the liver, causing immune-mediated hepatitis. [349, 841, 851] Again, this injury can occur due to vaccination alone, in the absence of ever being infected with the SARS-CoV-2 virus.

Myocarditis/pericarditis after COVID vaccination: The potential for COVID vaccination to cause worrisome myocarditis/pericarditis deserves special attention, because of its frequency and because young adolescent males are the most prone to develop this complication. Of the 757 articles listed in the REFERENCES, 157 are about myocarditis and other serious cardiac complications occurring after COVID vaccination. This represents an unprecedented number of published reports about cardiac side effects of a new pharmaceutical product—and barely a year has passed since roll-out of the COVID vaccines. In addition, as of July 2021 there had been 1226 cases of post-COVID vaccination myocarditis reported in VAERS (Vaccine Adverse Effects Reporting System), including 627 cases of myocarditis in persons under 30 years of age.[448] (VAERS data will be discussed further, later.)

Vaccine-induced myocarditis occurs most frequently in males under 40 years of age [391, 448, 563, 811], particularly in 12–15-year-old boys [563], particularly after the second dose of vaccine [811], and particularly with the Moderna vaccine [811]. Chua, et al reported an incidence of myocarditis in adolescent males after COVID vaccination of 1 in 2679 vaccinated persons (37.32 cases per 100,000 persons vaccinated.) [391] Patone et al have reported that in young males (less than 40 years of age) the risk of developing myocarditis after COVID vaccination is greater than the risk of developing myocarditis after having a positive COVID test. [811] In a study of 16–19-year-old males, Mevorach et al reported that the risk of developing myocarditis was 8.96 greater in vaccinated individuals, compared to unvaccinated, and was 13.6 times greater in vaccinated, compared to historical controls. [740] VAERS data suggest that the COVID vaccines generate cases of myocarditis/pericarditis at a rate that is 860 times greater than the rate at which typical flu vaccines generate myocarditis/pericarditis. [1036]

Neurologic complications after COVID vaccination: Another large category of severe adverse events after COVID vaccination is neurologic disease—strokes, brain hemorrhage, Guillain-Barre, etc. Of the 757 articles listed in the REFERENCES, 175 are reports of serious neurologic consequences. This represents an unprecedented number of published reports about neurological side effects of a new pharmaceutical product—and barely a year has passed since roll-out of the COVID vaccines. It is unclear whether COVID vaccines have the

potential to cause prion disease, but this possibility would be devastating, needs to be taken seriously, and warrants further careful study. [416, 882, 1037, 1038]

Clotting abnormalities after COVID vaccination: Another similarly large category of side effects is abnormal clotting—thrombosis [318, 322, 330, 340, 348], platelet dysfunction [319, 334], and hemorrhage (bleeding) [335, 336]. Of the 757 articles in the REFERENCES, many are reports of life-threatening clotting abnormalities, including devastating clots in large vessels in the brain [340, 348] and gastrointestinal tract [318, 322].

Increased risk of infection and cancer (?) after COVID vaccination: A more recent concern is that the mRNA vaccine could enter immune cells, like lymphocytes, and direct those cells to synthesize spike protein, which is then expressed on the surface of those lymphocytes. Then, natural killer cells (of the innate immune system) and/or cytolytic T cells (of the acquired immune system) might attack and kill the spike-synthesizing lymphocytes—causing a considerable depletion of our immune system's precious lymphocytes. [1039] We need those lymphocytes to fight off acute infections, prevent the unleashing of dormant infections (like TB and herpes zoster), and to protect us from developing malignancy (cancer). [882, 1039] If the vaccines are causing cytolytic destruction of our lymphocytes, this makes us immunodeficient and predisposes us to infection and to cancer. [1039]

Autopsies performed on patients who have died after receiving COVID vaccination: Burkhardt has thoroughly studied the pathology (light microscopy and immunohistochemistry) in 15 autopsies of people who died after COVID vaccination. [1040] In 12 of the 15 cases, it was concluded that COVID vaccination was either "very likely" (5 cases) or "likely" (7) to have been the cause of death. In 2 cases COVID vaccination was considered to be a "possible" cause of death. In 1 case there was no connection between the death and vaccination. The detailed autopsies revealed presence of impressive and extensive inflammation (lymphocytic infiltrates) in various organs, consistent with immune-mediated adverse reactions. It was concluded that severe, organ-threatening and life-threatening inflammatory reactions can be triggered by the COVID vaccines. There is great need for more postmortem examinations of people who have died after COVID vaccination. [874, 885, 924]

On the other hand, other published studies state that the COVID vaccines are quite safe. [320] Dr. Fauci, the CDC, the US COVID Task Force, and the conventional media have confidently and repeatedly reassured the public that these vaccines are safe. They have rarely mentioned any side effect issues, and then usually dismissively, saying that worrisome side effects are "very rare." The impression is given that the benefits of the vaccines clearly and greatly outweigh any risks. The above-mentioned 757 referenced publications on serious adverse vaccine-related side effects and the worrisome VAERS data discussed below, suggest that the risks of COVID vaccination outweigh the benefits.

VAERS Data: Unfortunately, the CDC/NIH has not been adequately documenting and studying adverse reactions to the COVID vaccines. One would think that part of the massive vaccination campaign, in which a potentially dangerous inadequately tested experimental vaccine is being given to billions of people, would include a compulsive, thorough, efficient, scientifically sound, and mandatory monitoring system to document the extent and nature of adverse reactions. Though promised, no such system has been implemented. Instead, only a voluntary, very cumbersome, inefficient system has been used—the **Vaccine Adverse Events Reporting System (VAERS)**. This system captures only a minority of adverse events. [1036, 1041, 1043] According to analysis by Pantazatos, et al, VAERS deaths are underreported by a factor of 20. [1041] According to analysis by Rose, et al, VAERS data are underreported by a factor of 41. [1036]

Even with its gross inadequacies and underreporting, the VAERS database has revealed a disturbing number of worrisome complications and deaths. [1036, 1041, 1042, 1046] An analysis of cumulative US VAERS data from December 2020 through January 7, 2022, has revealed the following, in the USA alone: [1042]

- Total adverse reactions: 723,042
- Life-threatening events: 11, 228
- Deaths: 9,936
- Hospitalizations: 47,837
- Permanent disabilities: 11,625

Taking underreporting into account, it is possible that the above numbers might be 20-41 x higher in reality. [1036, 1041]

For perspective, from 1990-2021 (30 years) VAERS received 5,241 total reports of death due to all non-COVID vaccines, combined, over the course of 30 years. [1042] The risk of death from the COVID vaccines has been reported to be 1 in 29,777, which is 170 times greater than the risk of death from flu vaccines. [1042]

Taking into account that VAERS data may be underreported by a factor of 20-41, Rose estimates, conservatively, that at least 150,000 people in the US have died from COVID vaccination, over the course of one year. [1036]

Further analysis of VAERS data by Rose, suggests that the annual number of reported serious adverse events associated with the COVID vaccines has been multiple times greater than the annual number of reported serious adverse events associated with all non-COVID vaccines, combined. [1036] For example:

- Strokes: 326 x greater with COVID vaccines than with all other vaccines, combined
- Pulmonary embolism: 328 x greater with COVID vaccines
- Deep vein thrombosis: 264 x greater

- Other Thromboses: 250 x greater
- Death: 58 x greater
- Cardiac arrest: 75 x greater
- Myocarditis: 43 x greater
- Intracranial hemorrhage: 42 x greater

Children have died after receiving COVID vaccination. According to VAERS data, during the 6 months prior to July 30, 2021, 14 children and adolescents in the 12-17 age range died after receiving COVID vaccination. [1046] If these deaths were truly due to COVID vaccination, and if deaths in the VAERS database are underreported by a factor of 20-41 [1041, 1036], then the actual number of deaths in the 12–17-year-old age range might be as high as 280-574, over the course of just 6-7 months.

For perspective, it is rare for a previously healthy child to die from COVID itself.

- During the first 17 months of the COVID pandemic in Japan (March 2020-September 2021), no Japanese child died from COVID, according to the Japanese Ministry of Health, Labor, and Welfare. [1047]
- During the first 15 months of the pandemic in Germany, no healthy German children between the ages of 5-12 died of COVID. [1048]
- During the first 4 months of the pandemic in Sweden, none of Sweden's 1,951,905 children died of COVID. [1049]
- In England, during the first 12 months of the pandemic, 25 children and young people (CYP) died of COVID, out of a total population of 12,023,568 CYP, which translates to 1 COVID death per 480,000 CYP. [1050]
- In the above English study 99.995% of CYP with a positive COVID test survived.
- In the USA, during the first 18 months of the COVID pandemic, 470 children died of COVID in the USA. [1051] For comparison, during the 5-month duration 2017-18 seasonal influenza epidemic (which was a flu season that most of the US public does not remember), 641 children died of influenza (in the USA) [1051]

So, which is the greater threat to children and adolescents—the COVID vaccine or the COVID illness? Bear in mind that COVID is an acute illness that is only rarely severe in previously healthy children and adolescents; and for severe COVID we have excellent treatments that, if used promptly and appropriately aggressively and wisely, can probably prevent almost all of the deaths and other worrisome outcomes that have occurred in children and adolescents. We can successfully control COVID, even very severe COVID, especially in children, if we treat it properly.

In contrast, we have much less control over the adverse events associated with COVID vaccines. In addition to worrisome short-term complications of the COVID vaccines, there

are worrisome potential long-term complications that could persist for a lifetime and adversely affect not only individual persons, but humanity as a whole. [882] These long-term complications are of concern even in those who have noticed no problems after their initial COVID vaccinations, and they will likely become more common after more booster shots are given.

As a pediatrician, pediatric rheumatologist, and a grandfather, I worry more about the consequences of the COVID vaccines than I do about COVID itself. But, as I have stated throughout this Open Letter, **it would be best to assemble an Inclusive Independent International COVID Commission to address this issue and the other issues raised in this Letter. So far, that has not happened.**

Unfortunately, the CDC and US COVID Task Force have been far behind in investigating and examining the data that have been reported to VAERS. Despite the above VAERS data, the COVID Task Force and the mainstream media have continued to barely mention these adverse events to the public (other than to mention "very rare" clots and "very rare" myocarditis) and have continued to confidently reassure the public that the vaccines are "safe." Adverse reactions have been largely dismissed because they are "very rare" and "the benefits of the vaccine greatly outweigh the risks." But these statements do not seem to be true?

If the SARS-CoV-2 virus were as deadly as some initially feared (as deadly as SARS-1, MERS or Ebola virus), then the risks of vaccination, even if considerable, might be worth taking. But given the fact that the infection fatality rate (IFR) of COVID has been comparable to that of recent influenza viruses of above average severity (see Lead Article, Question 1 for discussion of the IFR of COVID: https://notesfromthesocialclinic.org/a-call-for-an-independent-international-covid-commission/); given the fact that healthy individuals under 50 (particularly children) are at very low risk of dying or being severely harmed by COVID; given the fact that excellent treatments are available for COVID (including treatment of those who head into severe illness); given the genius and experience of the human immune system; given that the vaccines might be disrupting our immune ecosystem and harming children's innate immunity; given the worrisome potential and actual side effects of the vaccines and their role in driving the predominance of new worrisome variants of concern; given the mounting evidence of vaccine failure (see Section 7), and given all the other unknowns; the risks of the COVID vaccines appear to outweigh the modest (at best) benefits—particularly for children.

Out of an abundance of caution, it would seem wise to halt the vaccination campaign until adequate study of safety (and efficacy) has been done.

Who is correct? Are these COVID vaccines "quite safe," or "quite dangerous?" Are they causing greater good than harm, or more harm than good? [882, 1053]

As with other controversial issues discussed in this Letter, it would be wise to assemble an inclusive and diverse panel of fairly selected, internationally respected virologists and vaccinologists to carefully, critically, respectfully, and publicly examine this issue—with all proceedings being televised in a CSPAN-type of format. As part of informed consent, the public certainly deserves to know and needs to know the full spectrum of side effects of these vaccines, including death, and the likelihood of their occurrence.

SECTION 6: PROBLEMS WITH THE COVID PCR TEST AND COVID DATA COLLECTED TO DATE:

Throughout the COVID pandemic, data regarding the number of COVID cases, number of COVID hospitalizations, and number of COVID deaths have been based, fundamentally, on the COVID PCR test. Unfortunately, the COVID PCR test has been used in a scientifically unsound and misleading fashion:

In order to accurately interpret a positive COVID PCR test, the Ct (cycle threshold) value at which the test is positive must be known. The Ct value is an indirect, but very helpful, indicator of how strongly positive the result is. If the test is positive at a low Ct value (e.g., 20), this means the specimen has a large amount of virus in it, the test is strongly positive, and the person is highly contagious. If the test is positive at a Ct value of 40, or 45, or higher, the result is only very weakly positive and is either falsely positive or, at best, the test is detecting just a few remnants of dead virus. A study by Tartof, et al, [1052] reveals (in the subtle details) that when a COVID PCR test is positive at a Ct value greater than 27, the false positivity rate for the test is 75.5%—(349 +1452)/465 +1918) = 1801/2383 = 75.5%. The higher the Ct value, the more likely that a positive test result is a false positive.

Note: For a detailed explanation of Ct values, including many references, click on the following link: https://notesfromthesocialclinic.org/the-importance-of-knowing-the-ct-value-at-which-covid-pcr-tests-are-positive-long-version/

Unfortunately, the Ct value at which a COVID PCR test is positive has not been routinely disclosed, except in some research settings. Instead, patients and their physicians have been routinely told only that the test is positive or negative, with no information about the Ct value when the test is positive. Most COVID PCR test kits are programed to report a positive result if the test is “positive” at a Ct of 45 or lower—but the actual Ct value of a positive result is not included in the printout of the test result and is not available to the physician or patient, even if they think to ask for the Ct value at which the test was positive. The printout indicates only “positive” or “negative,” with no mention of Ct values. Most patients and physicians have not known the importance of asking for the Ct value at which the test was positive.

Most knowledgeable lab experts would agree that the COVID PCR test kits should report a result as positive only if it is positive at a Ct less than 28 (or less than 30, at most)—because a positive result at a Ct greater than 28 (or 30) is most likely a false positive, or at least inadequately interpretable, and, therefore, misleading.

Furthermore, even when a COVID PCR test is positive at a Ct less than 28 (meaning that it is a true positive), it is unclear whether such a result is truly always specific for SARS-CoV-2. Despite the manufacturers' claims that their tests are highly specific for SARS-CoV-2, there is legitimate concern that other viruses (besides SARS-CoV-2) might cause a COVID PCR test to be positive (even at a low Ct value). Adequate, independent determination of the true specificity of commercially available COVID PCR tests has not been done.

The only way to determine with certainty whether a person has COVID is to perform genomic sequencing of a person's specimen—preferably, Sanger genomic sequencing. [1077] Since the beginning of the pandemic it has been feasible (scientifically, logistically, and financially) to insist that all COVID testing (throughout the USA, for example) be done via genomic sequencing of specimens. Unfortunately, genomic sequencing tests have not been routinely performed or even made routinely available. To date, genomic sequencing of specimens has only been done in certain research settings, including periodic testing by the CDC to determine variants of concern.

As the above discussion reveals, the COVID PCR test has been used, throughout the pandemic, in a way that has generated inadequately interpretable, frequently inaccurate, and, therefore, misleading results. Inaccurate, misleadingly high numbers of positive COVID PCR tests have resulted.

The data regarding numbers of COVID cases, COVID hospitalizations, and COVID deaths have also been of low scientific quality and misleading—both because of the scientifically unsound way in which the COVID PCR tests have been used and because scientifically unsound criteria have been used for designation of COVID cases, COVID hospitalizations, and COVID deaths. For example, a "COVID case" has been anyone who has a positive COVID PCR test (even at a Ct of 45), even if the person is asymptomatic, has had no contact with anyone who has had COVID, and was tested simply for screening purposes. It is scientifically unsound to designate such a person as a "COVID case."

A "COVID hospitalization" has been anyone who, while in the hospital, was noted to have a "positive COVID test," even if the patient had no symptoms of COVID, no contact with anyone with COVID, was admitted for a non-COVID reason, and was simply tested on admission (or during their hospitalization) for screening purposes. Such a patient probably (i.e., statistically) does not have COVID. The only way to know with certainty would be to do genomic sequencing, which is not routinely done. It is scientifically unsound to designate such a person as a "COVID hospitalization."

A “COVID death” has been anyone who died and was noted to have had a “positive COVID test” at some point during the 28 days prior to death. Throughout the pandemic there has been little or no effort to carefully distinguish between “death from COVID” (death definitely due to COVID) and “death with COVID” (death with a coincidental positive COVID test, but the death was not due to COVID). It is scientifically unsound to designate a death as a “COVID death” if they clearly died of something else and just coincidentally had a “positive COVID test,” particularly if the test was “positive” at a Ct greater than 30.

The scientifically unsound use of COVID PCR tests and the closely related scientifically unsound criteria used for designation of “COVID cases,” “COVID hospitalizations,” and “COVID deaths,” has resulted in US data (e.g., CDC data and state health department data) being scientifically unsound, of unacceptably low scientific quality, inadequately interpretable, inaccurate, and misleading. This has made it impossible to know with certainty how many true COVID cases, COVID hospitalizations, and COVID deaths have occurred during the course of the pandemic. This is not the way science and medicine are meant to be practiced. Fundamental principles of careful scientific data collection have been violated. It is not too late to begin collecting COVID data in a proper, scientifically sound fashion.

Some might argue that the decision to employ excessively loose criteria for a positive COVID PCR test and loose criteria for designation as a COVID case, COVID hospitalization, and COVID death represented an innocent effort to “cast a wide net and not miss any cases, out of an abundance of caution,” especially during the early weeks of the pandemic when little was known about COVID. But in that case the public should have been fully informed (22 months ago) of the importance of knowing the Ct value at which a PCR test was positive and that the reported numbers of COVID cases, hospitalizations and deaths might be misleadingly high, because of the loose criteria being used. And these criteria should have been tightened within a couple of months, after it should have been obvious that they were much too loose and were interfering with meaningful data collection. But the public (and even physicians) were not informed, and use of these criteria and misuse of the COVID PCR test have been continued for the past 22 months, resulting in erroneous data and unnecessarily high levels of fear, anxiety, social frustration, and financial hardship.

The decision to use these criteria and not fully inform the public (particularly about the Ct values) was certainly an error in judgment; and it could be argued that it represented medical and scientific malpractice. Some might argue that it has represented medical and governmental malfeasance. In defense of decisions made, some might argue that provision of Ct values “would have been too complicated for the public to understand,” but that is both untrue and insulting to the public. The public is quite capable of understanding what this letter has explained about Ct values.

The above problems with data collection are obviously relevant to initial and subsequent studies of vaccine efficacy, because many of those studies have primarily been based on scientifically unsound use of the COVID PCR test and use of scientifically unsound criteria for designation of "COVID cases," "COVID hospitalizations," and "COVID deaths. Studies of COVID, including vaccine efficacy studies, that are based on scientifically unsound use of the main diagnostic test (the COVID PCR test) and scientifically unsound criteria (for "COVID cases," e.g.) will, obviously, yield scientifically unsound results and must be interpreted with caution. That is why it is so important to practice science, medicine, and research with impeccable scientific rigor.

Further complicating reports of vaccine efficacy has been the variability, complexity, and lack of clarity, regarding the definitions of "unvaccinated" and "vaccinated" used in a given study—not to mention lack of accuracy in the categorization of individual people.

SECTION 7: EFFICACY OF THE COVID VACCINES:

How effective were the COVID vaccines in the beginning? How effective are they now?

For the following three reasons it was predictable that the COVID vaccines might prove to be less effective than initially thought.

First, recall that in Section 2 we talked about the two compartments of the immune system —the mucosal Immune System (the "Air Force") and the Systemic Immune System (the "Navy"). And we pointed out that the currently available COVID vaccines provide uni-dimensional training of the systemic immune system, but little if any training of the mucosal immune system—which is a problem because the SARS-CoV-2 virus enters the body through the respiratory tract and only later threatens to invade the systemic compartment. It would be much better to have a vaccine that provides multi-dimensional training of the entire mucosal immune system and the entire systemic immune system. Historically, however, it has been very difficult to develop a safe vaccine of that type. Prior attempts have not only failed but caused great harm. (See Section 4.)

Second, recall that in Section 4 we explained that the currently available COVID vaccines are sub-optimal. They do not fully prevent entry of virus into human cells. Unlike optimal vaccines, they do not prevent infection or transmission.

Third, there is legitimate concern that the sub-optimal COVID vaccines might, in some people, actually facilitate entry of virus into human cells (when the vaccinated person is eventually exposed to the virus) and, thereby, enhance viral replication, disease severity, and spreading of the viral infection within the infected vaccinee and his/her contacts. [1074] This would result in the vaccinated individual becoming more severely ill than an unvaccinated person who has been exposed to the same amount of virus. [1074] There is legitimate concern, therefore, that when vaccinated people eventually become infected

with SARS-CoV-2 they are more likely to become “spreaders” than are unvaccinated people who become infected. (More on this later.)

Nevertheless, when the COVID vaccines were first given temporary Emergency Use Authorization (EUA), they were celebrated as being spectacularly effective—exceeding expectations and representing a remarkable achievement of medical science. They were said to be in the range of “95% effective.” [1054] The public was given the impression that if you got vaccinated and subsequently got exposed to the virus, you had a 95% chance of either not getting infected or experiencing only mild infection. The vaccines were said to at least protect against severe infection. [1054] The further impression was that “of course”, a small percentage of vaccinated people (5%) would be expected to get COVID, “because the vaccine is only 95% effective, not 100% effective.”

But on what basis were these claims made. Let’s look at the clinical trial conducted by Pfizer: [1054]

In the Pfizer trial 21,720 people received the vaccine and 21,728 people received placebo. [1054] The trial primarily consisted of documenting how many in each group subsequently developed a positive COVID PCR test during the trial period, which lasted only 2-3 months. Elderly people, pregnant women, and children were excluded from the study.

Of the 43,448 people in the study, 170 became COVID PCR positive (0.4%)—162 in the placebo group (0.74%) and 8 in the vaccinated group (0.036%). However, the Ct values at which the positive PCR tests were positive were not reported, nor was confirmatory genomic sequencing performed. (See Section 6 for discussion of Ct values and genomic sequencing.) This means that we do not know how many of the COVID PCR positive people in each group had definite evidence of COVID. For example, in the placebo group, it is conceivable that 90% of the 162 PCR positive people (146 of the 162 people) had positive PCR results at Ct values greater than 30 and that genomic sequencing of all 146 people would have been negative—which would mean that none of those 146 people truly had COVID. And, in the vaccinated group, it is conceivable that 7 of the 8 PCR positive people were positive at a Ct value less than 30 and all of them would have been COVID positive upon genomic sequencing—which would mean that 7 of the 8 truly had COVID. Unfortunately, we do not know the Ct values at which the positive PCR tests were positive, and genomic sequencing was not done (or at least not reported). If these details were not taken into account, the results of the Pfizer study are scientifically unsound.

We also need to know how many people in each group had well-documented evidence of no prior infection with COVID—meaning that thorough and sophisticated tests for both B and T cell immunity to COVID were negative in all participants in the study. If a higher percentage of people in the vaccinated group had already acquired immunity from past COVID infection, then they would be less likely to develop COVID after vaccination, not

necessarily because of the vaccination, but because of their past acquired immunity, at least in part. Adequately thorough testing for past infection was not done.

We also need to know with certainty whether factors such as crowded working conditions and other high exposure risks were equal in the two groups. For example, if participants in the vaccinated group were mostly suburban folks working from home, while participants in the placebo group were mostly working-class people working in crowded conditions, this could make a big difference in outcomes. Without these and many other details, the results of this Pfizer study should be interpreted with great caution.

The Pfizer study concluded that the vaccine provides a Relative Risk Reduction (RRR) of 95%. This is based on the following correctly used formula: Placebo Outcome minus Vaccine Outcome divided by Placebo Outcome times 100 equals the % RRR. That is: 162 minus 8 divided by 162 x 100 = 95% RRR. However, are we certain that this RRR of 95% necessarily means that only 5% of vaccinated people will be become infected when exposed to an infection-causing viral load?

Furthermore, when one analyses the Pfizer data in absolute terms, only 0.74% (a very small percentage) of the placebo group developed a positive PCR test, while 0.036% of the vaccinated group developed a positive PCR test. That is, less than 1% in either group developed a positive PCR test. (Again, without knowing the Ct values at which the PCR tests were positive, and without knowing the results of genomic sequencing, it is impossible to interpret these PCR results.) The vaccine reduced the incidence of PCR positivity from 0.74% to 0.036%. This represents an "Absolute Risk Reduction (ARR)" of 0.704% (0.74 minus 0.036) i.e., an ARR of less than 1%, which is not very impressive. **Compared to the RRR, the ARR provides more realistic and appropriate guidance to an individual, regarding the extent to which a vaccine provides a meaningful risk reduction for that individual.**

Since no subjects in the Pfizer study died, the study could not state that the Pfizer vaccine prevents deaths. Although there were said to be more instances of "severe illness" in the placebo group, more details and further/longer study are needed to determine whether these vaccines truly reduce the level of COVID disease severity and death.

The data produced by the Pfizer vaccine trial are not of sufficient scientific quality to permit solid conclusions regarding how truly effective these vaccines are in preventing or minimizing illness. Pfizer, the CDC, and Dr. Fauci have correctly admitted that these vaccines do not prevent virus from entering cells of vaccinated people, replicating there, and spreading to others—i.e., the vaccines do not prevent infection or transmission.

When one looks at the "real-world" experience with the COVID vaccines, one finds conflicting information, regarding the actual effectiveness of the vaccines. This is not

surprising, considering the low scientific quality of the data being collected and reported (by the CDC, for example), as discussed in Section 6. Scientifically sound conclusions cannot be drawn, if the data are collected in a scientifically unsound fashion. That is a fundamental principle of medicine and scientific research, and, yet, that principle has been fundamentally violated in the collection, reporting, and interpretation of data, particularly at the level of state health departments and the CDC. (See Section 6.) Accordingly, such data must be interpreted with great caution. To be fair, all data, from all institutions and all countries must be critically examined and interpreted with caution, because of the problems pointed out in Section 6.

While keeping the above caveat in mind, we should be aware that many studies suggest that the COVID vaccines may be less effective than initially thought. [1055-1078] Instructive results have been reported in Israel, which was the first country to roll out a rapid and massive vaccination campaign (using the Pfizer vaccine) and among the first to achieve a high percentage of vaccination of its citizenry (approximately 80% as of September 2021). During the summer and fall of 2021, the predominant variant in Israel was the Delta variant. The following has been observed in Israel:

According to an independent analysis of official Israeli data [1058], vaccination appears to "fragilize" the immune system of the vaccinated person during the 5 weeks after the first vaccine dose is given. During this 5-week vaccination period, there appeared to be a 3-fold increase in COVID cases and a 20 x greater COVID death rate among the vaccinated, compared to the unvaccinated. [1058]

An Israeli study by Gazit et al revealed that vaccinated people who had had no prior evidence of natural SARS-CoV-2 infection were 13.04 times more likely to develop "breakthrough" infection with the Delta variant, compared to people who had previously been infected and were unvaccinated—suggesting that protection provided by naturally acquired immunity is superior to that provided by vaccine-induced immunity. [20]

Data from the UK have also suggested that an increased COVID death rate may be associated with COVID vaccination. Data published in a Public Health England briefing on September 3, 2021, revealed that, with the Delta variant, the death rate among unvaccinated individuals was 0.24%, while the death rate among all vaccinated (partial or full) individuals was 0.54%, and the death rate among fully vaccinated individuals was 0.96%. [1059] By August 2021, the Delta variant was accounting for 99% of sequenced cases of SARS-CoV-2 in England. Of the COVID deaths due to the Delta variant, 69% had received at least one vaccination dose, 61% had been fully vaccinated, and 30% were unvaccinated. [1059]

Data from the USA have been conflicting and difficult to interpret, primarily because of the extremely low scientific quality of much US data. (See Section 6.) A report by the CDC revealed that during the month of July 2021, an outbreak of 469 cases of COVID occurred

in Barnstable County, Massachusetts. 74% of these 469 cases occurred in fully vaccinated individuals. [1060]

In a study in Viet Nam, many fully vaccinated hospital workers became infected with the delta variant. [1061] Nasal swabs from these workers revealed a viral load that was 251 times greater than the viral loads that had typically been seen in COVID cases during the pre-vaccine era. This suggests that the vaccination not only failed to prevent infection of these vaccinated health care workers, but might have enhanced viral replication within the vaccinated, converting them into super-spreaders. Those vaccinated workers were, indeed, shown to infect patients and unvaccinated co-workers.

Several other studies have documented failure of the vaccines to prevent the vaccinated from becoming infected, ill, and infectious (capable of transmitting infection to others). [1062, 1063] Hetemaki et al documented both asymptomatic and symptomatic infection among vaccinated health care workers and revealed that symptomatically infected health care workers, despite being vaccinated and using personal protective equipment, could transmit infection to others. [1062] Salvatore et al documented that of individuals with COVID in a federal penitentiary 82% had been fully vaccinated and only 18% were unvaccinated. [1063]

Many studies have shown that COVID vaccination does not necessarily decrease viral load or transmissibility. Acharya et al showed no significant difference in Ct values (an indirect indicator of viral load) in vaccinated people who had become infected versus unvaccinated people who had become infected. [1064] Riemersma et al also showed no difference in viral load when vaccinated people who had become infected were compared to unvaccinated people who had become infected. [1065, 1066] Furthermore, Riemersma et al documented elevated viral loads in 67% of vaccinated people who had become asymptomatically infected; while elevated viral loads were found in only 27% of unvaccinated people who had become asymptomatically infected. The Riemersama studies document that vaccinated people can become asymptomatically infected, harbor the virus, and unknowingly transmit the virus to others. Singanyanagam et al also documented that fully vaccinated individuals can become infected and have peak viral loads similar to the peak viral loads of unvaccinated individuals who have become infected. Singanyanagam further demonstrated that vaccinated individuals who become infected can efficiently transmit virus to fully vaccinated contacts. [151] Chia et al documented that Ct values at the time of diagnosis were similar in vaccinated and unvaccinated people who had become infected. [1067] These studies suggest that discrimination against unvaccinated people (giving privileges to the vaccinated and taking privileges away from the unvaccinated) is not only cruel, but scientifically unsound.

Many studies have shown that vaccinal antibody levels and vaccine efficacy decline steadily and substantially during the several months following vaccination: Chemaittelly et al

showed that vaccine efficacy against infection waned to around 30% within 4-5 months after the second dose. [1068] Nordstrom et al showed that vaccine efficacy against infection decreased to 47% by the 4–6-month mark and was at 23% by the 7-month mark. [1069] Canaday showed that vaccine efficacy dropped more than 84% within 6 months after the second vaccine dose. Israel et al showed that vaccine-induced antibody titers declined by 40% each month, compared to a decline of less than 5% per month in unvaccinated people who had recovered from COVID. [1070] Eyre et al also documented that antibody levels in vaccinated individuals declined faster than did antibody levels in unvaccinated people who had experienced natural infection. [1071]

Disturbing results were reported by Yahi, et al, regarding the Delta variant and vaccination. They noted that vaccine-induced neutralizing antibodies had weak affinity for the spike protein while facilitating antibodies had stronger affinity. [1072] Facilitating antibodies facilitate entry of virus into cells. This means that in vaccinated individuals, the balance favors entry of virus into cells. This would be an example of how vaccination might predispose the vaccinated individual to ADE—antibody dependent enhancement (worsening) of infection, disease, and contagiousness.

The Omicron Variant: Several studies suggest that the COVID vaccines have failed even more since the Omicron variant has become predominant. Holm-Hansen et al have documented that, during the 4-5 months after vaccination, the Pfizer and Moderna vaccines have negative vaccine efficacy—meaning that vaccinated individuals (compared to the unvaccinated) are at increased risk of becoming infected with Omicron at the 4-5 month mark: [89] Four-five months after vaccination with Pfizer, the relative risk reduction (RRR, or “vaccine efficacy”) was minus 76.5%; after Moderna the RRR was minus 39.3%. [89] This finding supports the concern that these COVID vaccines can actually increase a person’s susceptibility to infection with Omicron.

Data provided by Public Health Scotland [1073] shows that during the last two weeks of December 2021 and the first 2 weeks of January 2022 people who had never been vaccinated were doing better than those who had been double-vaccinated: The unvaccinated had lower rates of COVID infection, COVID hospitalization, and COVID death than did the double-vaccinated. However, in that same report people who had received a booster dose appeared to have a lower rate of COVID death.

According to data from Ontario Health Services [1074], as of January 22, 2022, the majority of patients with COVID in Ontario hospitals and ICUs were fully vaccinated. In Australia, as of January 13, 2022, the majority of hospitalized COVID patients and ICU COVID patients were fully vaccinated. [1075]

Fortunately, the Omicron variant appears to cause milder illness for children than preceding variants. [1076]

The above studies suggest that the COVID vaccines, whose efficacy was not convincing in the first place, are now increasingly failing. They appear to actually increase risk of COVID infection and COVID death during the 5 weeks after the first dose; then there appears to be temporary and modest protection (at best) for a matter of only weeks or a few months; then there appears to be a negative effect (increased susceptibility to COVID infection). It is likely that Boosters will prove to provide only transient benefit, which is likely due to brief non-specific stimulation of natural immunity. Furthermore, the vaccines appear to be contributing to the development and spread of more worrisome variants; they may be predisposing vaccinated people to dangerous facilitating hyperimmune reactions (ADE) when they eventually become infected; and there is some evidence that vaccinated people may be more likely to spread the virus than are the unvaccinated.

So, both the short-term effectiveness and the long-term effectiveness of the COVID vaccines appear to be disappointing, especially with the newer variants. Natural immunity appears to be more robust and more durable than vaccine-induced immunity. [20, 40, 94, 141, 148]

On the other hand, the CDC and conventional media have continually reported that unvaccinated persons are at much higher risk for COVID infection, COVID hospitalization, and COVID death, when compared to vaccinated individuals. For example, a January, 21, 2022 MMWR report from the CDC by Johnson, et al states that during the months of October and December, 2021 unvaccinated persons had a 13.9 times higher risk of becoming infected with COVID and a 53.2 times higher risk of COVID death when compared to people who had been double-vaccinated and had received a booster dose; and unvaccinated persons had a 4 times greater risk of COVID infection and a 12.7 times greater risk of COVID death when compared to people who had been double vaccinated but had not received a booster:
https://www.cdc.gov/mmwr/volumes/71/wr/mm7104e2.htm?s_cid=mm7104e2_w#suggestedcitation

For the reasons explained in Section 6, all data, from all institutions and all countries must be critically examined and interpreted with caution, including data from Johns Hopkins, WHO, the CDC and state health departments—because of the problems pointed out in Section 6. **Frankly, because of the problematic way in which COVID data have been collected to date, I do not think we know how truly protective the COVID vaccines have been.** Determination of true vaccine efficacy will require much more scientifically sound data collection and much more scientifically sound analysis than has occurred to date. [882]

The conflicting reports, contradictory data, and opposing views on COVID vaccination have made it very difficult for parents and physicians to make decisions about COVID vaccination. To analyze the enormous amount of complex, conflicting and confusing

information, and to try to reach consensus, it would be wise to assemble an inclusive and diverse panel of fairly selected, internationally respected virologists, vaccinologists, epidemiologists, statisticians, and others to carefully, critically, respectfully, and publicly examine this issue. As part of informed consent, the public certainly deserves to know and needs to know the extent to which the COVID vaccines are effective, safe, and benefitting Humanity.

SECTION 8: HOW NECESSARY AND WISE HAS THE MASS COVID VACCINATION CAMPAIGN BEEN?

In Section 3 of this Open Letter, we explained how the COVID pandemic would likely have played out, if it had never been treated with vaccines: There would have been a certain number of deaths and serious COVID illnesses—far fewer, however, than occurred during 2020 (a year of clinical undertreatment) and 2021 (a year of mass vaccination plus undertreatment). Again, many of the deaths during 2020 and 2021 could have been prevented with more prompt and appropriately aggressive treatment and with better pandemic management overall:

See: https://notesfromthesocialclinic.org/analysis-of-covid-19-an-additional-narrative-an-alternative-response-long-version/

See: https://notesfromthesocialclinic.org/treatment-of-severe-covid-19-illness-long-version/

Most of the serious illnesses and deaths (during a pandemic that was not treated with mass vaccination) would have occurred in the elderly and otherwise vulnerable. Children would have been least affected—only minimally affected. Many mutations and resultant variants would have developed, but none would have become overwhelmingly predominant, and there would have been a trend of the variants becoming less and less virulent (though some variants would be more transmissible). Considerable infection-acquired herd immunity would have developed, and it would be robust and durable. The initial pandemic would have resolved within several months. Then, during the next winter a second wave of COVID would have appeared, but because of the robust natural herd immunity acquired during the first wave, and because new variants would have become increasingly less virulent, this second wave would have been much milder, less threatening, and shorter in duration. Eventually, the pandemic would have subsided and become a relatively mild, easily manageable seasonal epidemic.

Unfortunately, the initial pandemic was not managed in the above fashion and has not played out as described above. Instead, particularly during 2021 (i.e., since onset of the mass vaccination campaign in December 2020), we have seen a prolongation of the pandemic, with an unusual number of waves. Several different predominating variants have sequentially developed. The vaccines have been failing. As the variants have become increasingly transmissible, both vaccinated and unvaccinated people are becoming

infected. The vaccinated are carrying viral loads that are equal to or greater than the loads carried by the unvaccinated. Children are now becoming more affected than was the case during the initial wave—because of the increased transmissibility of the new variants and possibly because of vaccine-induced impairment of their natural innate immunity. The vaccinated are becoming increasingly vulnerable to ADE phenomena that threaten to enhance viral load, disease severity, and disease spread.

According to proponents of the alternative narrative, the mass vaccination campaign has prolonged the pandemic, impaired development of naturally acquired herd immunity, and made the pandemic worse for all concerned. Their contention is that we would be much better off now, if the mass vaccination campaign had never been implemented—including having fewer COVID hospitalizations and COVID deaths. Add to this the published reports and VAERS reports of large numbers of adverse reactions and deaths associated with COVID vaccination—reactions and deaths that would not have occurred in the absence of the vaccination campaign.

Add to this the fact that children were not at any high risk during the first year of the pandemic, during which time there was no vaccination available. As discussed (and referenced) in Section 5, it is rare for a previously healthy child to die from COVID itself. During the first 17 months of the COVID pandemic in Japan, no Japanese child died from COVID. During the first 15 months of the pandemic in Germany, no healthy German children between the ages of 5-12 died of COVID. During the first 4 months of the pandemic in Sweden, none of Sweden's 1,951,905 children died of COVID. In England, during the first 12 months of the pandemic, 25 children and young people (CYP) died of COVID, out of a total population of 12,023,568 CYP, which translates to 1 COVID death per 480,000 CYP. In that English study 99.995% of CYP with a positive COVID test survived.

Add to this the fact that many vaccinated children have developed worrisome myocarditis and there have been COVID vaccine-related deaths in children. **Evidence is mounting that, in children and adolescents, the frequency of vaccine-related myocarditis and vaccine-related death is greater than myocarditis and death due to properly treated natural COVID infection.**

The above analysis suggests that, on balance, the mass COVID vaccination campaign (with its suboptimal vaccine) has caused more harm than good. It appears that we would have been better off at this point, if the mass vaccination campaign had never been implemented. It also appears that the best thing to do at this point is to stop the mass vaccination campaign and go back to managing the pandemic in the way that it should have been managed in the first place.

It also appears that if we do not stop the current mass vaccination campaign, we will, regrettably, experience more of the same failure—the pandemic will become even more prolonged and more dangerous; people will increasingly receive boosters, which might

provide brief modest benefit, but will increasingly fail and cause increasingly regrettable and cumulative side effects; and children will increasingly become adversely affected by new vaccine-generated variants, by vaccine-mediated harm to their immune systems, by vaccine side effects, and by psycho-social-educational-economic disruptions.

In short, the risks associated with the mass vaccination campaign appear to outweigh any benefits. In short, our best current option is to stop the mass vaccination campaign immediately—at the very least for children—and manage the pandemic in the way it should have been managed in the first place. It is not too late to manage this pandemic properly.

However, as with other issues discussed in this Letter, it would be best to assemble an inclusive Independent International COVID Commission and ask panels of fairly selected, internationally respected virologists, vaccinologists, and epidemiologists to carefully, critically, respectfully, and publicly examine these issues. As part of informed consent, the public certainly deserves to know and needs to know the extent to which the mass COVD vaccination campaign has been necessary and wise.

SECTION 9: THE OBLIGATION OF PEDIATRICIANS TO PROVIDE SUFFICIENT INFORMATION FOR TRUE INFORMED CONSENT:

Having been a busy pediatrician and pediatric rheumatologist, in both academic medicine and private practice, I know how difficult it is for pediatricians to find the time and energy to research a new complex problem like the COVID pandemic. Most pediatricians, like most citizens, probably have not had time to thoroughly study the COVID situation for themselves. Instead, they have probably largely relied on and followed the recommendations of the prevailing narrative that has been strongly promoted by the US COVID Task Force, the CDC, and the conventional media.

Because I have been retired for the past 2 years, I have had the time and energy to thoroughly study the science behind the COVID situation, including the science of vaccination. Having a strong immunology background has helped me. This Open Letter shares what I have learned and temporarily concluded—until a proper COVID Commission is convened and scientists and physicians with greater expertise than mine engage in healthy dialogue. I hope this Open Letter will be helpful to those physicians who have had much less time to study the COVID situation.

If I were a pediatrician who is being strongly urged by my institution, the CDC, NIH, WHO, Dr. Fauci, and the President of the United States to vaccinate as many children as possible, I would feel obligated to share the concerns mentioned in this Open Letter with the child's parents. That is, I would feel obligated to provide opportunity for true informed consent, especially since these are incompletely studied experimental vaccines that are using a platform that has never before been used on human beings—especially because these

vaccines are being advocated for children. I would want the child's parents to be fully aware of all of the issues and concerns discussed in this Letter.

Many children have already been vaccinated and are now being strongly encouraged (even coerced, even forced) to receive booster doses. How many of those vaccinated children's parents were adequately educated about the concerns discussed in this Open Letter? How much information did they receive before signing consent for their child's vaccination? How many were simply, confidently, and only told, "These vaccines are very safe, very effective, and very necessary—just get vaccinated"?

Consent must be informed. Pediatricians are welcome to share this Open Letter with parents, as a resource for informed consent. Likewise, parents are welcome to share this Open Letter with family members, other parents, and the larger community.

SECTION 10: CONCLUSIONS:

- The prevailing narrative has been primarily based on scientifically unsound use of the COVID PCR test and scientifically unsound collection of data, regarding COVID cases, COVID hospitalizations, COVID deaths, and vaccine efficacy.
- Scientifically unsound data collection leads to scientifically unsound conclusions and scientifically unsound public policies.
- The alternative narrative represents a deep and sound scientific explanation that has been developed and articulated by extremely competent and caring scientists and physicians who appreciate the complexity and elegance of the immune ecosystem, have devoted their careers to the proper development and use of life-saving vaccines, and have dedicated the past 22 months to thoroughly studying the COVID situation. They are not "anti-Vaxxers." They are pro-vaccination, but only for vaccines that have been adequately shown to be safe, effective, and necessary.
- According to the alternative narrative, and in my opinion as well, the COVID vaccines are inadequately safe, inadequately effective, and have been doing more harm than good.
- The mass vaccination campaign, with its sub-optimal vaccines, has prolonged the pandemic and resulted in more deaths and hospitalizations than would have occurred if the COVID pandemic had been treated without this mass vaccination campaign.
- This has not been a "pandemic of the unvaccinated," it has been a pandemic that has been made worse by an ill-conceived mass vaccination campaign.
- **The COVID vaccines have been promoted without proper informed consent.** Neither the public, nor parents, have been provided adequate information by the proponents of the prevailing narrative. Instead, they have been given simplistic, one-sided information and have been told that the information provided by the alternative

narrative (the science-based, data-driven alternative narrative described in this Letter) represents "misinformation."

- Parents and the public deserve to have representatives of the two opposing COVID narratives come together to engage in healthy, respectful, scientifically sound, publicly witnessed (televised) dialogue about the safety, efficacy, necessity, results, and wisdom of the current COVID mass vaccination campaign. For 22 months, leaders of the alternative narrative have been pleading for such, to no avail.
- Parents and the public can and should insist that an **"Inclusive Independent International COVID Commission"** be formed, consisting of independent international panels of fairly selected, eminent scientists who would be asked to thoroughly and objectively address COVID vaccination issues in an effort to resolve disagreements and arrive at consensus. Such is the tradition of science, medicine, democracy, and civil society. The public deserves and desperately needs such careful examination and healthy dialogue. Successful resolution of the COVID pandemic depends on it.
- Until the above-suggested Commission convenes and arrives at a thoughtful and fair consensus, the current mass vaccination campaign should—out of an abundance of caution—be at least temporarily suspended, at least for children.
- As parents and the public watch C-SPAN-like televised proceedings of the Commission, they (parents and the public) can decide in their own minds who among the Commissioners and discussants seems most knowledgeable, careful, rigorously scientific, compassionate, honest, ethical, and most wise.
- Only then will parents be able to make a truly informed decision for their children.

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What is this country doctor thinking? Is he wondering how much longer he can continue to attend to all the patients who need him? Is he wondering whether the medications he needs will continue to be available and permitted use? Will there be enough nurses to help him? Are the days of practicing Medicine in the meaningful and rewarding way he had always practiced now over? What does the future hold for Medicine and Humanity?

This is Albert Schweitzer (1875-1965), hard at work trying to figure out how to best meet his patients' needs. He was a theologian and philosopher, as well as a physician. In 1952 he was awarded a Nobel Prize for his philosophy of "Reverence for Life." He devoted his life to caring for patients in Africa, at the Albert Schweitzer Hospital in Lambarene, Gabon. He was one of the first Europeans to believe and act on the notion that African lives mattered. What would Dr. Schweitzer think of the COVID pandemic and how it has been handled—scientifically, ethically, and morally?

EDUCATIONAL VIDEO INTERVIEWS AND PRESENTATIONS:

1. Geert Vanden Bossche: Mass Vaccination in a Pandemic: https://odysee.com/@bonniesmit:0/Mass-Vaccination-in-a-Pandemic—Geert-Vanden-Bossche:a
2. Geert Vanden Bossche: Part 1. Children Vaccination: https://www.voiceforscienceandsolidarity.org/videos-and-interviews/part-1-children-vaccination-english
3. Geert Vanden Bossche: Part 2-3. Booster and Omicron Booster: https://www.voiceforscienceandsolidarity.org/videos-and-interviews/part-2-3-booster-and-omicron-booster
4. Geert Vanden Bossche: Part 4. Who is Geert? https://www.voiceforscienceandsolidarity.org/videos-and-interviews/part-4-who-is-geert

5. Geert Vanden Bossche: Second Call to the WHO: Please don't vaccinate against Omicron. https://www.voiceforscienceandsolidarity.org/videos-and-interviews/second-call-to-who-please-dont-vaccinate-against-omicron

6. Geert Vanden Bossche: Geert's New Year Message: What's next in 2022? https://www.voiceforscienceandsolidarity.org/videos-and-interviews/geerts-new-year-message-whats-next-in-2022

7. Geert Vanden Bossche: On Natural Immunity being Safer for Children: https://www.voiceforscienceandsolidarity.org/videos-and-interviews/unforgivable-sin-dr-geert-vanden-bossche-on-natural-immunity-being-safer-for-children

8. Geert Vanden Bossche: The Implication of Mass Vaccination During the Pandemic: https://www.voiceforscienceandsolidarity.org/videos-and-interviews/the-implication-of-massive-vaccination-during-the-pandemic

9. Geert Vanden Bossche: COVID-19 Vaccine Mandates for Children; What is the Science behind this? https://www.voiceforscienceandsolidarity.org/videos-and-interviews/covid-19-vaccine-mandates-for-children

10. Sucharit Bhakdi: An Open Letter to the Chancellor of Germany: https://video.search.yahoo.com/search/video;_ylt=Awr9DuoqcvBhR34Ad3tXNyoA;_ylu=Y29sbwNncTEEcG9zAzEEdnRpZAMEc2VjA3Nj?p=youtube+prof+sucharit+bhakdi&fr=mcafee#id=52&vid=ba401c9825681e020f2cf6af4abddf6f&action=view

11. Sucharit Bhakdi: Do we need a vaccine against COVID-19? https://video.search.yahoo.com/search/video;_ylt=Awr9DuoqcvBhR34Ad3tXNyoA;_ylu=Y29sbwNncTEEcG9zAzEEdnRpZAMEc2VjA3Nj?p=youtube+prof+sucharit+bhakdi&fr=mcafee#id=8&vid=40e0143c82fe2259786f16a194f1889a&action=view

12. Sucharit Bhakdi: Massive self-to-self attack of immune system**. Note: Start at the 2:46 minute mark:** https://rairfoundation.com/dr-sucharit-bhakdi-vaccine-benefit-zero-fears-massive-self-to-self-attack-of-immune-system-video/

13. Sucharit Bhakdi: Doctors for COVID Ethics—Symposium II, December 10, 2021. View Dr. Bhakdi's closing emotional plea to the world's physicians to protect children and humanity from the dangers of the COVID vaccines (**starting at the 3:47:07 mark**): https://doctors4covidethics.org/gold-standard-covid-science-in-practice-interdisciplinary-symposium-ii-december-10-2021/

14. Dr. Arne Burkhardt: 2nd Pathology Conference—Are Deaths and Adverse Health Effects after Vaccination against COVID-19 related in a Pathologically detectable way? https://odysee.com/@en:a5/Pathology-Conference-2-en:b **Note**: **The most important**

portion of Dr. Burkhardt's presentation extends from the 16:30 minute mark to the 52:36-minute mark.

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